THE STUDY TO DETERMINE THE RELATIONSHIP BETWEEN PERCEPTIONS OF PMTCT AND PMTCT UPTAKE AMONG ANTENATAL WOMEN AGED 18 – 40 YEARS ATTENDING HIGHFIELD POLYCLINIC.

BY

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ABSTRACT

The Zimbabwe MOHCH Annual Report (2007) highlighted that despite achievements in PMTCT, the national uptake remained fluctuating and low due to social-cultural and economic challenges, lower social status of women, increasing levels of poverty leading to sex work, ignorance and stigmatization. The same Annual Report highlighted that the national PMTCT uptake for Zimbabwe was 71% whilst that of Highfield Clinic was 65%. This is an area of grave concern for the nursing midwifery practice. The purpose of this study is to examine the perceptions of PMTCT and PMTCT uptake among antenatal women aged 18 to 40 years. The study was guided by King's Goal Attainment Theory (1981). A descriptive correlational study was used to examine the relationship between dependent and independent variables. Probability, simple, random sampling of 86 subjects were recruited for quantitative data. Data was collected through face to face interview using a structured questionnaire developed by the investigator. The research instruments comprised of demographic, PMTCT uptake and perceptions of PMTCT programme sections. Data analysis was done using descriptive and inferential statistics of Pearson Correlation coefficient for quantitative data. The findings reflected high PMTCT uptake for 75 (87.2%) respondents. The respondents' perceptions of PMTCT were high,54 (62.8%). Pearson correlation analysis showed a statistical positive significant weak correlation (r = .242* p < 0.05) of perceptions of PMTCT and PMTCT uptake among antenatal women indicating that when perceptions of PMTCT increase, PMTCT uptake increases. The regression coefficient was .059 showing that the importance of the perceptions of PMTCT is 5.9% in terms of contribution to the PMTCT uptake. This shows that perception of PMTCT had some effect to a little extent, on positively affecting PMTCT uptake. Further research needs to be done to find out the variance of the effect of perceptions of PMTCT on PMTCT uptake

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Table of Contents

Page

TITLE PAGEi
ABSTRACTii
ACKNOWLEGEMENTSiii
TABLE OF CONTENTiv
LIST OF FIGURERS
LIST OF TABLES
LIST OF APPENDICES

CHAPTER 1: BACKGROUND AND ORGANISING FRAMEWORK

Introduction
Background Information
Statement of the Problem
Purpose of the Study7
Theoretical Framework
Conceptual Definition of Terms
Research Objectives
Research Questions
Significance of the Study15
Summary

CHAPTER 2 LITERATURE REVIEW

Introduction	17
PMTCT uptake among antenatal women	17
Perceptions of PMTCT	
Relationship between perceptions of PMTCT and PMTCT uptake	
Theoretical Framework	
Summary	31

CHAPTER 3 METHODS

Study Design	32
Study Population	33
Sampling Plan	33
Inclusion Criteria	33
Exclusion Criteria	34
Sample Size	34
Sampling Procedure	36
Variables3	37
Conceptual and Operational Definitions	38
PMTCT Uptake	38
Perceptions of PMTCT	38

Demographic Variables	
Instruments	
Demographic Questionnaire	39
PMTCT Uptake Questionnaire	
Perceptions of PMTCT Questionnaire	
Relationships between Perceptions of PMTCT and PMTCT Uptake	
Validity and Reliability	41
Pilot Study	41
Data Collection Plan	
Human Rights/Ethical Considerations	
Data Collection Procedure	43
Data Analysis	44
Summary	44

CHAPTER 4 RESULTS

Summary	
Sample Demographics	46
PMTCT Uptake	47
Perceptions of PMTCT	53
Relationship between perceptions of PMTCT and PMTCT Uptake	

Summary	
Discussion and Implications	5
Sample Demographics	65
PMTCT Uptake	
Perceptions of PMTCT	. 69
Relationship between Perception of PMTCT and PMTCT Uptake 72	
Theoretical Framework	73
Implications to Maternal and Child Health and Midwifery 	
Limitations of the Study	. 75
Recommendations	76
Summary	
Kelerences	

5 DISCUSSIONS INDUCATIONS AND DECOMMENDATIONS

LIST OF FIGURES

Figure 1: King's Goal Attainment Theory Adapted (1981)......12

LIST OF TABLES

Table 1	Sample Demographics I	50
Table 2	Sample Demographics II	51
Table 3	PMTCT Uptake I	. 52
Table 4	PMTCT Uptake II	. 54
Table 5	PMTCT Uptake III	. 55
Table 6	Perceptions of PMTCT programme I	56
Table 7	Perceptions of PMTCT programme II	. 59
Table 8	Perceptions of PMTCT programme III	61
Table 9	Pearson Correlation Matrix	. 62
Table 10	Regression Analysis	. 63

LIST OF APPENDICES

Appendix 1 Informed Consent (English)	86
Appendix 2 Questionnaire (English)	
Appendix 3 Informed Consent (Shona)	91
Appendix 4 Questionnaire (Shona)	
Appendix 5 Request for Clearance to Carry Out Research	
Appendix 6 A letter of Approval to Carry On Research	
Appendix 7 MRCZ Approval Letter	100

CHAPTER 1

BACKGROUND ANDORGANISING FRAMEWORK

Introduction

Zimbabwe is a Southern African country of approximately 12.5 million inhabitants whose capital city, Harare has a population of 1.5 million. Antenatal HIV prevalence in urban clinics has been estimated to be around 21.3 % (MOHCW, 2005).

The Prevention of mother-to-child transmission of HIV (PMTCT) programme is a public health measure intervention/ strategy that is designed to empower pregnant women and their partners with information/knowledge to reduce their chances of having an HIV infected baby. In Zimbabwe there has been a remarkable decline in prevalence among pregnant women from 32.1% in 2000 to 17.7% in 2006 (MOHCW, 2006). The decline mirrors similar trends within the general population with an overall adult HIV prevalence rate 15.6% (MOHCW National HIV and AIDS Estimates, 2007). However, this level of infection is unacceptably high and as such potential of HIV-exposed infants to become infected with HIV still exists (MOHCW, 2007). Mother-to-child transmission of HIV (MTCT) accounts for almost two thirds (67%) of the new infections in children yearly (UNAIDS, 2006). This resulted in PMTCT becoming the major element among the preferred strategies, as a national response to address and compact the HIV epidemic (MOHCW, 2007).

Background Information

Prevention of mother-to-child transmission of HIV (PMTCT) intervention programmes were first introduced in Zimbabwe from 1999 at four pilot sites, of which Highfield Polyclinic in Harare was one. Roll out of the pilot into a national programme started at the end of 2001 when the pilot project was completed and evaluated (MOHCW, 2002). Globally, PMTCT strategy took off in United Kingdom in 1986, Australia in 1989, South Africa in 1999 and Zimbabwe in 2002 (UNAIDS, 2005).

In Africa, especially in the Eastern and Southern African countries most severely affected by the HIV and AIDS epidemic, the transmission of HIV from mother to child (MTCT) during pregnancy, delivery and during the period of breast feeding is by far the most common route of HIV infection in children (Newell, 2002). The estimated risk of infection is 5-10% during pregnancy, 10-20 % during delivery and 10-20% during breastfeeding (De Cock et al, 2004). Mother to child transmission (MTCT) of HIV is the primary mode of HIV infection in babies (UNAIDS, 2001). Studies reveal that nearly 50 million people are living with HIV globally,26 million in Sub-Sahara, 1.6million in Zimbabwe and 308800 (19.3%) people in Harare (MOHCW and UNAIDS, 2005). Globally, it is estimated that there is a 40% relative risk of transmission among the over 1.5million HIV positive pregnant women annually (Moore, 2003). Zimbabwe is one of the hardest hit countries by the HIV pandemic and most of the HIV transmission is (92%) heterosexually and 7% from infected mother-to-child during pregnancy, delivery and postnatally (MOHCW, 2006).

An estimated 20.1% of adult population between the ages of 15-45 years were infected with HIV in 2005. Human Immuno-Deficiency Virus prevalence among pregnant women in Zimbabwe (20%) is one of the highest in the world, second to Botswana (38%) and third to Swaziland (42%), (UNAIDS and WHO, 2005). Based on the background of mother to child HIV transmission rate of 15-45%, an estimated 10-12% of infants in the country are HIV infected, translating to an estimated fifty thousand infants infected annually (MOHCW, 2004). The majority (over 90%) of

HIV infections of children 0-4years were as a result of mother to child transmission (MTCT) (MOHCW, 2005).

In Zimbabwe, the national PMTCT programme has grown from project carried out between 1999 and 2001 (of which Highfield clinic was the pilot site for Harare) to an active expanding programme (MOHCW,2005). The Demographic Health Survey (DHS, 2006) revealed a reduction of HIV prevalence to 18% in 2004, from 30% in 2000 and 95% of pregnant women who delivered over the previous 5 years attended antenatal care at least once. Ministry of Health and Child Welfare and its partners have demonstrated a high level of commitment in the introduction of rapid expansion of PMTCT. Although the HIV prevalence in 2006 in the general population and pregnant women in Zimbabwe has declined to 15.6% and 17.7% respectively, the HIV responses constitute a national emergency (MOHCW, 2007).

Routine (opt-out) HIV testing in antenatal women has been adopted as a policy in many antenatal care (ANC) and delivery settings to reduce MTCT. In limited resource settings, women fail to access delivery services due to many factors such as norms, taboos and attitudes among members of the community and service providers towards HIV testing and delivery care provided within the PMTCT programme (MOHCW, 2005) .According to Cohen (2004) in many PMTCT programme areas, community dialogue has revealed that The "M" for mother in PMTCT can foster an incorrect perception that the woman is at fault in infecting her baby, thus men and extended families do not feel responsible for caring for infected women and children. The outcome of any programme depends on the perception of the participants therefore the uptake of PMTCT is determined by the women's perceptions as a result of their transactions with environment which give meaning to their experiences, represent their images of reality and their behaviours.

Statement of the Problem

The PMTCT uptake for Highfield Polyclinic remains low despite Highfield being one of the pilot sites in Zimbabwe in 1999 to 2001 and significant advances in HIV treatment and care (Harare City Health Annual Report, 2002). In 2004, Highfield PMTCT uptake of 33 % was lower than for Mabvuku (51 %), which started the programme much later in 2002 (Harare Annual Report, 2004). The Harare City Health Annual Report (2009) reported that out of twelve (12) Polyclinics, Highfield recorded the lowest PMTCT uptake of 66%, followed by Rutsanana (72.2%) and the highest PMTCT uptake for Harare was that of Mufakose (95.4%). This low uptake is in contrast to one of the National broad objectives of providing comprehensive PMTCT services to at least 80% of pregnant women, their babies and families including care and treatment of pregnant, in the context of universal access, with the aim of reducing MTCT rates to less than 10% by 2010 (MOHCW, 2007).

The Zimbabwe Ministry of Health and Child Welfare (MOHCW) Annual Report (2007) highlighted that despite achievements in PMTCT, the national uptake remained fluctuating and low due to socio-cultural and economic challenges; lower social status of women; increasing levels of poverty leading to sex work; ignorance and stigmatization. The same annual report highlighted that the national uptake for Zimbabwe was 71% whilst that of Highfield was 65%.

An International study done in developing countries reported a median VCT acceptance rate of 69 %, ranging from 33 % -95 % (Michael et al, 2002). Similarly VCT acceptance rate for antenatal mothers of 54% to 74 % was reported in studies done in Zambia 72 %, Zimbabwe 74 %, Tanzania 54 % and Cote d'Ivor 62 % (Freddy, 2004).

Coverage of PMTCT programmes and uptake of services provided through nationwide programmes are still very low worldwide (WHO, 2005).

According to Ransom and Yinger (2003), infection (including HIV) is among the second highest direct cause of maternal death. The Zimbabwe Maternal and Perinatal Mortality Study (2007) reported that HIV and AIDS was the leading cause of maternal death constituting 29.7% of the total deaths. Ministry of Health and Child Welfare (2002) reported that annually about 480,000 babies are born in Zimbabwe and about 144,000 (30%) would be born HIV positive in the absence of intervention with PMTCT programme. UNAIDS (2000) estimated that if there is no intervention in Zimbabwe infant mortality rate would be 138% higher and under five mortality rate would be 304% higher than it would have been in the absence of HIV and AIDS .UNAIDS (2005) also reported that one third of paediatric admissions in South Africa are AIDS related.

The PMTCT programme has been one of the strongest cornerstones of HIV and AIDS response in Zimbabwe (MOHCW, 2007). Availability of services alone without creating awareness about PMTCT programme will not produce desired outcomes. The PMTCT Unit in collaboration with its partners is working closely with communities and service providers to provide education on comprehensive care, so as to empower women and their families and the communities to access and use the available health resources (MOHCW, 2007). The antenatal women should be afforded time to acquire relevant health information for them to improve their PMTCT uptake. Improving PMTCT uptake will firstly offer protection of mother from Human Immunodeficiency Virus (HIV). Secondly, PMTCT will help in the avoidance of unwanted pregnancy among HIV positive women considering that the positive women are

5

counselled and encouraged to plan their pregnancies so that they get relevant care and ARVs where necessary. Thirdly, PMTCT will offer the prevention of mother-to-child transmission during pregnancy, labour, delivery and breastfeeding. Besides other strategies, the use of the drug, Niverapine can reduce Mother-to-Child Transmission by about 50% (MOHCW, 2002).

Feldman, Manchester and Maposhere (2003) alluded that perceptions of the PMTCT programme such as poor service quality and lack of access will have negative impact on the programme success. In a study entitled "Positive Women: voices and choices", Feldman et al (2003), noted a number of limitations in the PMTCT programme in Zimbabwe. Positive women who wanted to avoid further pregnancies faced discrimination from health workers. The women did not consider themselves to be at risk of contracting HIV infection especially if they were married and faithful to their partner. They also perceived that condoms are not for use in marriage but for prostitutes and misconception that sex workers are the only ones at risk of contracting HIV.

UNAIDS (2005), reported that stigma and discrimination are the main global perception barriers to participation in PMTCT. Whilst in most Sub-Saharan countries in addition to these two perception barriers, the negative perceptions of the programme were highlighted as poor service provision, lack of access, lack of adequate resources, negative attitudes of staff, lack of knowledge, fear of disclosure and lack of approval for HIV testing from husband, (UNAIDS, 2005)

Purpose of the Study

The purpose of the study was to examine the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40years attending Highfield Polyclinic.

Theoretical Framework

According to Polit and Hungler (2005) theoretical and conceptual frameworks play several interrelated roles in science and their overall purpose is to make research findings meaningful and generalizable. They also help to stimulate research and the extension of knowledge by providing both direction and impetus and thus may serve as a springboard for scientific advances in nursing practice (Burns & Grove, 2005).

King's Goal attainment theory was used to guide the study. King proposes an open system framework as a basis for her theory of Goal Attainment, (King, 1981). She links the concepts to understanding nursing as a major system within the health care system. King bases her theory on general systems theory or open systems framework, the behavioural sciences, deductive and inductive reasoning and discussion with colleagues. King's (1981) conceptual model includes three types of dynamic, interacting systems: personal systems (represented by individuals); interpersonal systems (represented by such dyadic interactions as nurse – patient dialogue); and social systems (represented by lager institutions, such as hospitals and families). The social system provides a context in which nurses' work. within King's model, the domain of nursing includes promoting, maintaining, and restoring health. Nursing is viewed as "process of action, reaction and interaction whereby nurse and client share information about their perceptions of the nursing situation "(King, 1981). The model was preferred because of its key concepts.

7

King (1989a) identified the unique focus of the General Systems Framework as " human beings interacting with environment, and more specifically as "individuals whose interactions in group within social systems influence behaviour within the systems ." Particular attention is given to the continuing ability of individuals to meet their basic needs so that they may function in their socially defined roles, coping with factors that contribute to social problems that may be inferred to be stressors in the internal and external environment. This is supported by the following definition of health: "Health is a dynamic life experience of a human being, which implies continuous adjustment to stressors in the internal and external environment through optimum use of one's resources to achieve maximum potential for daily living, (King, 1981)

The Goal of Nursing, according to King (1981) " Is to help individuals maintain their health so they function in their social roles." She defines nursing as a process of human interaction between nurse and client whereby each perceives the other and the situation, and through communication, they set goals, explore means and agree on means to achieve goals. This process results in a dynamic ongoing interpersonal process in which the nurse client/patient are viewed as a system with each affecting the behaviour of the other and both being affected by factors within the situation/environment. This model deals with interactions between nurse and patient which results in meeting the patient's goals. At the end of this process of communication and perceiving, if a goal has been set, a transaction is said to have occurred. For the purpose of this study, transaction is reflected through the pregnant woman's perception of the PMTCT programme.

8

The goal in this study is the enrolment in PMTCT resulting in improving PMTCT uptake. Improving PMTCT uptake will firstly offer protection of mother from HIV secondly is evidence of unwanted pregnancies among the HIV positive women and thirdly, will offer the MTCT during pregnancy, labour, delivery and breastfeeding (MOHCW, 2002)

Person is a social, sentient, rational, perceiving, controlling, purposeful, actionoriented and oriented being with a right to self-knowledge, participation in decisionmaking that affect life and health and acceptance or rejection of health care. Person has three fundamental health needs: timely and useful health information, care that prevents illness and help when self-care demands cannot be met. In this study, person refers to the antenatal woman who has a right to self- knowledge, participation in decision making that affect life and health and acceptance or rejection of the PMTCT programme.

For environment, King uses the term internal environment and external environment in her open system which could be interpreted from the general system theory as an open system with permeable boundaries that allow the exchange of matter, energy and information. The nurse should create a conducive environment to allow for exchange of information on the PMTCT programme.

The perception is as a result of communication (two way process) between the nurse and the client where the nurse explores means and agrees to means, resulting in transactions towards or through environment towards mutual agreement or goal setting with or without PMTCT Uptake. Perception is among the essential variables in this situation. It is the basic concept of King's conceptual framework and a major component in the human interactions. King (1981) defines perception as a process of organising, interpreting, transforming information from sense data and memory, a process of human transactions with environment which gives meaning to one's experience, represents one's image of reality and influences one's behaviour.

Perception is also a major concept of interpersonal systems and is fundamental for human interaction as one communicates on the basis of perceptions of persons and things in the environment. According to King (1981) accuracy of perception increases the effectiveness of actions. Differences in perceptions between people who are interacting for example midwife and client interaction can be a barrier to effective communication (Potter and Perry, 1997). In a study entitled positive women's voices and choices, Feldman et al (2002) found that women perceived that condoms are not for use in marriage but are for prostitutes and the misconception that sex workers are the only ones at risk contracting HIV.

Potter and Perry (1997) stated that perception is the personal view of events. This means that each person senses, interprets and understands communication or events differently. Therefore, the knowledge of clients' perceptions is critical in the design of any programme for it to be successful.

Person is a social, sentiment, rational, perceiving, controlling, purposeful, actionoriented and oriented being with a right to self-knowledge, participating in decisionmaking that affect life and health and acceptance or rejection of health care. Person has three fundamental health needs: timely and useful health information, care that prevents illness and help when self-care demands cannot be met. In this study, person refers to the antenatal woman who has a right to self –knowledge, participation in decision making that affect life and health and acceptance or rejection of PMTCT programme.

For environment, King uses the terms internal environment and external environment in her open system which could be interpreted from the general system theory as an open system with permeable boundaries that allow the exchange of matter, energy and information on the PMTCT programme.

The Goal Attainment Theory represents an expansion of King's original ideas to incorporate the concept of the nurse and patient mutually communicating information, establishing goals and taking action to attain goals. It is a situation in which two people usually strangers come together in a health care organisation to help or to be helped to maintain a state of health .The goal attainment theory is based on the concepts of interpersonal systems, including interaction, perception, communication, transaction, role, stress, growth and development, time and space . The nurse and the antenatal women in this study, should mutually communicate information, establish goals and take action to participation in PMTCT.

Figure: 1 overleaf depicts the conceptual view on how the model guided the present study.

THEORETICAL FRAMEWORK



Fig 1: King's Goal Attainment Theory (1981) Adapted and adopted.

Conceptual Definition of Terms

In the context of this study the following terms will be interpreted as follows:-

Perceptions of Prevention of Mother to Child Transmission of HIV (PMTCT)

Perception of PMTCT is the personal view of events in this case the PMTCT programme

(Potter & Perry, 2004).

Perception

Perception is defined by King (1981) as each person's representation of subjective world experience and is a major concept in interpersonal systems and is fundamental for human interactions as one communicates.

Prevention of Mother to Child Transmission of HIV (PMTCT) Uptake

In this study, PMTCT uptake is the percentage of antenatal women tested and counselled for PMTCT through the "Routine offer "of HIV testing in antenatal clinics (MOHCW, 2007).

Mother to Child Transmission of HIV (MTCT)

MTCT also known as vertical or prenatal transmission refers to infants acquiring HIV infection from their mothers (MOHCW, 2007).

Prevention of Mother to Child Transmission of HIV (PMTCT)

PMTCT is an intervention which is encompassed in the reproductive health policy to implement the strategies to reduce maternal to child transmission of HIV (MOHCW, 2007).

Antenatal Women

Antenatal women are mothers who attend for the health care and education provided during pregnancy (May & Mahlemeister, 2000).

Acquired Immune Deficiency Syndrome (AIDS)

AIDS is the end of HIV infection and is a serious often fatal disease of the immune system transmitted through blood products especially by sexual contact or contaminated needles (Jackson, 2002)

Human Immune Deficiency Syndrome (HIV)

HIV is a virus which has many varieties and that can cause AIDS. New varieties are continually being identified, (WHO, 2004).

Objectives of the Study

The objectives of the study were:

- 1. To identify the perceptions of PMTCT among antenatal women aged 18-40 years attending Highfield Polyclinic.
- 2. To establish the PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic.
- 3. To determine the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic.

Research Questions

The study sought to answer the following questions:

1. What are the perceptions of PMTCT among antenatal women aged 18-40 years attending Highfield Polyclinic?

- 2. What is the PMTCT uptake among antenatal women aged18-40 years attending Highfield Polyclinic?
- 3. What is the relationship between the perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic?

Significance of the Study

According to Tadesse and Muula (2004) the commonest reason for PMTCT was the desire to know the HIV status of expectant mothers, and to prevent HIV transmission from mothers infected with HIV to their foetuses and infants and to change sexual behaviours, from multiple sexual partners to stick to one partner and also adopt safer sex practices, encourage partner testing and decide on appropriate family planning method. This study is to establish the relationship of the perceptions of PMTCT and PMTCT uptake among the Highfield antenatal women so as to address the perceptions that result in low uptake in an effort to improve maternal and child health and midwifery practice.

The study findings may add knowledge that can strengthen the national PMTCT programme goals. Addressing negative perceptions can empower antenatal mothers for safe motherhood in an effort to reduce maternal and infant morbidity and mortality an prolong life for both mother and child in response to a national action to achieve the Global set Millenium Development Goals (MDGs) in particular MDG 4 (Reduce child mortality) and MDG 5 (Improve maternal health) by 2015 (MOHCW Annual Report, 2007).

Nursing education will benefit from this study as nurse educators may make reference to the study findings in instructing nursing students, student midwives and community health nurses. New areas requiring further research may be exposed through this study thereby making it significant to nursing research.

Maternal and child health including midwifery practice requires evidence based knowledge in order to provide quality service thereby adding to the body of knowledge on maternal and child health and midwifery. The knowledge may be incorporated into the training curriculum and the results may stimulate further research.

Summary

This chapter discussed the background information to perceptions of PMTCT and level of uptake among antenatal women and statement of the problem. The purpose of the study was outlined as well as the theoretical framework that guide the study. The chapter also addressed the conceptual definition of terms used, objectives and questions as well as significance of the study to Maternal and Child Health and Midwifery Practice.

CHAPTER 2

LITERATURE REVIEW

INTRODUCTION

Burns and Grove (2005) state that a review of relevant literature is conducted to generate a picture of what is known about a particular situation, and the knowledge gaps that exist in a situation. This chapter will focus on the dependent variable, PMTCT uptake and independent variable, perceptions of PMTCT among antenatal women, relationship between the perceptions of PMTCT and the uptake among antenatal women and the theoretical framework.

PMTCT Uptake among Antenatal Women

Although a great number of health facilities in the region offer PMTCT, uptake at many sites remains low (Rutenberg, 2007). In Zimbabwe an exploratory cross-sectional survey was conducted at 6 sites in rural areas. Women who attended ANC in health centres where PMTCT was provided were surveyed in postnatal services. Of 520 women (100%) sampled, 285 (55 %) had been HIV tested during their last pregnancy. Among 235 women (100%) not tested in ANC, 79% would accept HIV testing if opt- out testing was introduced. Factors associated with accepting the opt-out approach were being above 20 years old, having secondary education or more, living with a partner and the existence of PMTCT services where the untested women deliver, (Perez, Zvandazwa, Nenglesmann and Dabis, 2005). Secondary education is adequate to ensure understanding and comprehension of health information to increase PMTCT in spite of negative perceptions. Thirty seven women (16%) of the 235 (100%) would decline routine HIV testing, mainly because of that fear of knowing their HIV status and the requirement to get their partners' consent.

Although PMTCT interventions using single-dose Nevirapine (sdNVP) have been implemented in many urban and rural clinics in Zimbabwe, uptake of these interventions remain low, primarily due to poor access to PMTCT programmes because of high maternity fees and poor antenatal HIV testing rates (Shetty et al, 2005). While over 93% of pregnant mothers attend antenatal clinics, less than half of them requiring PMTCT access them. This presents an enormous missed opportunity for HIV prevention in children (Shetty et al, 2005).

In 2002, Health Systems Trust published findings on the national PMTCT pilot programme in South Africa. The study found that, across the 18 pilot sites, an average of 51% of women agreed to be tested for HIV as part of antenatal care. Between and within provinces, however, the rates varied from 17% to 90%.

In Francistown, Botswana, approximately 40% of pregnant women are HIV positive. PMTCT has been available since 1999, antiretroviral (ARV) therapy since 2001, and 95% of women have antenatal care (ANC) and deliver in hospital. However, in 2002, 33% of ANC clients were tested for HIV, and not all women with HIV received services (Creek , Ntumy and Mazhani, 2003). In this study, social cultural, religious, economic and political environment in which one is raised were found to influence participation in PMTCT. It was noted that ensuring adequate knowledge about HIV and PMTCT, creating systems whereby HIV-positive receiving care can educate and support other women, and making HIV testing routine for pregnant women may improve the uptake of HIV testing. Education increases people's understanding and ability to benefit from health education (World Bank Report, 2002).

Studies in Cote d'Ivoire found that 70%-90% of 230 pregnant women accepted the Voluntary Counselling and rapid antenatal testing but 70% only returned to receive their

result. Thus the overall acceptability was 60-65% (Dabis, Leroy, Spira, Nowell and Salamon, 2001). The studies found out that if the results are given the same day of testing, the rate return to receive the result increased (90%).

Results of the Nigeria Demographic Health Survey of 2003 showed that among pregnant women attending antenatal care clinics 24% had been counselled about HIV and 46% of women as compared to 56.4% of men knew that mother – to-child transmission of HIV is possible (Adeneye et al, 2006). Antenatal VCT is one of several interventions used to reduce MTCT. In a survey of health and laboratory facilities in all six zones of Nigeria, the data that were collected and analysed concerning an individual's reason for HIV testing at the surveyed laboratory facilities showed that 16.3% of those surveyed had used voluntary testing services (Idigbe, 2000). However, accurate data on acceptability of HIV testing among pregnant women in Nigeria are scarce (National AIDS/STDs Programme, 2000).

In the United Kingdom, a study was conducted by Johns et al (2000) with the aim of increasing the uptake of antenatal HIV testing. A midwife led retrospective review of all antenatal HIV tests over three years (1997-1999) was conducted at London District General Hospital. It was found that acceptance of transmission reducing strategies was high (75%) among the HIV positive with "opt out" approach versus (38.7%) with "opt in" approach. It was concluded that universal antenatal HIV testing is acceptable to women and can be introduced within a busy antenatal clinic. This study confirms the need for PMTCT to be considered as an integral part of antenatal care although it may have some negative implications socially when results are shared with the family, because of associated stigma. Once stigma is adequately addressed at community level, universal participation will be the best approach (Johns, Whyte, Burns, French and Henson, 2000). Provider-initiated testing and counselling (PITC) for routine antenatal care (i.e. an 'opt- out' approach) is the standard care in the United States of America (USA) and other developed countries (CDC, 2004). Routine antenatal HIV testing is rare in Sub Sahara Africa (CDC, 2004). Recent data from the PMTCT programme in Botswana demonstrated that routine HIV testing led to a significant increase in HIV- test acceptance at antenatal clinics, where HIV prevalence has been below 40% since 1995 (CDC, 2004). Results from a recent study from rural Zimbabwe by Perez, Zvandazwa, Englesmann and Dabis (2005) also reveal that routine antenatal care HIV testing is acceptable to both clients and health-care providers.

The National PMTCT uptake for Zimbabwe for the year 2007 was 71% and prevalence was estimated at 15.6% which had dropped from 17.7% in 2006 (MOHCW, 2007). This PMTCT uptake is low considering that one of the National PMTCT goals was to provide comprehensive PMTCT services to at least 80% of pregnant women, their babies and families, including care and treatment of pregnant women, in the context universal access, with the aim of reducing maternal and child transmission (MTCT) rates to less than 10% by the end of 2010 (MOHCW, 2007). Zimbabwe could benefit from the United Kingdom and Botswana situations. The need to integrate PMTCT fully into existing Primary Health Care (PHC) activities is of high priority if the PMTCT uptake is to increase significantly (MOHCW, 2007). Hence the need to educate further the public and empowering women with information on their reproductive rights, roles and responsibilities as well as the benefits of their participation in PMTCT.

UNAIDS (2008), found that condom use during sex with non regular partners was reported in Uganda, to have raised the uptake of HIV testing to 80% of all women attending antenatal care evidenced by PMTCT increasing from 12% in 2005 to 50% in 2008 while PMTCT uptake in Zimbabwe increased from 10% in 2005 to 34% in 2007.

Male involvement in PMTCT programmes encourages men to adopt positive behaviours such as consistent condom use and remaining faithful to one partner in Kampala (Byamugisha, Tumwine, Simiyaga and Tylleskar, 2009).

Perceptions of PMTCT among Antenatal Women

Perception is defined as a process of organising, interpreting and transforming information from sense data and memory, a process of human transaction with environment which gives meaning to one's experience, represents one's image of reality and influences one's behaviour rep (King, 1981). It is also a major concept in interpersonal systems and is fundamental for human interactions as one communicates. In Zimbabwe there has been a slow response to the PMTCT intervention by women who fear being rejected by their husbands when they test HIV positive (MOHCW, 2005). Similarly, a study among 404 antenatal women (212 urban and 192 rural) conducted in Uganda by Bajunirwe and Mizoora (2005) revealed that the strongest predictor of willingness to accept an HIV test and join the PMTCT programme was the woman's perception that her husband would approve of her testing for HIV. Women who thought their husbands would approve were almost six times more likely to report a willingness to be tested compared to those who thought their husbands would not approve. In some circumstances where women have consented to an HIV test without husband's approval, the women suffered domestic violence (Bajunirwe & Mizoora, 2005).

Another study done in South Africa on barriers to PMTCT uptake by Krah (2004) showed adequate awareness and appreciation of benefits of VCT by both providers and the community. The views of both providers and community were similar, however, a few gaps in the knowledge of the community were exhibited about the perceived disadvantages of VCT. A number of varied and complex factors were identified as barriers to the

acceptance and uptake of VCT. The study concluded that a vigorous and innovative information, education and communication (IEC) drive with accurate, consistent and culturally appropriate messages is required to reduce the community related barriers to uptake of VCT, in addition to couple counselling. These will positively impact on the uptake of VCT during the scaling up of PMTCT and increase its cost effectiveness (Krah, 2004).

In South Africa, the other factors that influenced VCT uptake in PMTCT programmes were infrastructure and availability of counsellors, morale, attitudes and knowledge of counsellors and level of denial and stigma within a community (Health Systems Trust ,2002).

Mother to Child Transmission of HIV (MTCT) is fast becoming an important route and due to utilisation of PMTCT services is largely dependent on the awareness and perceptions of the benefits (Osowole, Adewelo, Abolo, Adnesina Sankale and Kanki, 2004). It is in this view that community based study describing opinion leaders, awareness and perception of PMTCT services was carried out in Ibadan, Nigeria and was presented at the International Conference on AIDS (15th,2004): Bangkok Thailand). Twelve males (60%) and females (40%) aged between 45-65 years purposively selected opinion leaders (religious heads, heads of households and leaders of community based organisations) participated in the study. The results showed that even though the awareness of HIV is high the level of awareness and knowledge of mother to child transmission was low (Osowole, Adewelo, Abolo, Adnesia, Sankale & Kanki, 2004).None of the participants mentioned mother to child transmission when asked the routes of transmission until prompted. A cross sectional survey of 804 women attending antenatal clinics was done in Ogun State , South West of Nigeria using interview – administered questionnaires to assess the knowledge and perceptions of HIV and AIDS among women attending antenatal clinics (African Journal Of AIDS, 2006). Approximately 90% of the women respondents had heard about HIV/AIDS but only about 27% knew HIV could be transmitted from mother to child. Almost 94% believed in the reality of HIV disease in contrast the majority (64%) believed they were not at risk of HIV infection and slightly a greater proportion (70%) did not understand the benefits of voluntary HIV counselling and testing (VCT). The older women with a higher level of education had more knowledge and better perceptions about HIV. On the other hand, studies by Tadesse and Muula (2004) found that 50% of young people aged between 20-24 years had already experienced sexual intercourse with an average first intercourse at 18 years for females and these young women were more likely to be tested for HIV than older women, because they are aware of their risk to HIV infection.

In Kenya, the qualitative data from providers and clients on perceptions of PMTCT services revealed that the main barriers were providers attitudes and utilisation of PMTCT services by women (Rutenberg, 2007). Some of the challenges that have been citied are shortages of human resources, poor infrastructure, poor health care services, periodic shortages of HIV testing kits and low utilization of PMTCT services owing to stigma among health workers and the general population. According to Kusimba, Dunbar, Minnis, Medlin, Gerts and Padian, (2007) "Community Perception of PMTCT services: the Kenyan Experience" found that the key barrier associated with non-use of PMTCT services was of testing positive, and the potential consequences of HIV positive status, perception of quality of VCT, level of awareness of PMTCT programme, level of involvement male partners and women empowerment.

Due to high prevalence among pregnant women attending antenatal care in Tanzania (12%), the district health authorities introduced PMTCT services in the two rural districts of Hai and Kilombero (Population Services International, 2004).

Interviewers explored community perceptions about PMTCT to guide the development of relevant communication messages about the new programme. Four focus groups of pregnant women were conducted, 2 with married men and 2 with the 'influencers '(women over 45 with grandchildren) in each district. Issues discussed dealt with perceptions about ANC attendance, HIV infection and prevention as well as VCT and PMTCT uptake. Most respondents felt that expectant mothers should attend ANC at least once, men respondents felt their wives should attend ANC only if they had specific pregnancy related problems. While most respondents knew about HIV, some expressed fear to accept VCT due to stigma and because HIV is incurable. One third of the study participants in one district expressed the hopelessness of saving the baby when the mother and husband are going to die- "Why should I die and leave my child to suffer?" Some respondents mentioned taboos like taking water during labour which is believed to stop contractions and beliefs that a new born should not see the sun before 40 days after birth.

In another study in Tanzania, Kironde (2004) expressed that the introduction of PMTCT services among 650 pregnant women attending ANC in two rural districts required an assessment of client perceptions as a key step to this new programme. Interviewers explored community perceptions about PMTCT to guide the development of relevant communication messages about the new programme.

Lessons learnt were that while most respondents knew about HIV, some expressed the hopelessness of saving the baby when the mother and father are going to die. Taboos like taking water during labour which is believed to stop contractions were mentioned .This has implications on swallowing Niverapine tablets with water during labour. Beliefs that new born babies should not see the sun before 40 days after birth implies that HIV positive mothers may not take their infants to the health facility for their Niverapine syrup. This meant that the programme should account for these perceptions while developing messages to counter myths and dispel concerns so as to improve the PMTCT uptake.

In another study entitled "Positive Women Voices and Choices," Feldman, Manchester and Maposhere, (2003) noted a number of limitations in the PMTCT programmes in Zimbabwe.

Access to antiretroviral treatment (ART) to reduce the risk of HIV transmission to the infants was limited. Positive women who wanted to avoid further pregnancies faced discrimination from health workers. The positive women felt the decision to take an HIV test was generally made by a health worker rather than by the women. Most women involved in the study had little or no knowledge of HIV transmission or risk before they were diagnosed with HIV. Even when they had knowledge of HIV transmission, they did not consider themselves to be at risk especially if they were married and faithful to their partner .They also perceived that condoms were not for use in marriage but for prostitutes and misconceptions that sex workers are the only ones at risk of contracting HIV. This project's aim was to explore the impact of HIV and AIDS on HIV positive women's sexual and reproductive decisions and choices.

Studies from Europe and the United States have shown that women who perceive themselves to be at risk of HIV infection are more likely to get tested while the reverse may be true in Africa (UNAIDS 7 WHO, 2005). In the same report UNAIDS and WHO (2005) alluded that it is more likely that in settings where infection with HIV is highly stigmatized and there is little or no treatment available, testing is less appealing for those who believe they might be infected. They found out that client –directed counselling, routine offer of HIV test and an understanding of the medical and social benefits of testing were most likely to result in test acceptance Other findings were that women seemed to perceive HIV testing as simply another medical intervention. A number of studies revealed specific attitudes and barriers in implementing PMTCT programmes in different countries. These highlight the need to explore further the socio-cultural and family systems as well as interpersonal, human interactions and community systems including the environmental issues that may affect PMTCT uptake.

Relationship between Perceptions of PMTCT and PMTCT Uptake

Perceptions of PMTCT and PMTCT uptake have been documented in a number of studies in which perception had either a direct or indirect influence on the uptake. The perception benefits of participation in PMTCT (uptake) can facilitate decision to participate. According to the MOHCW (2003), ability to make informed choices and decisions about sexual practices and future fertility, safe behaviour adoption at individual level, reduction in ignorance, fear and stigma associated with HIV infection by the general public and decision on whether or not to continue with pregnancy is an important gateway to HIV testing.

No studies could be cited in which the relationship between perceptions of PMTCT and PMTCT uptake was examined. The available studies looked at each variable independently. The results of these studies indicated how negative perceptions and barriers to implementing PMTCT programmes may have a negative impact on the programme success. At the same time the perception fuel the HIV epidemic and perpetuates the stigma that goes with an HIV positive diagnosis, there is an urgent need to correct perceptions or improve perceptions which in turn has a positive bearing on PMTCT uptake.

Ndhlela (1999, Unpublished) examined relationship between perceived communication and health promotion seeking behaviour. A Pearson's Correlation analysis
showed a statistically significant positive relationship. The results indicated that when perceived family communication increases, health promotion seeking behaviour increases.

Nkhoma (2007) looked at the relationship between the mothers' perception of selfcare practices and maladaptive behaviours among the moderately mentally handicapped clients aged 10 to 17 years. This study showed a negative correlation of mothers' perception of self-care practices and frequency of maladaptive behaviours. This indicated that as mothers' perceptions increase the frequency of maladaptive behaviours amongst the moderately mentally retarded clients, decreases.

Mamutse (2004, Unpublished) also examined the relationship between knowledge, practice and perceptions of members Apostolic Church's value of Maternal and Child Health (MCH) services. A significant positive correlation between participation as well as perception was demonstrated and showed that as both knowledge and perception increase, participation increases. The results supported that both knowledge and perception positively influence participation showing a change in participation for every unit of change in knowledge or perception.

These studies showed that perception correlates positively or negatively as shown in the following examples. Positive correlation indicates that as perception increases the other variable, for example health seeking behaviour also increases. A negative correlation shows that when perceptions increase the behaviour such as participating in health programme, decreases. The investigator envisages that a relationship between the perceptions of PMTCT and PMTCT uptake among antenatal women will result in a significant positive relationship.

Theoretical Framework

According to Burns and Grove (2005) a theory consists of an integrated set of defined concepts, existence statements, and relational statements that represent a view of phenomenon and can be used to describe explain, predict and control that phenomenon. A framework is an abstract logical structure of meaning that guides the development of a study and enables the researcher to link the findings of the nursing body of knowledge (Burns & Grove, 2005).

King's Goal Attainment Theory was used to guide the study. The theory describes a situation in which two people, usually strangers, come together in a health care organisation to help or to be helped to maintain a state of health. It is based on the concepts of personal, interpersonal systems, including interaction, perception, communication transaction, roles, growth and development, time and space (King, 1981).

Goal attainment scaling is becoming an increasing popular technique for evaluating the functional goal attainment of children receiving paediatric services (King McDougall, Palisame, Gtitzan and Tucker, 2000). These authors stated that the goal attainment theory was very useful when dealing with children with special needs for physical and occupational therapy.

According to Ackermann, Taylor, Johnson, Hobbs, Ferek and Toon, (2007) King's theory has been used in a variety of studies in which goal attainment was investigated. Areas of focus include adolescent health, women's health, cardiac rehabilitation, family health and nursing home clients

Mckinney and Dean (2000) of Florida State University used King's model to examine the association between alcohol dependence and assault among women. The assault was associated with new onset of alcohol dependence or heavy use. Most of the research dealt with child sexual abuse as the assault. Current research shows that from 5599% of women in treatment for alcohol dependence have reported a history of childhood abuse occurring before the age of 18. Therefore there is a risk for females who have been abused as children for developing alcohol related problems.

Another study was conducted to identify the most common nursing diagnoses in chronic renal failure using as reference Imogene King's Conceptual System (De Souza, De Martino & Lopes, 2007). A data collecting tool with a supervised follow up was applied to 20 patients in a unit of dialysis in order to verify the patient's needs. The diagnoses were determined according to NANDA's Taxonomy II. In 50% or more of the chronic renal clients nursing diagnoses were: risk of infection, altered protection and altered comfort.

Fawcett (1989) stated that a mark of the growing body of research focused on King's work is the research conference, held in February 1988 at the University of South Florida college of Nursing, which was devoted exclusively to presentations of studies that tested the Theory of Goal Attainment. Several doctoral dissertations and master's theses have been guided by the General Systems Framework or Theory of Goal Attainment. Published full reports of General Systems Framework or Theory of Goal Attainment-based research range from instrument development

work to studies of the effects of nursing interventions on goal attainment.

Rundell (2005) used King's Goal Attainment Theory to identify categories relating to interactions between nurse and patients on high dependency units, that is, units that intermediate between surgical intensive care units and general surgical wards. In this study, there is going to be some interactions and communication between the midwives and antenatal women on importance of and participating in PMTC programme.

McGirr, Rukholm, Salmoni, O'Sullivan and Koren (2006) examined the perceptions of cardiac rehabilitation programme clients with regard to mood, severity of illness, and exercise. They found that the clients who exercised, "felt healthy and merry (and) those who did not exercise felt miserable." This is applicable in this study as the midwives will examine the perceptions of antenatal women in relation PMTCT uptake.

Spees (2007) based her investigations of the knowledge of common medical terms in a sample of 52 hospitalised patients and 25 family members on King's concept of communication. The results indicated that patients and family members may not understand medical terminology though the nurses think they do. The results of this study will also highlight the antenatal women's knowledge of medical terms used in PMTCT.

Runyowa (2003, Unpublished) used King's Theory of Goal Attainment in this dissertation on examination of the Relationship between Knowledge on Control of aggression and occurrence of aggression in schizophrenic clients aged 19-45 years admitted at Harare and Parirenyatwa Psychiatric Units. The results supported the importance of King's concepts of interaction, transactions, and goal attainment in the control of aggression which was imparted to clients during their interaction which resulted in the decrease in episodes of aggression.

Majada (2005, Unpublished) also used King's Conceptual Framework to determine the association between interaction and adherence replacement feeding of infants whose mothers are on PMTCT programme. Adherence to replacement feeding in Majada's study was attributed to competent counselling on HIV and infant feeding .This supported King's emphasis for the importance of the interactive process between nurses and clients.

The investigator's goal in this study is to establish that the interactions and perceptions shared by midwives and antenatal women will result in agreement on roles and responsibilities that will result in enrolment in PMTCT thereby attaining the goal of PMTCT uptake.

Summary

Review of related literature is critical and places the study within the conceptual framework. The review of literature seems to indicate that PMTCT perceptions of antenatal mothers have an impact on the PMTCT uptake (their participation in PMTCT) .This is important in order to address the causes of non-participation so as to improve PMTCT uptake.

Literature on perceptions of PMTCT and uptake as well as relationship between the two variables was reviewed. A number of studies that were conducted by various authorities and were relating to the two variables were examined. The findings indicated a unique role that the health care provider has in terms of providing relevant health information upon which clients base their choices and decision about health. Failure to provide the relevant information may lead to negative perceptions and barriers to participating in the PMTCT programme

CHAPTER 3

METHODS

This chapter addressed the research methods used in the study. According to Polit and Hungler (2004) and Burns and Grove (2005), the study methodology gives a study its scientific merit to which a study possesses therapeutic relevance, internal and external validity. A scientific method incorporates all procedures that the scientists have used or may use in the future in pursue for knowledge. The research method is based on the philosophy of logical empiricism (Burns & Grove, 2005). The methodology presented the research design, sampling plan, sampling size, sampling procedure, variables, conceptual and operational definitions, instruments, human rights considerations, data collection and analysis. Leedy (2007) refers to methodology as merely an operational framework within which facts are placed so that their meaning may be seen more clearly.

Study Design

Polit and Hungler (2004) defined a research design as a researcher's overall plan for obtaining answers to the research questions or for testing the research hypotheses. The research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable and it stipulates the fundamental form that the research will take. The quantitative non experimental, descriptive correlation study was employed in this study. A quantitative research design, according to Burns and Grove (2005) is a formal, objective systematic process in which numerical data are obtained to get information about the world. This study design was used because it was found to be the most appropriate and mostly used in nursing studies. Furthermore the aim of the descriptive correlation non experimental study design was to examine the relationship that exist between the two variables and to determine the degree and type of relationship, without the investigator's manipulation of the independent variables nor controlling the setting.

Study Population

In this study, the study population consisted of antenatal women aged 18-40 years attending Highfield Polyclinic. The clinic attends to approximately 100-125 antenatal women per week. The antenatal women are tested and counselled for PMTCT through the "Routine offer" of HIV testing.

Sampling Plan

Sampling plan is a process of obtaining a sample for a study (Polit & Hungler, 2004). The process involves selecting the population for the study or elements with which to conduct a study. A sampling plan is developed to increase representativeness, decrease systematic bias and decrease sampling error (Burns & Grove, 2005).

The population refers to the aggregate or totality of all the objects, subjects, or members that conform to a designated set of specifications (Polit & Hungler, 2004). According to Burns and Grove (2005), the population are all elements (individuals, objects, events or substances) that meet the sample criteria for inclusion in a study and sometimes referred to as a target population. In this study the target population consisted of antenatal women aged 18-40years attending Highfield Polyclinic and the sample was drawn from that population using probability sampling.

The Inclusion Criteria

According to Burns and Grove (2005), the inclusion criteria include essential characteristics of the target population so as to achieve homogeneity. Control of extraneous variables, provide a guideline for the sample recruitment and enables replication of the study. Eligible participants were pregnant women aged 18-40years attending antenatal clinic at Highfield who were able to communicate in either English or Shona

The Exclusion Criteria

The exclusion criteria included subjects who are less than 18 years of age and those above 40 years of age. All those attending antenatal clinic for the first time were excluded as they had not received information on PMTCT. The sample was defined to exclude people who did not speak Shona and English.

Sample Size

Sample size is a subset of population or the number of subjects needed for the study (Merriam & Simpson, 2004). According to Burns and Grove (2005) and Polit and Hungler (2004) the factors that determine the sample size are the power, effect size, the significant level of the statistic used as well as attrition rate. Burns and Grove (2005), assert that the larger the sample, the smaller the sampling error and also the more representativeness. According to Polit and Hungler (2004) and Burns and Grove (2005) sampling error is the fluctuation of the value of a statistic from one sample to another drawn for the same population.

Power, according to Polit and Hungler (2004), is the ability of a design to detect existing relationships among variables. Power helps to control the likelihood of making type II error which arises when an investigator accepts the null hypothesis when it should be rejected. Null hypothesis states that there is no relationship between the variables being studied; a statistical hypothesis used for statistical testing and interpreting statistical outcomes. A power of .80 was used in this study. In Burns and Grove (2005), this is a minimum acceptable level of power for a study. If power is high, one is able to detect the small differences that exist through the statistical test (Burns & Grove, 2005).

The significance level (also known as the P value or alpha) controls the probability of making a type I error which is rejecting a true null hypothesis (Polit & Hungler, 2004). This occurs when the investigator rejects the null hypothesis when it should be accepted. A finding is significant when the significance level is 0.05 or less (Polit & Hungler, 2004). The level of 0.05 indicates that 95 out of 100, the results will be reliable and this displays stronger evidence against the null hypothesis (Polit & Hungler, 2004). In this study, a significance level of 0.05 which is acceptable for social science research was used.

Effect size is the degree to which the phenomena is present in the population that is the extent to which the null hypothesis is false. The effect size is concerned with the strength of the relationship among variables; a statistical expression of the magnitude of the relationship between two variables, or the magnitude difference between two groups, with regard to some attributes of interest (Polit & Hungler, 2004). It is an index of the strength of the independent variable on the dependent variable. As the value of effect of size increases, power also increases. Polit and Hungler (2004) assert that small samples are risky when the investigator has no prior reason for believing that relationships will be strong. A medium effect size of 0.5 was used for this study. This indicates that only 5 out 100 were undesirable and that 95 out of 100 were reliable (Polit & Hungler, 2004)

Polit and Hungler (2004) state that the larger the sample the more representative of the population is likely and the smaller the sampling error. The calculated sample size based on the power of 0.80, the effect size of 0.5 and significance level of 0.05, a sample size of 65 participants will determine the power analysis, using the Lipsey (1990) power tables (Polit & Hungler, 2004). According to Burns and Grove (2005), the sample size needs to be larger than the calculated number because of the potential of attrition rate. The investigator added 21 more participants to make a total of 86 participants. Therefore, a total of 86 subjects were recruited for the sample size for this study. The sample was compatible with the statistics which were used, that is the Pearson Correlation Coefficient.

Sampling Procedure

Sampling procedure describes the strategies used to obtain a sample for a study (Burns & Grove, 2005). It allows the researcher to draw inferences and make generations about the population under study without examining each unit in the population. Polit and Hungler (2004), state that the researcher should ensure that the sample is representative of the target population in order to be able to draw conclusions from the sample findings that can be generalised to the population. It is, therefore, important for the investigator to ensure that the characteristics of phenomena of interest will be likely to be present in all the units being studied (Polit & Hungler, 2004).

A probability random sampling was used to select the prospective respondents in this study. According to Burns and Grove (2005), probability random sampling is a method whereby every element of the population has an equal chance of being selected and that will ensure some degree of precision in correctly estimating the population parameters. Probability sampling controls systematic bias and increase the representativeness of the accessible population and validity of the study (Burns & Grove, 2005). Simple random sampling was employed to select the 86 subjects. Polit and Hungler (2004), describe simple random sampling as the most basic type of probability sampling, wherein a sampling frame is created by enumerating all members of interest and then selecting a sample from the sampling frame through completely random procedures. A sampling frame is a list of all elements in the population from which the sample is drawn (Polit & Hungler,2004). The sampling frame comprised of all registerd antenatal women aged 18-40 years, attending Highfield Polyclinic and able to communicate in either English or Shona.

Using the inclusion and exclusion criteria the prospective subjects were identified and the accessible population of antenatal women aged 18-40years attending Highfield Polyclinic made up the sampling frame. Names of the subjects, addressees and ages were recorded and each given a corresponding number written on small pieces of paper. The pieces of paper with numbers were placed in a box, shaken then the investigator picked one, opened and read out the number, and then the individual with the picked number became the candidate or subject for the study. This process was repeated each day and this gave equal chances for inclusion in the sample and this process continued until the desired sample size was reached.

The interviews were conducted on those subjects that had consented to participate, privacy and confidentiality were maintained at all times. The participants who were not eligible were informed of the process and were thanked for being part of the sampling frame. The researcher's approach towards the subjects was pleasant, non-cohesive and considerate.

Variables

Burns and Grove (2005) described variables as qualities, properties, or characteristics of persons, things, or situations that change or vary and are manipulated or measured in research. A dependent variable is the response, behaviour, or outcome that is predicted or explained in research; changes in the dependent variable are presumed to be caused by the independent variable (Burns & Grove, 2005). The dependent variable in this study was PMTCT uptake and the independent variable was the perceptions of PMTCT of antenatal women. The study sought to examine the relationship between the two variables. The dependent variable was measured using a structured questionnaire and the independent variable was obtained from the subjects to describe their characteristics such as age, type of accommodation, level of education and employment status to mention a few.

Conceptual and Operational Definitions

A conceptual definition provides a variable with a theoretical meaning while an operational definition, will give terms of operation or procedure by which the variable or concept is going to be measured in a particular study (Polit & Hungler, 2004; and Burns & Grove, 2005). An operational definition of a concept is a specification of the operations which the researcher must perform in order to collect the required information (Burns & Grove, 2005).

PMTCT Uptake

PMTCT is an intervention which is encompassed in the reproductive health policy to implement the strategies to reduce maternal to child transmission (MOHCW). 2007PMTCT uptake is the percentage of antenatal women tested and counselled for PMTCT through the "Routine offer" of HIV testing in antenatal clinics (MOHCW, 2007). It conceptually means enrolment in the PMTCT programme. This means HIV testing is conducted after individual pre test counselling with clients actively choosing whether to be tested or not (i. e. an "opt- in" approach or client initiated testing.

The detection of maternal infection early in pregnancy through voluntary counselling and HIV testing (VCT) is critical in PMTCT (Perez, Zvandazwa, Englesmann and Dabis, 2004). The PMTCT uptake was operationalised by the PMTCT Uptake Questionnaire.

Perceptions of PMTCT

Perceptions of PMTCT programme, conceptually means one's view of the PMTCT programme. Perception is defined as a process of human transaction with environment which gives one's experience, represents one's image of reality and influences one's behaviour (King, 1981). Perceptions of PMTCT were operationalised by the Perceptions of PMTCT Questionnaire.

Demographic Variables

Demographic variables are characteristics or attributes of subjects that are collected to describe the sample (Burns & Grove, 2005). In this study, these included age, level of education, type of accommodation, employment status, income per month, marital status, religion and relationship with family members. Demographic variables were operatoinalised by the Demographic Section of the Questionnaire.

Instruments

An instrument is a device that the investigator uses to obtain data and answer the research questions. The instrument can be a questionnaire, structured interview questionnaire or observation schedule or self report (Polit & Hungler, 2004). Structured interview schedules, developed by the investigator were used in this study. This choice of such instruments was supported by Polit and Hungler (2004) and Burns and Grove (2005) who consider that personal interviews are the most useful way of collecting data, due to the depth and quality of information obtained.

Demographic Questionnaire

The questionnaire focused on capturing socio-demographic data relevant to the study. This had 9 items concerning age, marital status, level of education, employment status, religion, income per month, type of accommodation, members of the household and family relationships. The items were numbered 1 to 9 on the questionnaire and labelled Section A.

PMTCT Uptake Questionnaire

PMTCT uptake of antenatal women questionnaire comprised 20 items (10 to 29) each of which measures the PMTCT uptake using either Yes or No answers. A Yes was scored as 2 point and a No was awarded a 1. Scoring for PMTCT uptake was based on a minimum score of 1 and a maximum of 40. A lower level depicted low PMTCT uptake.

The mean expected PMTCT uptake was 20. PMTCT uptake was categorised as follows based on the scores achieved:

Low PMTCT Uptake	-	1 point to 20 out of 40	(2.5% - 50%)
Moderate PMTCT Uptake	-	21 points to 30 out of 40	(52.5% - 75%)
High PMTCT Uptake	-	31 points to 40 out of 40	(77.5 – 100%)

Perceptions of PMTCT Questionnaire

The independent variable was the area that assesses the perceptions of PMTCT among antenatal women. The Perceptions of PMTCT questionnaire measured the perceptions of antenatal women on the PMTCT programme. The questionnaire was composed of 5 items measuring Perceptions of PMTCT among the antenatal women to which, they were required to state Yes or No to 24 responses according to how they perceived the programme.

A Yes score was coded 2 points and a No scored 1. Scoring was based on a minimum score of 1 and a maximum of 48. The mean expected perceptions of PMTCT was 24. The perceptions were further be categorised as follows:

Low Perceptions	-	1 to 24 out of 48	(2.1% - 50%)
Moderate Perceptions	-	25 to 36 out of 48	(52.1% - 75%)
High Perception	-	37 to 48 out of 48	(77.1% - 100%)

Relationship Between Perceptions Of PMTCT And PMTCT Uptake Among Antenatal Women.

The Pearson Correlation Coefficient was used to examine the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women at 0.05 significant levels. The inferential statistics were used to make inferences on the whole population.

Validity and Reliability

Validity is the degree to which an instrument measures what it is supposed to be measuring (Polit & Hungler, 2004). Validity means the soundness and effectiveness of the instrument. Reliability of an instrument is the degree of consistency with which an instrument measures (Burns & Grove, (2005). It refers to the consistency, stability, accuracy and dependability with which the instrument measures an attribute.

Several steps were taken to ensure validity and reliability of the instruments. The instruments were constructed using concepts from literature, and this gave them content validity. Each item was analysed with assistance from the research supervisor and nurses working in the antenatal clinic to adjust any ambiguous terms. Separate instruments were used for each variable to enhance face validity and reliability.

The instruments were translated from English into Shona paying particular attention to consistency in meaning. All interviews were conducted using the English version for those who preferred English and the Shona version for those who preferred Shona.

Pilot Study

A pilot study, according to Polit and Hungler (2004) provides an opportunity to test the instrument, the questionnaire, the interview schedule, the observation system and the practical details of carrying out the study. The purpose of the pilot study is to assess the data collection plan and instrument (Burns & Grove, 2005). A pilot study was conducted at Rutsanana Polyclinic (antenatal women aged 18-40 years) to assess the clarity of research questions, the time required to complete the questionnaire and the extent to which the instrument answered the research questions and sampling procedures. Rutsanana clinic is 3 kilometers from Highfield clinic and the same population uses the clinic of their choice. The investigator interviewed 5 antenatal women (respondents) who met the inclusion criteria to determine the clarity of terms and consistency of responses. Changes were made after the pilot study and time was adjusted accordingly.

Data collection Plan

According to Burns and Grove (2005) data collection is a systematic gathering of information that is relevant to research objectives or purpose of the study. Data collection plan details how a study will be implemented (Burns & Grove, 2005). They are two important components of data collection plan. These are Ethical Considerations and data collection procedure.

The process of data collection took place during the second and third weeks of September 2010 at Highfield Polyclinic. Once approval was granted by the Medical Research Council of Zimbabwe and the Harare City Director of Health Services, the researcher interviewed 10-15 antenatal women everyday from Monday to Friday between 08.00hours and 14.00 hours, using the developed structured questionnaires until a total of 80 respondents was obtained.

Human Rights / Ethical Considerations

Researchers and reviewers of research have an ethical responsibility to recognise and protect rights of human research subjects. The human rights that require protection in research include the rights to (1) self- determination, (2) privacy, (3) anonymity and confidentiality, (4) fair treatment and (5) protection from discomfort and harm (American Nurses Association [ANA], 1976, 1985; American Psychological Association [APA], 1982 (Burns & Grove, 2005). All these rights were recognised and the subject protected accordingly.

Permission to conduct this research was obtained from the University of Zimbabwe, Department of Nursing Science. The investigator sent an application and a copy of the research proposal to the Medical Research Council of Zimbabwe. Data collection proceeded after that the investigator had received approval letter from the Director of health Services, City of Harare and the Medical Research Council of Zimbabwe. A letter requesting clearance to collect data from Highfields clinic had been written to the Director of Health Service. During the time of data collection, permission to interview patients was sought from the Sister In Charge of Highfield clinic and the antenatal women respectively.

Finally, permission was sought from the individual study participants. Every individual has the right to self-determination in choosing invasion of their privacy by accepting to participate in the study. The participants were informed that they are allowed to disengage without prejudice towards their care or any form of management. They were also informed that they would be asked questions about demographic data, issues on PMTCT uptake and their perceptions on PMTCT programme and scores were awarded accordingly. The participants were assured safety against physical and psychological harm. Anonymity and confidentiality were re-emphasized to encourage opening up and cooperation from the participants. A consent form that was designed for the subjects to sign before participating in the study in respect to their choices was utilised only those who consented were interviewed in private for confidentiality.

Data Collection Procedure

Data was collected after obtaining permission from the University of Zimbabwe, Department of Nursing Science, Zimbabwe Medical Research Council, the Director of Health Services for City of Harare and Sister in Charge of Highfield Polyclinic during the month of September 2010 for two weeks.

The investigator visited Highfield Poly clinic to introduce herself to Sister in Charge with a letter of approval from the Director of Health Services and asked for a private room for interviews. Consent to participate in the study was sought privately on individual basis in the examination rooms. The purpose and the procedures of the study were explained to each potential participant. A brief screening interview was done to ensure that the antenatal women met the inclusion criteria. All women who met the study criteria were asked to participate.

Following an informed consent, the participants were interviewed in a private and comfortable room while waiting to be attended to, for the antenatal follow up visit. Anonymity will be maintained by use of numbers and not names.

Data Analysis

Data analysis is a systematic organisation and synthesis of research data and testing hypothesis using those data (Polit & Hungler, (2004). Burns and Grove (2005) stated that after data is collected the discovery phase of research begins by finding the meaning of the data which is determined through analysis. All raw data was entered first, in a code book, organised then precisely entered into the computer to ensure accuracy of results. The data was entered into the computer for analysis using the statistical package for social science (SPSS, PC). Data cleaning was done.

Descriptive statistics that is frequency distribution, percentages and measurement of central tendency were used for demographic, PMTCT uptake and perceptions of PMTCT variables. Inferential statistics were employed to determine the relationship between perceptions of PMTCT and PMTCT uptake.

Summary

This chapter addressed the study methodology, that is study design, sampling plan, sampling size, sampling procedure, variables, instruments, data collection plan, validity and reliability, human rights considerations, data collection procedure and data analysis.

CHAPTER 4

RESULTS

This chapter presents results of the study which was conducted in September 2010. Data was analysed using descriptive and inferential statistics and presented in tables.

The purpose of the study was to examine the relationship between the perceptions of PMTCT and the PMTCT uptake among antenatal women aged 18 to 40 years attending Highfield Polyclinic.

The study sought to answer the following questions:

- 1. What are the perceptions of PMTCT among antenatal women aged 18-40 years attending Highfield Polyclinic?
- 2. What is the PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic?
- 3. What is the relationship between perceptions of PMTCT and PMTCT uptake among women aged 18-40years attending Highfield Polyclinic?

Data was collected by means of a face to face structured questionnaire and the response was hundred percent (100%). Analysis was done using statistical Package for Social Sciences (SPSS). Descriptive statistics which included frequencies, means and percentages were used to describe demographic information, perceptions of PMTCT and PMTCT uptake of antenatal women aged 18 to 40 years attending Highfield Polyclinic. Inferential statistics, the Pearson correlation coefficient was used to demonstrate the relationship between the perceptions of PMTCT and uptake among antenatal women.

Sample Demographics

The descriptive data on demographic characteristics is presented in this section. The variables under study were age, marital status, education, religion, employment status, income, whom they stayed with, relationship with whom they lived and the parity of respondents. The respondents' ages ranged from 18-40years with the mean of 27.09 years. Table 1 shows the demographic characteristics of respondents' age, marital status, educational level and religion. Thirty six respondents (41.9%) were aged between 18 to 24 years, twenty-nine respondents (33.7%) were aged between 25 to 32 years and twenty-one (24.4%) respondents were aged between 33 and 40 years. The table also shows that seventy-two respondents (83.7%) were married, twelve respondents (14.0%) were cohabiting, one respondent (1.2%) was single and one (1.2%) was widowed. In terms of education, five of the respondents (5.8%) attained primary education, seventy-six (88.4%) attained secondary level education while five (5.8%) respondents (98.8%) were Christians whilst one (1.2%) believed in cultural tradition.

Table 2 shows the sample demographics involving employment status, family income per month, with whom the respondents lived and whether their relationship was good. Sixty-three respondents (73.3%) were housewives, seventeen (19.8%) were formally employed and six (7.0%) were self employed. Fifty-fourth respondents (62.8%) had income of USD 300 and below with thirty two (37.2%) earning between USD 150 – 300 and twenty-two (25.6%) earning less than USD 150.00. Thirteen (15.1%) of the respondents earned between USD 301 – 400, seven (8.1%) earned between USD 401 to 500 while twelve (14%) had an income of over USD 500.00. Sixty-five respondents (75.6%) lived with their nuclear family that is twenty-three (26.7%) lived with their

spouses and forty-two (48.8%) lived with their spouses and children, thirteen (15.1%) lived with their in-laws, six (7%) lived with their parents whilst two (2.3%) lived alone.

Eighty-one (94.2%) indicated that they had a good relationship with the people they lived with while five (5.8%) had a bad relationship. Thirty-four (39.5%) of the respondents were carrying their first pregnancy, forty (46.5%) had 1 - 2 children, eleven (12.8%) had 3 - 4 children and one (1.2%) respondent had more than 4 children.

PMTCT Uptake

PMTCT uptake was the dependent variable. Table 3 displays the PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic responding to whether they received adequate information about PMTCT, HIV counselling and testing, integration of PMTCT into other programmes, who should be tested, whether the PMTCT services are always available at the antenatal clinic, stigma associated with HIV in pregnancy, enrolment for PMTCT and Voluntary Counselling and Testing (VCT).

Eighty-four (94.2%) of the respondents rated the information received about PMTCT programmes as adequate whilst two (2.3) reported inadequate information. Seventy-five (87.2%) of the respondents reported that they were counselled whilst eleven (12.8%) were not. When asked if all pregnant mothers must be tested for HIV, all 86 (100%) respondents echoed that all pregnant mothers must be HIV tested. Eighty-five (98.8%) respondents stated that they considered that PMTCT should be part of routine antenatal care and one (1.2%) gave a negative response. Eighty-five (98.8%) respondents reported that provider initiated testing and counselling (PITC) should be provided in all health institutions including antenatal clinics and one (1.2%) gave a negative response. Responding to whether PMTCT should be integrated into the existing Primary Health Care activities, eighty-four (97.7%) said yes whilst two (2.3%) said no. Two (2.3%) stated that

only those with more than one partner should be tested during pregnancy and the majority eighty-four (97.7%) responded negatively. Fifty-five (64.0%) stated that PMTCT services were always available at the clinic whilst thirty-one (36.0%) said the services were not always available. Forty-five (52.3%) of the antenatal women reported that there was no stigma associated with HIV testing in pregnancy and forty-one (47.7%) said that there was stigma associated with HIV testing. Seventy-three (84.9%) of the pregnant women had enrolled for PMTCT whilst thirteen (15.1%) had not enrolled. For voluntary counselling and testing (VCT) twenty-four (27.9%) voluntarily asked for HIV testing and sixty-two (72.1%) did not.

Table 4 shows the results of the PMTCT uptake among antenatal aged 18-40 years attending Highfield clinic concerning the providers' initiated testing and counselling, opting in and out option getting HIV results same day, involvement of husband, husband's consent, whether husband has been HIV tested, disclosure and stigma issues, information on availability of ARVs and use of condom during pregnancy. Eighty-one (94.2%) including those who attended for VCT reported that the provider initiated testing and counselling had been offered to them but five (5.8%) stated that the PITC option was not offered to them. Forty-six (53.5%) said they were not given a chance to opt in or opt out but were told that it was compulsory for all antenatal mothers to be HIV tested, thirty-four (39.5%) were given the chance to decide whether to enrol for PMTCT or not and for six (7%) respondents, this question was not applicable. Seventy-two (82.6%) respondents got there HIV results same day and two (2.3%) did not get their results. Thirteen (15.1%) respondents had not enrolled for the PMTCT programme. Concerning involvement of husband/partner, 71seventy-one (82.6%) antenatal women reported that their husbands were involved in the PMTCT programme and they needed their husband's consent while fourteen (16.3%) stated that their husbands/partners were not involved so did not need

consent, one (1.2%) was widowed during this pregnancy. Twenty-three (26.7%) husbands were tested for HIV, sixty-two (72.1%) were not HIV tested and one (1.2%) had passed away. Eighty-one (94.2%) were informed about the availability of drugs for these HIV positive while five (5.8%) were not informed. For disclosure of HIV status without fearing stigma sixteen (18.6%) respondents reported that they could freely share their HIV positive results with someone whilst seventy (81.4%) said they could not freely share results if they were positive.

The use of condoms to prevent infection during pregnancy was being practiced by 7 (8.1%) respondents whilst 78seveny-eight (90.7%) were not using condoms and one (1.2%) widow who stated that she did not need the condoms since she had lost her husband.

(N = 86)				
Variable	Frequency	Percentage		
Age in years				
18 - 24	36	41.9		
25 - 32	29	33.7		
33 - 40	21	24.4		
Marital Status				
Single	1	1.2		
Married	72	83.7		
Cohabiting	12	14.0		
Widowed	1	1.2		
Educational Level				
Primary Education	5	5.8		
Secondary Education	76	88.4		
Tertiary Education	5	5.8		
Religion				
Christian	85	98.8		
Cultural Beliefs	1	1.2		

Table 1: Sample Demographics I (N = 86)

Variable	Frequency	Percentage
Employment Status		
Housewife	63	73.3
Self-employed	6	7.0
Formally Employed	17	19.8
Income		
Less than USD 150	22	25.6
USD 150 – 300	32	37.2
USD 301 – 400	13	15.1
USD 401 – 500	7	8.1
More than USD 500	12	
Whom they live with		
Spouse	23	26.7
Spouses and children	42	48.8
Own parents	6	7.0
In – Laws	13	15.1
Alone	2	2.3
Good Relationship		
Yes	81	94.2
No	4	5.8
Parity		
0	34	39.5
1 – 2	40	46.5
3-4	11	12.8
4+	1	1.3

Table 2: Sample Demographics II (N = 86)

Table 3: PMTCT Uptake I (N = 86)

Variable	Frequency	Percentage
v artauto	riquency	recentage
Adequate PMTCT Information		
No	2	2.3
Yes	84	97.7
Have been Counselled for HIV		
<u>Testing</u>		
No	11	12.8
Yes	75	87.2
All pregnant mother must be HIV		
tested		
No	0	0.0
Yes	86	100.0
Routine Antenatal Clinic		
No	1	1.2
Yes	85	98.8
PMTCT Integration into PHC	2	2.2
No	2	2.3
Yes	84	97.7
Only those with many partners to		
be HIV tested		
No	84	97.7
Yes	2	2.3
Availability of PMTCT Services		
No	31	36.0
Yes	55	64.0
Is Stigma associated with HIV		
testing in pregnancy	15	50.2
NO Vac	45 41	52.5 47 7
1 es	41	47.7
Enrolled for PMTCT		
No	13	15.1
Yes	73	84.9
Voluntary Counselling and Testing		- 14
(VCT)		
No	62	72.1
Yes	24	27.9

Table 5 shows the results of the frequency of scores for the PMTCT uptake by the respondents. The total scores of eleven (12.8%) of the respondents reflected moderate PMTCT uptake with scores ranging from minimum of 26 to 30 points and seventy-five (87.2%) reflected high PMTCT uptake ranging from 31 to 38 and 40 points. The measuring instrument mean was 20 and the results showed a higher mean of 32.4 for PMTCT uptake.

Perceptions of PMTCT

Table 6 displays results of the perceptions of PMTCT among antenatal women on the benefits of PMTCT, the people at risk of HIV infection, and perceived barriers in participating in PMTCT. All the respondents eighty-six (100%) stated that the infant/baby, the mother and the whole family benefit from PMTCT programme. All sexually active men and women were reported to be at risk of HIV infection by eight-three (96.5%) of the respondent whilst three (3.5%) reported that they are not at risk. For only those with more than one sexual partner eighty-two (95.3%) respondents said they are not the only ones at risk and four (4.7%) reported that they are the only ones at risk of HIV infection. Eightythree (96.5%) of respondents reported that all pregnant women and their babies and also babies born of HIV positive mothers are all at risk of HIV infection whilst three (3.5%) reported that pregnant women and their babies are not at risk of HIV infection. Sixty-six (76.7%) of the respondents perceived the husband's consent as a barrier to participating in PMTCT and twenty (23.3%) did not. Forty-four (51.2%) respondents perceived opposition from husband as a barrier and forty-two (48.8%) did not. Fear of disclosure if positive was perceived as a barrier to PMTCT by sixty-four (74.4%) respondents and not as a barrier by twenty-two (25.6%). Fear of domestic violence was not perceived as barrier by fifty-six (65.1%) and as a barrier by 30 (34.9%). Sixty-two (72.1%) of respondents did not perceive fear of divorce if positive as a barrier and twenty-four (27.9%) perceived this as a barrier.

PMTCT Uptake II		
(N = 86)		
Variable	Frequency	Percentage
PITC Option used	E	5 0
No	5	5.8
Yes	81	94.2
Change for Opt in or out Option		
<u>N/A</u>	6	7.0
N/A No	0 46	7.0
NO Ves	40 34	30.5
1 05	54	57.5
Results Same Day		
N/A	13	15.1
No	2	23
Ves	71	82.6
105	/ 1	02.0
Husband/partner involvement in		
PMTCT		
N/A	1	1.2
No	14	16.3
Yes	71	82.6
		0210
Husband/partner tested for HIV		
N/A	1	1.2
No	62	72.1
Yes	23	26.7
Husband/partner consent for		
Enrolling in PMTCT		
N/A	1	1.2
No	14	16.3
Yes	71	82.6
Information Availability of Drugs		
for those HIV positive		
No	5	5.8
Yes	81	94.2
		
Disclosure without fearing stigma	-	
No	70	81.4
Yes	16	18.6
Use of Condoms for DMTCT		
Use of Condoms for PMTCT	1	1.0
IN/A	1 70	1.2
INO Vez	/8	90.7
I es	/	ð.1

Table 4: PMTCT Uptake II

Table 5:

PMTCT Uptake III

(N = 86)

Variable	Frequency	Percentage
Total scores out of 40		
26	2	2.3
28	4	4.7
29	2	2.3
30	3	3.5
31	7	8.1
32	4	4.7
33	17	19.8
34	26	30.2
35	13	15.1
36	5	5.8
37	1	1.2
38	2	2.3

Summary of PMTCT Uptake Frequencies

Low PMTCT uptake (1 to 20 points)	0	0
Moderate PMTCT uptake (21 – 30 points)	11	12.8
High PMTCT uptake (31 – 40 points)	75	87.2

Table 6:

Perceptions of PMTCT programme I

(N = 86)

Variable	Frequency	Percentage
Infant/baby benefits from PMTCT		
No	86	100.0
Yes	0	0.0
The mother benefits from PMTCT		
No	0	0.0
Yes	86	100.0
Whole family benefit from PMTCT		
No	0	0.0
Yes	86	100.0
All sexually active men and women are at risk		
of HIV infection		
No	3	3.5
Yes	83	96.5
Only with more than one sexual partner is at		
risk of HIV infection		
No	82	95.3
Yes	4	4.7
All pregnant women and their babies are at risk		
of HIV infection		
No	3	3.5
Yes	83	96.5
Babies born of HIV mothers are at risk of HIV		
infection		
No	3	3.5
Yes	83	96.4
Perceptions of Husband's consent as a barrier		
No	20	23.3
Yes	66	76.7
Fear of Disclosure		
No	22	25.6
Yes	64	74.4
Opposition from husband		
No	42	48.8
Yes	44	51.2
Fear of violence if positive		
No	56	65.1
Yes	30	34.9
Fear of divorce		
No	62	72.1
Yes	24	27.9

Table 7 displays results of the study on perceptions of PMTCT among antenatal women aged 18-40years concerning, stigma, discrimination by Health Workers and Community issues concerning PMTCT. Forty-seven of the respondents (54.7%) did not perceive stigma associated with HIV as a barrier to participating in PMTCT and thirty-nine of them (45.3%) perceived stigma as a barrier. Discrimination by health staff was not perceived as a barrier to participating in PMTCT by seventy-two of the respondents (83.7%) and as barrier by fourteen (16.3%). Eighty-three of the antenatal women (96.5%) perceived that community lacked adequate information on PMTCT and three of them (3.5%) did not. Seventy-one of the respondents (82.6%) perceived lack of community involvement as an issue affecting PMTCT programme and fifteen of them (17.4%) did not perceive it as an issue. Seventy-two of the respondents (83.7%) also perceived that there was lack of male involvement in PMTCT and 14 fourteen (16.3%) did not perceive it as an issue. All eighty-six respondents 86 (100%) perceived that there was lack of husband/partner involvement. Sixty-two of the respondents (72.1%) perceived cultural breastfeeding issues as a community issue and twenty-four (27.9%) perceived this as not a community issue concerning PMTCT programme. Sixty-six of the respondent (76.7%) reported that they did not perceive negative attitudes of staff as challenges affecting the PMTCT participation and twenty of the respondents (23.3%) perceived the negative attitudes of staff as challenges. Poor staff morale was not perceived as a challenge by seventy-seven (89.5%) of the respondents and was perceived as a challenge affecting participation in PMTCT programme by nine (10.5%) of the respondents. Sixteen of the respondents (18.6%) perceived lack of privacy for counselling as a challenge affecting PMTCT participation and seventy (81.4%) did not perceive it as a challenge. Non availability of counsellors and rapid testers was perceived as a challenge affecting PMTCT participation by most, forty-six of the respondents (53.3%) of the respondents and forty (46.5%) of did not perceive this as a challenge faced at the clinic. Seventy-nine (91.9%) did not perceive out of stock situation of testing kits and ARVs as challenge faced at the clinic and seven (8.1%) perceived this as a challenge faced the clinic that affect participation in PMTCT.

Table 7

Perceptions of PMTCT Programme II

(N = 86)

Variable	Frequency	Percentage
Stigma associated with HIV		
No	47	54.7
Yes	39	45.3
Discrimination		
No	72	83.7
Yes	14	16.3
Community issues concerning PMTCT		
Lack of adequate information		
No	3	3.5
Yes	83	96.5
Poor community involvement		
No	15	17.4
Yes	71	82.6
Lack of male motivation		
No	14	16.3
Yes	72	87.7
Lack of partner/husband involvement		
No	0	0.0
Yes	86	100.0
Cultural breastfeeding issues		
No	24	27.9
Yes	62	72.1
Perceived as challenges at clinic		
Negative attitudes of staff		
No	66	76.7
Yes	20	23.3
Poor staff morale		
No	77	89.5
Yes	9	10.5
Lack of Privacy for counselling		
No	70	81.4
Yes	16	18.6
Non availability of counsellors/rapid testers		
No	40	46.5
Yes	46	53.5
Out of Stock situation of ARVs/test kits		
No	79	91.9
Yes	7	8.1

Table 8 shows the results of overall scores of perceptions of PMTCT among antenatal women aged 18-40 years attending Highfield clinic. Results showed the perceptions of PMTCT scores ranging from minimum of 30 to maximum of 42 out of total of 48 scores. The measuring instrument's mean was 24 and the results reflected a higher mean of 36.4 for the perceptions of PMTCT. It shows thirty-two (37.2%) respondents reflecting moderate perceptions of PMTCT and fifty-four (62.8%) reflecting high perceptions of PMTCT.

Relationship between Perceptions of PMTCT and PMTCT Uptake

Table 9 shows the results of the Pearson correlation analysis. The correlation coefficient (r) is an index that measures the strength or magnitude and direction of linear relationship (Polit & Hungler, 2005). The results of the study showed a positive significant weak correlation

(r =.242*, p <0.05) of perceptions of PMTCT and PMTCT uptake among antenatal women. The results supported that as perceptions of PMTCT increase among antenatal women, PMTCT uptake also increases among antenatal women.

Table 10 shows a regression co-efficient analysis. Regression was done to examine the strength of relationship between the perceptions of PMTCT and the PMTCT uptake among antenatal women and the regression coefficient was .059. The significant Beta indicates the relative importance of the independent variable (perceptions of PMTCT) on the dependent variable (PMTCT uptake). The bigger the significant beta, the more important it becomes, in terms of its contributions to the dependent variable. The importance of perceptions of PMTCT on this study is 5.9% in terms of its contribution to the PMTCT uptake. Therefore, perceptions of PMTCT have a very weak positive influence on the PMTCT uptake.

Table 8

Perceptions of PMTCT Programme III

Variable	Frequency	Percentage
Total scores out of 48		
30	1	1.2
32	3	3.5
33	2	2.3
34	4	4.7
35	12	14.0
36	10	11.6
37	12	14.0
38	15	17.4
39	12	14.0
40	9	10.5
41	4	4.7
42	2	2.3

Summary of Perceptions of PMTCT Programme

Low perception (1 - 24)	0	0
Moderate perceptions (25 – 36 points)	32	37,2
High perceptions (37 – 48 points)	54	62.8

Table 9

Pearson Correlation Matrix

	Y
	1.000
Х	.242*

*p < 0.05	**p < 0.01	***p < 0.001	
(N = 86)			

Y = PMTCT Uptake

X = Perceptions of PMTCT
Table 10:

Regression Analysis

(N = 86)

Variable	В	SEB	BETA
	.235	.103	.242*
Х	24.394	3.831	
(Constant)			
R ²	.059	F = 5.232	
* p .05	**p<.01		***p < .001

X = Perceptions of PMTCT

CHAPTER 5

SUMMARY

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter presents a summary of findings, discussion, implications and recommendations of the study findings to Maternal and Child Health and Midwifery, Nursing Practice, Education and Research. King's Goal Attainment Theory guided the study. Limitations of the study will be outlined and a summary presented.

The purpose of the study was to examine the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic. A descriptive correlational study design was employed and a simple random sampling procedure was used to select eighty-six (86) subjects who met the inclusion criteria. Perceptions of PMTCT among antenatal women was the independent variable and PMTCT uptake was the dependent variable.

Data was analysed using Statistical Package for Social Sciences (SPSS). King's conceptual framework was used to determine the relationship between perceptions of PMTCT and PMTCT uptake. Descriptive statistics to yield frequency means and percentages were used for demographic information, PMTCT uptake and perceptions of PMTCT. The Pearson's correlation coefficient was used to examine the relationship between the perceptions of PMTCT and PMTCT and PMTCT and PMTCT and PMTCT uptake.

Majority (88.4%) of the respondents had attained secondary level of education, 75% were married and 73% were housewives. The mean age of respondents was 27.09 years. Results on PMTCT uptake showed that a high PMTCT uptake of 87.2% and high perceptions of PMTCT (62.8%). The Pearson correlation coefficient indicated a positive significant weak correlationship of (r =.242, p < 0.05) between the perceptions of PMTCT and PMTCT uptake. This result shows that as perceptions of PMTCT increases the PMTCT uptake also increases.

Discussions and Implications

Sample Demographics

This study was based on a simple randomly selected sample of 86 antenatal women and the sample was decided using a power of .80 which is the minimum acceptable level for a study. In terms of educational level, majority (88.4%) of the respondents had attained secondary level education and 5.8% had gone up to college or university level. Education enables individuals to perceive health issues, health education and health information better. According to the World Bank Report (2002) education increases people's understanding and ability to benefit from health education. This finding is also supported by Perez, Zvandazwa, Englesman and Dabis (2005) who stated that this level of education is adequate to ensure understanding and comprehension of health information to increase PMTCT uptake in spite of negative perceptions. The implication is to educate the girl child and empower all women with their reproductive rights so that they benefit from PMTCT programmes (Kusimba, Dunbar, Minnis, Medlin, Gerts & Padian, 2007).

Majority (98.8%) of the respondents were Christians, (83.7%) were married, (75.6%) were living with husband plus child/children or no child/children and (94.2%) of them had good relationship with the people they lived with. Similarly, according to Perez, Zvandazwa,,Englemann and Dabis (2005) Christianity enables

individuals to understand and comprehend health information and issues and it encourages husbands to live with their wives and children.

Most (80.2%) of the respondents were not formally employed of whom (73.3%) were housewives with a family income ranging from USD150 to 500 and 14% had an income of more than USD 500. Although the majority of the respondents (88.4%) attained secondary education plus five (5.8%) attained tertiary level, they were not in gainful employment resulting in unsustainable incomes as stated above. The reason for this unemployment rate could be due to the hyper-inflationary environment and redundancy of most employing agencies in the country or effects of global recession. The findings are in line with Adeneye et al, (2006) who studied a sample of whom 70% were housewife. The implication is that the antenatal services should be affordable to enable all to access the PMTCT services so as to avoid missed opportunities due to poor access to PMTCT programme because of high maternity fees (Adeneye et al, 2006).

Thirty –six (41.9%) of the respondents were aged between 18-24 years with a mean age of 27.09 years and majority (46.5%) of the respondents had 1-2children and 39.5% were nulliparuos. Tadesse and Muula (2004) found out that 50% of young people aged between 20-24 years had already experienced sexual intercourse with an average first intercourse at 18 years for females. This makes it the most appropriate age group for impacting reproductive health knowledge and PMTCT programme. According to Tadesse and Muula (2004) young women were more likely to be tested for HIV than older women, because they were more aware of their risk to human immune deficiency virus infection. This implies that the health workers should empower adolescent girls in high schools, colleges and universities with reproductive health information including HIV and AIDS to prevent infection (Creek, Ntumy and Mazhani, 2003).

PMTCT Uptake

Majority (87.2%) of the respondents showed high PMTCT uptake and no one reflected low PMTCT uptake. The same percentage (87.2%) reported that they had been counselled and 84.9% had enrolled for PMTCT. These findings showed a significant increase in PMTCT uptake from 66% in 2009 to 87.2% in 2010(City of Harare Annual Report, 2009). This increase could be attributed to the introduction of the provider initiated testing and counselling (PITC) for routine antenatal care which was said to be acceptable by both clients and health-care providers (Perez, 2006). This could also be attributed to the provision of comprehensive PMTCT services to pregnant women their babies including care and treatment, in the context of universal access (MOHCW, 2007). All (100%) stated that all pregnant women must be HIV tested and 98.8% stated that they considered that PMTCT be part of routine ANC and that PITC be provided in all health institutions. Majority (97.7%) of the respondents rated information they received about PMTCT as adequate, reported that PMTCT should be integrated into the existing Primary Health Care activities/supporting the plea by MOHCW (2007). The above reflect that majority of the women are aware that everybody is at risk of HIV infection. The findings are supported by Creek, Ntumy and Mazhani, (2003) who noted that ensuring adequate knowledge about HIV and PMTCT may improve uptake of HIV testing. Seventy-one (82.6%) got their HIV results same day. Antenatal women get their HIV results same day because nurses have been trained to do rapid HIV testing as PITC is provided (MOHCW, 2007). Getting HIV results same day is supported by the studies by Dabis, Leroy, Csaterbonk, Spira, Nowell and Salamon, (2001) which found that if results are given the same day of testing, the rate of return to receive results increased from 70% to 90%. All the above findings imply that the antenatal women have relevant PMTCT information to make their informed decisions regarding their health and the infant/baby (Creekl, Ntumy and Mazhani, 2003). The health care providers should provide comprehensive PMTCT services to at least 80% of pregnant women, their babies and their families, including care and treatment of pregnant women, in the context of universal access by the end of 2010 (MOHCW,2007).Therefore, this implies that all efforts should be geared to achieve this goal.

Majority (90.7%) of the respondents did not use condoms for safer sex because their husbands objected. This could be attributed to the fact that condom use in regular and marriage relationships remains low in Zimbabwe despite the fact that being in long-term relationships is not necessarily a protective factor (MOHCW, 2007). (UNAIDS (2008), found that condom use was reported in Uganda, to have raised the uptake of HIV testing from 12% to 50% in 2008, while PMTCT uptake in Zimbabwe increased from 10% in 2005 to 34% in 2007. Male involvement in PMTCT programmes encourages men to adopt positive behaviours such as consistent condom use (Byamugisha, Tumwine, Semiyaga & Tylleskar, 2009). The implications are that PMTCT programmes should be geared to involving men especially husbands so that they get first hand information from health workers regarding the importance of knowing their HIV status and having safer sex with their spouses (MOHCW, 2007). Stigma associated with HIV testing was highlighted by 41.7% of the respondents. This shows that people are still being stigmatised as indicated by Johns, Whyte, Burns, French and Henson (2000) who confirmed some negative implications socially when results are shared with family because of associated with Twenty-three (26.7%) of the husbands of the respondents had not been HIV stigma. tested. This is an indication of poor husband/ involvement as normally husbands do not attend antenatal clinics and is contrary to the fact that male involvement in PMTCT programmes encourages men adopting positive behaviours such as remaining faithful to one partner (Byamugisha, Timwine, Semiyaga & Tylleskar 2009).

Perceptions of PMTCT Programme

Fifty-four (62.8%) scored high perceptions of PMTCT and no one had low perceptions. These findings are in agreement with a study by Krah (2004) on barriers to PMTCT uptake which showed adequate awareness and appreciation of benefits of PMTCT by both providers and the community in South Africa. All respondents (100%) stated that the infant/baby, the mother and the whole family benefit from the PMTCT programme. It is an indication that the respondents were knowledgeable about the benefits to the whole family. This is contrary to studies on community perceptions of PMTCT by Population Services International (2004) in two rural districts of Tanzania where (33.3%) of the respondents expressed hopelessness of saving the baby when the mother and father are going to die of AIDS. Eighty-three (96.5%) of the respondents reported that all sexually active men and women, all pregnant women plus their babies and babies born of HIV positive mothers are at risk of HIV infection. Eighty-two (95.3%) stated that not only those with more than one partner are at risk of HIV infection. The findings show that majority of the respondents were aware of the risks with the exception of those who responded negatively and needed correct information on who is at risk to dispel myths and misconceptions. Similarly a study entitled "Positive Women Voices and Choices," by Feldman, Manchester and Maposhere (2003) reported that most of the women involved in the study did not consider themselves to be at risk especially if they were married and faithful to their partner. This could be the same scenario with some of the respondents and relevant communication messages about the programme should be formulated.

All (100%) of the respondents perceived lack of husband /partner involve in PMTCT, (83.7%) perceived lack of all male clients' involvement, high percentage (76.7%) of the respondents perceived the husband's consent as a barrier to participating in PMTCT and (51.2%) perceived opposition from husband as another barrier. This implies that 100% of the women are dependent on their husbands even when it affects their own health, because they are financially handicapped and have to seek husband's approval to participate in PMTCT for fear of domestic violence (Bajunirwe & Mizoora, 2005). The findings are in line with the study by Bajunirwe and Mizoora (2005) which revealed that the strongest predictor of willingness to accept an HIV test and join the PMTCT programme was the woman's perception that her husband would approve of her testing for HIV. The findings imply that women need to be empowered of their human and reproductive health rights so as to make informed decisions as regards their health.

Fear of disclosure was perceived as a barrier to participating in PMTCT by 74.4% of the respondents who expressed that disclosure was a complex process and a personal matter that entails culture, stigma and communications. This was supported the study by Johns , Whyte, Burns, French and Henson (2000) who stated that PMTCT programme may have negative implications socially when shared with the family. Therefore, appropriate counselling should be maintained to empower clients to deal with their own situations and choose the right time, to whom to disclose and the importance of disclosure especially for mutual relationship and support.

Thirty (34.9%) perceived fear of domestic violence and (27.9%) fear of divorce as barrier to participating in PMTCT. The findings indicate that some women are punished for making decisions concerning their own health. A study by Bajunirwe and Mizoora (2005) in Uganda revealed that in some circumstances where women have consented to an HIV test without husband's approval, the women suffered domestic violence. In Zimbabwe there has been a slow response to the PMTCT programme intervention by women who fear being rejected by their husbands when they test HIV positive (MOHCW, 2005). The findings are also supported by Kusimba, Dunbar, Minnis, Medline Gerts and Padian (2007) from lessons learnt from the Kenyan experience.

In terms of stigma associated with HIV, 45.3% of the respondents perceived stigma as a barrier to participating in PMTCT and 16.3% professed discrimination by health workers. This implies that stigma and discrimination are perception barriers to participating in PMTCT programmes in spite of all the efforts in community education and staff training. The findings are supported by studies done in South Africa, by Rutenberg (2007), in Kenya. Population Services International (2004) in Tanzania and Feldman, Manchester and Maposhere (2003) in Zimbabwe, noted that the positive women who wanted to avoid further pregnancies faced stigma and discrimination from health workers. UNAIDS and WHO (2005) alluded that it is more likely that in settings where infection with HIV is highly stigmatized and there is little or no treatment available, testing is less appealing for those who might be infected. The study findings are supported by the above mentioned studies but highlight the need for health workers to make their services user friendly.

Eighty-three (96.5%) perceived that community lacked adequate PMTCT information, 82.6% perceived that there was poor community involvement, 83.7% perceived that there is lack of male involvement and 72.1% perceived cultural breastfeeding issues that affects PMTCT programme. These community issues were attributed to be affecting the respondents participation in PMTCT. Contrary to these

71

findings, a study done in South Africa by Krah (2004) showed adequate awareness and appreciation of benefits of VCT by both providers and the community.

Non availability of counsellors/rapid testers was perceived by 53.3% as a barrier to participating in PMTCT. Similarly, in South Africa the other factors that influenced VCT uptake in PMTCT programmes were infrastructure and availability of counsellors, morale and attitudes (Health Systems Trust, 2002). In Kenya, Rutenberg (2007) in the study on the perceptions of PMTCT services highlighted that the main barriers were providers' attitudes, shortage of human resources, poor infrastructure, poor health care services and periodic shortages of HIV testing kits. For the success of the PMTCT programme vigorous and innovative communication skills for health care providers should be initiated as well as provision of adequate human and material resources.

Relationship between Perceptions of PMTCT and PMTCT Uptake

The relationship between perceptions of PMTCT among antenatal women and PMTCT uptake showed a positive significant weak relationship of (r = .242 p < 0.05). This means that when perceptions of PMTCT among antenatal women increase, the PMTCT uptake increases. This is supported by King (1981) who stated that accuracy of perception increases the effectiveness of actions. The goal attainment theory is based on the concepts of interpersonal systems, including interaction, perception, communication, transaction, role, growth and development, time and space (King, 1981). In this study perceptions of PMTCT were shared by the midwife and the antenatal women by mutually communicating PMTCT information and agreeing on roles and responsibilities which resulted in increasing PMTCT uptake.

This is also in line with a study by Ndhlela (1999, Unpublished) which indicated that when perceived family communication increases, health promotion seeking behaviour increases. A significant correlation between participation as well as perception was demonstrated and showed that as perception increases, participation in MCH services increases (Mamutse, 2004, Unpublished). Whereas another study by Nkhoma (2007) indicated that as mothers' perceptions increase the frequency of maladaptive behaviours amongst moderately mentally retarded clients, decreases.

Theoretical Framework

King's Goal Attainment theory was used to guide the conceptualisation and analysis of this study. The study identified the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40 years attending Highfield Polyclinic. King's Goal Attainment Theory incorporates the concept of the nurse and patient mutually communicating information, establishing goals and taking action to attain goals. The midwife and the antenatal women in this study mutually communicated information on PMTCT programme, established goals to enrol in PMTCT and took action to participate in PMTCT resulting in PMTCT uptake.

The perceptions of PMTCT among antenatal women are important in PMTCT uptake because when perceptions of PMTCT increase, PMTCT uptake also increases. The study showed high (67.4%) perceptions of PMTCT and a high (87.2%) PMTCT uptake. The results were in line with the importance of King's concepts of interaction, transaction and goal attainment of high PMTCT uptake as a result of shared high PMTCT perceptions between midwife and antenatal women. This is also supported by Majada (2005, Unpublished) who showed that adherence to replacement feeding was attributed to competent counselling on HIV and infant feeding. In this study the midwives and the

antenatal women, through mutually communicating PMTCT information (interactions which are perceptions shared), established goals (-transactions-agreement on roles and responsibilities) and took action (goal attainment -- participating in PMTCT) which resulted in high PMTCT uptake. The study indicated that there is a positive significant weak relationship (r=.242 p <0.05) of perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40years attending Highfield Polyclinic.

Implications to Maternal and Child Health and Midwifery (MCH and Midwifery)

The study findings revealed an increase in PMTCT uptake for Highfield Polyclinic from 66% in 2009 (The Harare Annual Report, 2009) to 84.9% in this study. While knowledge level could be high which is responsible for the increase PMTCT uptake, there is possibility that the situation regarding consent, lack of husband involvement, disclosure issues, stigmatization, unmet needs, misconceptions or indecisions maybe placing antenatal women in a situation of role confusion (Kusimba, Dunbar, Minnis, Medlin, Gerts and Padian, 2007 and Rutenberg, 2007). Strategies to involve men especially spouses and the community as whole in PMTCT should be continued and continue to empower women with their human and reproductive health rights.

The study has implications to MCH and Midwifery with regards to education, practice and research. In education, the results of this study can be used to give feedback on results and findings to midwifery, and other post basic, undergraduate and graduate students on the evidence based content. There is need to intensify information education and communication (IEC) to the community to eliminate the stigma, myths and misconceptions and to strengthen skills of nurse counsellors to offer client –directed counselling, comprehensive care to the antenatal women and in addition to couple counselling (UNAIDS &WHO, 2005, Krah, 2004). Health education based on King's

model provides a more organised, sequenced content that can be clearly understood by antenatal women (King, 1981).

In practice, King's model can be used to guide care given to the antenatal women. Provider initiated testing and counselling (PITC) is supposed to be an empowering tool that pregnant women should use in decision making in all matters pertaining to reproductive health through its goal of providing comprehensive PMTCT services (Perez et a, 2006)l. Midwives should make time and attend to individual needs of their clients and concentrate on individual counselling (UNAIDS &WHO, 2005).

Maternal and child health and midwifery practice should be linked to evidence based research knowledge. This requires conducting in service workshops to update midwives with local current research findings appropriate to enhancing practice. There is need to replicate the study on a larger scale.

Limitations of the Study

- An element of bias cannot be ruled out on mothers' responses during the face to face interview, as there was a possibility of giving socially acceptable responses that could either underscore or exaggerate the true picture.
- 2. The sample was small (86) compared to other studies used in the literature review.
- 3. There was very little local literature on the use of the King's Goal Attainment Theory in MCH and Midwifery practice.

Recommendations

- 1. Replicate the study on a lager and wider area to get a large sample that is representative of the population so as to generalise the results and findings.
- 2. Use of King's Goal Attainment Theory in MCH and Midwifery.
- 3. In service training and on job training for nurse in practice so that they offer provider initiated testing and counselling (PITC) to all their patients/clients.
- 4. Innovative information education and communication (IEC) drive with accurate consistent culturally appropriate messages to reduce community related barriers.
- 5. Health education strategies to involve males so as to increase PMTCT knowledge for men to support their spouses in the PMTCT programmes.

Summary

Mother-to-Child transmission of HIV (MTCT) accounts for almost two thirds (62.8%) of the new infections in children yearly (UNAIDS, 2006). This resulted in PMTCT becoming the major element among the preferred strategies, as a national response to address and compact the HIV epidemic (MOHCW, 2007). A study was conducted to determine the relationship between perceptions of PMTCT and PMTCT uptake among antenatal women aged 18-40years attending Highfield Polyclinic.

King's model guided this study. A descriptive correlational study was used to examine the relationship between perceptions of PMTCT and PMTCT uptake. A simple random sample of 86 antenatal women aged 18-40 years was selected. Data was collected using face to face interview, using the demographic questionnaire, the PMTCT uptake questionnaire and perceptions of PMTCT questionnaire. Descriptive statistics were used to analyse demographics, PMTCT uptake and perceptions of PMTCT programme data and inferential statistic was used to demonstrate the relationship between the two variables. The study results showed a high (87.2%) PMTCT uptake and no one had low uptake. Majority (84.9%) of the respondents had enrolled for PMTCT of which 90.7% were not aware of the use of condoms for safer sex during pregnancy.

For the perceptions of PMTCT, 62.8% reflected high perceptions, with all (100%) aware of the benefits of PMTCT to the whole family, 96.5% stated all sexually active men and women and all pregnant women and their babies are at risk of HIV infection, majority (76.7%) of them stating that husband's consent was a barrier to PMTCT, 74.4% had a fear to disclose HIV positive results and also feared opposition from husband. All respondents expressed that the PMTCT programme lacked involvement of husband and the use of the condoms for married couples, for example, is not practical if husbands are not aware of the benefits.

The findings indicated a positive significant weak relationship (r = .242 p< 0.05) between the perceptions of PMTCT and PMTCT uptake among antenatal women. This implies that as perceptions of PMTCT among antenatal women increase, PMTCT uptake also increases. Therefore, this study supported that perceptions had some effect to a little extent, on positively affecting PMTCT uptake.

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APPENDIX: 1

Informed Consent

My name is Pauline Munyaradzi; I am a student of Masters in Nursing science Degree at the University of Zimbabwe carrying out a study entitled: "Relationship between perceptions of Prevention of Mother to Child Transmission of HIV (PMTCT) and PMTCT uptake among pregnant women aged 18-40 years." I am requesting you to participate in this study.

The study might not benefit you immediately but the findings may help to improve the quality of care and future programming of PMTCT. There are no obvious physical risks foreseen or emotional risks anticipated. The information will be collected from subjects/respondents through an interview. This information will include demographical data, perception of PMTCT and PMTCT uptake. This interview will take about 15 to 20 minutes and you are free to ask any questions. Your participation in the study is voluntary. You are free to withdraw from the study any time without any penalty, should you feel you want to.

The service you receive at the clinic and the relationship with the health care provided will not be affected in any way. All information will be confidential and your name will be anonymous. For any queries or questions, contact me through the University of Zimbabwe, College of Health sciences, Department of Nursing Science. Box A 178, Avondale. Harare.

Phone 04707707 extension 2221 or contact me on my cell-phone 071 213 431.

Will you please sign to your willingness to participate?

Participant's Statement:

The study described above has been explained to me to my full understanding and I voluntarily give consent to participate in this study.

Participant's Signature......Date.....Date

Witness......Date.....

APPENDIX 2

May you please answer all questions truthfully to the best of your knowledge.

SECTION A DEMOGRAPHIC QUESTIONNAIRE

- 1. How old are you?
 - (a) 18 24 years
 - (b) 25 32 years
 - (c) 33 40 years

- 2. What is your marital status?
 - a. Single
 - b. Married
 - c. Cohabiting
 - d. Separated
 - e. Divorced
 - f. Widowed

3. What is your highest level of education?

- (a) Never been to school
- (b) Primary education
- (c) Secondary education
- (d) Tertiary education
- 4. What is your employment status?
 - a. Housewife
 - b. Self employed
 - c. Formal employment
- 5. What is your religion?
 - a. Christian
 - b. Cultural beliefs
 - c. Moslem
 - d. None

6. What is your family's total income per month?

- a. Less than 150USD
- b. Between 151 300USD
- c. Between 301 400USD
- d. Between 401 500USD
- e. More than 500 USD

- 7. What is your parity?
 - a. 0
 - 1 -2 b.
 - 3-4 c.
 - d. 4+

- 8. Whom do you live with?
 - Spouse a.
 - Spouse and children b.
 - Own parents c.
 - d. In laws
 - Alone e.

- 9. Is the relationship with people you live with good?
 - Yes a.
 - b. No

		Yes	No
10.	Did you rate as adequate the information that you received about PMTCT?		
11.	Have you been counselled about HIV testing and PMTCT?		
12	Should all mothers be tested for HIV during pregnancy.		
13	Do you consider that PMTCT should be part of routine antenatal care to achieve		
	universal HIV testing?		
14	Should provider initiated Testing and Counselling (PITC) be provided in all		
	institutions including antenatal clinics?		
15	Should PMTCT be integrated into the existing Primary Health Care activities?		
16	Should only those with many partners be tested for HIV during pregnancy?		
17.	Are services for PMTCT always available at antenatal clinic?		
18.	Is there stigma associated with routine HIV testing in pregnancy?		
19.	Are you enrolled for PMTCT?		
20.	Do you voluntarily ask for HIV test?		
21.	Was Provider Initiated Testing and Counselling option used?		
22.	If yes to the above, were you given the chance to opt in or out?		
23.	Did you get your HIV results same day?		
24.	Has your husband/partner been involved in the PMTCT programme?		
25	Has your husband/partner been tested for HIV?		
26	Did you require your husband "s /partner"s consent before enrolling in PMTCT?		
27.	Were you informed that drugs are available for those who are HIV positive when		
	they need them?		
28.	If you are HIV positive, can you freely share the results with someone without		
	suffering from stigma?		
29.	Do you use condoms for PMTCT to avoid re-infection?		

SECTION C

PERCEPTION OF PMTCT PROGRAMME

30 Who benefits from PMTCT programme?

- a. Infant/baby only
- b. Both mother and infant/baby
- c. The whole family

31 Who do you think is at risk of HIV infection?

- a. All men and women who are sexually active
- b. Only those with more than one sexual partners
- c. All pregnant women and their babies
- d. Babies born of HIV positive parents

32 What do you perceive as barriers to participating in PMTCT?

- a. Husband's consent
- b. Opposition from husband
- c. Fear of disclosure if positive
- d. Fear of domestic violence if positive
- e. Fear of divorce if positive
- f. Stigma associated with HIV
- g. Discrimination by health staff

33 What are the community issues concerning PMTCT?

- a. Lack of accurate information
- b. Poor community involvement
- c. Lack of male motivation
- d. Lack of partner/husband involvement
- e. Cultural breast feeding issues

34 What do you perceive as challenges faced at the health centre/clinic?

- a. Negative attitudes of staff
- b. Poor staff morale
- c. Lack of privacy for counselling
- d. Non availability of rapid tester and counsellors at times
- e. Out of stock situation of testing kits and ARVs

Yes	No

Yes	No

Yes	No

Yes	No

Yes	No

APPENDIX 3

Gwaro rebvumo yakupinda muongororo

Ini ndinonzi Pauline Munyaradzi. Ndiri mudzidzi we Masters ye Nursing Science Pa University yeZimbabwe. Chinangwa cheongororo yangu ndichekutsvaga hukama pakati pezvinoonekwa namadzimai vanepamuriri vane makaro 18 -40, nokupinda muchirongwa chokudzivirira hutachuwana hwe HIV kubva kuna mai kuenda kumwana. Munokumbirwa kubatsira nokupindura mibvunzo mugwaro randinaro..

Ongoro iyi haina mubairo wamungaone pakarepo, asi kuti zvatichawana muongororo iyi zvinotarasirwa kuti zvichabatsira kuti mabatirwo avarimuchirongwa che PMTCT, ramangwana ravo rive parinani. Ongororo iyi haitarisirwe kuva nezvikanganiso pamuviri kana papfungwa dzenyu, nokuti tichangokurukurirana chete. Mibvunzo inosanganisa zveupenyu hwenyu netsvagirudzo yokupinda muchirongwa ichi pamwe nemaonero enyu nezve chirongwa che PMTCT. Izvi zvichatora maminitsi angasvike pakati pe 15-20 enguwa yenyu. Munobvumidzwa kubvunza mibvunzo nazve ongororo iyi. Hamumanikidzwe kupinda muongororo iyi, uye munobvumidzwa kuregera kuenderera mberi pamunodira pasina mhosva yanungapomera.

Kurapwa kwenyu pano pakiririki kana mabatirwo haazokanganisika pamusana pokupinda kwenyu muongororo iyi. Zvose zvichawanikwa muongororo iyi zvichachengetedzwa muchivande uye zita renyu hapana parinonyorwa. Kana pane zvanumoda kunzwa kana kubvunza munogona kundiwana ku University ye Zimbabwe, College of Health Science, Department of Nursing Science, Box A 178 Avondale, Harare, Runhare runoti 04707707 extension 2221 kana pa mbozha runhare nhamba dzinoti 071 221 134 31. Kana muchibvuma munokumbirwa kusaina apa

Tsinhiro yeku bvumirana

APPENDIX 4

MIBVUNZO MAERERANO NEONGORORO

Ndinokumbira kuti mupindure mibvunzo yose toziva nokugona kwenyu.

CHIKAMU (SECTION) CHOKUTANGA (A) ZVEUPENYU NEMAGARIRO ENYU DEMOGRAPHIC DATA

		Zuva	
1.	Mune makore mangani? a. Makore 18 - 24 b. Makore 25 - 32 c. Makore 33 - 40		
2.	Makaroorwa here?		
	 a. Handina Kuroorwa b. Ndakachata c. Ndinogara nemurume d. Takapesana mazuva ano e. Takarambana f. Ndakafirwa 		
3.	Makasvika papi nedzidzo yenyu? a. Handina kuenda kuchikoro b. Puraimari c. Secondari d. Dzidzo yepamusoro		
4.	Munoita basa rei?		

- a. Handishande ndinobikira mhuri
- b. Ndinozvishandira
- c. Ndinoshanda

5. Ndeipi chechi yamunopinda?

a.	Mukirisitu

b. Ndinoita zvechivanhu

- c. Moseremu/muchawa
- d. Hapana

6. Mhuri yenyu inowna mubairo wakadiyi pamwedzi?

- a. Madhora pasi pe 150 USD
- b. Madhora pakati pe 15 ne 300 USD
- c. Madhora pakati pe 30 ne 400 USD
- d. Madhora pakati 400 500USD
- e. Madhora kudarika 500 USD

7. Makabara vana vangani?

- a. 0
- b. 1-2
- c. 3 4
- d. 4+

8. Munogara nani?

- a. Murume Wangu chete
- b. Murume ne vana vangu
- c. Vabereki vangu
- d. Vabereki vemurume
- e. Ndega

9. Sokuona kwenyu munogarisana zvakanaka here?

- a. Hongu
- b. Kwete

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Chikamu chechipiri (Section B)

Mibvunzo yekupinda muchirongwa chekudzivirira hutachiwana hwe HIV kubva kuna amai kuenda kumwana.

		Hongu	Kwete
10.	Makawana here ruzivo runekodzero nezvechirongwa chokudzivirira hutachuwana hwe HIV kubva kunaamai kuenda kumwana?		
11.	Makambokurukura here navana chipangamazano nezve kuongorora nezve utachuwana hwe HIV nechiorongwa chokudzivirira hutachiwana hwe HIV kubva kuna amai kuenda kumwana?		
12.	Vana amai vose vane pamuviri vanosungirwa here kuongororwa nezvehutachiwana hwe HIV?		
13.	Munogunga here huti zvinekodzero kuti chirongwa chokudzivirira hutachiwana hwe HIV.		
14.	Munofunga here kuti vose vane pamuviri vanofanirwa kutsanangurirwa nevarapi kukosha kewekupinda muchirongwa chekudzivirira hutachiwana hwe HIV kubva kunaamai kuenda kumwana (PITC)		
15.	Ndizvo here kuti chiringwa ichi chinofanirwa kuitwa makiriniki ose anouya madzimai ane pamuviri kuzorapa?		
16.	Munofunga here kuti avo chete vanoenda pabonde nevarume vakawanda ndivo chere anofanirwa ku ongororwa hutachiwana hwe HIV?		
17.	Vanoda kupinda muchirongwa vagona kuongororwa hutachiwana chero zuva zvaro here?		
18	Pane kushorana nokurevana pamusana pekuzivikamwa kuti munhu arimuchirongwa ichi here?		
19.	Makapinda muchirongwa chokudzivirira hutachiwana hwe HIV kubva kwaamai kuenda kumwana here?		
20	Makasarudza mega here kuti muongororwe nezveutachuwana hwe HIV?		
21	Varapi here vakakutaurirai nezve kudzivirira utachiwana hwe HIV kubva kunaamai kuenda kumwana?		
22.	Kana mhinduro yepamusoro iri hongu makapihwa here mukana wekusarudza kuti mupinde muchirongwa kana kusapinda?		
23.	Musi wamakaongororwa nezveutachiwana hwe HIV makataurirwa here zvakaonekwa muropa renyu?		

		Hongu	Kwete
24.	Murume wenyu anozviziva here nezvechirongwa ichi uye zve anechikuita nazvo here?		
25.	Murume wenyu akaongororwa here nezveutachiwana hweHIV?		
26.	Makamirira/murikumirira kupiwa bvumo yokupiwa bvumo yokupinda muchironga nemurume wenyu here?		
27.	Makataurirwa here kuti mishonga iriko yokupa vanenge vaonekwa kuti vane HIV pamwe nemwana nemurume kana zvaonekwa zvinekodzero?		
28.	Makaonekwa mune hutachiwana hwe HIV munogona kutaurira vehukama here pasina kushorwa nokunokusemwa?		
29.	Munoshandisa kondomu here kudzivirira hutachiwana?		

Mibvunzo yakanangana nemaonero emadzimai nezvechirongwa chokudzivirira mutachiwana hwe HIV kubva kuna amai kuenda kumwana.

30. Munofunga kuti ndiiani anowana rubatsiro rwekurarama?

- a. Mwana
- b. Amai vose nomwana
- c. Mhuri yose
- 31 Ndiyani anenjodzi yokubata chirwere che HIV?
 - a. Vose varume nevakadzi vanoita zvepabonde
 - b. Avo chete vanoenda pabonde navarume kana vakadzi vakawanda
 - c. Madzimai ose anepamuviri nevana vavo
 - d. Vana vanobarwa namadzimai aneutachiwana hwe HIV?
- 32. Sokuona kwenyu chiiko chinotadzisa vanaamai kupinda muchirongwa chokudzivirira hutachiwana hwe HIV kubva kuna amai kuenda kumwana?
 - a. Bvumo yomurume
 - b. Kurambidzwa nomurume
 - c. Kutya kuzotaurira murume nedzimwe hama kuti ane hutachiwana hwe HIV
 - d. Kutya kurambwa kana kupondwa nemurume ka une utachiwana hwe HIV?
 - e. Kutya kurambwa kana anechirwere che HIV
 - f. Kushorwa nokusemwa kunowanikwa kana munhu ane hutachiwana hwe HIV?
 - g. Rusaruro rusina kunaka nevarapi?

Hongu	Kwete

Hongu	Kwete

Kwete

- 33. Zviiko zvinonetsa muvanhu mumaruwa nenyaya yokudzivirira hutachiwana hwe HIV kubva kunamai kuenda kumwana?
 - a. Kushaya ruzivo rwakakwana
 - b. Kusaziviswa nokuudzwa nezvirikuitika pachirongwa
 - c. Kusaziviswa/kusasumwa kwevanhurume nezvechirongwa
 - d. Kusasumwa/kusaziviswa kwevarume vanemadzimai anofanirwa kupinda muchirongwa
 - e. Nyaya yetsika dzechivanhu maererano nokuyamwisa mwana
- 34. Sokuona kwenyu zviiko zvinowanikwa zvichinetsa pakiriniki?
 - a. Kusabatwa zvakanaka navarapi
 - b. Varapi vasingafarire basa ravo
 - c. Kusasununguka kutaura zvinonetsa nokuti panenge pane vanhu vakawanda
 - d. Vanotesita ropa navana chipangazano vasipo dzimwe nguva
 - e. Zvokuongororesa hutachuwana hwe HIV nomushongo pasina

Hongu	Kwete

Hongu	Kwete