APPROVAL CERTIFICATE

This dissertation of Eggie Gombingo is approved for submission for the Master of Science degree in Nursing Science in the Department of Nursing Science of the University of Zimbabwe

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A STUDY TO DETERMINE RELATIONSHIP BETWEEN PARTNER SUPPORT AND ADHERENCE TO ZIDOVUDINE AMONG HIV POSITIVE PREGNANT WOMEN ATTENDING PMTCT CLINIC AT SHURUGWI HOSPITAL

By

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ABSTRACT

There are low levels of adherence to zidovudine prophylaxis among HIV positive pregnant women at Shurugwi District Hospital in Zimbabwe. The most likely contributing factor to low adherence levels could be related to the level of partner support. The purpose of this study was to determine the relationship between partner support and adherence to zidovudine prophylaxis by HIV-positive pregnant women attending Shurugwi PMTCT clinic. Pender's Health Promotion Model guided the study. A descriptive correlational design was used. A sample of eighty (82) participants who met the inclusion criteria were selected into the study using a systematic sampling method. Data were collected using interviewer-administered questionnaires over a period of three (3) weeks. Data were analyzed using descriptive and inferential statistics. The results showed that Sixty-six (80.4%) participants demonstrated poor sub-optimal levels (<95%) of adherence to zidovudine prophylaxis and 62 (75.6%) perceived partner support to be low. The Pearson correlation coefficient ($r=.677$; $p<.01$) showed a strong positive significant relationship. Partner support had an impact of 45.9% on adherence to zidovudine prophylaxis (R^2 0.459). The findings reflect that as partner support increased, adherence to zidovudine prophylaxis among HIV-positive pregnant women increased. Midwives should intensify partner involvement in PMTCT programmes in order to achieve optimal (>95%) adherence to zidovudine prophylaxis among HIV-positive pregnant women so as to be able to suppress Mother to Child Transmission of HIV.

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DEDICATION

To my husband, Samuel for unwavering support and encouragement, my children, Shingai, Anesu and Tapiwa for being patient with me and their understanding during the time of my studies.

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CHAPTER 1

BACKGROUND AND ORGANIZING FRAMEWORK

Introduction

In developing countries, the continuing Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome (HIV / AIDS) pandemic has necessitated implementation of policies such as Zidovudine prophylaxis for the prevention of mother to child transmission (PMTCT) of HIV (UNAIDS, 2005). However, there appears to be some challenges in adhering to Zidovudine prophylaxis among pregnant women. This chapter outlines the background, problem statement, purpose, conceptual framework, objectives and questions as well as the significance of this study.

Background to the Study

Over the past decade, PMTCT has become one of the major breakthroughs in the prevention of HIV (UNAIDS 2005). In the PMTCT programme, it has been demonstrated that the use of anti- retroviral drugs (ARVs) such as Zidovudine during pregnancy by an HIV positive mother can substantially lower the rate of mother to child transmission (MTCT) of HIV.

Following the success of medical trials on ARVs in the PMTCT of HIV in developed countries and in parts of Africa such as Zambia and Uganda, the PMTCT programme was introduced in Zimbabwe as a pilot project in 1999. It was scaled up and expanded at national level in 2001 as part of the antenatal care (ANC) services within the Ministry of Health and Child Welfare and it was declared as a public

health priority for pregnant women. **(**Zimbabwe Government Ministry of Health and Child Welfare, PMTCT Program Annual Report, 2003**).**

Zimbabwe scaled up its PMTCT programmes country –wide in 2006. It was made policy in Zimbabwe that all pregnant women are to be made aware of the risk of HIV transmission from mother to child , all pregnant women are provided with information and opportunities for counseling and testing for HIV and are to be commenced on antiretroviral therapy (ART) as need be. HIV- positive pregnant mothers are given Antiretroviral drugs for prophylaxis, that is, either single dose Nevirapine or/and Zidovudine from 14 weeks gestation till commencement of labour. If a mother is found eligible for Highly Actively Antiretroviral Therapy (HAART), she is initiated on it as soon as possible. However, these services are voluntary and women are free to choose not to access them (WHO, 2007**).**

PMTCT antiretroviral programmes are expanding throughout sub-Saharan Africa, providing people living with HIV and AIDS (PLWHIVA) with glimpses of hope. However antiretroviral therapy (ART) is complex and treatment regimes must be carefully adhered to in order to avoid drug resistance and improve survival. This requires constant and meticulous monitoring and is mostly likely to be achieved with the support of a partner, family members and peers from the community. Disclosing HIV status and ART initiation to long term partners are therefore often said to be key to ART adherence **(**Skovdal, Madanhire, Nyamukapa, Gregson & Simon, 2011**).**

Adherence to medication, also known as compliance with medication is the extent to which a patient follows medical instructions and the patient is an active contributor in the process (Chirag, 2007).

Adherence to antiretroviral is well recognized to be an essential component of an individual and programmatic treatment success. Higher levels of adherence are associated with improved virology and clinical outcome (Peterson, 2000; Orell, 2003).

It is essential to achieve more than 95% adherence to ART in the treatment of patients with HIV infection. This is in order to suppress viral replication and avoid emergence of resistance. Achieving such high rates of adherence is often very challenging because of such factors as family-partner support, community support, stigma and issues in the patient- provider relationships (Chirag, 2007).

Among challenges stated to face adherences to ART were low participation by males and stigma. Often women do not tell their husbands /partners about their HIV tests for fear of being divorced .Some women who test HIV- positive do not return to antenatal clinics for follow up visits or fail to take their drugs they have been given for fear that their husband /partner might see them with the medicines and he will want to know what they are for (Skovdal, Campbell, Nyamukapa & Gregson, 2011).

Various researches conducted in different countries in Sub Saharan Africa have shown that women who are supported by unbiased partners are most likely to

accept HIV testing services and adhere to advice from health personnel if they are diagnosed HIV positive (Akarro, Deonisia & Sichona, 2010).

A recent study done in Zimbabwe on partner support and adherence to ART showed that if men are formally invited to attend antenatal clinics and couples' HIV testing, many will attend with their wives reducing men's disengagement with HIV services. It also showed that where partners supported their HIV pregnant women, they also offered a wide range of kinds of practical support which included reminding them to take their medication, monitoring medication adherence, requesting for and, picking up refills and even practicing safer sex (Skovdal, Nyamukapa & Gregson 2011).

While women are good at making use of HIV services, they face a number of obstacles in their efforts to adhere to ART, many of which are related to their partner's fear of association with HIV. Women who are unable to share with their partners their HIV status and their need to comply with strict treatment programme, miss out on getting support from family members, compromising their ability to adhere successfully. Hence this study sought to examine the relationship between partner support and adherence to Zidovudine prophylaxis among HIV positive pregnant women since adherence to Zidovudine is pivotal to PMTCT success. Men are indeed still the decision makers in many African settings where PMTCT is offered.

Lack of male involvement in PMTCT is worrying particularly in the face of a Worldwide, approximately 39, 5 million people living with HIV and AIDS. An

estimated 17, 7 million of these people are women and 2, 3 million are children under the age of 15 years (WHO, 2006). Women currently represent the population with the fastest increase in HIV infection rates. In the hardest hit countries of Sub-Saharan Africa, more than 60% of all new HIV infections are occurring in women, infants and young children (WHO, 2006).

In Zimbabwe, adult HIV prevalence has declined from 18, 4% in 2005 to 14, 3% in 2009 and was estimated to be at 16, 1% among pregnant women. In 2009, 56% of HIV-positive pregnant women received ARVs for PMTCT (Zimbabwe HIV\AIDS Report, 2010). This percentage is low and in addition, not all of the pregnant women appear to be adherent to the medication for PMTCT. As noted by WHO, ART adherence in developing countries ranged from 49% to 100% and from 20% to 100% in Developed countries (WHO, 2006). It is therefore important to establish the level of adherence to medication for PMTCT at a setting in a developing country like Zimbabwe.

Problem Statement

Despite having a well established PMTCT of HIV programme at Shurugwi Hospital, there appears to be low adherence rate to Zidovudine prophylaxis among pregnant women. The low adherence rates also appear to be associated with high HIV transmission rates. This is a cause for concern particularly because the adherence issues are noted amidst high levels of HIV/AIDS awareness and awareness of the benefits of ART among PMTCT mothers (Shurugwi Hospital PMTCT Clinic Statistics, 2010).

It is essential to achieve more than 95% adherence to ART in the treatment of patients with HIV infection. This is in order to suppress viral replication and avoid emergence of resistance (Chirag, 2007.)

Antiretroviral therapy lowers viral load only when treatment is fully adhered to. Human Immunodeficiency virus poses a unique challenge due to its rapid replication and mutation rates, hence very high levels of adherence greater than 95% are required to achieve long-term suppression of viral load (Paterson, 2006.)

The goal of ART in PMTCT is to achieve maximal viral suppression so as to reduce vertical transmission and provide prophylaxis for the baby. In addition, ART reduces immune suppression, slows disease progression and improves patients quality of life (Mannheimer, 2006).

Non-adherence to ART leads to the exposure of the virus to inadequate concentrations of antiretroviral medications. This in turn leads to on-going viral replication, development of resistance to antiretroviral medications and increased vertical transmission. Once the virus becomes resistance to a particular ART drug, it may also exhibit resistance to other medications in the same class that have not yet been prescribed to that patient. This limits the choice of drugs available to replace failing regimen (Kozal, 2009).

Monreal (2002) pointed out that although tremendous strides in scaling up PMTCT have been made, anecdotal evidence is suggesting certain problems that contribute to defaulter rate, for instance, lack of support by significant others, poor /inadequate treatment instructions, societal and cultural beliefs, non disclosure of

status, financial constraints and side effects of the drug. The present study considered partner support to be the factor most likely to be associated with adherence to ART.

Adherence to ART is central to a successful PMTCT programme by ensuring optimal viral suppression. However, barriers to adherence exist and differ among populations. The researcher was prompted to conduct a study to ascertain the relationship between partner support and adherence to Zidovudine prophylaxis among PMTCT mothers in light of the low adherence rates despite intensified PMTCT programmes in the district.

Purpose of the Study

The study sought to describe and examine the relationship between partner support and adherence to Zidovudine prophylaxis among HIV positive pregnant women attending PMTCT clinic at Shurugwi Hospital.

Theoretical Framework

A theoretical framework is a set of abstract, logical and meaningful structures that guide the development of a study and enable the investigator to link findings to nursing's body of knowledge (Burns and Grove, 1993). The use of theoretical framework renders research findings meaningful and generalizable. Pender's Health Promotion Model (HPM) was used to guide this study.

The HPM outlines two categories of determinants of a behavioral outcome called health promotion. The two determinants of health promotion are conceptualized within the model to be "individual characteristics and experiences" and "behavior specific cognitions and affect" (Pender & Pender, 1996). Each of these

determinants of health promotion comprises several sub-concepts, some of which were used to guide the present study. In addition, the four central concepts in nursing (environment, person, nursing and health) are depicted and reflected within the HPM.

Pender's depiction of the environment includes both internal and external aspects of a person's environment. The environment is reflected in the conceptualization of the individual characteristics and experiences, which include personal factors (Pender, 1996). The personal factors chosen for this study were the biologic and social factors and these were captured in the demographic characteristics of the participants.

The concept of "person" according to Pender (1996), refers to a multidimensional human being who interacts with the environment to pursue health. It is therefore difficult to separate the person from his / her environment. However, for conceptualization purposes, in this study, the "person" has been isolated from the environment as an HIV- positive pregnant woman who is on Zidovudine prophylaxis for PMTCT. During the environment-person interactions, the environment is seen to have an influence on the person.

Each person is seen in the HPM as having unique personal characteristics that affect subsequent actions for example, a woman's perception of the level of support from a spouse. Such unique personal characteristics are represented by the second category of determinants of health promotion (the behavior specific cognitions and affect). In this category, interpersonal influences are relevant in guiding the present

study. The level of partner support for Zidovudine prophylaxis in this study equates to the interpersonal influences depicted in the study.

Behavior specific cognitions and affect within the HPM are considered to be of major motivational significance. Similarly, the present study considered partner support to be the component that is most likely associated with adherence to Zidovudine prophylaxis. Furthermore, the HPM notes that variables within the category of behavior specific cognitions and affect constitute a critical core for intervention as they are subject to modification through nursing action (Pender & Pender, 1996). Likewise, the present study recommends that nursing efforts be directed towards modifying partner support.

The HPM depicts nursing to be those actions taken by nurses to promote health. Nursing therefore involves altering behavior specific cognitions and affect (such as the perceived partner support) to positively affect health. Such nursing actions may include health education strategies to promote male participation in PMTCT. Desired health outcomes will therefore be achieved through such strategies.

The health outcomes of note are represented through the women engaging in health promoting behaviors. In the present study, health is therefore realized through adherence to Zidovudine prophylaxis among the HIV positive pregnant women. A diagrammatic representation of the interrelationships of the model and study concepts is shown on Figure 1 overleaf.

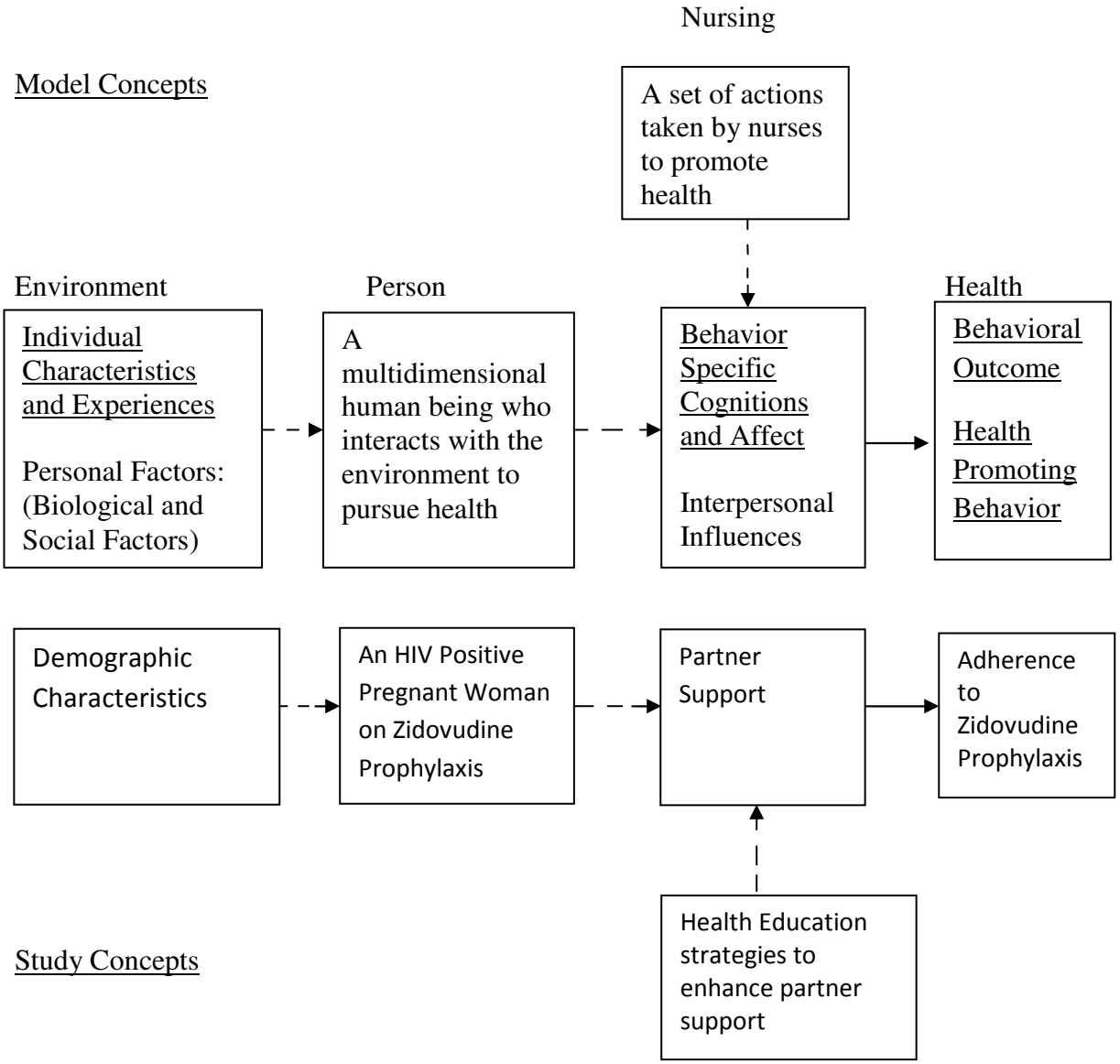

Figure 1: The Health Promotion Model: Adopted and adapted from Pender & Pender, (1996)

Conceptual Definition of Terms

Adherence

In this study "adherence" referred to a process whereby clients follow instructions /guidelines on prescription or recommendations based on a regimen of care (Mosby, 1986; Peterson, 2000)

Behavior Specific Cognitions and Affect

These are factors referred to as individual,s perception and are mechanism for adhering to ART and maintenance of health promotion behaviors.

Health

According to Pender (1996), "health" is the actualization of interest and acquired human potential through goal directed behavior, competent self care, satisfying relationship with others while adjustments are made as needed to maintain structured integrity and harmony with relevant environments .An HIV- positive pregnant woman would achieve her goal of reducing HIV transmission to her baby and maintain a healthy body by adhering to Zidovudine prophylaxis as advised.

Interpersonal Influences

These are interactions with health professionals, which have an influence on health promotion (Pender, 1996). Some of the factors could be health education given during antenatal care, ART counseling sessions before commencement Zidovudine and follow up care.

Nursing

Nursing refers to the activities that nurses do to promote, protect and support ART adherence. Nursing in health promotion model involves altering perceptual factors to positively affect health. This results in improved practice.

Partner

A partner referred to a husband, spouse or a male who is in a sexual or intimate relationship and who are staying together with the HIV- positive pregnant woman attending PMTCT Clinic.

Partner Support

Partner support referred to the emotional and practical support which is provided to the pregnant mother in order to adhere to Zidovudine prophylaxis. Practical support in ART adherence include reminding one to take treatment (monitoring medication adherence, bringing or setting out medication at the dose time), physical assistance, material aid and information provision. Emotional support includes empathy, expression of concern and of affection (Skovalal et al., 2011).

Research Objectives

1. Determine the extent of adherence to Zidovudine prophylaxis among HIV positive women who attend PMTCT at Shurugwi Hospital.
2. Assess the level of partner support for Zidovudine Prophylaxis among HIV positive pregnant women attending PMTCT clinic at Shurugwi Hospital

3. Examine relationship between partner support and adherence to Zidovudine Prophylaxis among HIV positive pregnant women attending PMTCT clinic at Shurugwi Hospital

Research Questions

1. What is the extent of adherence to Zidovudine prophylaxis among HIV positive pregnant women attending PMTCT clinic at Shurugwi Hospital?
2. What is the level of partner support for Zidovudine prophylaxis among HIV positive pregnant women attending the PMTCT Clinic at Shurugwi Hospital?
3. What is the relationship between partner support and adherence to ART among HIV positive pregnant women attending PMTCT at Shurugwi Hospital?

Significance of the study

HIV care and treatment programmes in Africa and globally are quickly evolving from an emergency response with a focus on initiating the sickest HIV infected individual on ART to building sustainable programmes which provides lifelong treatment for a large number of patients across the HIV disease spectrum. One of the pillars of sustainable HIV treatment programme is the ability of high levels of adherence to ART (WHO, 2006).

As nursing is concerned with assisting individuals or groups in society to attain, maintain and restore health, the research findings may assist in formulation and improve strategies to address PMTCT programmes in the district so as to attain optional benefits of the programme by clients.

The study findings may contribute to the development of nursing knowledge and practical use of evidence based information. The study may provide information on prevalence of non adherence to Zidovudine prophylaxis and how partner support affect adherence to ART for HIV- positive mothers and this may provide an evidence-based basis on which to strategize activities that address partner involvement in PMTCT programmes in the district.

The knowledge generated from the study may be used by other researchers who may want to carry out further research in nursing with a bias towards midwifery.

Since the scaling up of the PMTCT programme in the district, no research has ever been conducted on ART for HIV positive mothers who attend PMCT programme, the research findings may therefore provide information for planning interventions and effectively strategies for maximizing long-term adherence to Zidovudine prophylaxis for successful management of HIV and AIDS programmes in Shurugwi District.

CHAPTER 2

LITERATURE REVIEW

Introduction

Literature review is an organized written presentation of what has been published on a topic by scholars. The purpose of the review is to convey to the reader what is currently known regarding the topic of interest. Literature review provides insight into research techniques used in answering particular questions and will frequently reveal unknown sources of information and expertise.

According to Cooper (2010**),** a literature review is an account of what has been published on a topic by accredited scholars and researchers with a purpose of offering an overview of significant literature published on a topic. The literature (major writings) can include all sorts of things, journals, articles, books and government reports. The literature is then the body of scholarly, professional information that is used by professionals and scholars working on that topic.

A review of literature on ART adherence by HIV- positive pregnant women, partner support, relationship between the two and conceptual framework will be looked at .Also a summary will be written at the end of the chapter.

ART Adherence by HIV-Positive Pregnant Women

Pregnancy is a special situation which provides a unique opportunity for the prevention of vertical transmission of HIV using various interventions. The goals of

management of HIV in pregnancy are dual, managing the mother's HIV status and prevention of mother to child transmission (WHO 2010).

Adherence to medication also known as compliance with medication is the extent to which a patient follows medical instruction and the patient is an active contributor in the process (Chirag, 2007). Adherence may be operationalised in various ways which include, dose adherence (the number and proportions of doses taken), schedule adherence (adherence to doses taken on time) and dietary adherence (doses taken with food) (Schonnsson, Diamond, Ross, Williams & Brah 2006).

There are quite a number of ways or methods that can be used to measure ART adherence but Gill, Hammer, Simon Thia & Sabin (2005) came up with common methods that can be used to measure adherence as, pill counts, pharmacy refill records, drug level monitoring, electronic drug monitoring (EDM) and self report techniques such as visual analogue and recall method.

In Zimbabwe MOHCW adopted the use of Nevirapine and Zidovudine (AZT) for ARV prophylaxis. Antepartum Zidovudine is taken every 12 hours starting from 14 weeks gestation and continuing during pregnancy. At onset of labour, stat dose Nevirapine is taken and initiation of AZT and Lamlivudine (3TC) every 12 hours for seven days post-partum. ART for pregnant women who need it for their own health are to take Tenofovir (300mgs) and Lamlivudine (300mgs) plus Nevirapine (200mgs) once a for two weeks then, Tenofovir (300mgs) and Lamlivudine (300mgs) in a fixed dose combination (FDC) once daily and Nevirapine (200mgs) every 12 hours for life (Intergrated PMTCT Interventions Training Manual, 2010).

Use of ART has reduced mother to child transmission rates to approximately1-2 % in high income countries .However in low income countries, the use of ART is not feasible because of high costs and therefore low cost regimen is used (Volmink, 2007). All the same, in Zimbabwe, the MOHCW has partnered with non – governmental organizations to make ART feasible and accessible to all in need of it**.** **(**Male Circumcision Kadoma Report, 2007).

National Aids Control Organization of India report (2007), pointed out that although ART does not cure HIV and AIDS, effective antiretroviral regimen inhibits the efficient replication of the HIV virus and reduce viremia to undetectable levels. This leads to slowing of disease progression and fewer opportunistic infections and helps people lead more productive lives with perceptibility, reduced stigma and discrimination. Mentioned was also the success achieved by ART in terms of delaying the common perception about HIV from being a "viral death sentence" to a "chronic manageable illness".

WHO (2003) revealed that adherence to ART is central to a successful prevention of MTCT of HIV (PMTCT) programmes by ensuring optimal viral suppression, but was quick to point out that however barriers to adherence exist and differ among populations. Eliminating MTCT requires a strong effective national PMTCT programme that involves all stakeholders, mothers, fathers, communities and indeed funding and implementing partners (Mahomva, 2011).

WHO (2004), Sharon (2006)**,** reported that despite patients understanding the consequences of non –adherence to medication, adherence rate to ART were sub-

optimal. In Zimbabwe, Kawonza, Tshuma, Shambira & Tshimanga (2011) found out that non-adherence to ART was 30.7%.Reasons for non-adherence included, non disclosure to partners, home deliveries, and stigma. This followed a study which was carried out in Bindura involving 212 mothers who were on Nevirapine single dose prophylaxis.

Nyambura (2009) did a cross-sectional study in Kenya on 300 participants to determine factors influencing non-adherence to ART among HIV and AIDS patients and prevalence of non-adherence was found to be 26% (an adherence rate of 74%). Factors that were significantly associated with non adherence were age, occupation, level of education, house hold size, lack of food, inability to follow ART, stigma, transport costs and lack of family support.

Igwegbe, Ugboaja & Nwajiaku in 2010 carried out a study in Nigeria on 368 HIV-positive pregnant women to determine the prevalence and determinants of non-adherence to ART among HIV –positive pregnant women attending a PMTCT clinic. They found out that non-adherence rate was 21.7%. Forgetfulness, feeling healthy, living very far from the clinic, increasing maternal age, low husband/ partner educational level and support, non disclosure of HIV status and low educational level were some of the factors that contributed to non adherence. These findings were almost similar to Nyambura's findings.

In a study done in South Africa by Peltzer, Siwane & Majaja in 2011, on antiretroviral prophylaxis adherence for PMTCT in Mpumalanga Province, the results revealed 61% adherence. They found out that women with higher male involvement

were better in maternal Nevirapine adherence. Again in KwaZulu Natal in a study on ART adherence by pregnant women, results showed sub-optimal adherence to ART of 73%.Reasons for sub-optimal adherence included lack of social support, issues surrounding stigma, disclosure, cultural factors, lack of accurate health information and domestic violence.

It is essential to achieve more than 95% of adherence to ART in the treatment of patients with HIV infection. This is in order to suppress viral replication and avoid emergence of resistance. Achieving such high rates of adherence is often very challenging because of such factors as complex because of such factors as complex dosing schedules, issues in the patient-providers relationships, family support issues, food interactions and life style factors **(**Chirag, 2007). According to Kozal (2009**),** poor compliance with and non-adherence to ART leads to the exposure of the virus to inadequate concentrations of antiretroviral medication. This in turn leads to on- going viral replication, development of resistance to ARV medications and increased vertical transmission.

Meredith and Horan (2000) found out that patients on chronic medication maintain an approximate 70% adherence to their treatment. The concern they raised was that this level of adherence can lead to viral resistance .Adherence to therapy therefore became an integral part of HIV care. This point corresponds with Chirag's point of the need to achieve 95% of adherence to ART in order to suppress viral replication and avoid resistance.

WHO/ UNICEF (2007), estimated that well over 90% of new infections amongst infants as well as young children, occur through MTCT. Without interventions, 20% -45% of infants may become infected with HIV through MTCT with an estimated risk of 5%-10% during pregnancy, 10%-20% during labour and delivery and 5%-20% through breast milk. It is however estimated that the overall risk of transmission can be reduced to less than 2%, if a package of evidence-based interventions are made available and used correctly by HIV positive pregnant women and mothers (UNAIDS & WHO, 2008). This is in agreement with Orell (2003) who pointed out that adherence to ART is well recognized to be an essential component of an individual and pragmatic treatment success and that higher levels of adherence are associated with improved virological and clinical outcome.

In relation to the findings by Meredith and Horan (2000) that patients maintain a 70% adherence to their treatment when on chronic medication, Stone (2000) did a survey in the United States of America which aimed to determine factors that influence non- adherence to ART among pregnant women and found out that 21% of the patients had skipped a dose in 24 hours, while 34% had missed a dose in three days. This translates to 72.5% adherence on average. Reasons given for not taking medication included lack of family support, non disclosure of status, stigma, cultural factors and avoiding to take medication in public places.

In almost a similar study in Kenya, Nakiyemba (2005), came up with such factors as feeling that treatment is a reminder of HIV status, not being able to accept HIV status as affecting adherence to ART. Other factors that come out included

household size, occupation, lack of partner, community and employer support, preference to traditional medicine and belief in spiritual healing. These were found to profoundly influence adherence to ART in a cross-sectional study done at a provincial hospital in Kenya on a study population of all AIDS patients on ART attending the provincial hospital.

Stace (2002), Castro (2005) and Mills (2006) came up with almost same factors as Nakiyemba. They found out that fear of disclosure to partners/husbands, wanting to avoid taking medication in public places, forgetting to take medication at a specified time were additional factors that affects adherence to ART treatment.

Partner Support in ART Adherence

According to the Zimbabwe National AIDS Policy Document (1999), prevention of HIV infection in mothers and fathers is a key facet of PMTCT. Male involvement is critical, not only as a means to good pregnancy care, but also as a way to improve reproductive and sexual health.

The MOHCW in Zimbabwe has tried a number of strategies to involve men in HIV related care. It is reported that following the implementation of couple counseling, the number of couples visiting antenatal clinics in some communities rose from 2 to 39 per week. (Zimbabwe Government MOHCW, TB Unit report, 2004)

New Start Centers in Zimbabwe operate campaigns to promote couple counseling by providing free counseling services on occasions such as Valentine's Day and Mother's Day. According to Population Services International, New Start

Center Annual report (PSI 2005), this has seen more than 340 couples testing nationally on free days.

Davis (2011) pointed out that fathers control resources that can give women the access to PMTCT, yet the language used in these programs ignore the power of fatherhood in the prevention of HIV. The failure to target men in health programmes for women and children has weakened the impact interventions since men can significantly influence their partners' reproductive health resources. Davis went on to say that, about 70 % of HIV infections are among married men and women, with 48% of men and 58% of women reported to be married or living together.

Sibanda (2008) carried out a study on utilization of PMTCT services by pregnant women in the Bulawayo City Health Clinics and found out that although disclosing the HIV status and sharing results with a partner is a key step towards eliciting support and greater involvement of men in PMTCT programmes, the benefit of disclosure of an HIV-positive status to a male sexual partner need to be balanced against the potential risks that an individual women may face when she discloses that she had an HIV test. The study recommended increasing male partners in PMTCT programmes although it is difficult to achieve in many ANC settings. Antenatal clinics should be user friendly for both men and women.

Preliminary research findings in a study by Medecin san Frontiers (MSF) in 2004, at Mpilo Central Hospital in Zimbabwe suggest that although efforts are made to adopt PMTCT services to involve male partners, large gaps still exist.Shetty (2008) seem to agree with the findings as he pointed out that male involvement in

PMTCT has been a challenge to health- workers and made a view that strategies to involve men in PMTCT were poor .This has followed a study done in Zimbabwe ,Makonde District ,where PMTCT was found to be solely a women's responsibility.

Child bearing in many African Countries like Malawi and Zimbabwe included is viewed as being primarily the work of women, a view that is likely to prevent men from accessing PMTCT services or attending visits with their partners, in turn inhibiting family oriented PMTCT models (UNICEF, South Africa, 2009). This seems to confirm the results from a pilot setting in Bulawayo in Zimbabwe which suggested that male involvement and support are critical to improve women's uptake of core PMTCT services, including the decision to test, return for results, correctly taking of ARVs and choosing an appropriate infant feeding method (Bulawayo Health Services Report ,2006)

Dutki (2010), following a study in Uganda revealed that men are only prepared to be involved in PMTCT programmes by providing physical and financial support to their pregnant partners and not participate in ANC based procedures as pregnancy traditionally is a woman's sphere of influence and that antenatal care is a woman's domain. In concurrent with these findings, male involvement was found to be low in reproductive health and in particular in PMTCT programmes in a study carried out by Kishoyian in 2009 in Nairobi, Kenya. Kishoyian went on say that, strategies to involve men in PMTCT were found to be poor in a study done in Zimbabwe where PMTCT is solely a woman's responsibility.

Worku (2007) in a cross-sectional survey among 452 pregnant women to study the utilization of PMTCT services among pregnant women in Western Amhara Region, Ethiopia, the main barriers for utilization of PMTCT services identified were, incorrect perceptions regarding HIV/AIDS treatment regimens and stigma by husband, family and community.

The Zimbabwe HIV and AIDS Conference held in Harare in September 2011 revealed that couples are a population at risk of HIV infection thus male involvement in PMTCT programmes is essential for reducing the risk of HIV infection both for couples and their unborn child.

To reinforce the Conference statement, Mahomva (2011) expressed that male involvement in PMTCT programmes in Africa has historically been low due to some cultural aspects leaving women vulnerable with no support from their partners.

Centre for AIDS Development Research and Evaluation (CADRE) Report (2009), revealed that women in many African Countries and other resources-poor settings report fears of discriminations, abandonment, rejection, divorce or physical violence as reasons for not wanting to disclose their positive status to their male partners / husbands. CADRE went on to say, in Nigeria, women have reported a number of practices from male partners that inhibit safe motherhood ,physical violence, denying access to obstetric care, unwillingness to use family planning, withholding financial help and blaming women for HIV. Muchedzi, Chandisarewa, Keatinge, Chibanda, Woek Mbizvo & Shetty (2010), in a study to determine factors associated with access to HIV care and treatment in PMTCT programmes in

Zimbabwe found out that those living with a male partner were 60% less likely to access PMTCT care and treatment due to fear of their paertners.

In a study done in Tanzania by Boniphace in 2009 to determine willingness and participation in PMTCT programmes among males of reproductive age, the results were that, 74.6% were not willing to participate in PMTCT programmes by accompanying their spouses/partners to ANC. Also 61.4% had never participated in PMTCT programmes in ANC. Reasons for poor male involvement in these programmes were, being busy (25.2%), lack of knowledge on the importance of the programme (21.4%) and cultural reasons (21.4).This correlates with the study done by Horizon programme in 2002 in Zimbabwe that reported that communities considered the man who publicly supported his wife by accompanying her to the clinic as weak or bewitched (Dadian, 2002).

Research in the Eastern Cape of South Africa indicates that men play a limited role during their partners' pregnancy and birth and few attend clinic visits with their female partners which has serious effects for women who attend PMTCT services without the consent of their partners (Skinner, Mfecane, Henda, Dorkenoo, Davids & Shisana, 2003).The phrase PMTCT implies that it is the woman's primary responsibility to prevent her infant from being infected through MTCT, which undermines efforts to increase male involvement in PMTCT (Thorsen, 2008). Again in Johannesburg, South Africa, Jone, Sherman & Varga (2005) found out that male partners / husbands may not see the need for continual follow up visits if their female partner has not disclosed to them.

The criticism of PMTCT services is that they are too female focused and this has greatly limited their effectiveness and progress. It is also important to remember that male involvement in various aspects of reproductive health care and couple counseling may reduce challenges women face while accessing maternity services as has been found in Burkina Faso and Cote d' Ivore (Sarker,Sanou Snow,Ganane & Gondos 2007).

Relationship between Partner Support and ART Adherence

WHO (2006) reported that disclosure of HIV-positive status is a complex, difficult and very personal matter that entails communication about a potentially life threatening, stigmatized and transmissible illness to someone. It went on to say that disclosure is important for psychological support, treatment adherence, stigma reduction and risk reduction behavior.

The 2007 United nations General Assembly Zimbabwe Country Report on HIV and AIDS stated poor disclosure of HIV and AIDS status by women to significant others (husband/partner, in-laws, siblings or friends) as one of the major challenges in the PMTCT programme especially the ART adherence.

In Zimbabwe, Skovdal, Campbell, Nyamukapa & Gregson carried out a qualitative study on male involvement in women's treatment of HIV-infection in 2010 and found out that many women felt unable to disclose their HIV status to their husbands forcing them to take their medication in secret and act without a supportive partner which is widely accepted to be vitally important for adherence success. Some

husbands, when discovering that their wives are on ART, deny them permission to take the drugs or indeed steal the drugs for their own treatment. This study was carried out in Eastern Zimbabwe and it being a qualitative study cannot be generalized for all the populations of Zimbabwe. In relation to these findings, Goudge & Ngoma (2011) found out that most women on Zidovudine missed a dose at least three times or four times a week, reasons being fear of the reaction of their partners if they are found to be on ARV prphylaxis. They went on to say many women cited divorce or poor marriage relationship if their partners found out that they were HIV-positive and were on ART prophylaxis.

Peltzer, Jones, Weiss & Sikwane (2011) found out that where there is male involvement in PMTCT, it enhanced couple communication, adherence to ART and serostatus disclosure. This followed a study done in South Africa on promoting male involvement to improve PMTCT uptake and ART adherence. Again Peltzer, Sikwane & Majaja (2011) found almost similar results in Nkangala District, South Africa where a study on factors associated with short-course ART adherence for PMTCT was carried out. The results revealed that only 61.9% reported complete adherence to ART. It was also found out that women with higher male involvement were better in Nevirapine adherence. Adherence to ART was found to be less than optimal. Community factors (discrimination, HIV disclosure, male involvement) contributed to non adherence to short course ARV prophylaxis. It will be of interest to find out how much non-male involvement contributed to non ART adherence.

A research in Tanzania showed that HIV-positive women whose partners attended VCT were three times more likely to adhere to ART and 6 times more likely to adhere to the infant feeding method they selected. These findings suggest that if a male partner does not know his HIV status or about PMTCT, a woman is less likely to adhere to Art or engage in PMTCT programmes (Akarro, 2010). Wrubel, Stumbo & Johnson in 2008, after examining ART adherence practices in 20 couples had concluded that practical support correlates more highly with ART adherence than other kinds of social support.

Literature on Conceptual Framework

The HPM has been used to guide research by several investigators. Tsu-Yin, Wu and Pender (2001) for example conducted a study on determinants of physical activity among Taiwanese adolescents. The results indicated that perceived self efficacy was the most important predictor of physical activity. In another study, McElligot, Siemers, Thomas and Kohn (2009) utilized Pender's HPM to examine the health promoting lifestyle behaviors of acute care nurses. Medical – surgical nurses consistently scored better than critical care nurses on health promotion. Therefore, the HPM is an effective framework that guides research.

Summary

This chapter analyzed literature pertaining to adherence to Zidovudine among pregnant women, partner support for Zidovudine prophylaxis and the relationship between partner support and adherence to Zidovudine prophylaxis. Much of the

literature cited suboptimal levels of adherence to Zidovudine prophylaxis among pregnant women on PMTCT.

CHAPTER 3

METHODS

Introduction

This chapter will describe the research methodology. It addresses the research design, sampling plan, sample size and sampling procedures. This chapter also covers the variables in the research, operational definitions, instrument, data collection plan and data collection procedures. At the end, ethical considerations and data analysis details will be given.

Research Design

A research design is the overall plan for obtaining answers to the questions being studied and for handling some of the difficulties during the research process (Polit & Beck, 2004). Research designs are developed to meet the unique requirements of a study. Polit and Beck (2004) indicated that selecting a good research design should be guided by an overarching consideration, namely whether the design does the best job of providing trustworthy answers to the research question.

In this study, a descriptive correlation design was used as it examined the relationship between partner support and ART adherence by HIV-positive pregnant women. No attempt was made to control or manipulate variables. Also, there was no attempt to control the research setting.

A descriptive design was selected because of its high degree of representativeness and the ease in which a researcher could obtain the participants' opinion (Polit & Beck, 2004: Cohen, 1988).

Sampling plan

Burns and Grove (2005) state that, a sampling plan describe strategies that will be used to obtain a study sample. The study sample was obtained from a study setting as well as from a population. Therefore the concepts of study setting, population and sampling will further be described.

Study Setting

Shurugwi District Hospital PMTCT clinic was used as the ideal study site. This setting catered for a large population of women on PMTCT. The investigator therefore found it easy to obtain participants with desired criteria for inclusion into the study from this setting.

Population

Polit and Beck (2004) define a population as the entire aggregation of cases that meet a designated set of criteria. They went on to say a target population is the aggregate of cases about which the researcher would like to make generalization. The target population for this study was HIV – positive pregnant women on Zidovudine prophylaxis attending PMTCT clinic at Shurugwi District Hospital. The accessible population therefore became those eligible participants who were present at the study site during the data collection period. It is from the accessible population that a sample was drawn.

Sampling Criteria

Eligibility criteria refers to a list of characteristics essential for membership or eligibility in the target population (Burns & Grove, 2005).The criteria helps to control extraneous variables and make the population as homogenous as possible. Polit and Beck (2004) define eligibility criteria as the criteria that specify the characteristics that people in the population must possess to be considered for inclusion in a study. The sampling criteria below eliminated bias, ensured homogeneity as well as strengthening the internal validity of the study.

Inclusion Criteria

Polit and Beck (2004) define inclusion criteria as the criteria that specify the characteristics that the people in the population must possess for inclusion in a study. In this study HIV-positive pregnant women who were 18 years and above and registered with Shurugwi Hospital PMTCT clinic were eligible to participate. The pregnant women were supposed to be on Zidovudine for PMTCT prophylaxis. The pregnant women were supposed to be able to communicate in Shona or English verbally during the interview and would be willing to participate in the study. Only those who had consented to answer questions were interviewed.

Exclusion Criteria

Exclusion criteria are those characteristics that can cause a person or element to be excluded from the target population. Pregnant women who were less than 18 years of age and not HIV-positive, or those who were HIV-positive and not on Zidovudine prophylaxis were excluded from the study. HIV-positive women on

Zidovudine prophylaxis but not willing to participate in the study were excluded. The terminally ill and mentally incompetent were also excluded because they have reduced autonomy and are unable to give informed consent. In addition, the final sample excluded those individuals who participated in the pretest of the instrument. The individuals on whom the instruments were pretested would have been a source of bias because they would have been exposed to the items in the instruments.

Sample Size

A sample is a subset of the population. A sample size is sufficient in size to describe, detect a relationship or determine the effect of treatment (Burns & Grove 2005). Power was used to calculate the appropriate sample size. Calculation was done using power analysis of .80, effect size of 0.5 and significance or alpha of 0.05.

Power is the capacity of design to detect differences or relationships that actually exist in a population (Burns & Grove, 2005). Power helps to avoid type 2 errors when a false null hypothesis is accepted.

A power of 0.80 was used as it is the minimal acceptable level of power for a study and is accepted for nursing researches (Polit & Beck 2004). This power level results in a 20% chance of a type 2 error in which the study fails to detect existing effects (differences or relationships).

The effect size is the magnitude of the relationship between the research variables (Polit & Beck 2004). The usually used effect size in nursing researches is 0.5. As effect size increases power increases but sample size decreases. In this study the variables understudy were partner support and adherence to Zidovudine

prophylaxis. Use of the Lipsey sample size calculation chart led to a sample size of 65 based on power of 0.8, effect size of 0.5 and alpha of 0.05. Fifteen additional participants were added to cater for attrition. Therefore this study aimed to achieve a minimum sample size of 80. It is hoped that with this sample size, external validity of the study was achieved.

Sampling Method

This study adopted the systematic sampling method. This method is a probability sampling method that gives an equal chance for each member to be selected while eliminating bias. Systematic sampling requires calculation of a K^{th} number to establish a sampling interval. The K^{th} number is established by dividing the target population by the calculated sample size. The population of HIV- positive women on PMTCT at the study site is about 400. The K^{th} number was obtained by dividing 400 by the sample size of 80 ($400 \div 80 = 5$). This meant that the investigator would select every 5^{th} eligible participant.

Sampling Procedure

On each data collection day, the investigator used the register of women who had reported for the clinic. The sampling criteria guided selection and making of a list (sampling frame) of those participants who met the inclusion criteria. It is from the sampling frame that every 5^{th} member was selected for interview. This procedure was repeated on each data collection day until the desired sample size of 82 is achieved.

Variables

Burns and Grove (2005), states that variables are concepts of various levels of abstraction that are measured, manipulated or controlled in the study. Variables can be concrete or abstract. In research it is important to define variables both conceptually and operationally to enhance understanding. This study focused on three (3) variables namely, adherence to Zidovudine prophylaxis, Partner support and demographic variables.

Conceptual and Operational Definitions

Conceptual definitions refer to the theorist's definitions established through concept analysis, concept derivation or concept synthesis. A conceptual definition therefore refers to the meaning of the variable. The operational definition on the other hand, refers to the way the variable can be measured or manipulated in the study (Polit & Hungler, 1999).

Adherence to Zidovudine Prophylaxis

Conceptually, adherence to Zidovudine prophylaxis meant the taking of all the prescribed doses of Zidovudine correctly and on time and following the recommendation of taking the drug with a large glass of water. Operationally, adherence to Zidovudine prophylaxis was measured by the Adherence to Zidovudine Prophylaxis Questionnaire (AZPQ) displayed in Appendix D.

Partner Support

Partner support referred to the emotional and practical support which is provided by the male sexual partner to the pregnant woman in order to adhere to

Zudovudine prophylaxis. Partner support was operationalised by the Partner Support Questionnaire (Appendix E).

Demographic Characteristics

Conceptually, sample demographics are the personal attributes of the participants. Examples of the personal attributes are the age, parity and educational level of the participants. The Demographic Data Questionnaire was used to assess the Demographic characteristics.

Instruments

An instrument is a device used to collect data (Polit & Beck 2004). For this study, the investigator developed three (3) instruments to measure the variables. The instruments are described below.

Adherence to Zidovudine Prophylaxis Questionnaire (AZPQ)

The (AZPQ) illustrated in Appendix D has five (5) items numbered 9 to 13. Each of the items sought to ascertain the extent of agreement with the statements regarding adherence to Zidovudine prophylaxis. A Likert scale was used to rate the extent of agreement from zero (0) for strongly disagree to four (4) for strongly agree. This rating scale gave a total/maximum Zidovudine adherence score of twenty (20). Total scores of 19 to 20 out of 20 reflected 95-100% adherence to Zidovudine prophylaxis.

Zimbabwe has adopted a 95% Zidovudine adherence rate to be the optimum level based on guidelines by Patterson (2006). At 95% adherence, it is acknowledged that there will be marked suppression of the viral load to an extent that minimizes

vertical transmission of HIV. Therefore, for this study those participants scoring at least 19 total Zidovudine adherence scores were classified as adherent. Non adherent participants were identified through total scores of between zero (0) and 18 out of twenty.

Partner Support Questionnaire (PSQ)

The PSQ displayed in Appendix E has 13 items numbered 14 to 26. Ten of the items (from item 14 to item 23) addressed the level of partner support pertaining to practical activities such as accompanying the pregnant woman to the PMTCT clinic and reminding the woman to take Zidovudine doses. Items 24 to 26 focused on partner support in relation to emotional support. Scoring for partner support was based on a four (4) point likert scale ranging from zero (0) for "never" and 3 for "always" in terms of the frequency with which the partner participated in each activity.

The minimum score for partner support was 0 and the maximum score was 39. Therefore the lower the score, the lower the level of partner support. Based on this rating, the mean partner support score for the instrument was 20. Therefore, respondents with total partner support scores of 20 and below were classified as having low levels of partner support. Total scores of 21 to 23 out of 39 reflected moderate levels of partner support while total scores of 24 to 39 indicated strong levels of partner support.

Demographic Data Questionnaire (DDQ)

The DDQ (Appendix C) has been divided into two sections (Section A and Section B), the participant's demographics and the partner's demographic characteristics respectively. Items 1 to 5 in Section A assessed the participant's demographic characteristics. All the 6 items captured the biologic and social characteristics postulated by Pender and Pender (1996) as personal factors that represent the internal and external environment of a person. To some extent, these personal factors also have an influence on the health promoting behavior (adherence to Zidovudine prophylaxis).

Section B incorporates items 6 to 8. All these three items captured essential aspects of the sexual partner's demographic data. It had been envisaged that the level of education, occupation and HIV status of the sexual partner may be the main driving forces in the level of providing partner support.

Reliability and Validity of the Instruments

According to Burns & Grove (1997), reliability and validity are crucial steps in the research process. Measures need to be put in place to ensure that instruments are reliable and valid. The present investigator took several steps to eliminate threats to reliability and validity of the instruments.

Reliability

Reliability means the likelihood of obtaining the same results when the researcher measures the same variable more than once or when more than one person

measures the same variable (Brink, 2000). Reliability therefore refers to the measurement accuracy of the data collection instrument. An instrument can be said to be reliable if its measurement accurately reflects the true score of the attribute under investigation (Polit & Beck, 2004).

To ascertain reliability of the instruments in this study, the present investigator addressed issues of the stability (consistency) of the instrument and measurement of random error. To ensure stability of the instruments, a pretest of the instrument was done on 5 participants at Shurugwi PMTCT clinic with similar attributes to the intended sample.

The instruments were translated from English into Shona. Translation ensured collection of data that is reliable and free from misinterpretation.

A reliability analysis was also performed to measure the amount of random error in the measurement technique. The co-efficient alpha, also known as the Cronbach's alpha (a psychometric test) was used to measure internal consistency of the instrument. The values of the co-efficient alpha range from 0.00 to 1.0. Higher values closer to one (1) reflect reliability and therefore higher degree in the internal consistency. Burns and Grove (1997) state that a reliability of 0.80 is considered the lowest acceptable co-efficient for a well developed measurement tool. For a newly developed instrument, a reliability of 0.70 is considered acceptable. The Cronbach's alpha for this study was 0.739 which means that the instrument was reliable and was a good measure of the variables under study.

Validity

Validity refers to the degree to which an instrument measures what it is supposed to measure (Polit & Beck, 2004). Instruments need to reflect the abstract construct being examined. For example, the items measuring demographics, adherence and partner support in this study had to be phrased and organized to give a true reflection of these variables. This approach removed ambiguity and ensured elimination of systematic error.

Several dimensions of validity were considered in developing the instruments for this study. To ensure face validity, the instruments were developed as three separate tools, each measuring a respective variable. It was ensured that each item in the instruments pertains to the variable under study.

Content validity of the instrument, defined as the sampling adequacy of items for the construct that is measured (Polit & Beck, 2004), was addressed. Content validity was ensured through identification of items obtained from literature and inclusion of these items into the instruments. Several instruments used in previous studies were analysed to select items found to be highly predictive towards measuring the variables for this study. When constructing the AZPQ for example, items included were adopted from those found to be highly predictive of adherence in a study by Knobel et al., (2002). The study was on "Modification of a simplified medication adherence questionnaire in a large cohort of HIV infected patients".

Construct validity was also ensured. Construct validity examines the fit between the conceptual definitions and operational definitions of variables (Burns &

Grove, 1997). All variables under study were conceptually defined. During the development of the questionnaires, the investigator worked with the research supervisor to carefully phrase the items in each instrument so that the items reflect the defined variables. The instruments were translated into the local language to maintain construct validity and reduce systematic error whereby an inaccurate term is systematically applied each time a new participant is interviewed.

Specialists in the field such as the PMTCT district co-ordinator and midwives working at Shurugwi PMTCT clinic were given the instruments to analyse the items and comment on the construct validity. Finally, the pretest of the instrument also highlighted areas of ambiguity and guide towards ensuring construct validity. The instruments were refined using suggestions from all these approaches for construct validity.

Pilot Study

According to Polit and Beck (2004), a pilot study is a small-scale version or trial run of the major study. It is conducted to obtain information which can be used to improve the study or assess its feasibility as well as the internal and external validity (Burns & Grove 2005). A pilot study would have been ideal for this study. However, due to time limitations, it will not be possible to conduct the pilot study.

Data Collection Plan

Data collection plan is a strategy for gathering information to address a research problem. According to Burns & Grove (2005), a data collection plan details how the study will be implemented. Data collection plan is necessary to provide

groundwork for implementation of the data collection process. Two important aspect of the data collection plan will be addressed in this section. The two aspects are ethical considerations and data collection procedure.

Human Rights Considerations

Human rights are claims and demands that have been justified in the eyes of an individual or by the consensus of a group of individuals and are protected in research (Burns & Grove, 2005). Throughout the development of this study, the investigator ensured that the human rights were protected guided by the ethical principles of non-maleficence and beneficence, respect for autonomy as well as the principle of justice. Through observing the principle of nonmaleficence and beneficence, the study was designed to be free from both physical and psychological harm while maximizing benefits to the patient.

The participants' autonomy was fully respected and the principle of justice observed as reflected in the ultimate informed consent form designed by the investigator. The informed consent form recognized the participants' right to self determination, privacy, anonymity and confidentiality, and protection from discomfort.

The Department of Nursing Science authorized the research proposal to proceed after being convinced that the ethical considerations had been met. Officials at the study site also reviewed the research proposal and were satisfied that there were no violations of human rights.

The research proposal was presented to the Joint Ethics Committee within the College of Health Sciences as well as to the Medical Research Council of Zimbabwe. These two ethical bodies assessed the ethical worthiness of the study before implementation of the research plan. In addition, during data collection, individual voluntary informed consent was sought from each participant before interviews commenced. A sample of the informed consent form used for this purpose for each participant is displayed in Appendix A.

Data Collection Procedure

Upon receipt of written permission from the Medical Research Council of Zimbabwe, the investigator visited the study site and met with the District Health Executive members as well as nurses working in the PMTCT clinic. The investigator created rapport and outlined the purpose and procedures for the research at this meeting to gain co-operation of the health workers. An appropriate private and quiet room with a desk and two chairs was identified for data collection and permission to use this room sought from the one in charge of the PMTCT clinic.

On each data collection day, the investigator used the daily PMTCT clinic register to make a sampling frame guided by the sampling criteria. From the sampling frame, every 5^{th} eligible pregnant woman was selected from the waiting area. The selected pregnant woman was approached and asked to come to the private room. The investigator liaised with the health workers to maintain the identified woman's position in the queue to avoid unnecessary delays. In the private room, both the investigator and identified pregnant woman would sit on chairs, introductions given,

and the investigator explained about the research. A copy of the informed consent form would be given to her. Contents of the informed consent form would be read to her by the investigator while she was following. Voluntary written informed consent would then be sought.

Once consent was granted, the investigator would start data collection though face to face interviews using the designed interviewer administered questionnaires. The investigator asked the questions, waited for a response from the participant and documented the response on the questionnaire. At the end of the interview, the participant would be given a chance to ask questions, thanked for her time and participation then returned to the waiting area to receive health service. The procedure was repeated for every participant until the desired sample size was achieved.

Data collection commenced on Monday 12 March 2012 and terminated on 30 March 2012. Data collection proceeded from 0800 hours to 1600 hours every Monday to Friday (giving 15 days for data collection) during that 3-week data collection period. The investigator interviewed at least 6 participants per day. At this rate, a final sample size above the minimum calculated sample size of 80 was achievable. Completed questionnaires were locked in a brief case then transferred to a safety cabinet in the investigator's room for safe keeping.

Data Analysis

According to Polit & Beck (2004) data analysis is a systematic organization and synthesis of research data and testing of hypothesis using that data. Upon

completion of data collection, data was checked for completeness, then coded and entered in a code book developed by the investigator. The coded data was then entered into a computer statistical software package for social sciences (SPSS.pc). After data entry, the data was now be ready for analysis.

Demographic Variables

Demographic Variables were analysed using descriptive statistics such as the frequency, percentage and the mean.

Adherence to Zidovudine Prophylaxis

Data pertaining to the above variable sought to answer the following research question;

"What is the extent of adherence to Zidovudine prophylaxis among HIV positive pregnant women attending PMTCT clinic at Shurugwi Hospital?"

Descriptive statistics were used to analyse data to answer this question.

Partner Support for Zidovudine Prophylaxis

Descriptive statistics were used to analyze data for partner support. The analysed data was used to answer the following question;

"What is the level of partner support for Zidovudine prophylaxis among HIV positive pregnant women attending the PMTCT Clinic at Shurugwi Hospital?"

The Relationship Between Partner Support and Adherence to Zidovudine Prophylaxis

The research question for this variable was;

"What is the relationship between partner support and adherence to ART among HIV positive pregnant women attending PMTCT at Shurugwi Hospital?"

Inferential statistics were used to analyse data for this question. Pearson's Product Moment Correlation analysis was used to assess the relationship between partner support and adherence to Zidovudine. The result appeared as a Pearson's correlation coefficient (r) which ranges from -1 to +1. This "r" value indicates the linear relationship between the two variables. A score of zero indicates no linear relationship. A coefficient of -1 indicates a perfect negative relationship while that of +1 indicates a perfect positive relationship. For the present study, a positive relationship was expected to indicate that as partner support increases, adherence to Zidovudine also increases.

The "r" value also indicate the strength of the linear relationship. According to Burns & Grove (1997), traditionally, an "r" of 0.1 to 0.3 is considered a weak linear relationship. A moderate linear relationship ranges from 0.3 to 0.5 while that one above 0.5 is a strong linear relationship.

The relationship between partner support and adherence to Zidovudine was tested for statistical significance at the 0.05 significance level and a linear regression was performed.

CHAPTER 4

RESULTS

Introduction

This chapter presents the research results. The purpose of the study was to determine the relationship between partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic at Shurugwi Hospital. The study attempted to answer the following questions:

1. What is the extent of adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic at Shurugwi Hospital?
2. What is the level of partner support for Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic at Shurugwi Hospital?
3. What is the relationship of partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic at Shurugwi Hospital?

The data was analyzed using the Statistical Package of Social Sciences (SPSS.PC). Descriptive statistics, that is the mean, range, frequencies and percentages were used. Inferential statistics, that is, the Pearson Correlation coefficient and the regression analysis were used to determine the relationship between partner support and adherence to Zidovudine prophylaxis.

Sample Demographics

Table 1 shows demographic data of the respondents which are the age of the pregnant woman, education level, occupation, marital status and the number of children the pregnant woman has. The age range was between 19 and 39 years. The mean age was 29.3 years. The median was 29 years and standard deviation was 5.07. The number of respondents aged between 18years to 20 years was 3 (3.6%), 21 to 29 years of age were 43 (52.4%) and 36 (43.9%) were aged between 30 and 39 years. Table 1 also shows the level of education of respondents. Those who had gone up to Primary level of education were 12 (14.6%). Sixty-seven (81.7%) had gone up to Secondary level and 3 (3.7%) had gone up to Tertiary level. Again shown in Table 1 is the occupation of respondents of which 8 (9.8%) were self employed, 8 (9.8%) were employed and 66 (80.5%) were unemployed. Table 1 also shows the marital status of the respondents. Married were 73 (89.0%), 1 (1.2%) was co-habiting, 5(6.1%) had separated with their husbands, 1 (1.2%) was a divorcee and 2 (2.4%) were single. Also shown in Table 1 is the parity of respondents. One (1.2%) had no children, 14 (17.4%) had one child, 30 (36.6%) had two children, while 25 (30.5%) had three children and 12 (14.6%) had more than three children.

Table 2 shows information on the level of education, occupation and the HIV status of the partner. Five (6.1%) had gone up to Primary level of education, 74 (90.2%) had gone up to Secondary level of education and 3 (3.7%) had gone up to

Tertiary level. Employed were 18 (22.0%), self-employed were 29 (35.4%) and 35 (42.7%) were unemployed. Twenty-nine (35.4%) were HIV-positive, 13 (15.9%) were HIV-negative and 40 (48.8%) had no known HIV status.

Table 1

Sample Demographics (1) (N=82)

Variable	Frequency	Percentage
Age		
18-20 years	3	3.6
21-29 years	43	52.4
30-39 years	36	43.9
40 years and above	0	0
Level of Education		
None	0	0
Primary	12	14.6
Secondary	67	81.7
Tertiary	3	3.7
Occupation		
Student	0	0
Employed	8	9.8
Business/ self-employed	8	9.8
Unemployed	66	80.5
What is your marital status		
Married	73	89.0
Co-habiting(not married but stays with a partner)	1	1.2
Separated (currently not living together but not divorced)	5	6.1
Divorced but I have a partner	1	1.2
Single but I have a partner	2	2.4
Children		
None	1	1.2
1 Child	14	17.4
2 Children	30	36.6
3 Children	25	30.5
More than 3 children	12	14.6

Table 2

Sample Demographics (2) (N=82)

Partner

Variable	Frequency	Percentage
Level of Education		
Non	0	0
Primary	5	6.1
Secondary	74	90.2
Tertiary	3	3.7
Occupation		
Student	0	0
Employed	18	22.0
Self employed/Business	29	35.4
Unemployed	35	42.7
HIV Status		
Positive	29	35.4
Negative	13	15.9
I do not know	40	48.8

Adherence to Zidovudine Prophylaxis

Table 3 shows data on the dependent variable of the study which is adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic. On whether the respondents remembered to take all Zidovudine doses, 2 (2.4%) strongly disagreed, 3(3.7%) disagreed, 8 (9.8%) were undecided, 40 (48.8%) agreed with the statement and29 (35.4%) strongly agreed with the statement. Three (3.7%) strongly disagreed with the statement that they were always careful about taking Zidovudine. Seven (8.5%) disagreed with the statement, 8 (9.8%) were undecided, 47 (57.3%) agreed to always having been careful about taking Zidovudine 17 (20.7%) strongly agreed to always having been careful about taking Zidovudine.

Responding to having always taken Zidovudine on time, 2 (2.4%) strongly disagreed, 7 (8.5%) disagreed, 14 (17.1%) were undecided,45 (54.9%) agreed with the statement and14 (17.1%) strongly agreed to having taken Zidovudine on time. Two (2.4%) strongly disagreed that they took Zidovudine with the recommended amount of water, 5(6.1%) disagreed, 5 (6.1%) were undecided 31 (37.8%) agreed with the statement and 14 (17.1%) strongly agreed that they took Zidovudine with the recommended amount of water. On having taken the recommended dose of Zidovudine,1 (1.2%) strongly disagreed, 2 (2.4%) were undecided, 2 (2.4%) agreed to having taken the recommended Zidovudine dose and77 (93.9%) strongly agreed to have taken the recommended dose.

Table 4 shows total scores on adherence to Zidovudine prophylaxis. The adherence to Zidovudine was measured on an ordinal scale ranging from 0 to 4 scores. The minimum score was o and the maximum score was 20.Respondents with scores zero to eighteen (0-18) had no adherence to Zidovudine prophylaxis as this indicated up to 90% adherence which is suboptimal (optimal is 95%). Respondents who had scores ranging from 19 to 20 scores which translated to 95 to 100% had adherence to Zidovudine prophylaxis. The mean score was15.7 scores, median was 17.0, mode was 17 scores. Sixty-six (80.4%) had scores ranging from 0-18 and therefore had poor adherence and 16 (19.5%) had adherence as they scored 19 indicating 95% adherence.

Table 3

Adherence To Zidovudine Prophylaxis(1)

(N=82)

Variable	Frequency	Percentage
Remembered to take all Zidovudine doses		
Strongly Disagree	2	2.4
Disagree	3	3.7
Undecided	8	9.8
Agree	40	48.8
Strongly Agree	29	35.4
Always Careful About Taking Zidovudine		
Strongly Disagree	3	3.7
Disagree	7	8.5
Undecided	8	9.8
Agree	47	57.3
Strongly Agree	17	20.7
Always Took Zidovudine On Time		
Strongly Disagree	2	2.4
Disagree	7	8.5
Undecided	14	17.1
Agree	45	54.9
Strongly Agree	14	17.1
Took Zidovudine With Recommended Amount Of Water		
Strongly Disagree	2	2.4
Disagree	5	6.1
Undecided	5	6.1
Agree	31	37.8
Strongly Agree	39	47.6
Took The Recommended Dose		
Strongly Disagree	1	1.2
Disagree	0	0
Undecided	2	2.4
Agree	2	2.4
Strongly Agree	77	93.9

Table 4

Adherence To Zidovudine prophylaxis (2) (N=82)

Variable	Frequency	Percentage
Total score out of 19		
0	1	1.2
6	1	1.2
9	2	2.4
10	3	3.7
11	2	2.4
12	2	2.4
13	2	2.4
14	5	6.1
15	10	12.2
16	12	14.6
17	16	19.5
18	10	12.2
19	16	19.5

Partner Support

Table 5 shows information on practical activities in partner support. The majority of partners 32 (39.0%) never accompanied their spouses to the clinic, 23 (28.0%) rarely accompanied them, 25 (30.5%), sometimes accompanied their spouses to the clinic and 2 (2.4%) always accompanied them. On providing money for transport to the clinic 1 (1.2%) never provided money, 5 (6.1%) rarely provided money for transport, 54 (65.9%) sometimes provided money and 22 (26.8%) always provided money for transport to the clinic. Twenty (24.4%) never reminded their spouses to take Zidovudine, 20 (24.4%) rarely reminded them, 38 (46.3%) sometimes reminded them and 4 (4.9%) always reminded their spouses to take Zidovudine. Partners who never reminded their spouses to collect Zidovudine supplies from the clinic were 30 (36.5%) while 21 (25.6%) rarely reminded their spouses with 23 (28.0%) having sometimes reminded their spouses and 8 (9.8%) having always reminded their spouses to collect Zidovudine supplies. Fifty-six (68.3%), the majority, never prepared Zidovudine doses for their spouses to take when doses were due, 17 (20.7%) rarely prepared the doses, 7 (8.5%) sometimes prepared the Zidovudine doses and 2 (2.4%) always prepared the Zidovudine doses for their spouses to take. On engaging in discussion on Zidovudine adherence, 20 (24.4%) partners never engaged in a discussion, 51 (62.2%) partners rarely discussed Zidovudine adherence, while 10 (12.2%) partners sometimes engaged in Zidovudine adherence and 1(1.2%) partners always engaged their spouses in a discussion on

Zidovudine adherence. Fifty-seven (69.5%) partners never sourced new information on Zidovudine prophylaxis their spouses. Those partners who rarely sourced new information were 23 (28.0%) and 2 (2.4%) partners sometimes sourced new information on Zidovudine prophylaxis.

Table 5

Partner Support (1) (N=82)

Practical Activities

Variable	Frequency	Percentage
Accompanying To Clinic		
Never	32	39.0
Rarely	23	28.0
Sometimes	25	30.5
Always	2	2.4
Providing Money For Transport		
Never	1	1.2
Rarely	5	6.1
Sometimes	54	65.9
Always	22	26.8
Reminding To Take Zidovudine		
Never	20	24.4
Rarely	20	24.4
Sometimes	38	46.3
Always	4	4.9
Reminding To Collect Zidovudine		
Never	30	36.6
Rarely	21	25.6
Sometimes	23	28.0
Always	8	9.8
Preparing Zidovudine Doses		
Never	56	68.3
Rarely	17	20.7
Sometimes	7	8.5
Always	2	2.4
Engaging Discussion On Zidovudine Adherence		
Never	20	24.4
Rarely	51	62.2
Sometimes	10	12.2
Always	1	1.2
Sourcing New Zidovudine Information		
Never	57	69.5
Rarely	23	28.0
Sometimes	2	2.4
Always	0	0

Table 6 displays information on practical and emotional partner support. Partners who never discussed Zidovudine for PMTCT were 13 (15.9%) while 51 (62.2%) partners rarely discussed Zidovudine and 18 (22.0%) partners sometimes discussed Zidovudine for PMTCT with their spouses. Twenty-three (28.0%) partners never discussed current pregnancy outcome when their spouses are taking Zidovudine, 36 (43.9%) rarely discussed pregnancy outcome and 23 (28.0%) partners sometimes did discuss pregnancy outcome with their spouses. Partners who never used condoms for sexual encounter with their spouses were 29 (35.4%). Eleven (13.4%) partners rarely used condoms, 23 (28.0%) partners sometimes used condoms and 19 (23.2%) partners always used condoms for sexual encounter with their spouses. Seven (8.5%) partners never felt empathetic about their spouses taking Zidovudine, 39 (47.6%) partners rarely felt empathetic, 35 (42.7%) partners sometimes felt empathetic and 1 (1.2%) always felt empathetic about their spouses taking Zidovudine.

Partners who never showed concern about their spouses taking Zidovudine were 6 (7.3%), 29 (35.4%) rarely showed concern, 41 (50.0%) partners sometimes showed concern and 6 (7.3%) partners always showed concern about their spouses taking Zidovudine. Four (4.9%) partners never showed love and affection to their spouses despite them taking Zidovudine, 19 (23.2%) partners rarely showed love and affection, while 52 (63.4%) partners sometimes showed love and affection and 7

(8.5%) partners always showed love and affection to their spouses despite them taking Zidovudine.

Table 7 shows the total scores for partner support which is the independent variable in the study. Scoring for partner support was based on a four point likert scale ranging from zero to three (0-3). The minimum score for partner support was 0 and the maximum score was 39. Therefore the lower the score, the lower the levels of partner support. Respondents with total partner support scores ranging from 0 scores to 20 scores were rated as having low levels of partner support and those with scores ranging from 21 scores to 23 scores were rated as having moderate levels of partner support and those with scores above 23 were rated as having high levels of partner support. The mean score was 15.34 scores, the median was 16.50 scores, the mode was 17 scores. Sixty-nine (84.15%) of the respondents reflected low levels of partner support and 13 (15.85%) of the respondents reflected moderate levels of partner support. No respondents reflected high levels of partner support

Table 6

Partner Support (2) (N=82)

Practical Activities And Emotional Support

Variable	Frequency	Percentage
Discussing Zidovudine For PMTCT		
Never	13	15.9
Rarely	51	62.2
Sometimes	18	22.0
Always	0	0
Discussing Current Pregnancy Outcome When Taking Zidovudine		
Never	23	28.0
Rarely	36	43.9
Sometimes	23	28.0
Always	0	0
Condom use		
Never	29	35.4
Rarely	11	13.4
Sometimes	23	28.0
Always	19	23.2
Emotional Support Feeling empathetic about taking Zidovudine		
Never	7	8.5
Rarely	39	47.6
Sometimes	35	42.7
Always	1	1.2
Showing concern about taking Zidovudine		
Never	6	7.3
Rarely	29	35.4
Sometimes	41	50.0
Always	6	7.3
Showing love and affection		
Never	4	4.9
Rarely	19	23.2
Sometimes	52	63.4
Always	7	8.5

Table 7

Partner Support (3) (N=82)

VARIABLE	FREQUENCY	PERCENTAGE
Total score out of 23		
3	3	3.7
4	2	2.4
5	2	2.4
6	1	1.2
7	1	1.2
8	1	1.2
9	2	2.4
10	5	6.1
12	4	4.9
13	2	2.4
14	6	7.3
15	6	7.3
16	6	7.3
17	9	11.0
18	5	6.1
19	7	8.5
20	7	8.5
21	6	7.3
22	5	6.1
23	2	2.4

Relationship between partner support and adherence to Zidovudine prophylaxis

Table 8 shows the results of Pearson correlation analysis which was computed to establish if there was a mutual or complimentary relationship between partner support and adherence to Zidovudine prophylaxis by HIV-positive pregnant women attending PMTCT clinic. The table shows a significant positive correlation (r= .677) of partner support and adherence to Zidovudine prophylaxis. This correlation coefficient shows that the two variables increased together, meaning, as partner support increased, adherence to Zidovudine prophylaxis by HIV-positive pregnant women also increased. The strength of the relationship is strong since, according to Burns and Grove (1997) an "r" of above 0.5 is a strong linear relationship. The significant level is 0.01. In summary, Pearson correlation coefficient showed a strong significant correlation of partner support and adherence to Zidovudine ($r=0.677$; $p<0.01$).

Table 9 shows the regression analysis of the relationship between partner support and adherence to Zidovudine prophylaxis by HIV –positive pregnant women attending PMTCT clinic. According to the results R^2 is .459. Expressed as a percentage R^2 is 45.9%. This result implies that the effect of partner support on adherence to Zidovudine accounts for about 45.9% of the changes in adherence to Zidovudine. Therefore 45.9 % of the changes in adherence to Zidovudine are as a result of partner support. The significant F-test ($F=8.232$ $p<0.001$) indicates a linear relationship and that R^2 is significant. The F –test also explains that the regression

model is adequate in explaining the dependent variable. The T-test for the unstandardized regression coefficient is significant (b=0.424; p<0.001) and represents a 0.424 change in the dependent variable (adherence to Zidovudine prophylaxis) and for every unit change in the independent variable (partner support) at the 0.01 significant level. The significant standardized coefficient (B=.677 p=<.001) indicates the relative importance of partner support on adherence to Zidovudine prophylaxis. The bigger the value the more important the independent variable (partner support) in terms of its contribution to dependent variable (adherence to Zidovudine). Therefore partner support is very important in contributing to adherence to Zidovudine prophylaxis.

Table 8

Pearson Correlation Matrix (N=82)

		Y
		1.000
X		.677
*p<.05	**p < .01	***p < .001

Y = Adherence To Zidovudine Prophylaxis

X = Partner Support

Table 9

Regression analysis (N=82)

Variable	B	SEB	BETA
X	0.424	.051	.677**
Constant	9.280		
R^2 .459		F= 8.232	

*p < .05 **p <.01 ***p < .001

(N = 82)

X = Partner support

CHAPTER FIVE

Discussion, Implementation and recommendation

Introduction

This chapter discusses the findings, implications of the study findings to nursing practice, education and research. Limitations of the study and the conceptual framework that guided the study will also be presented.

Summary

The purpose of the study was to determine the relationship between partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic. A descriptive correlation study design was used and a sample of 82. HIV-positive pregnant women on Zidovudine prophylaxis were recruited. Data was collected using a structured face to face interview. The instrument for data collection had three sections comprising demographic information, adherence to Zidovudine prophylaxis questionnaire and partner support questionnaire. Partner support was the independent variable and the dependent variable was adherence to Zidovudine prophylaxis among HIV-positive pregnant women. Pender's Health Promotion model guided the study.

In the study adherence to Zidovudine prophylaxis scores for the sample (n=82) ranged from 0 to 19 out of a maximum of 20. The actual mean score was 15.78 and this was above the calculated mean adherence of 10. Generally adherence to Zidovudine prophylaxis was below average as 16 (19.5%) of the respondents achieved 19 scores out of 20 which translate to adherence to Zidovudine prophylaxis

(>95%) and 66 (80.5%) of the respondents had scores between 0-18 translating to non-adherence (<95%)

The study findings revealed that 69(84.15%) demonstrated low levels of partner support and 13 (15.85%) of the respondents reflected moderate levels of partner support. Inferential statistics of the Pearson Correlation and regression analysis computed identified a significant positive correlation (r=677, P<.01) of partner support and adherence to Zidovudine prophylaxis. The regression analysis showed a significant positive effect (b=.424 p<.001) that partner support explains 42% of the variance in adherence to Zidovudine prophylaxis

Discussions Of The Findings

Sample Demographics

A sample consisted of 82 subjects of HIV-positive pregnant women on Zidovudine prophylaxis attending a PMTCT clinic. All women recruited in the study were aged between 19 and 39 years. The mean age was 29.3 years. Most of the pregnant women (52.4%) were aged between 21 to 29 years. This is the most sexually active and reproductive age group who are at risk of HIV (WHO 2006). According to the Zimbabwe government MOHCW National AIDS and TB unit (2004) the 19 to 25 year age group is the worst affected by HIV and AIDS. The majority 67 (81.7%) of the respondents had attained secondary education and only 3(3.7%) had gone up to tertiary level. According to UNAIDS (2005) report, education plays an important role in predicting how well an individual is able to incorporate current lifestyle messages into their sexual behavior. The study assumed that pregnant women who had attained

higher levels of education would be more knowledgeable and have positive attitudes towards PMTCT programmes when compared to those with lower educational attainment. Igwegbe (2010) found out that low educational level of the respondents were associated with increased likelihood of non-adherence to therapy while high educational levels were associated with increased adherence to therapy. Generally educational attainment in Zimbabwe is high with a literacy rate of well over 80% (Zimbabwe Government, 2006).

Seventy-three (89%) of the respondents were married. This shows that there is a high HIV prevalence of HIV among the married than those who are not married. Worku (2007) found out that 95.8% pregnant women taking ART prophylaxis were married. Muchedzi, Chandisarewa, Keatinge, Woelk, Mbizo & Shelty (2010) had results which reflected that 78% of the participants on ART were married. This was in a study to determine factors associated with access to HIV care and treatment in PMTCT Programmes in urban Zimbabwe.

Of the 82 participants, the majority, 66 (80.5%) were unemployed and those self-employed and employed were 8 (9.8%) each. The results of the study support demographic research findings that the majority of Zimbabwean women are not gainfully employed and depend on the benevolence of their husbands or male partners (Sibanda, 2008). Following a study by Akarro, Dionisia & Sictionia (2011), the findings revealed that the majority 64 (71%) of women in the study were not employed and relied on their partners\husbands for financial support. Most women, (58%) attending PMTCT clinics are not formally employed and the main source of

household income is the male partner (Muchedzi et al 2010). This economic dependence makes women more vulnerable to HIV-infection since this weakens their bargaining power on sexual matters.

Thirty (36.6%) of the respondents had two children and 25 (30.5%) had 3 children and a mean number of children of 2.40. This tallies with Sibanda (2008) results of a mean number of children of 2.45 and the majority of women having 2 to 4 children in a study on utilization of PMTCT programmes in Bulawayo City Health departments in Zimbabwe. In Zimbabwe it is culturally accepted that because male partners pay lobola for their women, it is therefore important and the duty of a woman to produce children (Sibanda, 2008).

The majority of respondents' partners, 74 (90.2%) had attained secondary education but only 18 (22%) were formally employed with 35 (42.7%) not formally employed and those making a living through self-employment or business were 40 (48.8%). The breadwinning role of men is a deterrent to their availability at health facilities, demanding therefore that they will do so at the expense of the day's income (Dutki, 2010). This was a finding following a study on male involvement in PMTCT program in Kayunga District in Uganda.

Forty,(48.8%) of the respondents did not know the HIV status of their partners.Twenty-nine (34.5%) of the partners were said to be HIV positive and 13(15.9%) were said to be HIV negative .Men's non disclosure of their HIV status can leave the women open to infection or re-infection which can complicate the women's treatment regimen(Skovdal, Campbell, Nyamukapa &Gregson,2011).This

followed a study in Zimbabwe where men were found to be hesitant to take an HIV test or disclose their status. In an evaluation of male involvement on the programme for PMTCT of HIV /AIDS, Akarro, Deonisia & Sichon (2011) found almost similar results when 54.4% males had not been tested for HIV and that men did not see the need to disclose their HIV status to partners. Sibanda (2008) concurs that most women do not know their partners HIV status as men are hesitant to take an HIV test and if they do so, they do not reveal their status to their wives.

Adherence to Zidovudine Prophylaxis

HIV –positive pregnant women attending PMCT clinic were interviewed to elicit information on adherence to Zidovudine prophylaxis. In Zimbabwe, it is recommended that pregnant women commence on Zidovudine for prophylaxis reasons at 14 weeks gestation and to achieve low MTC transmission rates of 1-2% at least 95% adherence is recommended (Volminic, 2007).

Responding to the question of remembering to take all Zidovudine doses, 40(48.8%) respondents agreed to take all their Zidovudine doses. Missing a dose translates to 72.5% adherence, an average, (Stone 2000).It is essential to achieve more than 95% of adherence to ART in the treatment of patients with HIV infection in order to suppress viral replication, avoid emergence of resistance and reduce vertical transmission of HIV to the unborn baby (Kozal 2009).A study in South Africa, KwaZulu Natal, an ART adherence by pregnant women results showed sub-optimal adherence of 73%(Peltzer, Siwane & Majaja 2011).In this study, 47(57.3%),

the majority of respondents agreed with the statements that they were careful about taking Zidovudine and 3(3.7%) strongly disagreed with the statement.

The hallmark of Zidovudine prophylaxis is to take the Zidovudine on time to the dot, 12-hourly.This is in order to keep adequate concentrations of antiretroviral medication. Poor compliance to ART leads to the exposure of the virus to inadequate concentrations of ARV medication and in turn leads to on-going viral replication development of resistance and increased vertical transmission (Kozal 2009).Fort-five (54.9%) respondents in the study agreed with the statements that they took Zidovudine on time, 14(17.1) strongly agreed to have taken Zidovudine on time and 2(2.4%) strongly disagreed with the statement.

It is recommended that Zidovudine be taken with plenty of water at least a large glass full of water. Adherence to medication also known as compliance with medication is the extent to which a patient/client follows medical instructions and the patients an active contributor in the process (Chirag, 2007).The respondents who strongly agreed to have taken Zidovudine with plenty of water were 39(47.6%).Most of the respondents 77(93.9%) took the recommended dose of Zidovudine .This is in contrast with the findings of a study in Kenya where only 23.6% respondents took the full dose (Kishoyian 2009).

Partner Support

Hegemonic notions of masculinity can interfere with women's adherence to ART. It is important that those concerned with promoting effective treatment services recognize the gender and household dynamics that may prevent some women from

successfully adhering to ART ,and explore ways to work with both women and men to identify couples based strategies to increase adherence couples-based strategies to increase adherence to ART(Skovdal, Campbell, Nyamukapa &Gregson,2011).Study respondents on partner support was sought using partner support questionnaire which addressed the practical action and emotional support offered to HIV positive pregnant women on Zidovudine prophylaxis.

On responding to partner accompanying their pregnant women to PMCT clinic 32(39. %) partners, the majority, never accompanied their spouses to PMTCT clinic. Similar results were found by Boniface (2009) where 74.6% of the majority mates were not willing to accompany their partners to ANC Clinics as 15% of partners felt it was a woman responsibility.

Fifty four (65.9%) of the partners sometimes provide money for transport to clinic to their spouses. This is in agreement with the findings done in Uganda in 2010 by Dukti where most many were found to allude to the fact that support pregnant women needed was financial support especially money for food and transport to health facilities for ANC and delivery.

Partners who never reminded their spouses to take Zidovudine were 20(24.4%) and those who sometime did so were 38 (46.3%). These findings were similar to those found in Kenya where 15.5%, male partners perceived ANC services as women's affairs and that women are responsible for care of the pregnancy and delivery of the baby (Igweybe, Ugboaja & Nwajiaku, 2010).

The majority of partners 30(36.6%) never reminded their partners to collect Zidovudine supplies from the clinic. This situation is contradicted by findings by Dutki (2010) where 50% respondents indicated that a partner reminded them to take their ART medication , although it was said to be very occasional.

56(68.3%) the majority of respondents revealed that their partners never prepared Zidovudine for them to take when it was due. One reason for non adherence to ART by pregnanant women in Nigeria was that 63.8% felt health and hence no need to take drugs and therefore partners did not see reasons for sticking to medication (Igwegbe, Ugboaja & Nwajiaku,2010).

51 (62.2) never engaged in discussion on Zidovudine adherence. Again to go with non-discussion, 57(69,5%) never sourced new information on Zidovudine prophylaxis. In Kenya, 99% of men were found to be aware of HIV /AIDS and 30% of these men, knew of PMTCT strategies but lack of communication was common among couples (Kishoyian 2009).

On discussions Zidovudine for PMTCT 51(62,2%) of the partners rarely engaged in discussion. Correlating with these results were the results following a study by Worku (2007) where 54% of partners never discussed mother to Child transmission while on ARVs and 226(50.0%) of the partners never discussed possible outcomes of the current pregnancy .In this study 36 (43.9%) rarely discussed pregnancy outcome with fear pregnant spouses and 23(28.0%) never discussed pregnancy outcome.

Unaids (2005) reported that the sexual behavior and attitudes of men influence how quickly the epidemic spreads because it is usually the men who determine when and how often to have sex and whether to use a condom or not. In the current study on condom use, 29(35.4%) respondents alluded to the fact that their partners were not prepared to use condoms while 19(23.2%) always used condoms for every sexual encounter. The results support the assertion by Sibanda (2008) that women feel that men generally control a couple's sexual encounter both in terms of if or when they have sex and whether they use condoms. It is also important to note that whether as a means of contraception or as protection from sexually transmitted infections, condoms are strongly associated with extramarital sex.

People living with HIV and AIDS need love and care from their partners (Dutk2010). In the present study 39 (47.6%) of the partners rarely showed empathy while 35(42.7%) did so. Fifty-two (63.4%) of the respondents pointed out their partners showed love and affection despite the spouses being on Zidovudine. The findings in this current study were similar to the study done in Uganda by Nakiyemba (2006) where generally 45% of the spouses accessed emotional support from partners. Forty-one (50%), the majority of partners were said to show concern about their spouses taking Zidovudine. These findings were different from the findings from a study in Botswana where spouses (men) blamed their partners (women) for the HIV infection and this usually led to violence and abuse towards their partners and spouses violence affected adherence to ART negatively as these women hid their medication and took it when it was convenient to do so (Nakiyemba et al, 2006).

Relationship Between Partner Support and Adherence to Zidovudine Prophylaxis

The research findings showed a positive significant correlation (r =.677; p< .01) between partner support and adherence to Zidovudine prophylaxis. This correlation coefficient shows that the two variables increased together, that is as partner support increased adherence to Zidovudine prophylaxis by HIV-positive pregnant women also increased. The significant regression coefficient indicates a change in adherence to Zidovudine prophylaxis for every change in partner support. The results showed an R^2 of .459 which when expressed as percentage R^2 is 45.9 %. This implies that the effect of partner support on adherence to Zidovudine prophylaxis accounts for about 45.9% of the changes in adherence to Zidovudine prophylaxis, implying that 45.9% of the changes in adherence to Zidovudine prophylaxis are as a result of partner support. A positive effect (b=0.424; p<0.001) represent a 0.424 change in the dependent variable (adherence to Zidovudine) and for every unity change in the independent variable (partner support) at the 0.01 significant level. The significant standardized coefficient (B=.677; p<.001) indicates the relative importance of partner support on adherence to Zidovudine prophylaxis and translate to the fact that partner support is very important in contributing to adherence to Zidovudine prophylaxis.

Boniphace (2009) came up with a view that the amount of partner support perceived by an HIV-positive pregnant woman has a bearing on the uptake and adherence to antiretroviral prophylaxis. In a review which was done in South Africa

identified benefits of male involvement, as having effective behavior change and increased use of PMTCT services (Kishoyian, 2009). Male involvement reduces domestic violence especially when a woman is HIV-positive and helps women to access PMTCT services and deal with stigma (WHO, 2007). Earlier on, in report WHO (2004) had pointed out that men have a role in reproductive health and in promotion of safe motherhood despite the fact that they are seen as being passive and obstacles to reproductive health.

In Tanzania for example, men's lack of participation in voluntary counseling and testing programmes was found to reduce the chances of their HIV –positive wives using Zidovudine prophylaxis for PMTCT (Boniphace, 2009). In agreement with these findings in South Africa most women in a study on exploring ART adherence, revealed that they were scared to disclose their HIV-positive status to their partners for fear of divorce and so would only take their medication (antiretroviral prophylaxis) while their husbands were at work but this has a negative effect on adherence to antiretroviral drugs (Goudge & Ngoma,2011).

All these studies demonstrate a relationship between the two variables, partner support and adherence to Zidovudine prophylaxis. In this study, 66(80.4%) had poor adherence to Zidovudine prophylaxis and 16(19.5%) adhered to Zidovudine prophylaxis. Similarly, to correspond with poor adherence to Zidovudine prophylaxis, the majority,69(84.15%) of the respondents reflected low levels of partner support and 13(15.85%) of the respondents reflected moderate levels of partner support. No respondents reflected high levels of partner support and this could be a reflection of

the fact that antenatal care services are culturally seen as a woman's responsibility and domain.

Theoretical Framework

The study was guided by Pender's Health Promotion Model. The Health Promotion Model outlines two categories of determinants of a behavioral outcome called health promotion and these categories are conceptualized within the model to be individual characteristics and experiences, and behavior specific cognitions and affect (Pender, 1996). The model was effective in explaining the relationship between the study variables as postulated in Pender's depiction of the environment which can be external or internal aspects of an individual and have an influence on the person as the environment and the person interacts. The personal factors chosen for the study were the biological and the social factors which were captured in the demographic data. Also used to explain the relationship of the variables were the interpersonal influences (partner support in this study) in the behavior specific cognitions and affect category of determinants of health promotion of the model. In the study, the majority, 66(80.5%) of the respondents were unemployed. This social factor increased the dependence of the pregnant woman on practical and emotional partner support for adherence to Zidovudine prophylaxis.

Persons who perceive benefits are able to deal with barriers and are likely to engage in health promoting behaviors (Pender, 1996). In the study perceived partner support enabled HIV-positive pregnant woman to adhere to Zidovudine prophylaxis

accordingly as the results reflected that 69(84.1%) reflected low levels of partner support which corresponded with 66 (80.4%) participants who had poor adherence to Zidovudine prophylaxis. This implies that the perceived level of partner support by HIV-positive pregnant women determine the level of adherence to Zidovudine prophylaxis.

In the HPM, behavior specific cognitions and affect are considered to be of major significance which congruent to partner support in the present study which was considered to be the component which is most likely to be associated with adherence to Zidovudine prophylaxis and this has fitted well with the findings of the study which revealed that as partner support increased, adherence to Zidovudine prophylaxis also increased. This is evidenced by the strong positive relationship that was shown between partner support and adherence to Zidovudine prophylaxis ($r = .677$; $p < .459$) and partner support explained 45.9% of the variance in adherence to Zidovudine prophylaxis.

Implications to Maternal Child Health and Nursing Practice

The findings in this study indicated that levels of partner support were generally low and adherence to Zidovudine prophylaxis was also generally sub-optimal (<95%). It appeared that poor adherence to Zidovudine prophylaxis by HIV-positive pregnant women was partially due to low partner support. If this is not addressed, women who do not adhere to Zidovudine mighty develop resistance to it

and also the objective of lowering Mother to Child Transmission of HIV to the unborn baby will not be achieved.

Implications to Nursing Research

There should be a link between nursing research and nursing practice as nursing practice should be influenced by research findings. The purpose of the study was to determine relationship between partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending a PMTCT clinic. A significant strong positive correlation was found between partner support and adherence to Zidovudine prophylaxis. Partner support only explained 45.9% of the variance in adherence to Zidovudine. There should be more contributing factors leading to varying adherence levels among HIV –positive pregnant women. Important implications to nursing research are inevitable as further research is called for to determine other contributing factors to adherence to Zidovudine prophylaxis among HIV-positive pregnant women.

Implications to Nursing Education

According to the research findings, there are gaps in adherence to Zidovudine prophylaxis and partner support has been found to be generally low. This study has implications to nursing education in terms of equipping nurses with adequate knowledge on areas pertaining to partner support and adherence to Zidovudine prophylaxis. Nurses need to be given adequate evidence based knowledge and

counseling skills through their training syllabus to enable them to appropriately address HIV-positive pregnant women issues in PMTCT programmes.

Recommendations

1. Midwives should strive to establish a partnership with HIV-positive pregnant women on Zidovudine prophylaxis in order to be able to assess individualized adherence to Zidovudine from a pregnant woman's point of view.
2. Male involvement is important for successful implementation and promotion of effective PMTCT programmes. Men as main decision makers in most families need to be educated on expected practices and their importance in reducing mother to child transmission of HIV.
3. PMTCT clinics should be user- friendly for both men and women and service providers should ensure that all efforts are made to involve men from the beginning in every PMTCT intervention.
4. PMTCT programmes should advocate for the greater involvement of men. There is need to educate men through mass media campaigns, individual and group counseling. It is important to reach them at the community level as they are poor users of public health facilities.
5. Adherence counseling for both men and women to encourage positive perception of Zidovudine prophylaxis effectiveness appears to be a crucial component in PMTCT programmes in order to ensure continued adherence.

6. In-service training for midwives working at PMTCT clinic should be done regularly to equip them with adherence counseling skills in order to ensure pregnant women's understanding of the importance of adherence to Zidovudine.
7. The present study can be taken as a pilot study for a bigger study on a bigger sample at bigger PMTCT centers in the country to allow for generalizability of the results to the general population of HIV–positive pregnant women on Zidovudine prophylaxis.

Limitations

The limitations of the study were;

1. The study was conducted on 82 HIV-positive pregnant attending PMTCT clinic at Shurugwi District Hospital. The results are not a true reflection of partner support and adherence to Zidovudine prophylaxis country wide hence study findings cannot be generalized to other populations other than the Shurugwi population.
2. A structured interview schedule was used to obtain data and the investigator relied on self-reports from clients which could be a source of bias.
3. The research was carried out on a hospital setting, the results could have been different if a familiar environment like the home had been used.
4. The instrument was developed by the investigator and used for the first time in the study. However validity was tested by midwives and the instrument was

pre-tested and the Cronbach alpha for reliability was 0.739. Further testing and refinement may be required

5. There was selection bias through use of a hospital based sample. Respondents comprised those who came to PMTCT clinic during the study period. Differences could exist in partner support as well as adherence pattens between those who came to the clinic and those who did not come to PMTCT clinic during the study period.
6. Respondents were asked to recall information on past adherence to Zidovudine and partner support. There was a possibility of recall bias. The investigator attempted to minimize recall bias through limiting the duration of recall to two weeks.

Summary

The goal of ART in PMTCT is to achieve maximal viral suppression so as to reduce vertical transmission and provide prophylaxis for the baby. In addition, ART reduces immune suppression, slows disease progression and improves patients' quality of life (Mannheimer, 2006). Poor adherence to Zidovudine prophylaxis is seen in most of the HIV-positive pregnant women and yet this is key to low transmission of MTCT of HIV to their unborn babies (Kozal, 2009). Although tremendous strides in scaling up PMTCT have been made in Shurugwi District low adherence rate to

Zidovudine prophylaxis by HIV-positive pregnant women continue to exist in the district.

The purpose of the study was to describe and examine the relationship between partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women attending PMTCT clinic at Shurugwi Hospital. Pender's Health Promotion Model was used to guide the study and the study utilized a descriptive correlation design. A simple random sample of 82 HIV-positive pregnant women aged 18 to 40 years was selected.

An instrument comprising a demographic questionnaire, adherence to Zidovudine prophylaxis questionnaire and partner support questionnaire was administered using face to face interview. Data was analyzed using descriptive and inferential statistics.

The findings of the study showed that the majority of the respondents were aged between 21 and 29 years, were not working and most of them were married. The level of adherence to Zidovudine prophylaxis was sub-optimal for 66 (80.4%) of the participants. Partner support was found to be low for the majority 69 (84.15%) of the respondents.

Pearson's correlation analysis showed a strong positive correlation ($r = .677$; $p < .01$) of partner support and adherence to Zidovudine prophylaxis among HIV-positive pregnant women. The results imply that as partner support increased, adherence to Zidovudine prophylaxis also increased. The strong relationship between the study variables was further supported by a linear regression analysis which

showed that partner support can only explain 45.9% of the variance on adherence to Zidovudine prophylaxis.

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APPENDIX A

INFORMED CONSENT FORM

A STUDY TO DETERMINE RELATIONSHIP BETWEEN PARTNER SUPPORT AND ADHERENCE TO ZIDOVUDINE AMONG HIV-POSITIVE PREGNANT WOMEN ATTENDING PMTCT CLINIC AT SHURUGWI HOSPITAL

My name is Mrs. Eggie Gombingo, a student at the university of Zimbabwe, in the department of Nursing Science, Phone number 0712 760 775.

I give you this consent form so that you may read about the purpose ,risks and benefits of this study.

Routine care is based upon the best known treatment and is provided with the main goal of helping the individual patient. The main aim /goal of research studies is to gain knowledge that may help future patients. I cannot promise that this research will benefit you. Just like regular care, this research can have side effects that can be serious or minor.

You have the right to refuse to take part, or agree to take part now and change your mind later. Whatever you decide, it will not affect your regular care. Please review this consent form carefully, ask questions before you make a decision. Your participation is voluntary.

Purpose

You are being asked to participate in a research of determining relationships between partner support and adherence to Zidovudine among HIV Positive pregnant women attending PMTCT clinic at Shurugwi Hospital .The purpose of the study is to

generate information that will improve care of HIV positive pregnant women who are on Zidovudine. You were selected as a possible participant in this study because you are HIV Positive, pregnant, on Zidovudine and attending PMTCT clinic at Shurugwi Hospital. 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.

Benefits and / or Discomforts

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.

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 Shurugwi District Hospital. You should understand that the costs of such treatment will be the hospital 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 Shurugwi 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 subject 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 Medical Research Council Of Zimbabwe or telephone number

(04) 791792 or (04) 791193.

APPENDIX B

SHONA INFORMED CONSENT FORM

(GWARO REMVUMO)

TSVAGURUDZO YEKUTSVAGA KUTI PANE UKAMA HERE PAKATI PETSIGIRO YEMURUME KANA SHAMWARIRUME YEMUDZIMAI ANE HUTACHIONA HWEHIV AINE PAMUVIRI NEMANWIRO AANOITA ZIDOVUDINE ARI MUCHIRONGWA CHEPMTCT PACHIPATARA CHESHURUGWI.

Ini ndinonzi mai Eggie Gombingo. Ndiri mudzidzi pachikoro cheUniversity yeZimbabwe ndichiita Masters muNursing Science. Nhamba dzangu dzerunhare dzinoti 0712760775.

Ndiri kukupai gwaro remvumo iri kuti muri verenge ,munzwe chinangwa, ngozi dziripi, uye zvakanaka zvinogona kubuda mutsvagiridzo iyi.

Kurapwa kwavarwere kwemazuva ose kunobva muruzivo rwemarapirwo uye kunoitwa kuine chinangwa chokubatsira murwere padambudziko rake.Chinangwa chikuru chetsvagurudzo ndechekutsvaga ruzivo runozobatsira varwere mune ramangwana Handikuvimbisei kuti zvinobva mutsvagiridzo iyi zvinozobatsira imi parizvino. Tvagurudzo iyi,sekurapa kwezuva nezuva, ingangova nehuipi hushoma mairi.

Imi mune kodzero yekupinda kana kuramba kupinda mutsvagurudzo iyi,uye munogona kubvuma kupinda mutsvagiridzo asi mozofunga kubuda mutsvagurudzo munguva pfupi inotevera.Danho ramunenge matora hariite kuti mushaiswe mukana

wokurapwa kwenyu kwamazuva ose.Munokumbirwa kuti muongorore gwaro rebvumo iri zvakadzama, mubvudze mibvudzo musati matora danho ramungafunga kutora,Kupinda mutsvagurudzo iyi ndekwapachena, hakubharwi.

Chinangwa Chetsvakurudzo

Murikukumbirwa kuti mupinde mutswagurudzo yekutsvaga kuti pane ukama here patsigiro inopiwa nemurume kana shamwarirume yemudzimai ane hutachiona hweHIV aine pamuviri nemanwiro aanoita Zidovudine pasi pechironwa chePMTCT pachipatara cheSHURUGWI. Chinangwa chetsvagurudzo iyi ndechekubuda neruzivo runozobatsira pakurapwa kwanamai vane nhumbu, vaine hwutachiona hweHIV vanenge vachinwa Zidovudine, munharaunda yeShurugwi uye muZimbabwe yose.

Makasarudwa semudzimai angangopinda mutsvagurudzo iyi nekuti mune hutachiona hweHIV,muinepamuviri murikunwa Zidovudine uye murimuchirongwa chePMTCT chepachipatara cheShurugwi. 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 matatu(30) 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 yakananganа netsvagurudzo iyi yamucharasikirwa nayo.

Pakange Paitika Njodzi

Pakange paine chakaipa chaitika nokuda kokuti mapinda mutsvagurudzo iyi, rubatsiro munogona kuruwana pachipatara cheShurugwi pachena.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 veMedical Reseach Council yeZimbabwe panhamba dzerunhare dzinoti, (04) 791792 kana kuti, (04) 791193.

APPENDIX C

DEMOGRAPHIC DATA QUESTIONNAIRE

Serial Number ☐

Section A: Participant's Demographic Data

1. How old are you?
   a) 18-20 years ☐
   b) 21-29 years ☐
   c) 30-39 years ☐
   d) 40 years and above ☐
2. What is your level of education?
   a) None ☐
   b) Primary ☐
   c) Secondary ☐
   d) Tertiary ☐
3. What is your occupation?
   a) Student ☐
   b) Employed ☐
   c) Business/ self-employed ☐
   d) Unemployed ☐
4. What is your marital status?
   a) Married ☐
   b) Co-habiting (not married but stays with a partner) ☐
   c) Separated (currently not living together but not divorced) ☐
   d) *Divorced but I have a partner* ☐
   e) Single but I have a partner ☐
5. How many children do you have?
   a) None ☐
   b) 1 child ☐
   c) 2 children ☐
   d) 3 children ☐
   e) More than 3 children ☐

Section B: Partner's Demographic Data

6. What is your partner's level of education?
   a) None ☐
   b) Primary ☐
   c) Secondary ☐
   d) Tertiary ☐
7. What is your partner's occupation?
   a) Student ☐
   b) Employed ☐
   c) Self-employed ☐
   d) Unemployed ☐
8. What is your partner's HIV status?
   a) Positive ☐
   b) Negative ☐
   c) I do not know ☐

APPENDIX D

ADHERENCE TO ZIDOVUDINE QUESTIONNAIRE

To what extent do you agree with the following statements regarding taking Zidovudine for the prevention of transmission of HIV to your unborn baby?

Statement	Extent of Agreement With Statement				
	Strongly Disagree (0)	Disagree (1)	Undecided (2)	Agree (3)	Strongly Agree (4)
In the past 2 weeks;					
9. I remembered to take all my Zidovudine doses					
10. I was always careful about taking Zidovudine					
11. I always took Zidovudine on time					
12. I took Zidovudine with the recommended amount of water (large glass full of water)					
13. I took the recommended dose/number of tablets each time					

(Total / Maximum Zidovudine Adherence Score = 20)

APPENDIX E

PARTNER SUPPORT QUESTIONNAIRE

How often does your partner get involved in the following activities?

Activities	Extent of Involvement			
	Never (0)	Rarely (1)	Sometimes (2)	Always (3)
Practical Activities				
14. Accompanying you to the PMTCT clinic				
15. Providing you with money for transport to the PMTCT clinic				
16. Reminding you to take your Zidovudine doses				
17. Reminding you to collect more Zidovudine supplies from the clinic				
18. Preparing Zidovudine doses for you to take when doses are due				
19. Engaging you in discussions on Zidovudine adherence				
20. Sourcing new information on Zidovudine prophylaxis for you				
21. Discussing with you about Zidovudine for PMTCT				
22. Discussing with you about the outcomes of the current pregnancy as you take Zidovudine				
23. Using Condoms for every sexual encounter with you				
Emotional Support				
24. Feeling empathetic regarding Zidovudine therapy				
25. Showing concern about you taking Zidovudine				
26. Showing love and affection despite you taking Zidovudine				

(Total / Maximum Partner Participation score = 24)

CHINAMIRWA CHECHITANHATU

BVUNZURUDZO YENHOROWONDO YEMUBVUNZWI

NHANO YEBEPA ☐

Chikamu Chekutanga: Nhorowondo Yemubvunzwi

1. Mune makore mangani?
   a) Makuni masere kusvika pamakumi maviri ☐
   b) Makumi maviri neṛimwe kusvika pamakumi maviri nemapfumbamwe ☐
   c) Makumi matatu kusvika pa makumi matatu nemapfumbabwe ☐
   d) Makumi mana kana kudarika ☐
2. Makadzidza kusvika parugwaro rwupi?
   a) Handina kuenda kuchikoro ☐
   b) Puraimari ☐
   c) Sekondari ☐
   d) KumaKoreji ☐
3. Munoita basa rei?
   a) Ndiri mwana wechikoro ☐
   b) Handishandi ☐
   c) Ndinozvishandira ☐
   d) Ndakabairwa chitupa ☐
4. Makamira sei panyaya dzewanano?
   a) Ndakawanikwa ☐
   b) Handina kuwanikwa asi ndinongogara hangu neshamwari yechirume ☐
   c) Takaparadzana ☐
   d) Takarambana asi ndine imwe shamwari yechirume ☐
   e) Handina kuwanikwa asi ndine shamwari yechirume ☐
5. Mune vana vangani?
   a) Handina ☐
   b) Mumwechete ☐
   c) Vaviri ☐
   d) Vatatu ☐
   e) Vanopfuura vatatu ☐

Chikamu Chechipiri: Nhorowondo Yeshamwari Yemubvunzwi

6. Shamwari yenyu yakasvika murugwaro rupi kuchikoro?
    a) Haana kuenda kuchikoro ☐
    b) Puraimari ☐
    c) Sekondari ☐
    d) KuKoreji ☐
7. Shamwari yenyu inoita basa rei?
    a) Mwana wechikoro ☐
    b) Akabairwa chitupa ☐
    c) Anozvishandira ☐
    d) Haashandi ☐
8. Shamwari yenyu yakamira sei panyaya dze HIV?
    a) Ane hutachiwona hwe HIV ☐
    b) Haana hutachiwana hwe HIV ☐
    c) Handizivi ☐

CHINAMIRWA CHECHINOMWE

BVUNZURUDZO MAERERANO NEKUTEVEDZA ZVAKATARWA

MAERERANO NEKUTORA MUSHONGA WE ZUDOVUDINE KUDZIVIRIRA UTACHIWANA

Unobvumirana zvakadini nezvirevo zvinotevera maererano nekutora kwenyu mapiritsi eZidovudnie anodzivirira kutapukira kweutachiwana hweHIV kumwana wenyu ari mudumbu?

Chirevo	Udzamu Hwekubvumirana nechirevo				
	Handibvumira-ne zvachose (0)	Handibvu-mirane (1)	Ndiri pakati nepakati (2)	Ndino-bvumi rana-nazvo (3)	Ndinobmirana nazvo zvakanyanya (4)
Mumavhiki maviri apera;					
9.Ndakayeuka kutora mapiritsi angu eZidovudine panguva dzakatarwa					
10. Ndaingwarira kutora Zidovudine nguva Dzose					
11. Ndaitora mapiritsi eZidovudine nenguva dzakatarwa chaidzo chaidzo					
12. Ndaitora Zidovudine nemvura yakatarwa (girazi guru rizere mvura)					
13. Ndaitora mapiritsi akatarwa chaiwo chaiwo nguva nenguva					

(Zvibodzwa Zvasanganiswa = makumi maviri)

CHINAMIRWA CHECHISERE

BVUNZURUDZO IRI MAERERANO NERUTSIGIRO KUBVA KUSHAMWARI

Shamwari yenyu inoita zviito zvinotevera nenguva dzakadini?

Zviito	Nguva dzekuita chiito			
	Nyangwe (0)	Nenguva dziri kure (1)	Dzimwe nguva (2)	Nguva dzose (3)
Zviito Zvinobatika				
14. Kukuperekedzai pakuenda kukiriniki yePMTCT				
15. Kukupai mari yekufambisa kuenda kukiriniki ye PMTCT				
16. Kukuyeuchidzai kutora mapiritsi enyu eZidovudine				
17. Kukuyeuchidzai kunotora mapiritsi eZidovudine kana ave kupera				
18. Kukugadzirirai nekukutambidzai mapiritsi eZidovudine kuti munwe nenguva				
19. Kuita hurukuro nemi maererano nekutora Zidovudine zvakatarwa				
20. Kutsvaka ruzivo nezvemashandiro eZidovudine pakudzivirira mwana				
21. Kukurukura nemi nezve Zidovudine pakudzivirira mwana ku HIV				
22. Kukurukura nemi nemhedzisiro yemwana ari mudumbu apo muri kutora Zidovudine				
23. Kushandisa makondomu nguva dzose dzamunsangana pabonde				
Zviito Zvinodzora Pfungwa				
24. Kukunzwirai apo munenge muchitora Zidovudine				
25. Kuratidza hanya maererano nekutora kwenyu Zidovudine				
26. Kukuratidzai rudo nyangwe zvenyu muri pa Zidovudine				

(Zvibodzwa zvasanganiswa = 24)

APPENDIX I

COPY OF APPLICATION LETTER TO STUDY SITE

APPENDIX J

COPY OF CLEARANCE LETTER FROM STUDY SITE