

**FACTORS INFLUENCING MEN'S INVOLVEMENT IN
PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT)
OF HIV PROGRAMMES IN MAMBWE DISTRICT, ZAMBIA**

by

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Submitted in partial fulfilment of the requirements

for the degree of

MASTER OF PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

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November 2006

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DECLARATION

I declare that **FACTORS INFLUENCING MEN'S INVOLVEMENT IN PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV PROGRAMMES IN MAMBWE DISTRICT, ZAMBIA** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Abstract

The study aimed at assessing the factors influencing the low involvement of men in prevention of mother-to-child transmission (PMTCT) of HIV programmes in the Mambwe district, Zambia. The factors studied were grouped as knowledge and awareness, socio-cultural, programmatic and demographic characteristics. A quantitative, exploratory study was used and 127 men were interviewed.

The major findings were: Knowledge of PMTCT was the strongest factor which was positively associated with the level of men's involvement in PMTCT. Socio-cultural and programmatic factors were found to negatively influence men's involvement (although weakly); and among the demographic characteristics, age and level of education were positively associated with an increase in the level of involvement, while the duration of the relationship with the female partner was negatively associated with the level of men involvement.

KEY WORDS

HIV/AIDS, knowledge and awareness, Mambwe district, men's involvement, prevention of mother-to-child transmission (PMTCT) of HIV, socio-cultural factors, programmatic factors, Zambia.

ACKNOWLEDGEMENTS

As I complete this report, I praise God for His loving kindness and grace which accompanied me during the entire research period.

I would like to thank the following persons for their advice, support and encouragement, without which I could not have completed this research:

- My wife Maguy and children Dan, Rapha and Elie
- Mrs Betsie Smith and Mrs Martie van der Merwe, my supervisors, for their valuable guidance, without which this work could not be a reality
- All the lecturers of the MPH course, for everything they taught me
- Prof SP Human, coordinator of the MPH course, and all the staff in the Department of Health at Unisa
- All data collectors, staff at Kamoto Hospital, and the health authority in Mambwe district
- To Mrs Marion Marchand for the professional editing of this dissertation
- To Mrs Rina Coetzer for the professional typing and finishing of this document
- To all others, too many to mention here, who helped me in one-way or another, I simply say thank you!

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List of abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
ANC	Antenatal clinic
ART	Anti-retroviral therapy
ARVs	Anti-retroviral drugs
AZT	Zidovudine
CBOH	Central Board of Health, Zambia
CHWs	Community health workers
CSO	Central Statistics Office
DOI	Diffusion of innovation theory
FHI	Family Health International
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
MPH	Master's in Public Health
MTCT	Mother-to-child transmission
n	Frequency
NVP	Nevirapine
PATH	Programmes for appropriate technology in health
PMTCT	Prevention of mother-to-child transmission
SD	Standard deviation
STDs	Sexual transmitted diseases
UNAIDS	United Nations AIDS
UNICEF	United Nations International Children's Emergency Fund
UNISA	University of South Africa
USAID	United States Agency for International Development
VCT	Voluntary testing and counselling
WHO	World Health Organization

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Annexure 3 Letter of authority to conduct research

Annexure 4 UNISA Research and Ethics Committee and the Zambian Research and Ethics Committee approvals

Chapter 1

Orientation to the study

1.1 INTRODUCTION

Should men be involved in women's reproductive health services like prevention of mother-to-child transmission (PMTCT) of HIV? This question of involving men in women's reproductive health services started to attract a lot of interest especially after the 1994 International Conference on Population and Development (ICPD) in Cairo and the 1995 Women's Conference in Beijing (Drennan 1998:4; Lee 1999:106; Ntabona 2002:56). This increased interest followed the realisation by all stakeholders of the many roles men can play in the success of these services (Clark 2001:13; Ekouevi, Leroy, Viho, Bequet & Horo 2004:697; Greene 2002:161).

PMTCT programmes form an important component of the overall HIV prevention strategy. Even though the involvement of men in these programmes has been associated with an increased uptake of PMTCT interventions by women, it remains one of the major challenges faced by programme implementers (Rutenberg, Kalibala, Baek & Rosen 2003:37). This study tries to understand the reasons behind this low involvement among men, in the specific context of Mambwe district, Zambia.

This first chapter discusses the introductory information on the research. The chapter introduces the research problem and its background, the aim and objectives of the study, and also the definitions of concepts used in this study.

1.2 BACKGROUND INFORMATION TO THE PROBLEM

Mother-to-child transmission (MTCT) of HIV, also called vertical transmission of HIV, is a very important mode of HIV transmission for children. According to Phoolcharoen and Detels (2002:1473), the majority of children who die of HIV/AIDS acquire the infection through MTCT, and most of these children live in the developing world. According to UNAIDS (2005:1), during the year 2005 there were about 2,3 million children under 15 years living with AIDS in the world, and the vast majority of these were in sub-Saharan

Africa. According to Rutenberg et al (2003:5), MTCT is associated with up to 90% of all HIV infection in children up to six years. It is estimated that without any intervention about 35% of children born to HIV-infected mothers will be infected with the virus (UNAIDS 2005:13). This percentage has reportedly been reduced to levels as low as 2% in developed countries with the advent of antiretroviral drugs and the implementation of core PMTCT interventions (Newell 2001:1141; Phoolcharoen & Detels 2002:1458).

The benefits of involving men in women's reproductive health services and PMTCT in particular are well recognised and have been advocated by many (Clark 2001:13; Ekouevi et al 2004:697; Greene 2000:49; PATH 1997:1). However, reports from various PMTCT sites still show generally low involvement by men, with its negative impact on the level of uptake of interventions in these programmes by women (Lee 1999:111; Rutenberg, Kabibala, Mwai & Rosen 2002:29). This lack of involvement by men deprives women of their partners' care and support in coping with the HIV infection, in taking antiretroviral therapy and in making appropriate infant feeding choices (UNICEF 2001:37).

According to the 2001/2002 Zambian Demographic and Health survey, about 16% of the adult population in Zambia is HIV positive (Central Statistical Office, Central Board of Health, Zambia & ORC Macro 2003:236). The Central Statistical Office, Zambia (2005:6) estimated this rate to be 14,4% in 2004 and anticipated a decline to 12% by 2010. HIV/AIDS is considered to be a major threat to the lives of women and their children in Zambia. The prevalence is higher in females than males: approximately one in every six females, compared with almost one in every eight males, and these ratios are even higher in pregnant women (Ministry of Health, Zambia 2004:1-9; Central Statistical Office, Central Board of Health, Zambia & ORC Macro 2003:238). It is also estimated that approximately 39,5% of babies born to HIV positive mothers are infected with the virus in Zambia (Central Statistical Office, Zambia 2005:1).

In the effort to reduce the increasing rates of HIV infection among infants and young children in the country, the Ministry of Health established the PMTCT programme in January 1999, with a minimum package which also includes the promotion of male involvement (Kankasa, Mshanga, Baek, Kalibala & Rutenberg 2002:1-5). However, men's involvement has continued to be one of the major challenges for the programme.

The 2003 report by the National AIDS Council, Zambia (2004:17) showed that many women in Zambia avoided PMTCT because they feared the reaction of their spouses.

The PMTCT programme was also scaled up to Mambwe district in March 2004. From that time to December 2005, a total of 801 women were counselled and tested at Kamoto Hospital for PMTCT and 9,9% proved to be HIV infected. Male involvement is also one of the major challenges for the Mambwe PMTCT programme. All counselled and tested women (both positive and negative) were advised to come with their male partners at subsequent visits so that they could also be counselled and tested. Only 0,6% (5 out of 801) managed to do so, and the rest were afraid of their partners' reactions.

1.3 PROBLEM STATEMENT AND RESEARCH QUESTIONS

Men's involvement in PMTCT interventions has been associated with an increase in uptake of interventions by women. However, various PMTCT sites, including Mambwe district, continue to experience low levels of involvement by men. Why, then, this low involvement, and what are the factors influencing it? Exploring these factors is important if appropriate recommendations are to be made.

1.3.1 Research questions

The following are the study questions:

- What is the influence of men's knowledge and awareness on their involvement in PMTCT programmes?
- What is the influence of socio-cultural factors on men's involvement in PMTCT programmes?
- What is the influence of programmatic factors on men's involvement in PMTCT programmes?
- What is the influence of demographic factors on men's involvement in PMTCT programmes?

1.4 AIM OF THE RESEARCH

The study aimed at assessing factors that influence men's involvement in PMTCT services in general and in Mambwe district in particular. Based on the research's findings, recommendations will be made on how to improve the level of men's involvement in PMTCT.

1.5 OBJECTIVES OF THE RESEARCH

The following were study objectives:

- To assess the influence of knowledge and awareness, socio-cultural factors, programmatic factors and socio-demographic factors on the level of men's involvement in PMTCT programmes.
- To make recommendations, based on the research findings, on strategies which could improve the level of men's involvement in PMTCT programmes.
- To make recommendations on further studies on the same topic.

1.6 ASSUMPTIONS UNDERLYING THE STUDY

According to Polit and Beck (2004:13), an assumption is a basic principle that is believed to be true, without needing proof or verification. The following assumptions served as starting points for this study:

- The lack of knowledge and awareness of PMTCT services among men is a barrier to their involvement in these services.
- Social, cultural and gender norms negatively influence the involvement of men in PMTCT programmes.
- The way in which PMTCT services are delivered presents many barriers to men's involvement.
- Men's demographic characteristics influence their perception of PMTCT services.

1.7 SIGNIFICANCE OF THE STUDY

- The HIV infection rate among infants and children in Zambia is increasing.

- It is believed that the uptake of PMTCT interventions by women would improve with the involvement of male partners.
- Until now very little success has been reported with regard to men's involvement.
- The reasons for men's low involvement need to be explored.
- The study findings will be used as a base for recommendations on how to improve the level of men's involvement in PMTCT programmes. This increase would contribute to the improvement of uptake of PMTCT interventions by women and this in turn would contribute to the reduction of MTCT rates.
- The study will also make a contribution to the already existing body of knowledge on the involvement of men in women's reproductive health services.

1.8 CONCEPTUAL AND OPERATIONAL DEFINITIONS OF TERMS USED IN THIS RESEARCH REPORT

The definitions of key concepts used in this research are given below:

1.8.1 HIV

Human Immunodeficiency Virus. The virus that causes HIV infection and AIDS (Chin 2000:2).

1.8.2 AIDS

Acquired Immune Deficiency Syndrome. This describes the end of the clinical spectrum of HIV infection. It occurs when the immune system of a person who is infected with HIV becomes so weak that they are vulnerable to a variety of illnesses (Chin 2000:1; Ministry of Health, Zambia 2004:1).

1.8.3 Men

In this study, men are individuals of male gender who are either married to or sexual partners of women who have at least been counselled and tested for HIV in PMTCT settings, in Mambwe district, Zambia.

1.8.4 Men's involvement

The understanding of the concept *men's involvement* varies with the context in which it is used and its definition differs from source to source in the literature. According to Ntabona (2002:55-56), men's involvement is dependent on the socio-cultural context and there are as yet no clear-cut guidelines on how far the partner/husband's participation can go. Lee (1999:111) includes the following as part of men's participation: attending women's health education sessions; attending counselling sessions; using condoms; acting as community-based volunteer. For Rutenberg et al (2002:29-30), men's involvement may mean that men choose to come to the clinic with their partners, be counselled and get tested for HIV, support their partners in coping with HIV infection and support them financially or with transport to the clinic.

In this study the focus of involvement of men in MTCT will be on their readiness to provide support, or their support to their female partners in core PMTCT interventions which include counselling and testing, use of prophylactic antiretroviral drugs and choice of baby's feeding options (De Cock, Fowler, Mercier, De Vincenzi, Saba, Hoff, Alnwick, Rodgers & Shaffer 2000:1180). Involvement will then be assessed by:

- Men's readiness to be counselled and tested or actually having been counselled and tested for HIV together with the female partner in a PMTCT setting
- Men's readiness to offer support or their actual support of female partner in taking ARVs and adhering to them
- Men's readiness to support or actual support of female partner in the choice of infant feeding option

1.8.5 Factors influencing men's involvement

Many factors which may possibly influence men's involvement in women's reproductive health may be found in the literature. For the sake of this study, these factors have been grouped into knowledge and awareness; socio-cultural factors; and programmatic factors. Demographic characteristics of respondents have been included because of their potentially confounding role.

- **Knowledge and awareness.** These relate to the level of awareness and misconceptions amongst men about PMTCT services (Kamal 2002:63; Kumah 1999:18; PATH 1997:3). In this study, knowledge and awareness relate to the general knowledge on MTCT and ways to prevent it, and also awareness of the existence of the PMTCT programme in the district.
- **Socio-cultural factors.** These factors relate to the gender and cultural norms which define the role of men in women's reproductive health life as perceived by men themselves in the community in which they live (Lee 1999:112; PATH 1997:3; Rutenberg et al 2002:30). In this study, socio-cultural factors relate to men's opinion on and perceptions of their roles in PMTCT, on women's right to access PMTCT services, on couple communication, counselling and testing, and their potential reactions to a positive HIV test in their female partners.
- **Programmatic factors.** These are factors that are related to the PMTCT programmes themselves and how friendly and accessible they are to men (Clark 2001:13; Greene 2000:49; Kumah 1999:17; Rutenberg et al 2002:29). In this study, programmatic factors relate to men's opinion on gender-specific PMTCT clinics, on the compatibility of PMTCT clinic times with men's other daily activities, and on staff attitudes and other barriers encountered by men at PMTCT sites.
- **Demographic characteristics** include age, level of education, tribe, and duration of relationship with female partner.

1.8.6 Prevention of MTCT of HIV

PMTCT refers to preventive interventions aimed at reducing the chances of transmission of HIV from an infected mother to her baby. In this study, PMTCT includes the following core interventions: Voluntary counselling and testing of pregnant women in an antenatal setting; the use of prophylactic antiretroviral drugs during pregnancy or in the immediate postnatal period; and counselling and adoption of appropriate infant feeding options (CHGA 2004b:3-4; De Cock et al 2000:1180).

1.9 OVERVIEW OF THE RESEARCH APPROACH AND METHODOLOGY

A detailed discussion of the research approach and methodology will be given in chapter 3 of this report. The following is a summary of that discussion.

1.9.1 Research design

In this study a descriptive, cross-sectional, correlation design was used to examine the relationship between the level of men's involvement and the various factors influencing it. The reasons for the choice of this design are elaborated in chapter 3 of this report.

1.9.2 Research population and sample

1.9.2.1 The research population

The population of this study includes all men who are either husbands or sexual partners of women who have been at least counselled and tested for PMTCT in Mambwe district during the period March 2004 to October 2005.

1.9.2.2 Study sample

A systematic random sampling technique was used to select a sample of 142 from a total study population of 801 men. These men were identified through their female partners' records. Computer software EPI-Info 2002 was used in the calculation of the sample size, as elaborated in chapter 3 of this report.

1.9.3 Data collection approach

The data were collected through face-to-face interviews in the community, using a structured questionnaire, by trained community health workers and home-based care volunteers.

1.9.4 Data analysis approach

Computer software SPSS 13.0 was used in the analysis of the collected data. Univariate analysis was conducted for each variable measured and correlation analysis was also conducted between the factors and the level of men's involvement in PMTCT.

1.10 ETHICAL CONSIDERATIONS

The main ethical issues observed and considered in this study are as follows:

- Participants had a right to take part in the study and research or not as they chose.
- The research was carried out with minimum risk to respondents.
- Participants were provided with adequate information on the research before the interview, and because of the level of literacy, consent obtained was mainly verbal (oral).
- Anonymity and confidentiality were ensured by making the questionnaire anonymous, although the use of community-based health providers as data collectors could have compromised this confidentiality because of their knowledge of the individuals.
- Scientific accountability was observed as much as possible through proper cross-referencing and by listing all sources used at the end of this report.
- Authority to conduct the research was obtained from Mambwe district health authorities, UNISA Research and Ethics Committee and the Zambian Research and Ethics Committee (see annexure 4).

1.11 RELIABILITY AND VALIDITY

1.11.1 Validity

1.11.1.1 Internal validity

The following approaches were selected to increase internal validity: the use of random sampling techniques; the homogeneity of the selected group (see population criteria);

and blocking of some of the possible extraneous variables, such as the demographic characteristics, by including and measuring them.

1.11.1.2 External validity

In this study, efforts to enhance external validity included the random selection of a large sample, which made it more representative, and the comparison of the findings with other previous studies found in the literature.

1.11.2 Reliability

Reliability refers to the accuracy and consistency of information obtained in a study and the term is most associated with the methods used to measure research variables (Polit & Beck 2004:35). In this study, the use of a standardised interview protocol for all respondents increased the consistency of the information collected.

1.12 SCOPE AND LIMITATIONS OF THE STUDY

The study is limited to men's involvement in the core PMTCT interventions included in the third prong of PMTCT or MTCT preventive interventions for HIV-infected pregnant women (Rutenberg et al 2003:5). This is because the involvement of men in the other PMTCT prongs, such as primary prevention of HIV and family planning, has been extensively covered in the literature and belongs to the field of general reproductive health (Baggaley, Sigxashe, Gaillard & Osborne 2000:3).

The second study limitation is that it may be too context-specific to the culture and environment of Mambwe district, which may limit the generalisability of findings.

The third limitation may emanate from possible unnoticed biases which might arise from the use of a data collection tool developed by an inexperienced researcher; the use of many different interviewers who, although trained, might influence the data collected through their own understanding and might influence responses through their physical presence, or interviewer bias (Polit & Beck 2004:351); and information bias from incorrect information provided by respondents.

1.13 ORGANISATION OF THE REPORT

The organisation of this report is outlined below. The report comprises the following five chapters:

- Chapter 1, entitled introductory information, gives an overview of the background information on the research problem, the research objectives and the definitions of concepts used in this study.
- Chapter 2 is the literature review and gives an overview of the scientific sources reviewed for this study.
- Chapter 3 covers the research methodology and discusses the research design, the methodology used for data collection and analysis and the ethical principles considered for this study.
- In Chapter 4, the analysis of the data and the research findings are presented and discussed.
- Chapter 5 includes conclusions and recommendations drawn from the research findings.
- The final part of this report consists of the annexures, containing the bibliography, the research questionnaire, the consent form and the authority to conduct research.

1.14 SUMMARY

This chapter introduces the entire study. The chapter highlights the importance of men's involvement in the uptake of PMTCT interventions by women. The background information to the research problem, which is the low incidence of men's involvement in the PMTCT programme, is covered at international, national and local level. The study's aim and objectives are also covered. The study aims to assess the factors which influence men's involvement in PMTCT services and to make recommendations for improvement. These factors were grouped as knowledge and awareness, socio-cultural and programmatic factors and demographic characteristics.

Definitions of key concepts are also given in this chapter. The chapter concludes with information on the organisation of this report by highlighting the content of each of the five chapters.

Chapter 2 discusses the literature review on men's involvement in the PMTCT programme.

Chapter 2

Literature review

2.1 INTRODUCTION

In this chapter, the literature reviewed for this study is discussed. This literature review highlights the types, quantities and content of consulted sources and also the way in which they were acquired. The review covers theoretical or empirical sources related to the main concepts found in this study. They were reviewed with the aim of gathering enough insight into the topic to refine the problem being studied; to become acquainted with the existing body of knowledge on the topic; and to choose and define the methodology used for this study. For this study, the literature review was conducted before data collection and documents were consulted after being acquired from various sources like the Internet, MEDLINE search, the UNISA library, POPLINE, and many others.

2.2 PURPOSE OF THE LITERATURE REVIEW

According to Babbie and Mouton (2001:565), every research report should be placed in the context of the general body of scientific knowledge. The general purpose of a literature review is to gain an understanding of the current state of knowledge about the research topic (Johnson & Christensen 2004:61). For this study, the literature was reviewed to gain more understanding on men's involvement in PMTCT and reproductive health programmes and also place this study against the general picture of men and PMTCT. The review also helped the researcher specifically to:

- Refine the research problem and problem background information
- Acquaint himself with current knowledge of men's involvement in PMTCT and identify literature gaps supporting the choice of this topic
- Identify the relevant concepts to be included in this research
- Identify and refine the study methodology and process
- Develop the data collection instrument (Johnson & Christensen 2004:61; Katzenellenbogen, Joubert & Abdool Karim 1997:54; Polit & Beck 2004:88).

2.3 SCOPE OF THE LITERATURE REVIEW

The literature review included both theoretical and empirical sources. The most consulted were primary sources, although secondary sources were also used. An internet search was conducted and a considerable amount of information was found on PMTCT and men's involvement in reproductive health programmes. Some of the journal articles were requested from the UNISA library, and research methodology and theoretical textbooks were also used in the review.

2.3.1 Theoretical resources

Various types of theoretical sources were used for this study. These can generally be grouped into research methodology sources and conceptual theoretical sources. Sources on research theory reviewed for this study mostly included textbooks on research methodology. However, some journal articles and other academic methodology guidelines were also used in refining the research design and process. Theoretical conceptual resources reviewed for this study included textbooks on health education and health promotion theories, and sociology. These sources were important for identifying and refining concepts relevant to men's involvement in PMTCT.

2.3.1.1 Conceptual framework

The main concepts used in this study did not originate in a single theory. Instead, many different theories and models were used in the selection and definition of relevant concepts forming the conceptual framework of this research. White, Greene and Murphy (2003:5) found out that the theory of diffusion of innovations (DOI) is the most used in programmes trying to involve men in reproductive health projects. The main theories used to construct the conceptual framework for this study are the DOI theory and the social cognitive theory, as elaborated below:

From the theory of DOI, the concept of *adoption* was adopted and adapted (Glanz, Rimer & Lewis 2002:315). This concept in theory refers to the uptake of the programme (PMTCT) by the target audience (men). According to the DOI, the decision to adopt a programme is influenced by three types of knowledge: *awareness knowledge* that the innovation exists; *procedural knowledge* about how to use the innovation; and *principles*

knowledge, or understanding how the innovation works (Glanz et al 2002:315). In this study, knowledge and awareness were used as potential factors influencing men's adoption of PMTCT. Men need to know that the PMTCT programme exists, they need to know what roles they can play in the programme and they need to know how PMTCT programmes work.

From the social cognitive theory, the concepts of *environment and situation* were adopted and adapted (Glanz et al 2002:169). The concepts of environment and situation in theory refer to the objective factors that can affect a person's behaviour but are physically external to that person and are external to the cognitive representation of the environment by that person (Glanz et al 2002:168). In this study, these concepts were used in the conceptualisation of socio-cultural factors like gender norms which may influence men in their own community or environment.

2.3.1.2 Research conceptual model

The following model will serve as a guide to this study. The model was inspired by that used by Selvan, Ross, Kapadia, Mathai and Hira (2001:781) in their study of perceived norms, beliefs and intended sexual behaviour among higher school students in India.

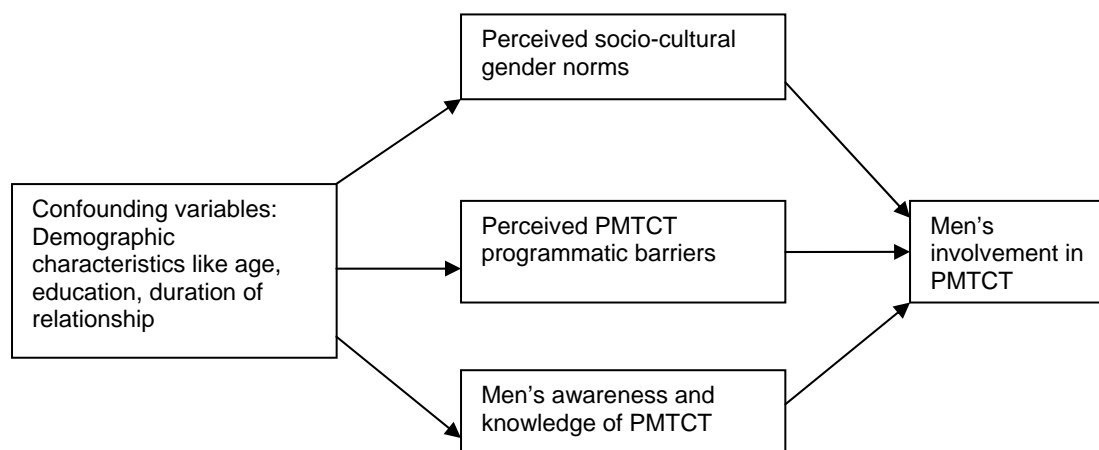


Figure 2.1 Research conceptual model

(Selvan et al 2001:781)

2.3.2 Empirical literature sources

2.3.2.1 *Primary sources*

The literature review was based mainly on primary empirical sources contained in scientific journals and textbooks. During the review, it was found that most of the previous studies had been conducted on the involvement of men in other reproductive health programmes like family planning, and very few on PMTCT. Furthermore, the majority of the studies on men and PMTCT were of a qualitative nature, such as the study by Burke, Rajabu, Ramadhani and Burke (2004a:2).

2.3.2.2 *Secondary sources*

Secondary sources were also consulted, not only to support primary sources but also to help in the identification of additional primary studies from systematic reviews on men's involvement in reproductive health and PMTCT. These sources include publications from UNAIDS, the Population Council, the Horizon Programme, UNFPA and many others.

2.4 LITERATURE REVIEWED ON MEN'S INVOLVEMENT IN PMTCT

2.4.1 Prevention of MTCT of HIV

2.4.1.1 *Vertical transmission of HIV*

HIV may be transmitted to the infant during pregnancy, at the time of delivery, and through breastfeeding (Family Health International 2003:180). For a known HIV-infected mother who becomes infected in the antenatal period, the additional risk of transmission of HIV to her infant through breastfeeding has been estimated at 14%; it may reach 29% for mothers who acquire HIV in the postnatal period (Newell 2001:1140).

The factors that may increase the risk of perinatal transmission include: high maternal viral load; recurrent sexual transmitted diseases (STDs); malaria; Vitamin A deficiency; preterm delivery; vaginal delivery; duration of rupture of membranes longer than four hours; placental disruption; invasive procedures during delivery (like vacuum extraction, episiotomy, use of forceps); breastfeeding and mixed feeding (Family Health International 2003:180; Phoolcharoen & Detels 2002:1473).

The majority of children who are infected with HIV were infected through MTCT or vertical transmission (CHGA 2004b:3; Rutenberg et al 2003:5). Without any appropriate interventions, about a third of children born to HIV-infected women are likely to be infected (Phoolcharoen & Detels 2002:1473). According to Preble and Piwoz (2001:1), these children who acquire HIV through this mode of transmission face severe morbidity and mortality, especially in settings where specialised care is not available.

In countries where PMTCT interventions have been fully implemented, rates of transmission from mother to child have been estimated to be as low as 2% (Newell 2001:1141; Prebble & Piwoz 2001:1). In developing countries such as those in sub-Saharan Africa, where PMTCT interventions are not always available and prolonged breastfeeding is a norm, the rates are still estimated to be as high as 25-35% (Piot & Coll-Seck 1999:869; Preble & Piwoz 2001:1).

2.4.1.2 Strategy to reduce MTCT of HIV

United Nations agencies recommend a four-pronged strategy to prevent MTCT of HIV, which includes (McIntyre & Gray 2002:218; Rutenberg et al 2003:5):

1. The primary prevention of HIV infection among parents-to-be.
2. The prevention of unwanted pregnancies in HIV-infected women.
3. The prevention of HIV transmission from infected women to their infants.
4. Treatment, care and support of infected and affected women, their children, partners and families.

The third prong is based on what are considered as key PMTCT interventions (Berer 1999:871; Family Health International 2003:180; Preble & Piwoz 2001:7). ***During pregnancy:*** the provision of voluntary counselling and testing (VCT) and psychosocial support; the diagnosis and treatment of malaria, STDs and other infections as early as possible; the provision of basic antenatal care which includes iron supplementation, education about MTCT and infant feeding options; starting antiretroviral therapy (ART) for MTCT; and provision of information on risk reduction and practice of safer sex. ***During labour and delivery:*** delay in artificial rupture of membranes; reducing the number of vaginal examinations to a minimum, vaginal cleansing; reducing the use of

assisted delivery with forceps; reducing the use of episiotomy; elective Caesarean section; and the use of antiretroviral drugs.

Of these interventions, three are considered to be core PMTCT interventions; these are VCT, ART and counselling for infant feeding options. VCT is considered by some as the most important intervention for PMTCT (Chopra, Doherty, Jackson & Asworth 2005:357). According to Rutenberg et al (2002:3), the importance of VCT in PMTCT lies in the fact that it has the potential to reach large numbers of women who may already be infected with HIV or at high risk of becoming infected. According to the Horizon Programme (2002:29), experiences from a number of PMTCT sites have shown that VCT in PMTCT is a key to successful men's involvement, especially when it takes the form of couple counselling. This view is also supported by Clark (2001:13), who considers VCT programmes which work with couples to be more successful than those working with women alone.

Another core intervention considered important is the use of ARVs in PMTCT. Giving ARVs to pregnant, HIV-infected women is associated with a significant decrease in the rate of MTCT by reducing transmission during pregnancy and childbirth (CHGA 2004b:4; McIntyre & Gray 2002:219). Various ARV drug regimens have been tried in PMTCT programmes. These regimens are either single drug-based regimens or combination drug-regimens based on drugs like Zidovudine (AZT) and Nevirapine (NVP). According to Msellati, Hingst, Kaba, Viho, Welfens-Ekra and Dabis (2001:641), clinical trials have demonstrated that a reduction of 37-50% in mother-to-child transmission of HIV can be achieved through a short course of Zidovudine or Nevirapine. Nevirapine short courses have been widely used in poor-setting PMTCT programmes because of low cost and ease of administration (Newell 2001:1139; Rutenberg et al 2002:4).

A third core intervention considered to be important is counselling and support for appropriate choice of infant feeding option. Although important, this intervention is also considered as one of the most demanding and challenging components of PMTCT programmes (Rutenberg et al 2003:4; 28). Persuading HIV-infected mothers to accept replacement feeding can be difficult because of affordability, lack of clean water, and lack of sources of energy for sterilisation; or because of fear of stigmatisation (Newell 2001:1140).

2.4.2 Men's involvement

The treatment of men's involvement in the literature is examined in terms of its meaning and its importance, as elaborated below.

2.4.2.1 *What is men's involvement?*

Men's involvement or participation in women's health programmes has been a source of much interest in the recent years, even though its meaning continues to vary from source to source. According to Lee (1999:106), men's involvement can be viewed from programme perspectives and may mean men supporting choices and rights of their female partners, or men doing something about their own reproductive and sexual behaviour as a way of protecting their partners. For Rutenberg et al (2002:29), men's involvement may mean many things, depending on the couple and community; some men may choose to go to the clinic with their female partners, get involved in counselling and be tested for HIV, while many choose not to visit the clinic, but instead support their partners in coping with HIV in other ways, pay for their partner's health care and/or provide transport for their partner to reach the clinic.

According to Drennan (1998:6), the topic of men's involvement is also complicated by the wide range of terms used in the literature to qualify it. This terminology includes: men's participation, men's responsibility, male motivation, male involvement, men as partners, and finally men and reproductive health. For Drennan (1998:6), the terminology used does not matter as long as the purpose is to describe the process of social and behavioural change that is needed for men to play more responsible roles in reproductive health services.

A further challenge is posed by the difficulty of measuring men's involvement. According to the Horizon Programme (2003:29), measuring the ideal degree of involvement is very difficult because male involvement is so couple-specific.

2.4.2.2 *Why involve men?*

Despite the above challenges, the importance of involving men in the prevention and treatment of HIV/AIDS programmes for women has gained increased recognition in the

literature, especially after the 1994 Cairo and 1995 Beijing consensus documents, which agree that men are crucial to bringing about changes in women's health status (Lee 1999:106). The call for involving men in reproductive health issues has emphasised the role of men in improving the health of their families and themselves (White et al 2003:3). Involving men is important because men do influence women's access to health services through their control of finances, women's mobility, means of transportation, and health care decisions (Greene 2002:161). Lee calls this role the "gate keeping" authority of men. For Kumah (1999:16), the need to involve men, as defined by the ICPD and the Beijing Conferences, is even more crucial in the African context, because of the rapid spread of the HIV/AIDS pandemic and because of cultural norms and taboos which reinforce negative stereotypes about male involvement in reproductive life issues. These factors call for responsible sexual and reproductive behaviour by both men and women if HIV/AIDS is to be controlled. Rutenberg et al (2003:37) also recognise the importance of men's roles in PMTCT. According to these authors, it is difficult to consider optimal uptake of PMTCT interventions without the partner's understanding and consent. In the case of breastfeeding, for example, lack of partner support has been identified as a barrier to replacement feeding for HIV-infected women. Even women who choose to exclusively breastfeed need partner support (Baggaley et al 2000:4).

While the benefits of men involvement seem to be indisputable, Kumah (1999:16) mentions opposing views in some circles that consider men's involvement as a way of increasing men's control over women's reproductive life. Their argument is that as men are already involved in all major human activities, why should they acquire more control over women's reproductive life as well?

Finally, Clark (2001:13) warns against some of the pitfalls to be considered in the process of involving men: firstly, the fact that involving men should be constructive, in the sense that it should always protect women's interest without being paternalistic. Secondly, involving men should not result in subtraction of resources from women's programmes for the sake of men's programmes.

2.5 CURRENT UNDERSTANDING OF THE QUESTIONS IN THE STUDY

The following lines present the current understanding of the questions which this study aims to answer.

2.5.1 What is the influence of knowledge and awareness on men's involvement in PMTCT programmes?

Awareness and knowledge about PMTCT programmes is important for men's involvement; men need information about reproductive health issues and their possible role in these services and how they can access them (Kumah 1999:17). As stated above, according to the theory of DOI, adoption of programmes by recipients is influenced by knowledge and awareness (Glanz et al 2002:315). Lack of knowledge by men may be due to inadequate access to information about PMTCT. In a qualitative study on factors influencing men's involvement in Tanzania, Burke, Rajabu and Burke (2004b:1) found that men felt marginalised by the inadequacy of access to information as they received second-hand information through their wives. In Pakistan, Kamal (2002:63) found that even women identified lack of information among men as a serious issue and wished that dissemination programmes could also be held for their male partners. In a study in India and South Africa, the Population Council (2005:2) found that when men are informed and involved from the beginning through couple counselling, they provide a better support for their female partners. For Baggaley et al (2000:1), the level of ignorance amongst men in most PMTCT settings is so significant that very few are even aware that their female partners have been tested during their antenatal care and are enrolled in PMTCT programmes. It is clear that providing reproductive health information to men has many benefits, as it is associated with an increase in the uptake of interventions by women (PATH 1997:2, 3).

2.5.2 What is the influence of socio-cultural perceptions on men's involvement in PMTCT?

According to the sociologist Giddens (2001:22, 28), all cultures have values that give meaning and provide guidance to humans as they interact with their social world. These values and beliefs influence men and women living in the same society about what are considered appropriate roles and responsibilities for each gender (Ntabona 2002:54).

According to Kumah (1999:17), these values and perceptions are sometimes reinforced by social institutions like traditional and religious groups in the community. A number of cultural factors which limit men's ability to take an active role in reproductive health have been reported in the literature. PATH (1997:3) reports on the unfavourable social and religious climate in some societies where sexual matters are not discussed openly and men may feel uncomfortable talking about reproductive health needs with their partners and health workers. Kumah (1999:16) and Drennan (1998:6) mention that some cultural norms and taboos in Africa reinforce negative stereotypes about male involvement in reproduction matters, and some even condone abuses of women's reproductive rights by men. According to Gupta (2002:1), although gender is considered culture-specific, there is consistency across cultures in the difference between women's and men's roles, access to resources, and decision-making authority. In Zimbabwe, Rutenberg et al (2002:29), report on male involvement projects which revealed cultural beliefs reinforcing the community perception of men who publicly supported their wives by accompanying them to the clinic as "weak" or "bewitched". In Tanzania, Burke et al (2004a:3-5) found that because of cultural norms, men preferred to receive information about PMTCT from fellow men who were their peers or older, and in gender-specific groups. According to White et al (2003:4), social, gender-related issues also affect men as they may engage in high-risk behaviours more frequently than women in order to meet the perceived expectations of social norms.

2.5.3 How do programmatic factors influence men's involvement in PMTCT?

Programmatic factors can also be a barrier to men's involvement in reproductive health services. According to PATH (1997:3), reproductive health services are designed to meet women's and children's needs and these results in men not considering these programmes as a source of information and help for them. Furthermore, because service providers are mostly females, they may be biased towards female related services (PATH 1997:3). According to Rutenberg et al (2002:29; 2003:37), PMTCT programmes have done very little to involve men, this despite acknowledging their key roles and positive experiences in other reproductive health programmes like family planning services. According to these authors, antenatal and mother and child health clinics are women's spaces that cannot be easily adapted to accommodate men. Kamal (2002:76) is of the opinion that men want to make use of the existing public health care facilities, but the way these facilities function is not very conducive to their utilisation

because of constraints related to the time schedule, the attitude of the health care providers, and the expenses involved. In Tanzania, Burke et al (2004b:1) found that men considered themselves marginalised by PMTCT programmes.

Another issue to be considered is the lack of privacy in many antenatal settings which makes it difficult to maintain confidentiality and so discourages both women and men from taking the test, for fear of stigmatisation (Berer 1999:873). The manner in which PMTCT services are provided and organised can therefore be a limiting factor to men's involvement.

2.6 RESEARCH FINDINGS ALREADY IN USE

The following sections present some of the research findings already in use on the important concepts and questions studied in this research.

2.6.1 Findings on the importance of men's involvement in PMTCT

Bajunirwe and Muzoora (2005:4), in their study on barriers to the implementation of PMTCT programmes in Rwanda, found that 72% of rural women were of the opinion that husbands should be consulted before testing for HIV in PMTCT. They also found that among the women living with their husbands, the majority (89%) informed their partners about their going to the antenatal clinic on that day. Also, the majority of these women (71%) thought that their husbands would accept being tested for HIV. Women who thought they should consult their husbands before being tested were less likely to accept the test compared with those who thought they did not need to consult their husbands. Women who thought their husbands would allow them to test were more likely to accept the test than those who thought their husbands would not approve. Burke et al (2004a:20) also found that there was similar thinking among men themselves, who believed that women should be expected to seek permission from men before VCT, otherwise there would be conflict. Ekouevi et al (2004:698) found similar opinions in the Ivory Coast, where the fear of male partners had a negative effect on the uptake of PMTCT interventions among HIV infected women, to the point that women who were single accepted the PMTCT package more frequently than those who had a male partner. However, in Ethiopia, Kassaye, Lingerh and Dejene (2005:126, 128) found that a good percentage of women were able to share their HIV test results with

their male partners (69%). But among those who did not share, fear of partner reactions was the concern most raised.

In terms of feeding options in PMTCT, Kiarie, Richardson, Mbori-Ngacha, Nduati and John-Stewart (2004:77, 79), in their study on infant feeding practices of HIV infected women in Kenya, found that male partners had a considerable influence on the feeding options chosen by women. The low use of replacement feeding in HIV-infected women (30%) was also explained by reasons which included fear of loss of confidentiality and the negative attitudes of partners and the family. It was also found in the same study that although partner knowledge of the HIV status of the woman was a factor influencing feeding decisions, a supportive partner attitude was very important for women.

2.6.2 Findings on men's willingness to be involved

Perez, Mukotekwa, Miller, Orne-Gliemann, Glenshaw, Chitsike and Dabis (2004:778), while reviewing the first 18 months of the implementation of a rural PMTCT programme in Zimbabwe, found that although the majority of women interviewed suggested that partners should be tested, only 2,3% of partners accepted the test and very few returned for their results. Similar findings are reported by Semrau, Kuhn, Vwalika, Kasonde, Sinkala, Kankasa, Shutes, Aldrovandi and Thea (2005:607) in Zambia, where only 10% of women were able to encourage their husbands' participation in PMTCT. Burke et al (2004:24) found that men were willing to participate in PMTCT programmes when there were incentives like ARVs and when sources of information flow respected gender and cultural norms.

2.6.3 Findings on factors influencing men

In a qualitative study on factors influencing men's involvement in PMTCT in Tanzania, Burke et al (2004a:25) found that the source and the order of information flow on new programmes like PMTCT were important for the involvement of men. Men consider themselves traditionally as bringers of health information to the family. If information on PMTCT interventions is first given to women, this information is less trusted by men. Men prefer to receive the information directly from health workers and in gender-specific groups, because cultural norms do not encourage mixing of men and women when discussing reproductive health issues. Similar findings are reported by Horizon

Programme (2003:8) in a study conducted in Zambia and Kenya on feasibility and acceptability of PMTCT. The study found that attempts to involve male partners are most successful when information about PMTCT is provided directly to men and preferably outside the antenatal clinic setting, which is perceived by men as exclusive to women. This lack of friendliness of PMTCT clinics to men was again identified as a barrier by Horizon Programme (2002:29) in another multi-sites study in which it was found that in Zimbabwe, female clients at the ANC clinic considered men as intruders, and that clinics were usually closed at the times when working men could most easily access them. The findings also report the perceptions among many men that male involvement is for the benefit of women and not men.

The study by Burke et al (2004a:29) also revealed that men did not like to attend the local PMTCT clinic and would prefer to be tested at a distance from home for fear of lack of confidentiality at their local clinic, and of stigma and discrimination. Nyblade and Field-Nguer (2001:25), in a qualitative study in Zambia and Botswana on women, communities and PMTCT, reported that community members (including men) had opinions, beliefs, and values that directly affected their decisions about participating in programmes such as PMTCT. They also reported that men were less informed than women about MTCT and this disparity in knowledge could be attributed to the place and manner in which information is usually shared, mostly by female health workers at antenatal clinics, where men are unlikely to be found.

2.7 CONCLUSIONS FROM THE LITERATURE REVIEW

The studies referred to in the previous sections confirm the importance of involving men in PMTCT services. Women's uptake of these services is considerably influenced by the attitudes of their male partners. These studies also show that it is not very easy to convince men to be involved in programmes which are designed for and provided by women. Some of the factors influencing the attitudes which are found in these studies are related to gender norms and roles, to the flow of information about the programmes, and programmatic factors related to the unfriendliness of PMTCT clinics towards men.

2.8 STRENGTHS AND WEAKNESSES OF OTHER STUDIES

Most of the abovementioned studies used women as respondents instead of men themselves, and a good number of them are qualitative in nature, using a small sample. They focused mostly on the impact of men's attitude on the uptake of PMTCT services by women, and very little is said about the actual reasons behind the men's attitude. However, one of the strengths of some of these studies is the fact that they are multi-sited, and the data collected from different countries illustrate the variations of norms across cultures.

2.9 FURTHER RESEARCH NEEDED

Following the above, there is a need to conduct more quantitative research with men themselves as respondents to understand their attitude better. Exploring the factors which influence men's adoption of programmes like PMTCT from men's own perspective is important, hence the choice of this study's topic.

2.10 SUMMARY

The literature was reviewed to gain more understanding on men's involvement in PMTCT and reproductive health programmes, to place this study against the general picture of men and PMTCT and to identify literature gaps which might support the choice of this topic. Various sources were accessed to find the literature and these included the Internet and UNISA library and many others. The sources on men's involvement in PMTCT which were reviewed assisted in the conceptualisation and understanding of concepts like PMTCT of HIV, men's involvement, and the factors influencing it. Current understanding of these concepts was highlighted in this chapter and findings from other studies were evaluated to reveal strengths and weaknesses, with a view to justifying the choice of this research topic.

Chapter 3

Research methodology

3.1 INTRODUCTION

The methodology used to conduct the research on men's involvement in PMTCT is discussed this chapter. The chapter covers the study design, the study population and sample, data collection method and instrument, ethical considerations, validity and reliability, and data analysis plans.

3.2 DELIMITATION OF THE STUDY

The study was limited to the involvement of men in PMTCT programmes in the Mambwe district in Zambia.

3.3 GEOGRAPHICAL AREA

Mambwe is a rural district located in the Eastern province of Zambia and has a total population of 47 376 (2000 census); males make up 50,02% of this total (Central Statistical Office, Zambia & ORC Macro 2004b:22). The district has a total area of 4 840 km² and shares borders with four other districts: Mpika, Lundazi, Chipata and Petauke (figure 3.1).

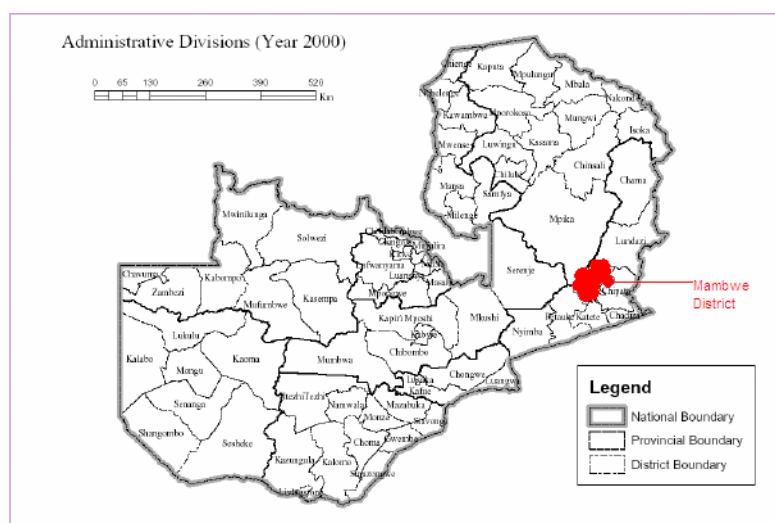


Figure 3.1 Location of Mambwe district on the administrative map of Zambia
(Central Statistical Office, Zambia & ORC Macro 2004b:22)

3.4 RESEARCH APPROACH

A quantitative approach was used to study the factors influencing men's involvement in PMTCT. According to Burns and Grove (2005:23), quantitative methodology involves reductionism, logical deductive reasoning, a certain degree of control by the researcher, the use of a structured data collection instrument, statistical analysis and generalisation. In this study, reductionism involved breaking the PMTCT programme down into components which were then studied. Logical, deductive reasoning involved generating conclusions from a sample of men and generalising them to a larger population of men. There was researcher control over the choice of the research problem, research methodology, variables to be studied and control on the effect of extraneous factors. Data collection and analysis involved the use of a structured data collection instrument and statistical analysis.

3.5 STUDY DESIGN

A descriptive, cross-sectional, correlation design was used to examine the relationship between the level of men's involvement in PMTCT and the various factors which may influence it. According to Polit and Beck (2004:192), the purpose of descriptive designs is to observe, describe and document aspects of a situation as it naturally occurs in a given population. Cross-sectional designs are conducted in the present time to examine what currently exists and they are fundamentally characterised by the fact that all data are collected at one time (Brink & Wood 1998:6). According Brink and Wood (1998:161), correlational design is used when the investigator has reason to suspect a relationship between variables and can support this suspicion from literature or previous research. Brink and Wood (1998:163) give the following additional assumptions for correlation design: the variables have not been shown to co-vary in previous studies of similar populations; and there is no tested theory on which to predict the possible relationships between the variables. These variables exist in the population and they are studied as they exist naturally without manipulation. Finally, the sample needs to be representative.

This study has a descriptive aspect to every studied variable; it is cross-sectional because it is conducted in the present and all the data were collected at the same time. On the correlation aspect, the suspicion of a relationship between men's involvement

and the different potential factors influencing it emanated from the review of the literature (refer to chapter 2); the literature search did not yield any documented covariance between these variables; and no single theory predicting the possible relationship between them was identified. The factors were studied as they exist in the population without any manipulation. The method used for selecting and estimating the sample made it representative.

3.6 RESEARCH POPULATION

3.6.1 Selection of research population

This study's population included all men who were either husbands or sexual partners of women who had been at least counselled and tested for HIV for PMTCT, in Mambwe district, during the period March 2004 to December 2005, without any consideration of the HIV sero-status of the women.

3.6.2 Inclusion and exclusion criteria

The inclusion criteria for the study population included the following:

- Male gender
- Marriage or relationship with a woman counselled and tested for PMTCT during the period March 2004 to December 2005
- Residence in Mambwe district, Zambia

The following were not considered for the inclusion criteria:

- The HIV sero-status of the potential respondent or his female partner
- The man's age, race or political or religious affiliation

3.6.3 Type of sample and sampling technique

A random sample was selected to represent the above defined study population. A systematic random sampling technique was used to select the sample units. According to Polit and Beck (2004:298), systematic sampling technique involves the selection of

every k th case from a list or group (sampling frame) and, this k (the sampling interval), is established by dividing the total study population by the desired sample size.

The following steps were taken to select units to be included in the sample: The sampling frame was established from Kamoto Hospital's PMTCT registers to identify a total of 801 women who had been counselled and tested during the stated period. Personal records of these women were used to identify addresses of their male partners. The study population of 801 men was then divided by 142 (sample size) to establish a sampling interval of about 6. Every sixth person on the list was selected as sample unit and the starting point was the 26th person, selected randomly by dropping a pencil on the register.

The advantage of the systematic random sampling technique is that it can yield essentially the same results as simple random sampling, but with less work involved (Polit & Beck 2004:299). The technique was also found appropriate for this study because the units in the sampling frame were not numbered at intervals coinciding with the sampling interval (Fisher & Foreit 2002:66).

3.6.4 Sample size

The sample size of 142 was calculated with the help of the computer software EPI-Info 2002. The confidence level was fixed at 95%, the presumed prevalence of PMTCT knowledge of 28,2%, and a worst acceptable prevalence at 21,5% (USAID 2005:20).

3.7 METHOD OF DATA COLLECTION

3.7.1 Data collection approach

The data collection method for this study was a face-to-face interview using a structured questionnaire. Interviews were conducted in the community by community health workers (CHWs) and home-based care volunteers initially trained as interviewers.

3.7.2 Advantages of the data collection approach selected

One advantage of structured interviews is that all respondents are asked exactly the same set of questions in the same sequence and this increases the objectivity of the collected data even though different interviewers are used (Fisher & Foreit 2002:74). Other advantages of this approach are an increase in the response rate and a higher questionnaire completion rate (Babbie & Mouton 2001:249, 262), and the reduction of administrative costs and difficulties of assembling all respondents in one place. It also assists in reducing difficulties related to low literacy levels of respondents which were a factor in this study (Burns & Grove 2005:397).

The advantages of using CHWs and home-based care volunteers as data collectors included their experience in collecting data for other health programmes in the community, the fact that they come from the same community and thus share characteristics with respondents, their knowledge of the area and understanding of local culture, and their availability for the entire data collection period (Polit & Beck 2004:330).

3.7.3 Disadvantages of the data collection approach selected

The difficulties of the selected data collection method included the cost and time spent in locating respondents; the possible compromising of anonymity because data collectors knew some of the respondents personally; the possibility of information bias, as respondents could give answers just to impress the interviewers; and the impossibility of allowing respondent to elaborate on their answers because of fixed answer sets (Polit & Beck 2004:318, 351).

3.8 RESEARCH INSTRUMENT

The instrument used to collect and measure data on men's involvement in PMTCT was a structured interview protocol/questionnaire. Its development, structure, and content are discussed below.

3.8.1 Development of the instrument

The research instrument or interview protocol under discussion was developed specifically for this study. Different approaches were simultaneously used to develop the items included in this instrument, as advised by Brink and Wood (1998:247) and Boynton and Greenhalgh (2005:1313).

From the review of the literature, statements and findings from previous studies were identified and adapted into questionnaire items. The sources include studies such as those by Burke et al (2004a:8), Lee (1999:112) and Medley, Garcia-Moreno, McGill and Maman (2004:300-303). The review of literature also identified statements from monographs and conferences reports on men's involvement in reproductive health, such as those by Kamal (2002:63, 76), Ntabona (2002:55-56), Rutenberg et al (2002:29) and Sharma and Singh (2004:2).

From the literature, some items from instruments used in previous studies were also adapted, such as those from the behavioural surveillance survey questionnaire by Family Health International (2000:160).

The researcher's ground experience of Mambwe PMTCT programme also played a role in the development of some of questionnaire items.

3.8.2 Variables measured by the instrument

The variables measured by this instrument included '*men's involvement*' and '*factors influencing men*'. The former was considered as the dependant variable, and the later as the independent variable. The variable *factors influencing men* have four components, which are:

- Knowledge and awareness about PMTCT among men
- Socio-cultural factors influencing men
- Programmatic factors influencing men
- Economical demographic characteristics of men

3.8.2.1 *The variable “level of men’s involvement”*

Taking into consideration the conceptual definition given in chapter 1, the *level of men’s involvement* in this study was measured by collecting information on men’s intentions to be involved, or their active involvement, in the following PMTCT activities:

- Being aware of the partner’s counselling and testing for PMTCT
- Being ready to discuss HIV testing for PMTCT with their female partner
- Attending MCH/PMTCT sessions together with the female partner for HIV counselling and testing
- Supporting their female partner in taking ARVs and adhering to them
- Supporting their female partner in the choice and adoption of an appropriate infant feeding method.

The level of men’s involvement in PMTCT has been measured at four levels:

- **No involvement:** No positive answers to any of the ten questions measuring involvement
- **Low involvement:** 1 to 3 positive answers
- **Moderate involvement:** 4 to 7 positive answers
- **High involvement:** 8 to 10 positive answers

3.8.2.2 *The variable “knowledge and awareness”*

The variable *knowledge and awareness* on PMTCT was measured by evaluating answers to ten questions on general knowledge of aspects of PMTCT, such as: how and when MTCT occurs; interventions to prevent MTCT; the existence of the PMTCT programme in Mambwe district; the activities taking place at a PMTCT clinic.

Four categories were established to determine the levels of the men’s knowledge of PMTCT (Fisher & Foreit 2002:40):

- **No knowledge:** No correct answers to any of the ten questions.
- **Low knowledge:** 1 to 3 correct answers.
- **Medium knowledge:** 4 to 7 correct answers.

- **High knowledge:** 8 to 10 correct answers to questions on knowledge about PMTCT

3.8.2.3 *The variable “socio-cultural factors”*

A 10-item Likert scale was used to measure the variable *socio-cultural factors*. The scale included statements on various socio-cultural issues in PMTCT with a 5-response option from “strongly agree” to “strongly disagree” (Polit & Beck 2004:356). The scoring of responses ranged from 1 to 5, taking into account the agreement with positively worded statements and disagreement with negatively worded statements (Polit & Beck 2004:356). The statements included in the scale covered the following issues: gender responsibilities of men and women in PMTCT; couple visits, couple counselling and testing in an antenatal/PMTCT setting; men’s possible reactions to positive HIV results in their female partners.

Four categories were established for the composite measure of socio-cultural factors:

- **Low socio-cultural influence:** 0 to 19 total score
- **Moderate socio-cultural influence:** 20 to 29 total score
- **High socio-cultural influence:** A total score of 30 to 39
- **Very high socio-cultural influence:** A total score of 40 to 50

3.8.2.4 *The variable “programmatic factors”*

Programmatic factors were measured also using a 10-item Likert scale. This scale includes statements about the following issues: the friendliness of PMTCT clinics to men, the biased gender representation amongst clinic workers; the compatibility of PMTCT clinic times with other men’s activities; the level of confidentiality at PMTCT clinics; the attitude of staff towards men; the level of efforts made by PMTCT services to involve men.

Four categories were established for the composite measure of the influence of programmatic factors on men’s involvement. These categories are based on the total marks obtained from the Likert scale, following the same principles as in the previous section:

- **Low programmatic influence:** a total score of 0 to 19
- **Moderate programmatic influence:** a total score of 20 to 29
- **High programmatic influence:** A total score of 30 to 39
- **Very high programmatic influence:** A total score of 40 to 50

3.8.2.5 *Economic and demographic characteristics of respondents*

The characteristics measured include age, education level, occupation, religious affiliation, tribe, and duration of relationship with the female partner. These factors have been included because of their potential confounding effect on both dependent and independent variables.

3.8.3 Guide to the research instrument

The study questionnaire or interview protocol (see annexure 1) has a total of 45 items grouped in five sections. Each section is made up of questions related to one of the five variables. Almost all questions are closed-ended, and two Likert scales were also used. A general guide to the content of each section is given below:

- *Section 1* comprises five (5) questions on demographic characteristics of respondents.
- *Section 2* is made up of ten (10) closed-ended questions on general knowledge and awareness on PMTCT.
- *Section 3* is made up of a 10-item Likert scale measuring opinions and perceptions of socio-cultural barrier factors.
- *Section 4* comprises a 10-item Likert scale measuring opinions and perceptions on programmatic factors.
- Finally, *Section 5* comprises 10 (ten) closed-ended questions on the level of men's involvement.

3.8.4 Pre-testing of the instrument

The questionnaire was tested twice, first on six male married medical trained personnel attending a workshop on antiretroviral therapy on 23 May 2006. It took them an average of ten minutes to fill in the questionnaire and they raised issues related to typographic errors, ambiguous questions and questions which might not be easy for men in the community to answer. The issues raised by this group helped in the improvement of the instrument. The revised instrument was later tested on ten CHWs who were also selected as interviewers, on 2 June 2006. They took a maximum of 15 minutes to respond to all questions and faced very few problems with the questionnaire. In early July 2006, the improved questionnaire was then sent for final evaluation and approval to the research supervisors, who gave a go-ahead with no modification.

3.9 RELIABILITY AND VALIDITY

3.9.1 Validity

Validity refers to the question whether there is evidence to support the assertion that the methods are really measuring the abstract concepts that they purport to measure. Another aspect of validity concerns the quality of the researcher's evidence regarding the effect of the independent variable on the dependent variable (Polit & Beck 2004:36).

3.9.1.1 *Internal validity*

Internal validity refers to the extent to which the findings of a study are a true reflection of reality, rather than the result of extraneous variables (Burns & Grove 2005:215). The following efforts were made to reduce the impact of possible extraneous variables in the study and by so doing increase internal validity: The use of random sampling techniques; the homogeneity of the selected group of men making up the sample; and blocking of some of the possible extraneous variables by including and measuring them (such as demographic characteristics of respondents).

3.9.1.2 External validity

External validity refers to the extent to which the results of a study can be generalised to other settings or groups (Fisher & Foreit 2002:46). According to Polit and Beck (2004:218), a study is externally valid to the extent that the sample is representative of the broader population, and the study setting and experimental arrangements are representative of other environments. In this study, efforts to enhance external validity included the random selection of a large sample, which made it more representative, and the comparison of the findings with other studies found in the literature.

3.9.2 Reliability

Reliability refers to the accuracy and consistency of information obtained in a study and the term is most associated with the methods used to measure research variables (Polit & Beck 2004:35). In surveys, reliability problems commonly result when the respondents do not understand the question, are asked about something they do not clearly recall, or asked about something of little relevance to them (Fisher & Foreit 2002:45). The use of a face-to-face interview and the use of a structured questionnaire are some of the methods used to improve reliability in this study.

3.10 ETHICAL CONSIDERATIONS

The main ethical issues most considered when conducting research include the voluntary nature of participation, reduction of risk for participants, obtaining of informed consent; ensuring confidentiality and privacy of participants, and institutional ethical issues, which include obtaining authority to conduct research and scientific honesty (Babbie & Mouton 2001:522; Bless & Higson-Smith 1995:102; Katzenellebogen et al 1997:27; Mouton 2001:238; Polit & Beck 2004:143). The following was done to ensure the above ethical issues were adhered to:

3.10.1 Voluntary participation

The right of respondents to participate in the research or not, as they chose, was respected. All respondents participated freely after receiving information on the study

and their right to answer questions or not, right to avoid being made uncomfortable and right to withdraw at any time during the process of questioning.

3.10.2 Minimising risk to participants

The research was carried out with minimum risk for respondents. The only possible identifiable risk could arise from questions related to HIV/AIDS testing which participants could have found embarrassing. No such incident was reported during the data collection process.

3.10.3 Informed consent

Participants were provided with adequate information on the research before the interview and because of the level of literacy, the verbal consent (see annexure 2) obtained from the respondents was mainly verbal (oral).

3.10.4 Confidentiality and anonymity

The right of participants to anonymity and confidentiality were ensured by making the questionnaire anonymous, by keeping secret the information revealed by participants and by publishing research findings in a way that would not relate to the respondents. Nevertheless, the use of community-based health providers as data collectors could compromise the confidentiality even though they were trained to maintain confidentiality.

3.10.5 Scientific honesty

Scientific honesty was observed as much as possible in this report by ensuring proper cross-referencing and by listing all scientific sources at the end of this report. The Harvard referencing system was used throughout this report.

3.10.6 Competency

Competency to conduct research was obtained by the researcher after passing the theoretical Master's in Public Health (MPH) modules on health measurements and research methodology and attending a seminar on research methodology organised by the Department of Health Studies at UNISA in September 2005.

3.10.7 Permission to conduct research

Authority to conduct research was obtained in May 2006 from district and provincial health authorities in Mambwe district and the Eastern Province of Zambia. The research proposal was also submitted to and approved by the Research and Ethics Committee of UNISA in April 2006 and the Zambian Research and Ethics Committee (see annexure 4) in July 2006. Traditional authorities of each visited village were also approached before visiting the respondent's home.

3.11 DATA ANALYSIS

The collected data were cleaned and coded and entered in the computer for analysis with the computer using SPSS 13.0 computer software.

Frequency distribution tables and descriptive statistics were used to present the analysis of each variable. Correlation analysis was also conducted to assess the relationship between men's involvement and the different factors, to measure the level of influence of each.

3.12 SUMMARY

This chapter discussed the methodology used to conduct this study on men's involvement in PMTCT. A quantitative approach was used and a descriptive, cross-sectional correlational research design was adopted. A systematic random sampling technique was used to select 142 sample units from a population of 801 male partners of women involved in PMTCT. The chapter also discussed the data collection method and instrument; face-to-face interview by trained interviewers using a structured protocol was the method used to collect information from respondents in the community. This instrument measured the variables 'men's involvement' and 'factors influencing men'. Validity and reliability of measurement and findings and ethical considerations were also discussed in the chapter, followed by a presentation of plans for analysis of data.

Chapter 4

Presentation and discussion of data

4.1 INTRODUCTION

This chapter discusses the analysis and interpretation of data. The data was collected with the aim of answering the research questions, which were:

- What is the influence of men's knowledge and awareness on their involvement in PMTCT programmes?
- What is the influence of socio-cultural factors on men's involvement in PMTCT?
- What is the influence of programmatic factors on men's involvement in PMTCT?
- What is the influence of demographic characteristics on men's involvement in PMTCT?

Data collection took place from 5 to 12 July 2006. The returned questionnaires were numbered, and the data cleaned and then transferred to an electronic SPSS spreadsheet for analysis with the same computer software.

4.2 RESPONSE RATE AND SAMPLE SIZE

Data were collected from 127 respondents in the community through face-to-face interviews with structures questionnaires. This response rate was 89% of the expected 142 respondents (the sample size), 15 could not be traced at the indicated addresses.

4.3 ANALYSIS AND INTERPRETATION OF THE DATA

The results of the analysis of data are presented below, according to each questionnaire section and item, using tables, graphs and summary statistics.

4.3.1 Demographic characteristics of respondents

Item 1.1 Age of respondents (n=127)

The pie chart below (figure 4.1) shows the age distribution for each category. The majority of respondents, namely 83,5% (n=106), were between 20 and 39 years (combination of 20 to 29 and 30 to 39 years' categories).

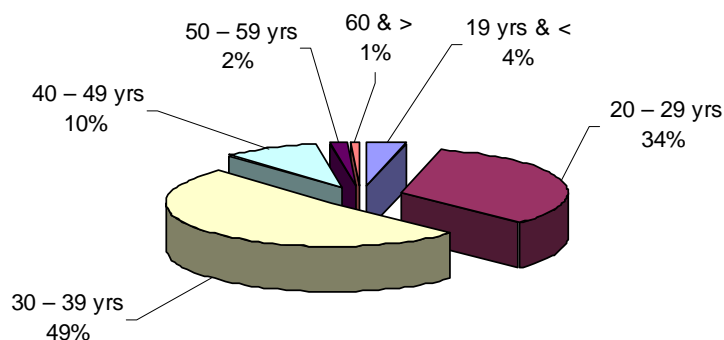


Figure 4.1 Age of respondents (n=127)

Item 1.2 Level of respondents' education (n=127)

The table below (4.1) shows respondents' level of education.

Table 4.1 Level of education of respondents (n=127)

Level of school completed	n	%	Cumulative %
Never attended school	20	15,7	16,0
Did not complete primary school	50	39,4	56,0
Completed primary school	28	22,0	77,6
Did not complete secondary school	23	18,1	95,2
Completed secondary school	5	3,9	99,2
Did not complete university/college	0	0,0	99,2
Completed college/University	1	0,8	100,0

The level of education of respondents varied from “no education” to “completed college or university”. As shown in the table 4.1 above, 15,7 % (n=20) of the respondents never attended school, while fewer than 5% had at least a secondary school qualification. More than half of respondents (56%) did not have a primary school qualification. These levels of education are certainly low if compared with those reported in other studies like

the one by Ladner, Leroy, Msellati, Nyiraziraje, De Clercq, Van de Perre and Dabis (1996:72), in Rwanda, who found the following level of education among partners of women: no education 5,5%; primary education 40,5%; secondary education 31,8%; and higher education 22,2%.

Item 1.3 The duration of relationship with female partner (n=127)

The duration of relationships with female partners was categorised in three groups: below 5 years, between 5 and 10 years, and more than 10 years. Figure 4.2 below shows the percentages of respondents for each of these three categories.

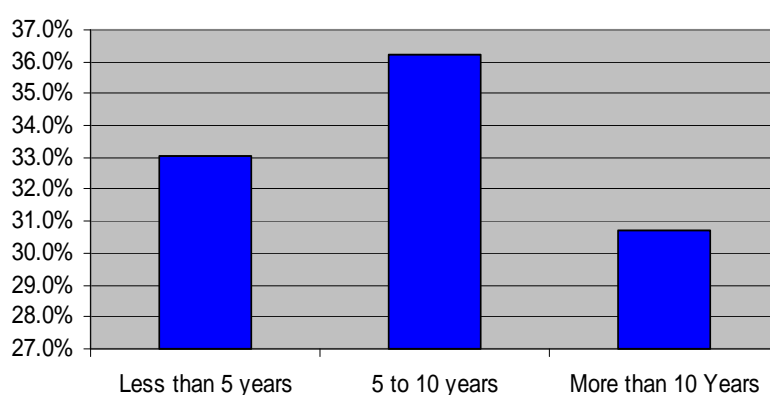


Figure 4.2 Duration of relationship with female partner (n=127)

As shown in the figure above, 33,1% (n=42) of respondents have been in a relationship with their female partners for less than 5 years, 36,2% (n=46) for 5 to 10 years and 30,7% (n=39) for more than 10 years.

Item 1.4 Religious affiliations of respondents (n=127)

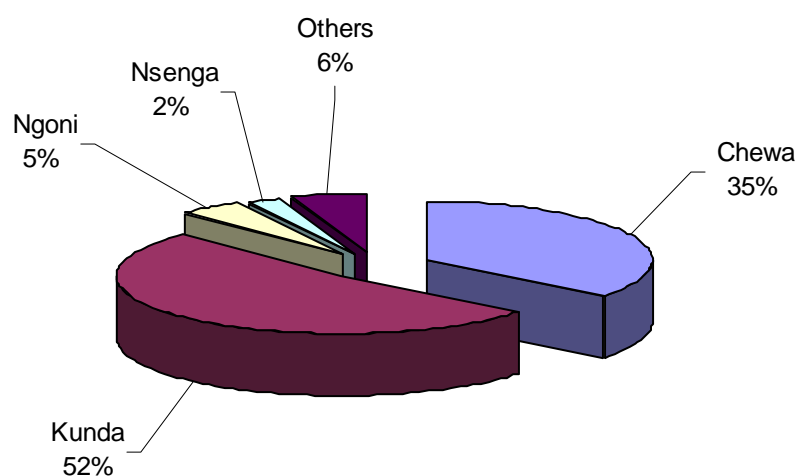
Almost all respondents belonged to the Christian religion, as shown in table 4.2 below. The Anglican Church was leading with 26,0 % (n=33), followed by New Apostolic Church with 18,9% (n=24).

Table 4.2 Religious affiliation of respondents (n=127)

Religious affiliation	n	%
Christian – Adventist	3	2,4
Christian – Anglican	33	26,0
Christian – Catholics	23	18,1
Christian – New Apostolic church	24	18,9
Christian – Others	14	11,0
Christian – Pentecostal	6	4,7
Christian Reformed church in Zambia	16	12,6
No religion	8	6,3

Item 1.5 The tribes of respondents (n=127)

The pie chart below (figure 4.3) presents the percentages of respondents per tribe. Kundas were in the majority with 52,0% (n=66), followed by Chewas with 35,4% (n=45). These two tribes are actually the majority in Mambwe district.

**Figure 4.3. Respondents' tribes (n=127)****4.3.2 Items on knowledge and awareness about PMTCT****Item 2.1 Knowledge of HIV transmission during pregnancy (n=127)**

Of the respondents, 65,4% (n=83) were aware that MTCT can occur during pregnancy, 29,9% (n=38) did not know and 4,7% (n=6) were not sure. These percentages are lower than those reported in the Zambian Sexual Behaviour Survey of 2003 by the Central

Statistical Office, Zambia and ORC Macro (2004b:12); in this 91% of male respondents knew that MTCT can occur during pregnancy.

Item 2.2 Knowledge of HIV transmission through breastfeeding (n=127)

The majority of the respondents, namely 88,2% (n=112) knew that an HIV-positive mother could transmit the virus to her baby through breastfeeding; only 8,7% (n=11) did not know and 3,1% (n=4) were not sure. These results are similar to those reported by Central Statistical Office, Zambia and ORC Macro (2004b:12): in this 82% of male respondents knew that that MTCT can occur during breastfeeding.

Item 2.3 Knowledge of possibility of HIV transmission during delivery (n=127)

Of the respondents, 81,1% (n=103) knew that a HIV positive woman could transmit the virus to her baby during delivery, 11,8% (n=15) did not know, and 7,1% (n=9) were not sure. Central Statistical Office, Zambia and ORC Macro (2004b:12) found that 75% of male respondents knew that MTCT can occur during delivery.

Item 2.4 Knowledge of possibility of reduction of HIV transmission by antiretroviral drugs (n=127)

Of the respondents, 54,3% (n=69) knew that ARVs can reduce the chances of MTCT, 31,5% (n=40) did not know and 14,2% (n=18) were not sure. These results are higher than those found by Central Statistical Office, Zambia and ORC Macro (2004b:12): 17,7% of male respondents in this survey knew that ARVs can reduce the rates of MTCT.

Item 2.5 Knowledge of possibility that caesarean section may reduce chances of HIV transmission (n=127)

Only 38,6% (n=49) of the respondents knew that caesarean section can reduce the chances of MTCT, 49,6% (n=63) did not know, and 11,8% (n=15) were not sure. These percentages are much higher than those found by Central Statistical Office, Zambia and ORC Macro (2004b:12): only 2,3% of male respondents in that survey knew that caesarean section can reduce the chances of MTCT.

Item 2.6 Knowledge of possibility for no breastfeeding to reduce chances of HIV transmission (n=127)

Of the respondents 65,4% (n=83) knew that avoiding breastfeeding can reduce the chances of MTCT, 28,3% (n=36) did not know, and 6,3% (n=8) said they were not sure. These percentages are a bit lower than those found by Central Statistical Office, Zambia and ORC Macro (2004b:12): 77,7% of their male respondents knew that avoiding breastfeeding can reduce the chances of MTCT.

Item 2.7 Awareness of a programme called PMTCT (n=127)

Of the respondents, 51,2% (n=65) had heard about the programme called the PMTCT, 44,1% (n=56) had not yet heard about it, and 4,7% (n=6) were not sure. These results are much lower than those found by Central Statistical Office, Zambia and ORC Macro (2004b:10): 85,1% of male respondents knew about PMTCT.

Item 2.8 Awareness of PMTCT services offered at Kamoto Hospital (n=127)

Of the respondents 54,3% (n=69) knew that PMTCT services were offered at Kamoto Hospital, 24,4% (n=31) did not know, and 21,3% (n=27) said they were not sure.

Item 2.9 Awareness of fact that women are counselled and tested for HIV at PMTCT clinics (n=127)

Of the respondents, 60,6% (n=77) knew that women were counselled and tested for HIV at PMTCT clinics, 13,4% (n=17) did not know, and 26,0% (n=33) were not sure. These findings are not supported by those by Nyblade and Field-Nguer (2001:6) in their qualitative study in Zambia and Botswana, who found that the majority of men were generally less informed about what is done at PMTCT clinics.

Item 2.10 Awareness of fact that partner was tested for HIV at last pregnancy (n=127)

Of the respondents, 48,8% (n=62) knew that their female partners were tested for HIV at last pregnancy, 32,3% (n=41) were not aware, and 18,9% (n=24) were not sure.

Composite measure of respondents' knowledge about PMTCT (n=127)

The composite measure of respondents' knowledge and awareness was measured by the total number of correct answers to the above ten items on knowledge and awareness. These totals varied from 0 to 10 marks among respondents, with a median of 6 (six) and a standard deviation (SD) of 1.969.

The histogram below (figure 4.4) shows their distribution.

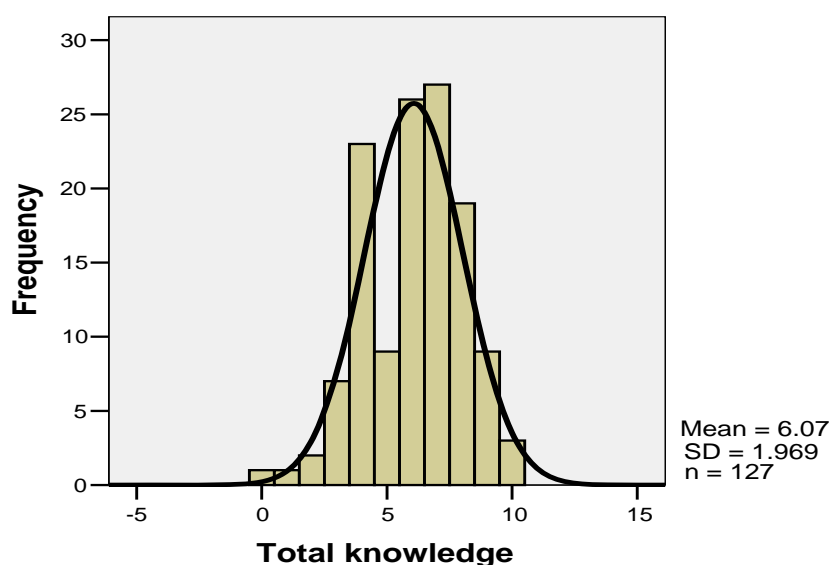


Figure 4.4 *Distribution of total correct answers on knowledge (n=127)*

The grouping of these total marks produced the four levels of knowledge represented in table 4.3 below.

Table 4.3 *Categories of level of PMTCT knowledge and awareness (n=127)*

		n	%
No knowledge	0 correct answers	1	0,8
Low knowledge	1 to 3 correct answers	10	7,9
Medium knowledge	4 to 7 correct answers	85	66,9
High knowledge	8 to 10 correct answers	31	24,4
Total		127	100,0

The majority of respondents, namely 66,9% (n=85), were in the medium knowledge category.

4.3.3 Items on socio-cultural factors

Item 3.1 Respondents' opinions on socio cultural factors (n=127)

Items on socio-cultural factors were grouped on a Likert scale. For the sake of analysis, “Strongly agree” and “Agree” were grouped together as “Agree”, while “Strongly disagree” and “Disagree” were grouped together as “Disagree”. Respondents' opinions for each statement are shown in table 4.4 below.

Table 4.4 Opinions on statements assessing socio-cultural influence (n=127)

Statements	Agreed		Disagreed		Undecided	
	n	%	n	%	N	%
A pregnant woman can be tested for HIV without the permission of her husband/partner.	40	31,5	85	66,9	2	1,6
Men should accompany their pregnant wives/partners to ANC/PMTCT clinics.	75	59,0	51	40,2	1	0,8
Men who accompany their female partners to ANC /PMTCT clinics are weak or bewitched.	27	21,2	88	69,3	12	9,4
It is a taboo for men to discuss with women about HIV testing during pregnancy.	58	45,6	61	48,0	8	6,3
Men and women should undergo HIV testing at the same time at PMTCT clinics.	93	73,3	27	21,2	7	5,5
Couples can use condoms to reduce chances of mother to child transmission of HIV.	68	53,6	50	39,3	9	7,1
ANC/PMTCT clinics are for women and children only.	61	48,0	55	43,3	11	8,7
A positive HIV test in a pregnant woman shows that she has been unfaithful to her husband.	40	31,5	80	63,0	7	5,5
If a pregnant woman is found to be HIV positive, she should be divorced.	19	15,0	102	80,3	6	4,7
PMTCT Information should first be given first to men then to women.	52	41,0	70	55,1	5	3,9

These results show that 66,9% (n=85) thought that women should get permission from their male partners before undergoing HIV test for PMTCT. Bajunirwe and Muzoora (2005:3), in their study on barriers to the implementation of PMTCT programmes, found similar results, with 68% female respondents thinking that they should consult their husbands before having an HIV test.

The results also show that 53,6% of respondents agreed to couples using condoms to reduce MTCT. Ladner et al (1996:72), in Rwanda, found lower percentages, with only 19,4% of HIV positive pregnant women and 12,1% of HIV negative pregnant women having used a condom with their partners at least once.

In this study, 45,6% of the respondents found it a taboo for men to discuss HIV testing in pregnancy with women. Maule-Nkhwalume (2003:4) in Botswana, found otherwise, with 55% of women reported to have discussed PMTCT with their partners.

These results also show that the majority of the respondents, namely 63% (n=80), did not think a positive HIV test in a pregnant woman was a sign of her infidelity; 80,3% (n=102) did not think that a pregnant woman who is HIV positive should be divorced. These results are supported by those reported by Kassaye et al (2005:128) in Ethiopia, who found that 75,9% of women who disclosed their status to their partners were not abused but experienced positive outcomes. Farquhar, Mbori, Bosire, Nduati, Kreiss and John (2000:381), also in Kenya, found that fear for abandonment among women accounted for only 19% of failure to inform their male partners. However, Marman, Mbwambo, Hogan, Kilonzo and Weiss (2000:381), in Tanzania, found 54,9% HIV positive women who reported physical abuse from their partners.

The results also show that more than half of the respondents, (55,1%; n=70), did not think that PMTCT information should be given to men first. These results differ from findings by Burke et al (2004a:10) in their qualitative study in Tanzania, and those of the Horizon Programme (2002:30) in Zimbabwe, in which the majority of men considered themselves the traditional bringers of health information to the family, who should receive this information first.

The results also show that the majority of the respondents (69,3%; n=88) did not think that men who accompanied their female partner to PMTCT clinics were bewitched. These results differ from those of the Horizon Programme (2002:30) in Zimbabwe, where communities considered the man who publicly supported his wife by accompanying her to the clinic as weak or bewitched.

Composite measure of the level of influence of socio-cultural factors

The composite measure of the level of influence of socio-cultural factors for each respondent was measured by the total score on the Likert scale with a possible maximum of 50. In general, the higher the score, the higher the level of socio-cultural influence on the respondent (see chapter 3 for details).

The results show that the total scores among respondents (n=127) varied from 15 to 38, with a median of 27 marks and an SD of 4.332. The histogram below (figure 4.5) shows the distribution of these scores.

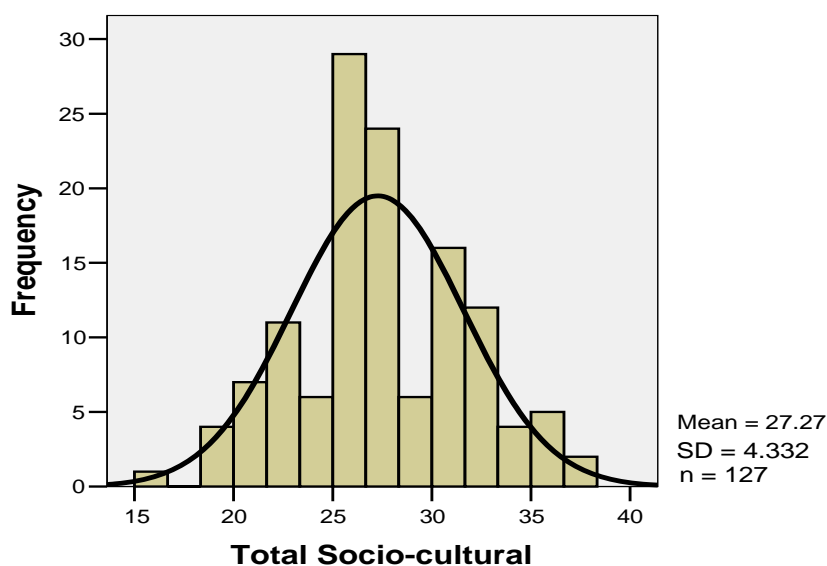


Figure 4.5 Distribution of scores on socio-cultural factors (n=127)

Four levels of influence of socio-cultural factors were also defined and table 4.5 below shows these categories with the frequencies and percentages of respondents for each one of them. The majority of respondents, namely 65,1% (n=83) were in the category “moderate socio-cultural influence”.

Table 4.5 Level of influence of socio-cultural factors (n=127)

	Score	n	%
Low level of socio-cultural influence	0 to 9	5	3,9
Moderate level of socio-cultural influence	20 to 29	83	65,1
High level of socio-cultural influence	30 to 39	39	30,6
Very high level of socio-cultural influence	40 to 50	0	0,0
Total		127	100,0

4.3.4 Items on programmatic factors

Item 4.1 Respondents' opinion on influence of programmatic factors (n=127)

The level of influence by programmatic factors on each respondent was measured by a 10-item Likert Scale. The respondents' opinions on each statement are presented in the table below (table 4.6). For the sake of analysis, "Strongly agree" and "Agree" were grouped together as "Agree", and "Strongly Disagree" and "Disagree" were grouped as "Disagree".

Table 4.6 Opinions on programmatic factors (n=127)

	Agreed		Disagreed		Undecided	
	n	%	n	%	n	%
Men should have "male only PMTCT clinics".	38	29,9	83	65,3	6	4,7
At the PMTCT clinics men should be attended to by male health workers only.	21	16,5	100	78,7	6	4,7
Health workers do not like to see men at PMTCT clinics	12	9,4	104	81,9	11	8,7
PMTCT clinics are made for women and children only	8	6,3	111	87,4	8	6,3
PMTCT clinics should also be opened during week ends and evening so that men can access them also	45	35,4	64	50,4	18	14,2
Staff at the PMTCT do not keep any secrets about HIV results of men and women	40	31,5	81	63,8	6	4,7
PMTCT programmes have done very little to involve men	61	48,0	52	40,9	14	11,0
You can attend PMTCT clinic if invited by health worker	78	61,4	45	35,4	4	3,1
PMTCT clinics are conducted very far from your home and transport is expensive	42	33,1	80	63,0	5	3,9
You can do an HIV test with your wife only if your are promised to be given ARVs afterwards	31	24,4	94	74,0	2	1,6

These results show that the majority of the respondents did not agree with the idea of gender separation in the provision of PMTCT services. Of the respondents 65,3% (n=83) did not think men should have "male only PMTCT clinics", and 78,7% (n=100) did not think that at the PMTCT clinics men should be attended to by male health workers only. These findings differ from those by Burke et al (2004a:10), in their qualitative study on men participation in PMTCT in Tanzania, who found that the majority of men preferred to receive information from fellow men, and that they were not comfortable with receiving information in mixed gender settings. The results also differ

from findings by the Horizon Programme (2002:29) in Zimbabwe, where men found female counsellors a barrier to their involvement in PMTCT.

The results also show that the majority of the respondents, 63,8% (n=81) did not think there was a lack of confidentiality at the PMTCT clinic. These results differ from those of Burke et al (2004a:13) who found that men were afraid to be tested at their nearest clinic because of lack of confidentiality.

The majority of the respondents 74% (n=94) also did not find ARVs to be an incentive for involvement, which is different from findings reported by Burke et al (2004a:24) in Tanzania, where the majority of men saw ARVs as an incentive for VCT.

Composite measure of the level of influence of programmatic factors

The composite measure of the level of influence of programmatic factors for each respondent was measured by the total score on the Likert scale (refer to chapter 3 for details). Figure 4.6 below shows the frequency distribution of these total scores. Generally, the higher the total score, the higher the level of influence. The total scores varied from 14 to 38 with a median of 24 and an SD of 3.963.

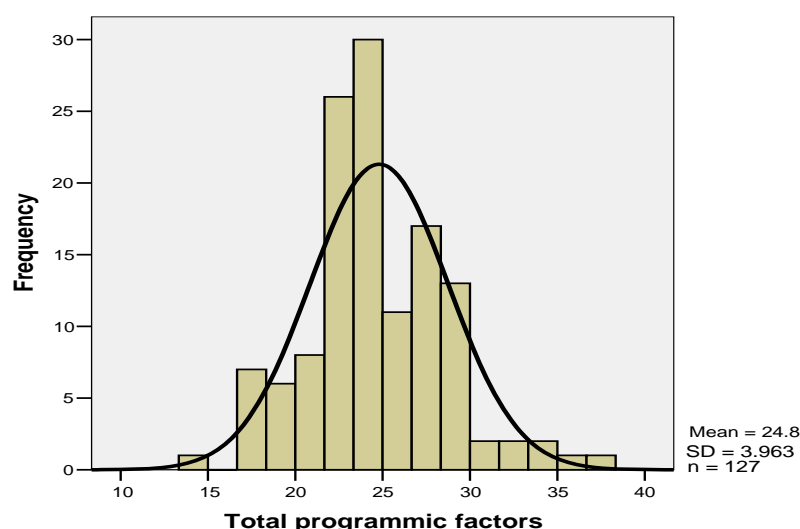


Figure 4.6 *Distribution of scores on programmatic factors (n=127)*

Grouping the total scores gives the following four categories of level of influence of programmatic factors (table 4.7).

Table 4.7 Categories of level of influence of programmatic factors (n=127)

	Score	n	%
Low influence	0 to 19	10	7,9
Moderate influence	20 to 29	104	81,8
High influence	30 to 39	13	10,3
Very high influence	40 to 50	0	0,0
Total		127	100,0

The category with the highest percentage of respondents is the “moderate influence” of programmatic factors with 81,8% (n=104).

4.3.5 Level of respondents’ PMTCT involvement

Item 5.1 Interest by knowing that partner was counselled and tested (n=127)

Of the respondents, 55,1% (n=70) knew their partners had been counselled and tested for HIV during the last pregnancy; 29,9% (n=38) indicated that their partners were not tested; and 15% (n=19) were not sure. Ladner et al (1996:72), in Rwanda, found higher percentages of women’s partners who were informed by their wives that they had been tested: 84,9% of HIV positive and 92,2% of HIV negative women. Kassaye et al (2005:128), in Ethiopia, also found that 69% of women reported that they had informed their partners.

Item 5.2 Discussing with partner HIV testing at last pregnancy (n=127)

To the question “Did you discuss with your partner HIV counselling and testing at the last pregnancy?”, only 36,2% (n=46) of the respondents indicated that they discussed HIV with their partners, 59,8% (n=76) said they did not and 3,9% (n=5) were not sure. Farquhar et al (2000:381) in Kenya, found that 64% of enrolled HIV positive women discussed their HIV test results with their partners.

Item 5.3 Readiness to discuss with partners HIV counselling and testing at next pregnancy (n=127)

Of the respondents, 71,7% (n=91) said they were ready to discuss HIV counselling and testing at the next pregnancy with their partners, 22,8% (n=29) said they were not ready and 5,5% (n=7) were not sure.

Item 5.4 Having gone with partner to a PMTCT clinic previously (n=127)

Of the respondents, 14,2% (n=18) said they had previously gone to a PMTCT clinic with their partners, 81,1% (n=103) said they had never done that and, 4,7% (n=6) said they were not sure. In Uganda, the Horizon Programme (2002:29) reported also a low percentage of clients coming as a couple for VCT namely 30%.

Item 5.5 Readiness to go with partner to PMTCT clinic at next pregnancy (n=127)

Of the respondents, 74,8% (n=95) said they were ready to go with their partners to a PMTCT clinic at next pregnancy, 22% (n=28) were not ready and, 3,1% (n=4) were not sure.

Item 5.6 Respondents counselled and tested for HIV together with partners at a PMTCT clinic previously (n=127)

Of the respondents 17,3% (n=22) agreed to be counselled and tested for HIV together with partners, 80,3% (n=102) said they had not, and 2,4% (n=3) said they were not sure. Ladner et al (1996:72), in Rwanda, found a lower percentage, with only 7,4% of women's partners having also come for testing. Perez et al (2004:778), in Zimbabwe, also found a low percentage of male partners accepting testing (2,3%) and so did Semrau et al (2005:605), in Lusaka, Zambia, with only 9,2% of women's spouses who were counselled.

Item 5.7 Readiness to go for HIV counselling and testing HIV together with partner at next pregnancy (n=127)

Of the respondents, 71,7% (n=91) were ready to go for HIV counselling and testing with their partners at the next pregnancy, 22,8% (n=29) were not, and 5,5% (n=7) were not sure. These results are supported by De Paoli, Manongi and Klepp (2004:417), in Tanzania, who found that 81,1% of rural women and 80,4% of urban women thought that it was easier to be tested as a couple. In Uganda, Bajunirwe and Muzooru (2005:4) also found a high percentage of women respondents (71%) who thought their husbands would accept the HIV test for themselves.

Item 5.8 Readiness to accept that partner takes ARVs for PMTCT (n=127)

Of the respondents, 85% (n=108) were prepared to accept that their partners took ARVs for PMTCT when found HIV positive during pregnancy, 8,7% (n=11) were not ready to accept this, and 6,3% (n=8) were not sure.

Item 5.9 Readiness to support partner's choice not to breastfeeding for PMTCT (n=127)

Of the respondents, 65,4% (n=83) were ready to support their partner's choice not to breastfeed for PMTCT if found positive, 26% (n=33) were not ready, and 8,7% (n=11) were not sure.

Item 5.10 Readiness to buy formula milk for the baby not breastfeeding (n=127)

Of the respondents, 64,6% (n=82) said they were ready to buy formula milk for the baby if their partner was not breastfeeding, 30,7% (n=39) were not ready to buy, and 4,7% (n=6) were not sure.

Composite measure of respondents' level of involvement (n=127)

The level of involvement of each respondent was measured by the total number of positive answers to the above ten items on involvement. These totals varied from 0 to

10 among respondents, with a median of 6 and a SD of 2.136. Their frequency distribution is shown in the histogram (figure 4.7).

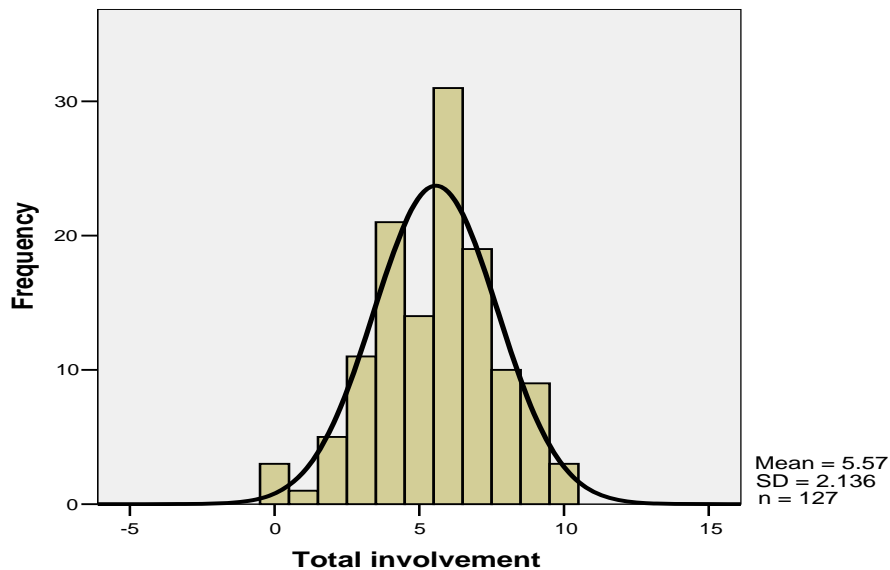


Figure 4.7 *Distribution of scores on involvement (n=127)*

Grouping of scores gave the four categories of level of involvement shown in table 4.8 below. The majority of respondents, namely 50,3% (n=64), are found in the category of moderate involvement. A total of 32,3% (n=41) are found in the categories of low and no involvement. Munene and Gathenya (2004:1), in Kenya found that 66,67% of the respondents thought there was not enough men involvement, and 30,55% considered the involvement very poor.

Table 4.8 *Categories of level of involvement (n=127)*

	Score	n	%
No involvement	0	3	2,4
Low involvement	1 to 4	38	29,9
Moderate involvement	5 to 7	64	50,3
High involvement	8 to 10	22	17,4
Total		127	100,0

4.4 SUMMARY

This chapter discussed the analysis and interpretation of data. The analysis was based on 127 respondents out of the 142 expected (89% response rate). The analysis was conducted with the help of a computer and results of the analysis were presented according to the questionnaire items.

Results from the analysis of data on respondents' demographic characteristics, on knowledge and awareness, on the influence of socio cultural factors, on the influence of programmatic factors and on the level of respondents' involvement in PMTCT are all discussed in this chapter with illustrative tables and figures.

Chapter 5

Findings, limitations and recommendations

5.1 INTRODUCTION

This chapter discusses the study findings in line with the study objectives, the recommendations drawn from these findings, and the study limitations.

5.2 FINDINGS

In this section, the research findings are discussed according to the three research objectives. These objectives were to

- assess the influence of demographic characteristics, knowledge and awareness, socio-cultural factors, and programmatic factors on men's involvement in PMTCT
- make recommendations, based on the research findings, on strategies which could improve the level of men's involvement in PMTCT programmes
- make recommendations on further studies on the same topic

5.2.1 Assessing the influence of demographic characteristics, knowledge and awareness, socio-cultural factors, and programmatic factors on men's involvement in PMTCT

5.2.1.1 *Influence of demographic characteristics*

The influence of age

The findings revealed that there was a weak positive association between age and the level of involvement, with a Pearson Correlation coefficient (r) of 0.199, with $p=0.025$, (statistically significant at 0.05 level). To facilitate the correlation analysis, each age group was given the following numerical value from 1 (age group below 19 years) to 6 (for age 60 years and above). The positive association may suggest that an increase in age has a positive influence on men's willingness to be involved in PMTCT. Kiarie et al

(2004:78), in Kenya, found that women whose husbands were 25 years or more were more likely to accept the option of not breastfeeding and choose replacement feeding for PMTCT.

Influence of level of education

Findings also revealed a weak positive association between level of education and level of involvement, with an $r=0.160$ and $p=0.073$ (not statistically significant at 0.05 level). The same approach was used to assign numerical values to level of education, from 0 for “Never attended school” to 6 for “Completed college/University”. This weak positive association may suggest that an increase in the level of education has a positive influence on men’s involvement in PMTCT. These findings are similar to those of Ladner et al (1996:72), in their study on factors associated with failure to return for HIV post-test counselling in pregnant women in Rwanda. They found that the level of partner’s education was a significant factor for women’s return for post test counselling. Kiarie et al (2004:78), in Kenya, found that women whose husbands had a secondary education or more were more likely to avoid breastfeeding for PMTCT.

Influence of the duration of the relationship with female partner

A negative association was found ($r=-0.01$) between the duration of the relationship with female partner and the total score on level of involvement. However, this association was found to be not statistically significant at 0.05 level with a $p= 0.989$. The same approach was used to allocate numerical values to the duration of relationships: 1 for less than 5 years, 2 for 5-10 years and 3 for more than 10 years. These findings may suggest that a longer duration of relationship between a man and a woman may have a negative influence on the men’s involvement in PMTCT. At a contrary, a longer and smoother duration of the relationship with the partner was found to be an important factor in women’s disclosing their HIV status and receiving support by Kassaye et al (2005:129) in Ethiopia.

5.2.1.2 Influence of knowledge and awareness

The findings revealed that the level of knowledge amongst respondents about PMTCT interventions was above average. The majority of the respondents had already heard

about PMTCT, and were aware that PMTCT services were offered at Kamoto Hospital. Most of them knew that MTCT can occur during pregnancy, during delivery and breastfeeding. Most of the respondents were also aware that ARVs and avoiding breastfeeding can reduce the chances of MTCT. But only a few (38,6%) knew that delivery by caesarean section can also reduce the chances of MTCT.

A positive association was also found between knowledge and the total score on level of involvement with an r of 0.483 and $p=0.00$ (statistically significant at 0.05 level). This positive association was the strongest compared to all other associations between involvement and other factors. The scatter plot (figure 5.1) depicts this relationship.

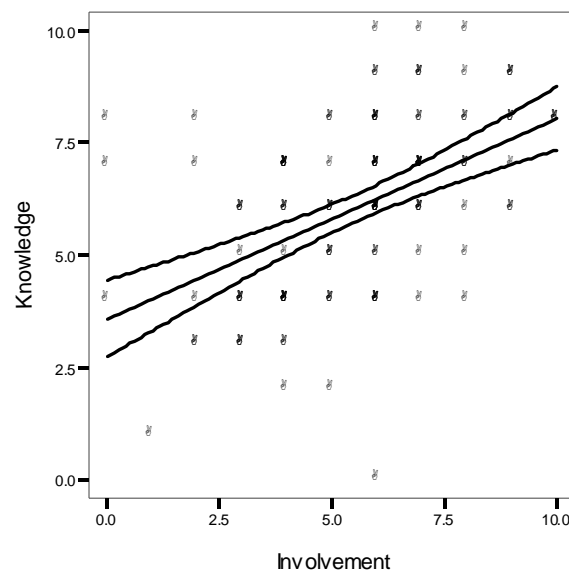


Figure 5.1 Association between knowledge and level of involvement

These findings may suggest that an increase in knowledge and awareness about PMTCT may have a positive influence on men's involvement in PMTCT. The Population Council (2005:2) also found in India and South Africa that when men are informed and involved from the beginning, they provide a better support for their female partners, which is also in accordance with the theory of DOI which postulates that the adoption of programmes by recipients is influenced by knowledge and awareness (Glanz et al 2002:315).

5.2.1.3 Influence of socio-cultural factors

The findings revealed that the majority of respondents were in the category of being moderately influenced by socio-cultural factors (65,1%), compared with 30,6% in the “highly influenced by socio-cultural factors” category.

Opinions given by respondents revealed that the majority of the respondents are of the opinion that women should seek permission from their male partners before testing for HIV (66,9%), that PMTCT information should be given to men first (55,1%), and that accompanying women to ANC clinics is not a problem (69,3%). Burke et al (2004b:1), in Tanzania, found that men did not like to receive second-hand information through their wives on PMTCT. The majority in this study also supported couple counselling and testing for PMTCT and opposed the idea of discriminating or divorcing pregnant women who test positive for HIV.

The findings also revealed a negative association between socio-cultural factors and the level of men’s involvement in PMTCT: an $r = -0.154$ and p of 0.084 (not statistically significant). The scatter plot below depicts this relationship (figure 5.2).

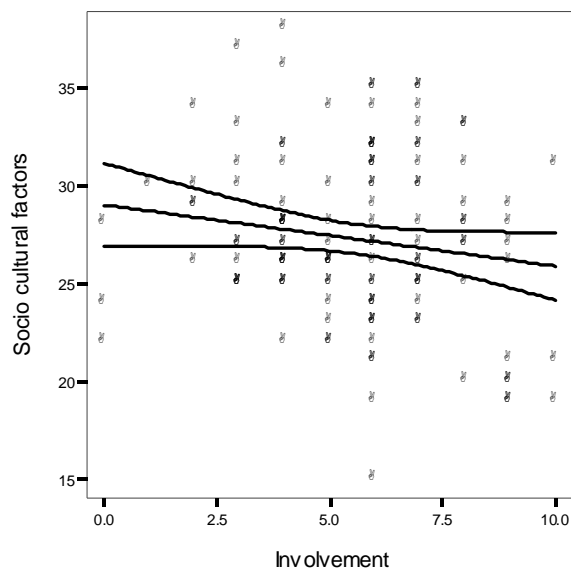


Figure 5.2 Association between socio-cultural factors and level of involvement

These findings may suggest that strong socio-cultural beliefs and opinions may have a negative influence on men’s involvement in PMTCT programmes.

5.2.1.4 Influence of programmatic factors

The findings revealed that the majority of the respondents (81,8%) were in the category “moderately influenced” by programmatic factors, compared with 10,3% highly influenced by programmatic factors.

The majority of the respondents did not find gender separation at PMTCT clinics to be important (65,3%), and 78,7% of them were ready to be attended by female health workers. The findings are contrary to those of Burke et al (2004a:3-5) in Tanzania, who found that because of cultural norms, men preferred to receive information about PMTCT from fellow men who are peers or older and in gender-specific groups.

The majority of the respondents agreed that confidentiality maintained by staff as well as their attitude towards men was good (63,8%). Approximately half of the respondents (50,4%) did not think it necessary to open the clinics during weekends and evenings and they were ready to go to the clinic when invited by a health worker (61,4%) and considered distance and transport were not an issue (63%). The provision of ARVs was not found to be an incentive for men to accept HIV testing by 74% of respondents. These findings were contrary to those of Burke et al (2004b:1) in Tanzania, who found that men considered ARVs an incentive for involvement in PMTCT programmes.

The findings also revealed a very weak negative association between programmatic factors and the level of involvement with an r of -0.014 and a p of 0.881 (not statistically significant). The scatter plot below shows the trends of this association (figure 5.3).

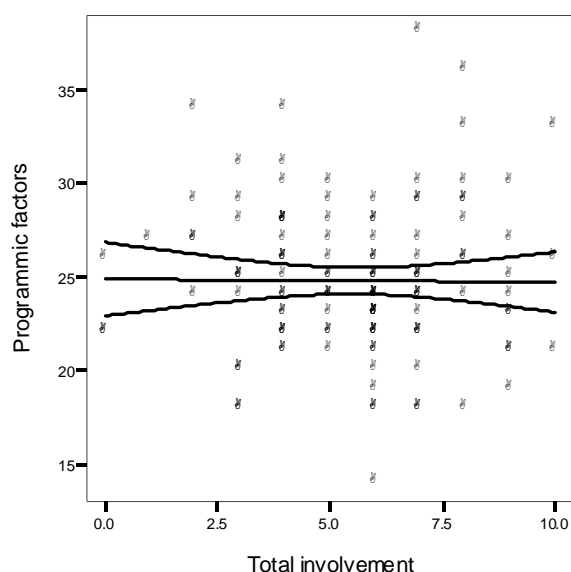


Figure 5.3 Association between programmatic factors and level of involvement

These findings may suggest that programmatic factors have a very weak negative influence on men's involvement in PMTCT programmes.

5.2.2 Recommendations for strategies to improve the level of men's involvement in PMTCT programmes

Based on the above findings, the following recommendations can be made for improving men's involvement in PMTCT.

- To increase their knowledge and awareness about PMTCT, information about the programme should be given to all men and in particular to those in a relationship with women in reproductive age. This information could be provided through couple counselling or campaigns to sensitise men to the issue.
- To reduce the negative influence of socio-cultural beliefs and opinions among men, context-specific and cultural sensitive messages should be formulated and disseminated through health education on reproductive health and PMTCT.
- PMTCT clinics should be made friendlier to men and service providers should ensure that all efforts are made to involve men from the beginning in every PMTCT intervention.

5.2.3 Recommendations for further studies on the same topic

- A comparative study should be done on the level of men's involvement between those who are partners of HIV-positive women to those who are partners of HIV-negative women.
- A study should be done on the outcome of marriages of couples found discordant through PMTCT couple counselling.

5.3 LIMITATIONS OF THE STUDY

The study was conducted in the community of Mambwe District in Zambia and may be to context specific. This may affect the generalisability of the findings to other sites.

The other limitations may emanate from possible unnoticed biases arising from the use of an instrument developed by an inexperienced researcher and from possible incorrect information given by respondents.

5.4 SUMMARY

Chapter 5 discussed the research findings based on results of data analysis and interpretation presented in chapter four. These findings were presented and discussed under the headings of each of the three research objectives.

In general the findings showed the level of men's involvement amongst respondents was moderate and that knowledge had a positive influence on involvement, while socio-cultural factors had a negative influence.

Limitations of this study were mentioned. On the basis of these findings, recommendations were also put forward on how men's involvement could be promoted, together with recommendations for further studies on this subject.

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QUESTIONNAIRE (Interview Protocole).**1 SECTION 1: ECONOMICAL - DEMOGRAPHIC CHARACTERISTICS****1.1 In which age category do you fall? (Tick one ✓)**

- ☐ 19 years and below (1.1.1)

 ☐ 40 to 49 years (1.1.4)
☐ 20 to 29 years (1.1.2)

 ☐ 50 to 59 years (1.1.5)
☐ 30 to 39 years (1.1.3)

 ☐ 60 and above (1.1.6)

1.2 What is the highest level of school did you complete? (Tick one ✓)

- ☐ Never attended school (1.2.1)

 ☐ Completed secondary school (1.2.5)
☐ Did not complete primary school (1.2. 2)

 ☐ Did not complete college/University (1.2.6)
☐ Completed primary school (1.2.3)

 ☐ Completed college/University (1.2.7)
☐ Did not complete secondary school(1.2.4)

1.3 For how long have you been living with your current wife/partner? (Tick one✓)

- ☐ Less than 5 years (1.3.1)
☐ 5 to 10 years (1.3.2)
☐ More than 10 Years (1.3.3)

1.4 What religion do you belong to? (Tick one✓)

- ☐ Christian: (*Specify denomination by ticking one✓*):

 ☐ Catholic (1.4.1)

 ☐ Protestant (1.4.2)

 ☐ Pentecostal (1.4.3)

 ☐ Adventist. (1.4.4)

 ☐ Anglican. (1.4.5)

 ☐ New Apostolic. (1.4.6)

 ☐ RCZ (1.4.7)

 ☐ Other Christian church (specify) (1.4.8) _____
☐ Muslim (1.4.9)
☐ None (1.4.10)
☐ Other religion (1.4.11) (Specify) _____

1.5 What tribe are you? (Tick one✓)

- ☐ Kunda (1.5.1)
☐ Chewa (1.5.2)
☐ Ngoni (1.5.3)
☐ Nsenga (1.5.4)
☐ Tonga (1.5.5)
☐ Other (1.5.6) (specify)_____

2 SECTION 2: KNOWLEDGE AND AWARENESS OF PMTCT.

2.1 Can a mother who is HIV positive transmit the AIDS virus to her child during pregnancy? (Tick one✓)

☐ Yes (2.1.1)

☐ No. (2.1.2)

☐ Don't know (2.1.3)

2.2 Can a mother who is HIV positive transmit the AIDS virus to her child through breast milk? (Tick one✓)

☐ Yes (2.2.1)

☐ No. (2.2.2)

☐ Don't know (2.2.3)

2.3 Can a mother who is HIV positive transmit the AIDS virus to her child during delivery? (Tick one✓)

☐ Yes (2.3.1)

☐ No. (2.3.2)

☐ Don't know (2.3.3)

2.4 In your own opinion, can giving Anti Retro Viral drugs to the mother and the child reduce the chance of transmission of HIV from a mother to her child?

☐ Yes (2.4.1)

☐ No. (2.4.2)

☐ Don't know (2.4.3)

2.5 In your own opinion, can delivering the baby by operation (Caesarean Section) reduce the chance of transmission of HIV from a mother to her child?

☐ Yes (2.5.1)

☐ No. (2.5.2)

☐ Don't know (2.5.3)

2.6 In your own opinion, can avoiding breastfeeding reduce the chance of transmission of HIV from a mother to her child?

☐ Yes (2.6.1)

☐ No. (2.6.2)

☐ Don't know (2.6.3)

2.7 Have you ever heard about a programme called Prevention of Mother to Child Transmission (PMTCT)?

☐ Yes (2.7.1)

☐ No. (2.7.2)

☐ Don't know (2.7.3)

2.8 Are PMTCT services offered at Kamoto Hospital?

☐ Yes (2.8.1)

☐ No. (2.8.2)

☐ Don't know (2.8.3)

2.9 At the PMTCT clinics, are pregnant women counselled and tested for HIV?

☐ Yes (2.9.1)

☐ No. (2.9.2)

☐ Don't know (2.9.3)

2.10 Was your wife or partner tested for HIV when she was last pregnant?

☐ Yes (2.10.1)

☐ No. (2.10.2)

☐ Don't know (2.10.3)

3 **SECTION 3: SOCIO CULTURAL FACTORS:**

Instructions: Circle the appropriate number reflecting the respondent opinion as follows:

Strongly agree (SA), Agree (A), Undecided (U), Disagree(D), Strongly disagree (SD)

	SA	A	U	D	SD
1. A pregnant woman can be tested for HIV without the permission of her husband/partner.	1	2	3	4	5
2. Men should accompany their pregnant wives/partners to ANC/PMTCT clinics.	1	2	3	4	5
3. Men who accompany their female partners to ANC /PMTCT clinics are weak or bewitched.	5	4	3	2	1
4. It is a taboo for men to discuss with women about HIV testing during pregnancy.	5	4	3	2	1
5. Men and women should undergo HIV testing at the same time at PMTCT clinics.	1	2	3	4	5
6. Couples can use condoms to reduce chances of mother to child transmission of HIV.	1	2	3	4	5
7. ANC/PMTCT clinics are for women and children only.	5	4	3	2	1
8. A positive HIV test in a pregnant woman shows that she has been unfaithful to her husband.	5	4	3	2	1
9. If a pregnant woman is found to be HIV positive, she should be divorced.	5	4	3	2	1
10. PMTCT Information should first be given first to men then to women.	5	4	3	2	1
Total score (3.1)					

4 **SECTION 4: PROGRAMMATIC FACTORS:**

Instructions: Circle the appropriate number reflecting the respondent opinion as follows:

Strongly agree (SA), Agree (A), Undecided (U), Disagree(D), Strongly disagree (SD)

	SA	A	U	D	SD
1. Men should have "male only PMTCT clinics".	5	4	3	2	1
2. At the MCH/PMTCT clinics Men should be attended to by Male health workers only.	5	4	3	2	1
3. Health workers do not like to see men at MCH and PMTCT clinics	5	4	3	2	1
4. MCH/PMTCT clinics are made for women and children only	5	4	3	2	1
5. PMTCT /MCH clinics should also be opened during week ends and evening so that men can access also	5	4	3	2	1
6. Staff at the MCH/PMTCT do not keep any secret about HIV results of men and women	5	4	3	2	1
7. PMTCT programmes have done very little to involve men	5	4	3	2	1
8. You can attend PMTCT clinic if invited by health worker to come	1	2	3	4	5
9. PMTCT clinics are conducted very far from your home and transport is expensive	5	4	3	2	1
10. You can do HIV test with your wife, only if your are promised to be given ARVs thereafter	5	4	3	2	1
Total scores (4.1)					

5 SECTION 5: LEVEL OF INVOLVEMENT:

- 5.1 Was your wife/ partner **counselled** and tested for HIV the last time she was pregnant? (Tick one✓)**
☐ Yes (5.1.1) ☐ No(5.1.2) ☐ Don't know (5.1.3)
- 5.2 Did you discussed with your wife/partner about **counselling** and testing for HIV last time she was pregnant?**
☐ Yes (5.2.1) ☐ No (5.2.2) ☐ Don't know (5.2.3)
- 5.3 Will you discuss with your wife/partner about **counselling** and testing for HIV **next time she is pregnant?****
☐ Yes (5.3.1) ☐ No (5.3.2) ☐ Don't know (5.3.3)
- 5.4 Have you ever gone together with your wife/partner to an MCH/PMTCT clinic?**
☐ Yes (5.4.1) ☐ No (5.4.2) ☐ Don't know (5.4.3)
- 5.5 Will you go together with your wife/partner to an MCH/PMTCT clinic next time she is pregnant?**
☐ Yes (5.5.1) ☐ No (5.5.2) ☐ Don't know (5.5.3)
- 5.6 Have you been **counselled** and tested for HIV together with your wife/partner at a MCH/PMTCT clinic?**
☐ Yes (5.6.1) ☐ No (5.6.2) ☐ Don't know (5.6.3)
- 5.7 Will you go for **counselling** and testing for HIV together with your wife, next time she is pregnant?**
☐ Yes (5.7.1) ☐ No (5.7.2) ☐ Don't know (5.7.3)
- 5.8 If your wife/partner is found to be HIV positive when she is pregnant, will you accept that she takes ARVs to protect her unborn baby?**
☐ Yes (5.8.1) ☐ No(5.8.2) ☐ Don't know (5.8.3)
- 5.9 If your wife/partner is found to be HIV positive when she is pregnant, will you accept that she does not breastfeed to protect her unborn baby?**
☐ Yes (5.9.1) ☐ No (5.9.2) ☐ Don't know (5.9.3)
- 5.10 If your wife/partner is advised not to breastfeed, will you buy formula milk for the baby?**
☐ Yes (5.10.1) ☐ No (5.10.2) ☐ Don't know (5.10.3)

Thank you for your time!

ANNEXURE 2

CONSENT FORM

(Adapted from Burns and Groove 2005:198)

You have been selected by chance to participate in a study to assess the involvement of men in PMTCT (Prevention of Mother to Child transmission of HIV) programmes in Mambwe District. The study is conducted by Dr Tshibumbu of Kamoto Hospital.

Although the study may not benefit you directly, it will provide information that might enable medical personnel to identify men's needs in PMTCT and assist them to meet these needs and those of their partners or wives.

The study and its procedure have been approved by the appropriate authorities. For you, these procedures include just responding to questions for about 20 minutes. You are free to ask any question about the study at any time if you need more clarification.

Your participation in this study is voluntary: you are under no obligation to participate. You have the right to withdraw at any time' and the care of your family member and your relationship with the health care team at Kamoto Hospital will not be affected.

The information collected from you will be coded so that they are not linked to your name and your identity will not be revealed at any time in study. All data will be kept in a secure place and will not be shared with any other person without your permission.

This consent form has been read and explained to me and I voluntarily consent to participate in this study.

Signature: _____

Date: _____

I have explained this study to the above subject and I have sought his understanding for informed consent:

Interviewer's signature: _____

Date: _____



UNIVERSITY OF SOUTH AFRICA
Health Studies Research & Ethics Committee
(HSREC)
Faculty of Human Sciences
CLEARANCE CERTIFICATE

Date of meeting: 20 April 2006

Project No: 34630732

Project Title: FACTORS INFLUENCING MEN'S INVOLVEMENT IN PREVENTION
OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV
PROGRAMME IN MAMBWE DISTRICT, ZAMBIA

Researcher: DD Tshibumbu

Supervisor/Promoter: Mrs JE Smith

Joint Supervisor/Joint Promoter: Mrs MM van der Merwe

Department: Health Studies

Degree: Master of Public Health

DECISION OF COMMITTEE

Approved



Conditionally Approved



Date: 31 March 2006

A handwritten signature in black ink, appearing to read "Mavundla".

Prof TR Mavundla
RESEARCH COORDINATOR

A handwritten signature in black ink, appearing to read "Mogotlane".

Prof SM Mogotlane
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES