

**EXPLORING MALE PARTNER INVOLVEMENT IN PREVENTION OF MOTHER-  
TO-CHILD TRANSMISSION OF HIV SERVICES IN A SELECTED PRIMARY  
HEALTH CARE FACILITY IN KWAZULU-NATAL**

by

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Submitted in fulfilment of the requirements

for the degree of

**MASTERS IN NURSING (COMMUNITY HEALTH NURSING)**

to the

**School of Nursing and Public Health, College of Health Sciences**

at the

**UNIVERSITY OF KWAZULU-NATAL**

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## **DECLARATION**

I, Tamara Phiri, declare that EXPLORING MALE PARTNER INVOLVEMENT REGARDING PMTCT SERVICES IN A SELECTED PRIMARY HEALTH CARE FACILITY IN KWAZULU-NATAL is my own work and that all sources indicated in the text have been acknowledged by means of complete referencing.

This paper is being submitted to the University of KwaZulu-Natal in partial fulfilment of the requirement of a Masters Degree in Community Health Nursing.

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**T. Phiri**

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**Date**

## DEDICATION

*I dedicate this thesis to my loving mother, Margaret L. Phiri, for all your unconditional love and support and, most importantly, for believing in me.*

## ACKNOWLEDGEMENTS

First and foremost, I would like to thank God for this gift of life bestowed upon me and for making all things possible.

Secondly, I would like to thank my wonderful loving mother, Margaret, for your words of wisdom and encouragement. You have been very patient with me and have supported me tremendously. I could not have made it this far without you. I love you very much and I am forever grateful.

To my loving father, the late Austin, you are part of the reason I am who I am today. I love you and miss you very much.

To my brothers, Austin and Gershom, thank you for all your love and support. I love you!

To my best friends, for being very supportive and holding me in your prayers. You guys are the best!

To my colleague, Clemence Nishimwe, for all that you have taught me. I am truly indebted.

I would like to thank my supervisor, Dr Joanne Naidoo, for your guidance and support. I have learnt so much. It's been an honour.

To Professor Mtshali, for your mentorship and support. Thank you from the bottom of my heart.

Lastly, to all those that helped in making this study complete, thank you and God bless you all.

## **ABSTRACT**

KwaZulu-Natal is the province worst affected by the disease burden of HIV and AIDS with 38.7% of pregnant women attending antenatal clinics (ANC) testing positive for HIV in 2008 (South Africa National Department of Health, 2008; Horwood et al, 2010). The lack of male partner involvement has been recognized as a contributing factor to poor programme adherence by women initiated into the prevention of mother-to-child-transmission (PMTCT) programme in South Africa (Peltzer et al, 2011a). Increasing male partner involvement in the services, therefore, has been acknowledged as one of the strategies that may have an impact in the success of the programme (DOH, 2008; Peltzer et al., 2011a; Reece et al, 2010; Vika et al, 2010)

This study aimed to explore and describe male partner involvement in PMTCT services in a selected primary health care facility in KwaZulu-Natal. Five areas were investigated: demographic factors; knowledge; socio-cultural factors; programmatic factors; and the interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors on male involvement in PMTCT.

A quantitative exploratory descriptive design was conducted in November 2012 at a selected primary health care facility in KwaZulu-Natal. Questionnaires were issued to 90 men. The study revealed some association between certain variables of interest and male involvement.

The study recommended that PMTCT programmes need to boost their awareness strategies as a means of increasing male involvement in the services.

Key terms: PMTCT, Male partner involvement, Primary Health Care Facility

## **LIST OF ABBREVIATIONS**

<b>AIDS</b>	-	Acquired Immune Deficiency Syndrome
<b>ANC</b>	-	Antenatal Clinic
<b>ARV</b>	-	Antiretroviral therapy
<b>CDC</b>	-	Centre for Disease Control
<b>DOI</b>	-	Diffusion of Innovation
<b>HCT</b>	-	HIV Testing and Counselling
<b>HIV</b>	-	Human Immune Deficiency Virus
<b>HRSA</b>	-	Health Resource and Service Administration
<b>MCH</b>	-	Maternal and Child Health
<b>MDG</b>	-	Millennium Development Goals
<b>PHC</b>	-	Primary Health Care
<b>PMTCT</b>	-	Prevention of Mother to Child Transmission
<b>STD</b>	-	Sexually Transmitted Disease
<b>UNAIDS</b>	-	United Nations Programme on HIV/AIDS
<b>UNGASS</b>	-	United Nations General Assembly Special Session
<b>UNICEF</b>	-	United Nations Children's Fund
<b>WHO</b>	-	World Health Organization

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# **CHAPTER ONE: INTRODUCTION TO STUDY**

## **1.1. INTRODUCTION**

Promotion of maternal and child health services is one of the key elements of primary health care (Kekki, 2003). Ngubane, Lawson, and Bellis (2011) state that the HIV and AIDS epidemic in many African countries, including South Africa, is one of the major health challenges affecting the health of mothers and their new born babies. According to the DoH South African Department of Health (2008) and authors Horwood et al., (2010), KwaZulu-Natal is the province worst affected by the disease burden of HIV and AIDS, where, in 2008, 38.7% of the pregnant women attending antenatal clinics (ANC) tested positive for HIV.

In an effort to promote health and decrease the high maternal and infant mortality rates, the Prevention of Mother-to-Child Transmission of HIV (PMTCT) programme was introduced in South Africa in 2001 (DOH, 2008). However despite the scaling up of the programme, poor utilisation of services and loss to follow up of women who drop out of the programme at different stages have been recognized as major hurdles in poor resource settings ( Panditrao et al, 2011) . The lack of male partner involvement in PMTCT program implementation is one of the reasons contributing to the lack of success of the programme as women do not have the care and support of their partners in coping with the HIV infection, in taking antiretroviral (ARV) therapy and in making appropriate infant feeding choices ( Frizelle and Solomon, 2009; Peltzer et al, 2011a). Therefore, increasing male participation as a method to enhance implementation of PMTCT and increase uptake of and commitment to the medical protocol for pregnancy and newborn care has been identified as a potentially critical strategy (Peltzer et al., 2011a; Panditrao et al., 2010 ;and Dutki, 2010).

## **1.2. BACKGROUND TO STUDY**

In 2008, the number of people living with HIV worldwide reached an estimated 33.4 million (UNAIDS, 2009). According to the UNAIDS World Report (2009), the proportion of women living with HIV has remained stable at 50% globally, but in sub-Saharan Africa, the statistics are higher and 59% of all people living with HIV are women. With heterosexual transmission being the leading cause of HIV transmission in sub-Saharan Africa (Dutki, 2010), the ongoing HIV pandemic in developing countries constitutes an increased risk to pregnant women, their infants and their families (Stone et al, 2011). Although heterosexual men are regarded as active transmitters of HIV, they are not active agents in prevention of the disease. Conversely, heterosexual women are especially vulnerable to HIV infection because of their biological susceptibility and men's sexual power and privilege (Dutki, 2010; Harrison et al, 2006; and Sathiparsad and Taylor, 2006). Men are central to the problem of spreading HIV, yet they are often excluded from the proposed solutions (Friedman, Bam and Mthembu, 2006). It is, therefore, crucial for male partners to become involved in maternal and child health (MCH) services, including PMTCT.

The World Health Organization states that an effective approach to address such a massive public health problem as HIV should include both prevention of the disease and management of those who are chronically infected (WHO, 2008). Global commitments to achieve the related Millennium Development Goals (MDGs) and Universal Access (UA) targets clearly mandate this dual approach to halt and reverse epidemics, while at the same time extending the benefits of care, support and treatment to those affected (WHO, 2008). In the year 2000, the Millennium Development Goals (MDGs) framework, which consists of eight goals, was adopted by world leaders, with goals 4, 5 and 6 specifically aimed to help combat HIV and AIDS and to decrease maternal and infant mortality rates that are attributed to the high rate of

HIV infection (UNDP, 2010). These were formed on the basis that PHC must ensure access to health services for the most disadvantaged populations and focus on interventions that have a direct and disproportionately significant impact on the major causes of mortality, morbidity and disability for those populations (Kekki, 2003). According to Ross (2010), promoting male involvement in PMTCT is in line with a family centred approach to HIV and will therefore aid in increasing the effectiveness of PMTCT programmes, thus contributing to the achievement of MDGs 4, 5 and 6.

In the year 2002, United States President Bush announced a new \$500 million International Mother and Child HIV Prevention Initiative to prevent the transmission of HIV from mothers to infants and to improve health care delivery in Africa and the Caribbean. This initiative was later integrated into the President's Emergency Plan for AIDS Relief (PEPFAR) (AVERT, 2011). As discussed by Doherty et al (2009), the initial package of care for the PMTCT programme at the time of its implementation included the routine offer of voluntary antenatal HIV counselling and testing (HCT), infant feeding counselling, single dose Nevirapine to mothers and infants, infant PCR testing at six weeks and six months of free formula milk to women who have chosen not to breastfeed. However, despite having undergone some policy changes to address certain challenges that emerged after the implementation of the programme, there still remain some gaps in the provision of services. Among the reasons attributed to the low success of the programme is poor uptake of the program by pregnant women and loss to follow up of women and their newborns at different stages of the programme, through which lack of male partner involvement has been recognized as a contributing factor (Panditrao et al 2010, Peltzer et al 2011a).

Dutki (2010) argues that men have a right to reproductive health and family planning. However, for many years reproductive health programmes have focused on women because it is women who become pregnant. Most contraceptive methods have been designed for

women, who have traditionally been perceived to be more compliant patients and customers. Therefore, reproductive health services have been offered as part of maternal and child health services and most family planning programmes have avoided serving men in the belief that women need privacy and autonomy in matters pertaining to reproductive health. Men were generally only included when it came to vasectomies and condom distribution (Dutki, 2010).

A review of the literature, however, shows that efforts to involve males in reproductive health began as early as 1970, and this was done by making women-oriented family planning clinics more inviting to men (Dutki, 2010). These efforts were believed to be due to feminist movements which were concerned that although women were being blamed for excessive childbearing, the locus of decision making resided in units larger than individual women; in couples, families and communities (Friedman, Bam and Mthembu 2006). This then meant that women's use of contraception required social and cultural change. Therefore, as a result, it was thought important to involve men in reproductive health programmes since, according to authors Friedman, Bam and Mthembu (2006) and Dutki (2010), the knowledge, attitudes, behaviours and health of men often play a critical role in determining the reproductive health of women. Men often hold decision making power over matters as basic as sexual relations, when or whether to have a child and health seeking behaviour. In recent years, the need for male involvement in the PMTCT process has been increasingly encouraged to improve adherence to ARV prophylaxis (Peltzer et al., 2011a, Dutki, 2010).

A number of studies have been conducted internationally to address loss to follow up of women and male involvement in PMTCT programmes. Studies conducted by Panditrao et al., (2011) in Maharashtra, India, and Theuring et al, (2009) in the Mbeya region of Tanzania have provided strong evidence that male partners can significantly impact women's uptake of HIV-related services and adherence to antiretroviral drug regimens, especially in the context of antenatal care (ANC) services. In another study conducted in Kenya, partner participation

in HCT and couples counselling not only increased partner attendance to 15%, but also increased Nevirapine and formula feeding and uptake among the women attending antenatal clinics (Peltzer et al 2011a). However, in their study, Theuring et al., (2009) noted the contradiction between men's positive attitudes towards becoming involved in maternal and child health care and their low participation rates, which suggested that external barriers play a large role in the decision-making process and that partners' needs should be more specifically addressed in ANC/PMTCT services.

A similar study on male partner involvement conducted by Peltzer et al., (2011a) in Cote d'Ivoire showed that prenatal couple counselling and testing improved couples' communication on sexual risks among both HIV positive and HIV negative women. Similarly, studies carried out in Rwanda and Zambia by Peltzer et al., (2011a) and Dutki (2010) respectively, showed that couples participating in HIV counselling and testing (HCT) led to enhanced follow up among pregnant women, but did not increase Nevirapine uptake. Some PMTCT programmes regarding increasing male involvement in Tanzania, Botswana and Zambia have also met with some success. In Tanzania, it was found that male involvement increased Nevirapine uptake (Dutki, 2010), Botswana utilized a media campaign which increased male involvement from 4% to 11%, and Zambia utilized monetary incentives and couples counselling, which subsequently increased male involvement in PMTCT (Peltzer et al 2011a).

In South Africa, there is empirical literature which highlights how existing gender inequalities affect the way in which women utilise the PMTCT services. Authors Harrison et al, (2006) and Nyawo et al, (2006) discuss that much attention has been paid to the gendered pathways to HIV infection and the impact that relationship dynamics have on women in the context of widespread gender inequality. According to Harrison et al., (2006), differences in male and female roles within sexual relationships have been examined in seeking to explain

the gendered nature of the HIV epidemic. Nyawo et al., (2006) state that gender role norms related to partnering practices and heterosexual relationships are still governed by dominant masculinities and prevailing patriarchal norms, which heavily impact the role females' play in decision making. According to authors Vika et al. (2010), Sathiparsad, Taylor and De Vries (2010) and Harrison et al., (2006), although men in South African still play a dominant role in family matters, their involvement remains low in reproductive health services, including PMTCT. Mugume et al, (2008) state that reproductive health practitioners have recognized that the failure to target men in programmes has weakened the impact of reproductive health programmes since men can significantly influence their partners' reproductive health decision-making and use of health resources. It is therefore important to understand the behaviour of men and their point of view on services in order to come up with more attractive solutions that will aid in involving male partners in PMTCT and other reproductive health programmes.

Authors Friedman, Bam and Mthembu, (2006), Mullick, Kunene, and Wanjiru (2005) and Kunene et al, (2004) discuss that South Africa is traditionally a male dominated and patriarchal society, where women are accorded limited power and authority and are frequently exploited or abused, which is reinforced by a cultural cosmology. Mullick, Kunene and Wanjiru, (2005) explain that in the Zulu speaking community of KwaZulu-Natal, as in many other African communities, a man is viewed as a ruler and protector of his household and, for this reason, men are culturally not expected to be involved in maternity-related issues. As mentioned before, sexual and reproductive health (SRH) services, including family planning, have traditionally focused almost exclusively on women (Friedman, Bam and Mthembu, 2006; Mullick, Kunene and Wanjiru, 2005). Men do not utilise public health services as much as women do and the almost exclusive use of services by women has, to a great extent, made reproductive health services inhospitable for men (Friedman, Bam and

Mthembu, 2006). Even if men want to be involved in maternity care, they are often discouraged from doing so because of societal and health system norms. Mullick, Kunene and Wanjiru (2005) state that even although some men are becoming more involved in antenatal care, they attend these services as partners and are 'tolerated' as such. The same authors noted that minimal focus is placed on the men. Little attention is given to the relationship between father and baby and not much information is provided on topics relevant to men (Mullick, Kunene and Wanjiru, 2005). Such experiences can result in males being reluctant to participate in maternal health services, including PMTCT. Authors Vika et al., (2010) state that in order for men to respond positively to PMTCT, they have to feel involved and this should be prioritised at initial stages.

### **1.3. PROBLEM STATEMENT**

Against the backdrop of such challenges faced by the programme as presented in the background, the PMTCT programme in KwaZulu-Natal continues to face several barriers in attaining its goal in the reduction of mother to child transmission of HIV and AIDS (DOH, 2010; Sprague, Chersich, and Black, 2010). Among the major reasons attributed to the problems experienced in the programme in South Africa is poor uptake of pregnant women and loss to follow up of women and their newborns as they drop out at different stages of the programme (Peltzer et al., 2011a). It has also been recognized in the literature that the lack of male partner involvement is a contributing factor to poor programme adherence by women initiated into the PMTCT programme (Vika et al., 2011; Peltzer et al., 2011a). Lack of male partner involvement, as discussed by Frizelle et al (2009) and Peltzer et al., (2011a), deprives women of their partners' care and support in coping with HIV infection, in taking antiretroviral (ARV) therapy and in making appropriate infant feeding choices. Reece et al., (2010) state that male partner involvement in the PMTCT programmes is incremental in

maintaining family health and adherence to HIV treatment and prevention regimens. However, despite the importance of increasing male participation in PMTCT services, their involvement still remains low (Sathiparsad et al., 2010; Vika et al., 2010). The purpose of this study was to explore and describe male partner involvement in PMTCT services in a selected primary health care facility in KwaZulu-Natal in order to gain some insight on factors influencing male participation in such services.

#### **1.4. AIM, OBJECTIVES AND RESEARCH QUESTIONS**

##### **1.4.1. Aim of the study**

The aim of the study was to explore and describe male partner involvement in PMTCT services in a selected primary health care facility in KwaZulu-Natal.

##### **1.4.2. Objectives of the study**

The objectives of the study were to explore and describe:

1. The demographic factors that influence male partner involvement in PMTCT;
2. Male partners' levels of knowledge regarding PMTCT;
3. The socio-cultural factors affecting male partner involvement in PMTCT;
4. The programmatic factors' influence on male partner involvement in PMTCT; and
5. The interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors on male partner involvement in PMTCT.

##### **1.4.3. The research questions**

The research questions for this study are:

1. Which demographic factors influence male partner involvement in PMTCT services?
2. What are the men's levels of knowledge regarding PMTCT?
3. What socio-cultural factors influence male involvement in PMTCT services?
4. To what extent do programmatic factors influence male involvement in PMTCT services?
5. What is the interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors which influence male involvement in PMTCT?

### **1.5. SIGNIFICANCE OF THE STUDY**

According to Peltzer et al., (2011a), the PMTCT programme, which is a strategy to reduce the high maternal and infant mortality rates attributed to HIV and AIDS, continues to face challenges in its success. Some of the major hurdles which have contributed to the limited success of the PMTCT programme are the low uptake of pregnant women and loss to follow up of women and their newborn at different stages of the programme (Panditrao et al, 2010; Peltzer et al, 2011a). The lack of male partner involvement has also been recognized as an important factor affecting women's participation in the PMTCT services (Frizelle et al., 2009; Peltzer et al., 2011a). Male partners play a vital role not only in women's risk of acquiring HIV, but also in uptake of antenatal HCT and mother-to-child transmission prevention programmes (Katz, Kiarie, Stewart, Richardson, John and Farquhar, 2009 ; Reece, et al., 2010).

However, despite the significance of male involvement in PMTCT, Katz et al., (2009) state that there is limited research about men's involvement in HCT and the antenatal setting from the male perspective. Authors Theuring et al., (2009) acknowledge that an in-depth understanding of men's attitudes is crucial in order to increase partner involvement and this can only be obtained through male focussed research. As PMTCT programmes have focused

primarily on women, there is a need to study men's involvement in order to fulfil the objectives of these programmes, which are not only to decrease HIV incidence among women, but also among infants, and to generally ensure familial level support for the HIV prevention and care needs of the family unit as a whole (Reece et al, 2010).

According to the Strategic Plan for KwaZulu-Natal (2010), the current burden of disease not only stresses people living with HIV and AIDS, but also places immense physical, social, emotional and psychological demands on health care providers, which in turn have significant implications on service delivery. The purpose of the study, therefore, aimed to explore and describe male partner involvement in PMTCT in order to gain some insight on factors influencing male participation in maternal and child health care services. Hence, an understanding of these factors will be a base for recommendations on improving the programmes service delivery which is crucial in increasing the level of men's involvement in reproductive health services. This would then lead to better health outcomes for pregnant women in the PMTCT programme. The results will also contribute to the strategic orientation of the national health policy by prioritising its PMTCT programme and the allocation of its resources accordingly. In addition the findings will also contribute to curriculum changes for the educational training of health care workers. This will have implications on service provision to the communities in line with new recommendations on male involvement in the PMTCT strategies. Lastly the results will also contribute to the existing body of knowledge on men's involvement in women's reproductive health services.

## **1.6. DEFINITION OF TERMS**

The key concepts used in the study are defined as follows:

### **1.6.1. Primary health care facility**

Primary health care facilities are community based and patient directed facilities that serve populations with limited access to health care (HRSA, 2012). In this study, primary healthcare facilities refer to health clinics that provide accessibility of health services to women and their families.

### **1.6.2. Antenatal clinic**

An antenatal clinic (ANC) refers to a clinic which provides health services that include recording of medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, and first-line management and referral if necessary (WHO, 2007). In this study an ANC refers to health services that are offered to women during pregnancy and delivery.

### **1.6.3. Male involvement**

Male involvement entails the shared responsibility of male partners and their active participation in responsible parenthood, and sexual and reproductive behaviour (MEDICAM, 2004). Men are encouraged to become more involved and supportive of women's needs, choices, and rights in sexual and reproductive health and in addressing their own sexual and reproductive health needs and behaviour (MEDICAM, 2004). In this study, male involvement refers to male participation in supporting female partners in PMTCT services.

### **1.6.4. PMTCT programme**

PMTCT (Prevention of Mother-To-Child Transmission of HIV/AIDS) is a method to reduce the risk of a mother passing her HIV infection to her infant (DOH, 2008). HIV can be

transmitted from a mother to an infant before, during and after labour. However, mother to child transmission of HIV can be prevented by behavioural education on sexual behaviour and risk reduction, provision of prophylaxis and antiretroviral therapy, obstetric interventions and changes in breastfeeding practices (DOH, 2008). PMTCT in this study refers to the primary interventions such as voluntary testing and counselling of pregnant women in antenatal clinics, the use of prophylactic antiretroviral drugs during pregnancy, counselling and the adoption of appropriate infant feeding options (DOH, 2008).

#### **1.6.5. HIV and AIDS**

HIV is the human immunodeficiency virus which can lead to acquired immune deficiency syndrome, or AIDS (CDC, 2012). AIDS is the late stage of HIV infection when a person's immune system is severely damaged and has difficulty fighting diseases and certain cancers (CDC, 2012). Some of the ways in which HIV is spread, according to CDC (2012), is by having unprotected sex with a person who has HIV; having multiple sex partners or the presence of other sexually transmitted diseases (STDs) that can increase the risk of infection during sex; and through babies being born to HIV infected mothers in which the virus can be passed from mother to child during pregnancy, birth or breast-feeding. This study refers to people who have been tested for HIV and are positive.

#### **1.6.6. Programmatic factors**

Programmatic factors are the activities which have been undertaken to in the endeavour to combat HIV/AIDS. These include population coverage and targeting, resources distribution and the technologies used (Mason et al, 2006).The initiation and sustaining of these activities require training, supervision methods, incentives and remuneration for health workers, as well as monitoring and evaluation (Mason et al., 2006).In this study, programmatic factors are considered as activities and services provided within the PMTCT programme.

### **1.6.7. Knowledge**

The knowledge of a community refers to their understanding of any given topic (Kaliyaperumal, 2004). In this study, knowledge refers to the understanding that men have about reproductive health services, including PMTCT services.

### **1.6.8. Socio- cultural factors**

Socio-cultural factors, as defined by Sorrentino (2011), seek to enhance knowledge, interpretation, evaluation and the application of the knowledge acquired from, and applicable to, the specific culture or cultures being examined by enhancing the awareness and understanding of the behavioural differences within that culture when compared and contrasted with other cultures. In this study, socio-cultural factors refer to men as by-products of their own culture. Therefore, the way they interpret information is determined or influenced by their cultural beliefs.

### **1.6.9. Demographic factors**

In this study, demographic factors include age, level of education, the length of the relationship, religion and tribe.

### **1.6.10. Partner**

Partner in this study stands for a man and woman who are either married or having a sexual relationship.

## **1.7. THEORETICAL FRAMEWORK**

A theory, as defined by Burns and Grove (2009), is an integration of a set of defined concepts, existence statements and relational statements that present a view of a phenomenon that can be used to describe, explain, predict or control that phenomenon. Unlike a conceptual

model, a theory is directly testable and is more narrow and specific in nature (Burns and Grove, 2009). The Diffusion of Innovations (DOI) theory has been used for this research study. This theory addresses how ideas, products and social practices that are perceived as “new” spread throughout a society or from one society to another (Croyle, 2005). According to the founder of the theory, the late E.M. Rogers, diffusion of innovations is “*the process by which an innovation is communicated through certain channels over time among the members of a social system*” (Croyle, 2005). According to authors Glanz, Rimer, and Lewis (2002), the process of diffusion involves the five following stages: innovation development, dissemination, adoption, implementation and maintenance.

The process of *innovation development* includes all the decisions and activities (and their impacts) that occur from the early stage of an idea through to its development and production (Glanz, Rimer and Lewis, 2002). *Dissemination*, on the other hand, is an active approach for knowledge transfer from the resource system to the user system and, according to Glanz, Rimer and Lewis (2002), it involves the identification of communication channels and systems that are best used for the diffusion of an innovation to a given audience.

The *adoption* stage refers to uptake of the programme by the target audience, which requires moving through the stages of knowledge of the innovation, persuasion or attitude development, decision, implementation and confirmation (Glanz, Rimer and Lewis, 2002). During this phase, however, special attention needs to be given to the needs of the target adopters, their current attitudes and values, how they will respond to the innovation, what factors would increase the likelihood of adoption, how the potential adopters can be influenced to change their behaviour and adopt a new one, what barriers exist to the adoption of the innovation, and how these barriers can be overcome (Glanz, Rimer and Lewis, 2002). In addition, according to the DOI theory, the decision to *adopt* is influenced by three types of knowledge: *awareness knowledge* that the innovation exists, *procedural knowledge* about

how to use the intervention and *principles knowledge* or understanding how the innovation works (Glanz, Rimer and Lewis, 2002). Lastly, the *implementation* and *maintenance* phase refers to the initial use of the programme in practice and the continued use of the innovation in practice (Glanz, Rimer and Lewis 2002).

In this study it has been assumed that among the possible reasons for men's low involvement in PMTCT programme according to the literature and as discussed in the background could be attributed to lack of information/knowledge about the programme. Thus the use of the Diffusion of Innovation theory helps to tie in the concept with how something perceived as new to these men can be adopted in the real sense. The conceptual model therefore was used to depict the link between the Diffusion of Innovation Theory with the variables of interest in the study.

### **1.7.1. Application of the Diffusion of Innovation theory to the study**

In this study, the DOI theory implies that the use of PMTCT services by male partners may be regarded as a new concept. Therefore, in order for men to adapt to a practice that is perceived as being “new”, a variety of factors influencing their uptake have to be acknowledged. As previously discussed, there are five stages of the diffusion process that affect adoption of a practice in a programme. Men are the target population of this study. The first stage of the diffusion process, *innovation development*, refers to the promotion of the idea of male involvement and how this would contribute to increased uptake of the PMTCT services in order to mitigate the effects of HIV and AIDS. The second stage of the diffusion process is *dissemination*, which involves making use of men's knowledge and information regarding existing PMTCT services. *Adoption*, which is a third stage of diffusion in the study, means uptake of the PMTCT programme by the target population. In addition, this strategy of adoption will be promoted to enhance male involvement in the PMTCT services.

Finally, the *implementation* and *maintenance* stage refers to the current and continued involvement of the male partners in the PMTCT services.

### **1.7.2. Conceptual Model**

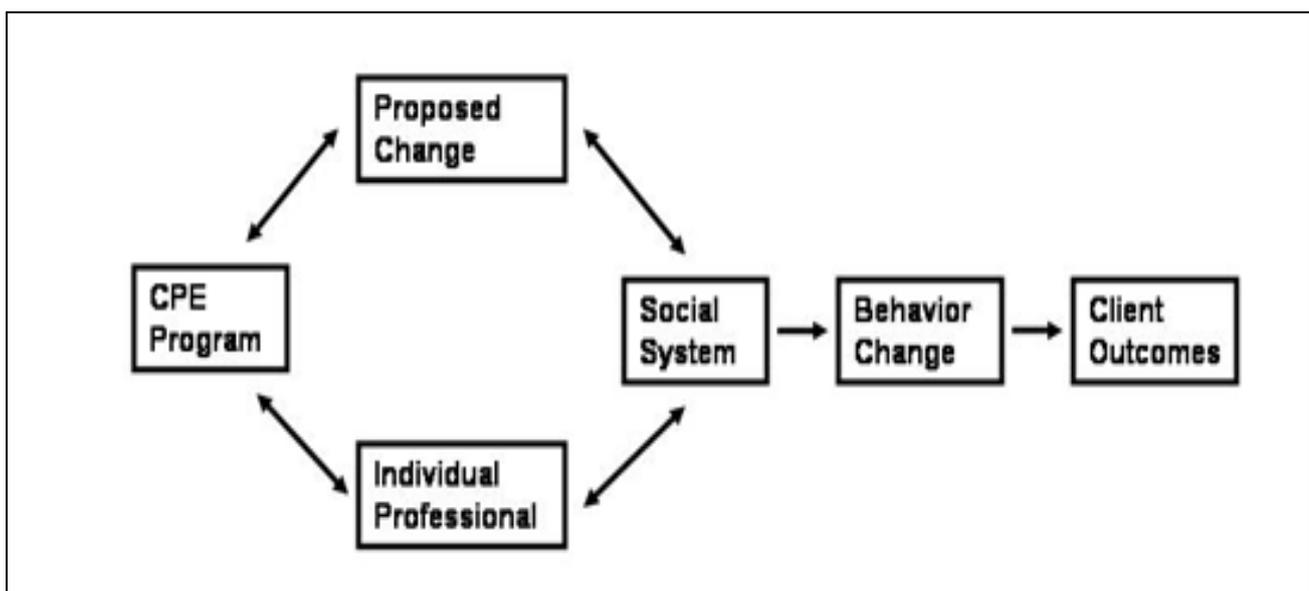
A conceptual model, as discussed by Burns and Grove (2009), is a set of highly abstract, related constructs that broadly explains the phenomena of interest, expresses assumptions and reflects the philosophical stance. The Cervero Programme Evaluation Model has been used in this study to illustrate how the Diffusion of Innovation theory links to the variables in this study. According to authors Hubbard and Sandmann (2007), the model was designed by Ronald M. Cervero in 1984 to link the Diffusion of Innovation theory with programme evaluation that already existed in the health field. Moreover, it informs a way to test an evaluation model based on diffusion of innovations concepts (Hubbard and Sandmann, 2007). It consists of four categories of independent, yet interactional variables, namely; the programme of interest, the individual participating in the programme, the proposed practice, and the social system or network surrounding the participant. According to Hubbard and Sandmann (2007), the characteristics of these four categories influence whether adoption of practice is likely to occur or not. For instance, the more participants view the PMTCT programme as essential in meeting their needs, the higher the likelihood of them using its services.

The Cervero model has four major underlying assumptions in relation to the four categories. These include:

- i. *The programme of interest:* The assumption is that the more closely the programme meets the participants' objectives, the more likely they are to adopt a practice. Likewise, situations are more effectual where participants keep in contact with

instructors and change agents following the educational programme (Hubbard and Sandmann, 2007).

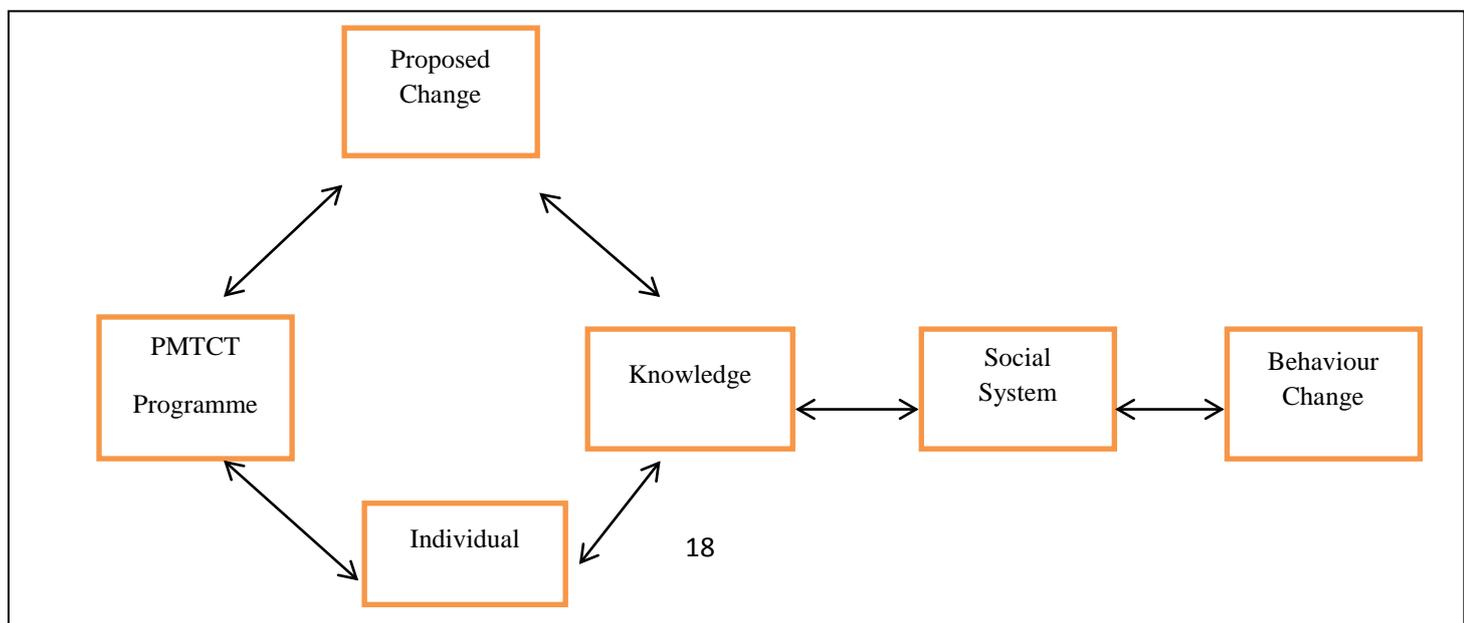
- ii. *The individuals participating in the programme:* Based on characteristics of participants such as demographic factors (age, race, gender, income), general educational level achieved and previous educational experiences influence whether a participant will adapt to a practice. Therefore, studies need to be conducted to investigate the impact of participant characteristics on adoption of practices. Several of these will be investigated to determine if they correlate (Hubbard and Sandmann, 2007).
- iii. *Characteristics of the proposed practice of innovation:* These consist of characteristics such as complexity, observability and compatibility (Hubbard and Sandmann, 2007).
- iv. *The social system or network surrounding the participant:* Social networks and involvement of participants in activities following the programmes should lead to higher levels of adoption (Hubbard and Sandmann, 2007).



**Figure 1.1: The Cervero Program Evaluation Model by Cervero (Hubbard and Sandmann, 2007)**

**1.7.2.1 Application of the Cervero Programme Model to the study**

As previously discussed, the Cervero model has four major underlying assumptions that are interlinked. These have been modified for this study. The first, which is *the programme of interest*, refers to *programmatic factors* which imply that if the target population (men) regard the PMTCT programme objectives as significant in improving health outcomes of mothers and their newborn, they will be more willing to become involved in the services. In addition, the perception men have of healthcare workers in the PMTCT programme will affect their willingness to participate in the programme. Secondly, *the individual participating in the programme* in this study relates to how *demographic factors* and the *knowledge* men have on PMTCT affects their eagerness to be involved in the services. The third aspect of *characteristics of the proposed practice of innovation* in this study refers to establishing *male involvement* in the uptake of PMTCT services with the aim of making recommendations on how this can be improved and sustained. *The social system or network surrounding the participant*, which is the fourth major component of the model, applies to the *socio-cultural factors* and how these may influence male involvement in PMTCT services.



**Figure 1.2: The Modified Cervero Program Evaluation Model by Cervero (Hubbard and Sandmann, 2007)**

**1.8. STRUCTURE OF THE STUDY**

*Chapter one* provides an overview that introduces the study. The overview includes a brief summary of HIV and AIDS challenges in South Africa and in KwaZulu-Natal with specific focus on the PMTCT strategy and promotion of male involvement in addressing the PMTCT challenges. The chapter highlights the problem statement, the aim and objectives of the study, the research questions and the significance of the study. It also includes the definitions of terms and the theoretical framework.

*Chapter two* gives a comprehensive summary of the literature review. This will cover a discussion on prevention of mother to child transmission of HIV, demographic factors, knowledge, socio-cultural aspects and programmatic factors. The chapter also highlights the interrelationship between the variables of interest in the study and the benefits of male involvement.

*Chapter three* provides the methodology of the study. This includes the research paradigm and design, the research site, the population and the sample. It also describes the data collection procedure and instrument and discusses the reliability and validity of the instrument, data analysis and ethics.

*Chapter four* encompasses data analysis and the results.

*Chapter five* addresses the conclusion and recommendations stemming from the study.

## **1.9. SUMMARY OF THE CHAPTER**

This chapter has provided an introduction to the study which has highlighted the importance of male involvement in PMTCT services. It included the background, which presented the research problem of low levels of male partner involvement in PMTCT programmes covered at international, national and local levels. The aim of the study is to explore and describe male partner involvement in PMTCT services. In addition the objectives, the research questions, significance of the study and definition of terms have also been presented. The chapter concludes by presenting the theoretical framework used in the study as well as the structure of the study.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1. INTRODUCTION

A literature review is an important step in focusing the research problem, its objectives and its statement of purpose. It is a process of reviewing the current knowledge about the research problem, describing the characteristics of previous studies in the area, noting similarities and differences in results, evaluating strengths and limitations of previous studies and identifying gaps in knowledge relevant to the research problem (Gillis and Jackson, 2001).

The organization of the literature review in this study is in line with the positivist paradigm, which underpins the philosophical view of the researcher in that researchers should be completely objective in their search for truth (Burns and Grove, 2009). Hence personal perceptions, values and feelings will not distort the findings of the literature (Burns and Grove, 2009). Instead, the literature review will present a detailed discussion of the phenomenon aligned to the objectives of the study.

Numerous relevant data bases were searched throughout the literature review. These included Health Source: Nursing/Academic Edition via EBSCO Host, CINAHL, Medline, Africa wide information and Academic search complete. In order to obtain empirical evidence, various search terms were grouped with *male involvement* such as *prevention of mother to child transmission, loss to follow up, primary health care approach, community health nursing, barriers, HIV and AIDS and pregnant women*. Several textbooks and previous theses and dissertations were also consulted in regards to the topic.

The purpose of this literature review is to provide a comprehensive discussion of empirical evidence emphasising how other researchers have explored factors regarding PMTCT and male partner involvement. This chapter will try to shape the theoretical framework of

reference within which the present study will be analysed. According to the Diffusion of Innovations (DOI) framework, multiple factors influence the adoption of a practice in a programme (Hubbard and Sandmann, 2007). These are the factors that have guided this study.

## **2.2. PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV AND AIDS**

HIV and AIDS is the leading cause of mortality among women of reproductive age worldwide and is a major contributor to maternal, infant and child morbidity and mortality (UNAIDS, 2009; WHO, 2009). South Africa, with an estimated 5.6 million people living with HIV, has the largest burden of the HIV disease globally (Hussain et al, 2011; Ngubane, Lawson and Bellis, 2011). An estimated 330,000 of those infected with HIV are paediatric cases, which are largely due to mother to child transmission (Hussain et al 2011). According to the DOH (2010) and Sprague, Chersich and Black (2011), the PMTCT interventions within functioning health systems can virtually eliminate HIV infection in infants. For instance, in countries such as the United States, Brazil and the United Kingdom, the vertical transmission rates of HIV from mother to child have been reduced to as low as 2% (Sprague, Chersich and, Black, 2011;Fowler et al, 2007).

In 2000, the international community attending the United Nations Millennium Summit agreed to work together in trying to achieve eight vital social and economic concerns worldwide by the year 2015. The World Health Organization (2007) maintains that PMTCT directly affects the achievement of three of the eight MDGs, which are goals 4, 5 and 6. The 4th goal is to reduce by two thirds the mortality rate among children under five; the 5th goal is to reduce by three quarters the maternal mortality ratio; and 6th goal is to halt and begin to reverse the spread of HIV/AIDS. Therefore, if PMTCT services are not prioritized, there is a strong possibility that these three MDGs will not be achieved by 2015.

According to Ngubane et al., (2011), a comprehensive PMTCT programme has the capacity to dramatically reduce mother to child transmission of HIV, thus having the potential of preventing 75,000 infections and saving the lives of 37,200 children each year. The South African Department of Health (2010) has described a comprehensive PMTCT package as a service working with community structures which includes the delivery of primary HIV prevention interventions related to reproductive health. It highlights the importance of providing appropriate counselling and support to women living with HIV enabling them to make informed decisions about their future reproductive life, giving special attention to preventing unintended pregnancies. The PMTCT programme targets pregnant women already infected and demands integration of HIV testing, treatment, care and management into maternal child and women's health care. It also calls for better integration of HIV care, treatment and support for HIV positive women and their families within the health care system and at community level. According to Frizelle and Solomon (2009), the success of PMTCT programmes therefore rests on expanding access to services and ensuring that these services are used frequently. Male partner involvement has been regarded as an important strategy in contributing to the success of the programmes (Vika et al., 2010; Peltzer et al., 2011a; DoH, 2010; Reece et al., 2010). This is due to the fact that when male partners become involved in services such as PMTCT, they become better informed and thus more supportive, resulting in better utilization of services by their female partners (Peltzer et al., 2011a).

Since its implementation in 2001 in South Africa, the PMTCT programme has continued to face several barriers in attaining its goal of reducing the mother to child transmission to less than 5% by 2015 (Peltzer et al., 2011a; Ngubane et al., 2011; Horwood et al., 2010). It was largely introduced as a vertical programme to allow for central control and faster implementation, which, according to UNGASS (2008), resulted in the programme

functioning poorly since it was not sufficiently integrated into the broader maternal and child health services. Ngubane et al., (2011) state that in 2007, the estimated rate of transmission from mother-to-child in South Africa averaged at 12% nationally, but rose to 20% in some districts. Various challenges were noted which contributed to the poor outcomes of the PMTCT programme. Among these was fragmentation of services, with PMTCT care being delivered in different areas of the clinics, and by different cadres of health workers; inadequate family planning services and counselling; and the lack of male partner involvement (DOH, 2010; Horwood et al., 2010; Frizelle and Solomon, 2009).

Current literature shows that, with a 66% reduction rate, PMTCT is making progress in the reduction of mother to child transmission in KwaZulu-Natal (Horwood et al, 2012; Chetty et al, 2012). However, these authors acknowledge that much still needs to be done in order to accomplish the 90% reduction goal.

Based on study findings in KwaZulu-Natal, the lack of integration of PMTCT with other health services has partially contributed to an increase in loss to follow up (LTF) HIV exposed infants in the PMTCT services as well as the high infant mortality rates (Ngubane et al., 2011; Horwood et al., 2010). According to Horwood et al., (2010), mothers are afraid that if they are seen to be receiving PMTCT services, they will be identified as being HIV infected and will therefore be stigmatised by their community members. As a result, mothers fail to seek care for their HIV-exposed infants due to fear of such unintended disclosure (Horwood et al., 2010). Additionally, the lack of male partner involvement has also been noted as an obstacle in utilization of PMTCT services since women's fear of discrimination, abandonment, rejection, divorce or physical violence may result in them not wanting to disclose their positive status to their male partners (Frizelle and Solomon, 2009). Therefore increasing male partner involvement is of importance since men can be highly instrumental in encouraging their female partners to utilize PMTCT services.

### **2.3. DEMOGRAPHIC FACTORS THAT INFLUENCE MALE INVOLVEMENT**

The demographic factors of interest in this study include age, level of education, the length of the relationship, religion and tribe. There are relatively few studies that have been done that focus on the relationship between demographic factors and male involvement in reproductive health services, including PMTCT. What the studies have found, however, is that there is an interrelationship between male involvement in the maternal and child care services and their level of knowledge, age and education. Such became evident in a study conducted by Nkuoh, Meyer and Nkfusai (2010) in Cameroon on barriers to men's participation in antenatal and PMTCT programmes. Two hundred and fifty-two (252) men participated in the study with the age range varying between 19 to 53 years of age. According to the findings, the proportion of men accompanying their wives increased with age, resulting in 109 men who accompanied their partners. These researchers found that the men with the greatest knowledge of ANC were between 20 to 39 years of age. Additionally, it was found that out of the 25 men who did not know the importance of knowing a pregnant woman's HIV status, only one participant was over 40 years of age. A study by Katz et al., (2009), in Kenya, on male perspectives on incorporating men into antenatal HIV counselling and testing had different findings, however. The participants of this study included men who were invited to accompany their partners to PMTCT. Although the findings also revealed an interrelationship between age, number of children and knowledge of PMTCT, it became evident that the men who participated in counselling with their partners were younger and had fewer children. Katz et al., (2009) also found that these men were less knowledgeable about modes of mother-to-child transmission (MTCT) and methods for preventing MTCT than men who received counselling alone. Therefore, unlike Nkuoh, Meyer and Nkfusai's study, which found that as age increased so did the level of involvement, Katz et al., (2009) found that younger men were more willing to accompany their partners to PMTCT appointments.

Another study on male involvement in antenatal HIV counselling and testing conducted by Aarnio et al, (2009) in Malawi found that the older men participating in the study were more reluctant to be involved in PMTCT since they felt there might be issues with confidentiality in the services.

As for levels of education, Byamugisha et al (2010) study on determinants of male involvement in the PMTCT programme in Uganda found that men who had 8 or more years of education were two times more likely to get involved in the PMTCT programme than those with less education. Moreover, 6 of the 31 professional men who had participated in the study had attended ANC with their wives, compared to only 12 of the 356 non-professionals.

Thus, based on the findings of the studies discussed, variations have been noted in the influence of demographic factors on male involvement in maternal and child health services which exist in different settings. Due to the limited literature, however, there is a need for more studies to be conducted that generate knowledge on how these factors affect male involvement so that recommendations on improving PMTCT services can be based on empirical evidence.

#### **2.4. THE INFLUENCE OF KNOWLEDGE ON MALE INVOLVEMENT**

A few studies that will be discussed show that male partners are reluctant to become involved in maternal and child health services due to the lack of knowledge on either the existence of PMTCT or the importance of such services in promoting both men and women's health. Among these is a study conducted by Theuring et al., (2009) that assessed male partner attitudes on the involvement in PMTCT services in Tanzania, which identified lack of knowledge and information of the existence of services as a barrier to male involvement in ANC and PMTCT services. All the participants were fathers and 53 of the 124 men who were interviewed had never attended ANC and PMTCT services. Of those 53, 25 attributed the

lack of knowledge of the existence of the services, lack of information regarding the service and not having been requested to go there as reasons for rejecting the services (Theuring et al 2009).The researchers also found that in relation to strategies for improving male attendance, a large number of their participants (56 out of the 124 men) suggested increasing education and knowledge on the importance of ANC and PMTCT (Theuring et al., 2009).

Similarly, Dutki (2010), in a Ugandan study on evaluating and interpreting the perceptions of a rural community towards the involvement of males in a PMTCT programme, found that the lack of knowledge regarding the PMTCT programme was a deterrent to male involvement in the services. The study involved a focus group discussion with male participants in which it was explained that because of their lack of knowledge regarding PMTCT, men were unaware of the benefits provided by the services and therefore did not participate, resulting in low levels of male involvement (Dutki, 2010). Likewise, Thorsen, Sundby, and Martinson (2008), in their Malawian study on ethical and programmatic challenges for PMTCT programmes, found that men were not well informed and did not fully grasp the purpose and importance of services such as the PMTCT programme. Thus, partners questioned the women's motives for getting tested as a result of their lack of knowledge (Thorsen, Sundby, and Martinson, 2008).

A study done in the Philippines by Kadomoto et al, (2011) also found that the level of knowledge men have on maternal and child health services influenced their willingness to participate in the services. As discussed in their study, a male community representative who had received a lecture from the health staff regarding the benefits of maternal and child health services was assigned to teach a group of a 140 community males. This strategy resulted in an improved level of knowledge which thereby influenced men's involvement in the services. These authors not only found that teaching the male community topics of maternal and child health was a way of ensuring that men got involved in the services, but also found that men

who learnt of maternal and child health services through groups could teach other males in the community via a process of information dissemination (Kadomoto et al., 2011).

Another study in Kenya by Reece et al., (2010) assessed male spousal engagement with PMTCT programmes. The majority of the 75 men who participated in the study emphasised that if more men understood the potential benefits of becoming involved in these programmes, they would be more likely to participate or to be supportive of their wives' engagement in PMTCT. Similarly, in a study conducted by Maja (2007) in the Gauteng province of South Africa to assess involvement of males in promoting reproductive health, 62 of the 71 men who participated stated they would become involved in reproductive health services if they were asked to. Like Maja (2007), Kaida et al, (2005), in their Ugandan study on male participation in family planning, also found that male participants were interested in being involved in family planning, but felt information regarding maternal and child health services was only conveyed to women. As a result, men felt discouraged from participating in the services (Kada et al., 2005). Such study findings as discussed, therefore, further add to the need to educate and involve men in maternal and child health services, including PMTCT.

## **2.5. THE INFLUENCE OF SOCIO-CULTURAL FACTORS ON MALE INVOLVEMENT**

Socio-cultural factors, as previously defined for this study, refer to men as by-products of their culture. Hence, the way in which they interpret information is determined or influenced by their cultural beliefs. Various studies that will be discussed under this section have identified how cultural norms have influenced male involvement in reproductive health services, including PMTCT, and how these have had an impact on women's use of such services. According to some of the studies, men are regarded as the decision makers in their families and their role in society requires that they should be tough and assertive.

For instance, a study by Tshibumbu, (2006) on factors influencing men's involvement in PMTCT in Zambia highlighted the fact that the men were the decision makers in their families. The results of this research found that of the 127 men who participated in the study 66.9% indicated that women should first seek permission from their male partners before testing for HIV and 55.1% felt that PMTCT information should be given to them first and not to their female partners. Similarly, in a Tanzanian study of partner involvement in PMTCT, authors Falnes et al, (2011) found that men were reluctant to attend PMTCT clinics with their wives because their wives had requested them to attend the programme and it is culturally unacceptable for a wife to tell her husband what to do and for a man to do what his wife asks him to do. Likewise, Wambui and Alehagen (2009), in their Kenyan study on perceptions of family planning among low-income men, also found that although men are traditionally regarded as the head of household, family planning programmes placed more focus on women than men, which made the men feel belittled and disinclined to participate in the services. Similar results were yielded from a study in Malawi by Aarnio et al, (2009) to assess men's perceptions on male involvement in antenatal HIV counselling and testing. According to the study, which had 388 married male participants, men were unwilling to accompany their wives to antenatal clinics because they feared that they would be viewed by their peers as being possessive. Furthermore, it was interesting to note that while 90% of the men agreed that their wives could get tested, they felt that as their husbands, they should be consulted first. The men also felt that wives getting tested without the consent of their husbands and not disclosing their status was equal to disrespect in marriage and could form the grounds for divorce (Aarnio et al 2009).

There are also studies whose results depict men as tough and assertive. For example, a study was conducted in Uganda by Byamugisha, Tumwine, Semiyaga and Tylleskär (2010) on determinants of male involvement in the PMTCT programme. All the participants were men

and the researchers found that they did not want to become involved in PMTCT services because they feared that their male peers would view them as being weak for accompanying their wives to clinic and because they felt uncomfortable in the ANC environment. Similar findings were also evident in a study done in Nepal by Mullany (2005) on barriers and attitudes towards promoting husbands' involvement in maternal health whereby the male participants attributed their low involvement in services due to reasons such as shyness, resulting from being in an environment viewed as feminine, and fear of being stigmatized socially as being "hen-pecked" for being supportive of their pregnant wives. Likewise, in a study in KwaZulu-Natal titled *Gender relations in the context of HIV/AIDS*, which had both male and female participants, Ndinda et al, (2007) found that men were unwilling to participate in reproductive health services since they viewed childbearing mainly as the responsibility of women. Such findings can therefore be attributed to the cultural aspect in most African countries whereby men play the decisive role and are viewed as the stronger gender while women are perceived as having the supportive and caring role.

Some variations in the findings of the studies relating to socio-cultural factors, however, were also noted. For example, contrary to the findings of the Aarnio et al., (2009) study were the results presented by Tshibumbu (2006) from the Zambian study on factors influencing men's involvement in PMTCT, whereby 63% of the 127 men that participated in the study felt that a HIV positive test in a pregnant woman was not a sign of her infidelity. Moreover, Tshibumbu (2006) also found that 80.3% of the 127 men did not think that a pregnant woman who is HIV positive should be divorced or left without support based on her status. A Men in Maternity Care study (MiM) to evaluate and establish whether it was feasible to involve men in antenatal and postnatal care conducted in KwaZulu-Natal also yielded different results, whereby 94% of the 584 male participants showed that men were generally in agreement with women in respect of clinic based activities, such as accompanying women to the clinic and to

postpartum visits (Mullick, Kunene and Wanjiru, 2005). These findings in Zambia and KwaZulu-Natal have shown that men are more willing to support their female partners than previously believed, thereby requiring further study to explore reasons behind their low involvement in maternal and child health services.

### **2.5.1. Discussion linking the influence of socio-cultural factors on men and their impact on women's uptake in PMTCT**

The above mentioned studies have acknowledged the importance of how socio-cultural factors affect men's level of participation in maternal and child health services, including PMTCT programmes. In addition, Adeleye, Aldoory and Parakoyi (2011) assert the significance of gender and culture in the utilization of health services and argue that one needs to grasp the concept that gender and culture are not separate entities, but rather that they are intertwined in reality. With that in mind, this section therefore intends to shed some light on how the socio-cultural factors that affect male partner involvement also directly affect the women's ability to make health decisions related to maternal and child health services, including PMTCT.

Authors Rao et al, (2006) state that there are several socio-cultural barriers that pregnant women have to deal with when they decide to go for HIV testing. Moreover, Medley et al, (2004) state that according to most African cultures, women usually look for the support of their male partner in order to make important decisions, such as committing to the various phases of the PMTCT programme. Hence to better understand how male partner involvement and support affects women's decision making ability regarding health services, a thorough analysis of the literature was conducted. As a result, the studies reviewed identified some of the challenges faced by women, such as lack of autonomy in regards to making health decisions, thus needing to consult with her partner prior to settling on a decision. Also fear of

rejection, stigma, divorce and violence upon disclosure of their HIV status to their male partners were noted as major barriers to women's uptake and adherence to the services.

### **2.5.2. Discussion on how socio-cultural factors impact women's autonomy**

A study whose findings illustrated the level of autonomy women have in decision making regarding their health was that of Homsy et al, (2006) on routine intrapartum HIV counselling and testing for PMTCT carried out in Uganda. According to Homsy et al., (2006), more than 50% of the pregnant women participating in the study had refused HIV testing in a PMTCT setting because their partners had either not been present or they had not obtained their permission to test. Consistent with these findings were those of Dahla et al, (2008), whose study in Uganda on acceptance of HIV testing among women attending antenatal clinic found that 82% of the women participating in the study had refused to test for HIV due to lack of consent from their partners and 54% indicated that their reason for refusing to test was due to fear of their partners' reaction. Kebaabetwe (2007) carried out a study in Botswana to determine barriers to participation in the PMTCT programme and found that the lack of male support was recognized as a major barrier to women's uptake of the programme as 10 out of 21 participants who had chosen not to become involved in the programme stated that they needed their partners support. In support of these findings are the results of a study conducted by Bajunirwe and Muzoora (2005) in Uganda on the barriers to the implementation of the PMTCT programme whereby 68% of the 404 female participants indicated that they needed to consult their husbands before getting tested for HIV. Such findings, therefore, show that men do play a very significant role in influencing their partners' decision making regarding health.

A study done in KwaZulu-Natal on discourses of gender and HIV/AIDS among women by Hoosen and Collins (2004) gave similar results in relation to how culture shapes the manner

in which women view men and how this impacts their decision making regarding their health. According to these researchers, the Zulu women who participated in the study regarded men as being more intelligent and thus more superior to women, stating that “*men are the head of us*”. As a result of this belief that men are figures of authority, women have placed themselves in an inferior position whereby men’s decisions have to be accepted and respected. This concept was further highlighted by the fact that 80% of the 58 women who participated in the study stated they did not use condoms despite knowing the risks of acquiring HIV infection simply because their male partners refused to use them. Moreover, the women indicated that it was culturally acceptable for Zulu men to have more than one sex partner, which further increased their risk of acquiring HIV and AIDS (Hoosen and Collins, 2004).

Another study relating to women’s status in making decisions regarding their health was done by Sarker et al, (2007) on determinants of HIV counselling and testing participation in a PMTCT programme in rural Burkina Faso. The findings of their study showed that communication between women and their male partners played a vital role in the uptake of HIV testing and counselling and programme adherence (Sarker et al., 2007). Prior to testing, 121 of the 430 women interviewed reported that they had discussed their intention to be tested with their partners, while 309 had not done so. However, while 82% of the 121 women who had discussed HIV testing with their partner eventually took the test, only 47% of the 309 women who had not discussed their intentions with their partners actually took the test. These results are a clear indication that women perceived that it was vital to obtain their partners’ permission for testing (Sarker et al., 2007). Likewise Okonkwo et al, (2007), in their study done in Nigeria on attitudes and beliefs of pregnant women toward voluntary counselling and testing for HIV, found that 88.7% of the 240 women who participated in the study stated they would agree to getting tested for HIV if it were to be done simultaneously

with their partner, while 17.1% of the women said they would have to ask their partners prior to getting tested. Moreover, the study also found that women who were married and cooperated with their partners were more likely to accept counselling and testing, unlike women who were single or cohabiting with a partner, but unmarried (Okonkwo et al., 2007). Furthermore, Story and Burgard's (2012) study on couples' reports of household decision-making and the utilization of maternal health services in Bangladesh further supports the findings of Sarker et al., (2007) and Okonkwo et al., (2007) regarding decision making and communication between women and their male partners. According to Story and Burgard's (2012) results, which were obtained from 3336 married couples, it was found that household decision made by husbands alone were associated with less maternal health care utilization as compared to joint decision-making.

### **2.5.3. Discussion of fear of rejection, stigma and violence relating to disclosure by women**

A few of the studies that have been reviewed elaborate on how low levels of male partner involvement in services such as PMTCT places women in a predicament of not wishing to disclose their HIV status to their partners for fear of rejection, violence and stigma. An example of such a study is one done in Uganda by Nassali et al (2009) on access to HIV/AIDS care for mothers and children. According to the study, only 110 of the 270 women participants who had been initiated into the PMTCT programme adhered to the programme. Of the 110 who did adhere to the services, 39 had disclosed their HIV sero-status to their partners and 61 had not disclosed their positive status to their partners. Moreover, 47 of the non-adherent mothers had disclosed their status and 113 had not, further supporting the fact that women's disclosure of their status to their spouse affects uptake of PMTCT interventions and adherence to care (Nassali et al., 2009). However, 14% of the mothers who had disclosed

their HIV sero-status to their partners reported adverse outcomes as a result of their disclosure, such as divorce, withdrawal of support and violence (Nassali et al., 2009).

A study carried out by Ramjee et al, (2010) in KwaZulu-Natal on experiences in conducting multiple community-based HIV prevention trials among women yielded similar results. Some women participating in the study were unwilling to disclose their HIV status to their partners since they were financially dependent and were afraid their disclosure would leave them destitute if their partners withdrew their financial support. Similarly, Rogers et al, (2006) in their study in India on HIV-related knowledge, attitudes, and perceived benefits and risks of HIV testing among pregnant women reported that the 189 women who participated in the study gave the following reasons for being afraid to disclose their HIV positive status to their partners; rebellion (84%), abandonment (77%), blame for infection (63%), and losing custody of the children (60%). Rogers et al., (2006) added that 12% of the women felt that their husbands would not be consistent in protected sex regardless of knowing their partners' HIV positive status.

Similar findings were reported in a study in Malawi on potential initiators of HIV-related stigmatization in PMTCT programmes which found that some HIV positive women in the study feared disclosing their status to their husbands due to fear of abandonment, abuse or even physical assault. According to these authors, the women feared that their husbands would perceive the fact that they had taken the HIV test as a sign of self-doubt and unfaithfulness on their part (Thorsen, Sundby and Martinson, 2008). Equally, Abdool-Karim et al, (2008) in their KwaZulu-Natal study on the influence of AIDS stigma and discrimination and social cohesion on HIV testing and willingness to disclose HIV showed similar results, whereby the majority of the women participants (83%) indicated their desire to disclose their HIV status should they be found positive, but feared that their partners would view their status as a sign of unfaithfulness. Otieno et al, (2010) also found similar results in

their Kenyan study on determinants of failure to access care in mothers referred to HIV treatment programmes, whereby 28.5% of the 116 women who participated in the study ascribed challenges in accessing HIV treatment programmes to spouse related issues resulting from the disclosure of status, such as fear of violence and divorce. Their findings revealed that 50% of the women who accessed HIV care had most likely informed their partners of the referral, unlike those who did not access the services, which was a larger group of 87% (Otieno et al., 2010).

#### **2.5.4. Disadvantages of nondisclosure for both men and women**

Authors Auvinen, Suominen, and Valimaki (2010) emphasise the importance of disclosure of HIV sero-status for both partners, whether HIV positive or negative, since it helps foster shared responsibility among couples that can result in behaviour change, such as safe sex practices and adherence to ARV prophylaxis. According to Msuya et al, (2008), the lack of disclosure only increases the risk of acquiring HIV by the uninfected partner.

According to the study in Uganda by Lifshay et al, (2009) on partners at risk, which had both male and female participants, women reported considerable difficulty in altering their partners' sexual behaviour, a challenge which was greatest among those who had not disclosed. A large proportion of the women (5 out of 8), most of whom had not disclosed their HIV status, reported incidences whereby they were forced by their partners to have unprotected sex and were even raped in some situations. In addition to such problems, some partners who had not been tested reported that they assumed that they were already HIV positive and hence did not see the need of wearing protection (Lifshay et al 2009). Dunkle et al, (2004) conducted a study on gender-based violence, relationship power and risk of HIV infection in women attending antenatal clinics in rural South Africa and found that 55% of the 1,395 women who participated in the study reported violent attacks by their male

partners. Dunkle et al., (2004) also found an association between high levels of male control and HIV sero-status. These studies highlight the need to involve men in maternal and child health services, including PMTCT programmes, where they can learn about HIV and AIDs with their partners and thus enhance communication between the couple.

Some studies have also illustrated the disadvantages of nondisclosure by women. Bwirire et al, (2008) conducted a study in Malawi to identify reasons for a high and progressive loss to follow-up of HIV-positive mothers who had dropped out of the PMTCT programme. The study population included ten antenatal mothers registered and still participating in the PMTCT programme, six post-natal mothers who had dropped out of the programme and nine nurse midwives. As discussed by Bwirire et al., (2008) one of the reasons that was presented for women not continuing with the programme was because their partners were not supportive and would not undergo HIV testing with their pregnant partners. Thus, women were disinclined to disclose their HIV status since they feared it would lead to conflict within their households, even to divorce (Bwirire et al., 2008). The authors Jones, Sherman and Varga (2005) shared similar results regarding their study conducted in Johannesburg, South Africa about exploring socio-economic conditions and poor follow-up rates of HIV-exposed infants. The PMTCT programme being studied had experienced a very high rate of loss of follow up of children over a 24 month period. Out of the 2,243 children that were enrolled in the programme, 49% had missed their first follow up visit at 2 weeks of age and an astounding 82% did not attend the scheduled visit at 12 months (Jones, Sherman and Varga, 2005). Male partner support was thus acknowledged as one of the factors contributing to loss of follow up of children since 103 of the 176 mothers interviewed stated that they lived with the infant's father and 67% reported having disclosed their status (Jones, Sherman and Varga, 2005).

Another disadvantage of nondisclosure was noted by Nel et al, (2012) who found the HIV prevalence among women in KwaZulu-Natal to be higher than 40% based on the results of their study on why HIV incidence remains high in the province. Their study consisted of 2773 women participants from the eThekweni, uThukela and uMgungundlovu districts. Nel et al., (2012) found that a suspected positive or unknown HIV sero-status of a current sexual partner was one of the contributing factors to the high HIV prevalence and incidence rates that existed in the province. This was attributed to the fact that sexually active women were at higher risk of acquiring HIV infection if they did not know their partners' status (Nel et al 2012).

## **2.6. THE INFLUENCE OF PROGRAMMATIC FACTORS ON MALE INVOLVEMENT**

The literature presents a number of studies that highlight the influence of programmatic factors on male involvement in maternal and child health services. Some of the programmatic challenges noted in the studies were, to name just a few, that PMTCT services were not well advertised and that the long waiting hours at the clinics were not conducive for the male partners who had to work. Such results were found in a study conducted by Shroff (2008) on male partner involvement in PMTCT in Vietnam. The findings of the study showed that although men expressed a great deal of support for ANC services, the majority felt they did not know much about the PMTCT programme (Shroff, 2008). Furthermore, while the men in the study viewed the health care providers at the antenatal clinics as kind hearted and felt they were providing a good service; most of them were not available to take their wives to pregnancy tests because they had to go to work (Shroff, 2008). Reece et al., (2010) in a Kenyan study on assessing male spousal engagement with PMTCT found similar results whereby the men were also very supportive of the antenatal clinic, but found it difficult to

accompany their partners because of work commitments and the perception of the amount of time that would be consumed at the clinic. The men in the study expressed that it would be difficult to request time off work from their employer due to the fact that PMTCT, based on the name itself, was commonly viewed as being a programme exclusively for women and children (Reece et al., 2010). In addition, Reece et al., (2010) found that the HIV-related nature of the programme made it difficult for most men to discuss the issue with their employers. Nkuoh, Meyer and Nkfusai (2010), in their study in Cameroon on barriers to men's participation in antenatal and PMTCT, shared similar results. Their findings showed that although 62 of the 252 male participants felt the ANC services were good, they were not able to accompany their partners because of lack of time due to work commitments, which were compounded by the long waiting hours at the clinics (Nkuoh, Meyer and Nkfusai, 2010).

Contrary to these findings, however, were the results of a study by Msuya et al., (2008) on low male partner participation in antenatal HIV counselling and testing in northern Tanzania. These authors found that although the antenatal clinics were open on weekends to accommodate the male partners who worked during the week, only a few men came with their partners. According to Msuya et al., (2008), the low levels of male partner involvement could be attributed to the fact that the invitations to attend the clinics came from the pregnant partners and not from the health care providers and there was no way of knowing whether the men had received the invitation or not. Likewise, another study in Tanzania by Mlay, Lugina and Becker (2008) on couple counselling and testing for HIV at antenatal clinics also found that the mode of inviting men to participate in the PMTCT services proved to be a barrier to their involvement. Mlay, Lugina and Becker (2008) established that the way the PMTCT service works in that region is that the women are counselled and tested for HIV and then told to bring their partners in for testing. However, both male and female participants in the

study felt that health care providers at the clinics should write letters directly to the male partners rather than asking the women to convince their partners to accompany them to clinics. The reason for such findings was ascribed to the fact that in the Tanzanian culture, men tell their women what to do and not the other way round (Mlay, Lugina and Becker, 2008).

Other studies that touched on programmatic factors included a study by Byamugisha et al., (2010) on determinants of male involvement in PMTCT in Eastern Uganda and several factors relating to the programme were identified as barriers to male involvement. The men in the study felt health care workers were rude and rough in handling pregnant women, the health care workers did not allow men to enter antenatal clinics with their partners, unofficial user fees were charged and the men felt that antenatal clinics lacked adequate space (Byamugisha et al 2010). Another study on male involvement in antenatal HIV counselling and testing in Malawi by Aarnio et al., (2009) yielded somewhat similar results, whereby men cited that they were being treated as second level customers in the services. It is thus very important to understand programmatic factors that affect male involvement in order to devise interventions that will encourage male uptake in maternal and child health services, including PMTCT.

## **2.7. SUMMARY ON THE INTERRELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS, KNOWLEDGE, SOCIO-CULTURAL FACTORS AND PROGRAMMATIC FACTORS ON MALE INVOLVEMENT IN MATERNAL AND CHILD HEALTH SERVICES**

This section highlights the interrelationship of the variables under study and how this relationship influences the proposed PMTCT programme outcome, as presented throughout the discussion of the literature. The variables under study are demographic factors,

knowledge, socio-cultural and programmatic factors. The Diffusion of Innovation framework which guides this study, coupled with the literature, will help illustrate how these variables are interrelated.

According to the Diffusion of Innovation theory, a series of steps have to take place in order to get an innovative idea, such as male involvement in the PMTCT programme, into practice (Glanz, Rimer and Lewis, 2002). These steps in relation to this study include:

- The innovation development, which for this study relates to male involvement in the PMTCT programme;
- Dissemination, which refers to the spread of knowledge or information about the PMTCT programme;
- Adoption, which refers to the men's willingness to participate in the programme;
- Implementation, which refers to the interventions put in place to involve men in the PMTCT programme; and
- Maintenance, which refers to men's continued use of the services.

The studies presented from literature review have shown how men's uptake in PMTCT services has been influenced by variables such as their age, their level of knowledge about PMTCT, their cultural background as well as factors in which the programme itself operates. Furthermore, the evidence suggests that these variables do not operate independently, but are rather interrelated in nature. Therefore, in order for an innovation to involve males in the PMTCT programme to be successful, one has to understand the variables which are at play and interact, such as demographics, knowledge, socio-cultural aspects and programmatic factors, as they will have an effect on that innovation.

## **2.8. BENEFITS OF MALE PARTNER INVOLVEMENT**

Some studies have shown that male partner participation in maternal and child health services, including PMTCT, have had a positive influence on women's uptake and adherence to interventions initiated by the programme. For instance, Peltzer, Sikwane and Majaja (2011b), conducted a study on factors associated with short-course antiretroviral prophylaxis (dual therapy) adherence for PMTCT in South Africa. The participants of this study consisted of 746 women, 139 of whom were from the antenatal clinic and 607 of whom were from the postnatal clinic. A large percentage of these women (85.6% from the antenatal clinic and 98% from the postnatal clinic) were initiated on ARV prophylaxis. According to the findings, 61% of the antenatal and 85.9% of the postnatal women reported complete adherence to therapy, preceding the interview or prior to delivery. These results were associated with women who had disclosed their status and had reported less discrimination and higher male involvement (Peltzer, Sikwane, Majaja, 2011b). Similarly in a different study conducted by Peltzer et al, (2008) on a follow-up survey of women who had undergone a Prevention of Mother-to-Child Transmission programme in a resource-poor setting in South Africa, findings showed that 30.2% of the 758 women who participated in the study reported that their partners had accompanied them and that this had encouraged them to get tested for HIV.

Another study which also gave positive results on the benefits of involving men was done in Tanzania by Msuya et al, (2008) on low male partner participation in antenatal HIV counselling and testing. The study, which consisted of 184 HIV positive women, showed the relationship between acceptance of HIV perinatal intervention and male partner participation. According to the findings, a high proportion (91%) of women whose partners had accompanied them to HIV counselling and testing took Nevirapine during delivery in contrast to the 74% whose partners had not accompanied them who took Nevirapine during delivery.

It was also discovered that women whose partners attended clinic visits with them were more likely to adhere to the infant feeding method they had selected post-test, whether it was exclusive breast feeding or formula feeding, as findings showed that 67% of the women whose partners had accompanied them adhered to the feeding method as opposed to 28% whose partners had not accompanied them adhering to the feeding methods. When the participants were followed up after 4 to 6 months, the researchers found that 64% of the women who had chosen to exclusively breastfeed and who had partner support had not mixed and had stopped breast feeding at 4 to 6 months unlike the 28% who had had no partner support. Additionally, 80% of those who had chosen formula feeding and had partner support adhered to the method as compared with 29% who lacked partner support (Msuya et al., 2008).

Aluisio et al, (2011) in their Kenyan study of male antenatal attendance and HIV testing found that male partner involvement in antenatal voluntary counselling and testing was linked with a greater use of antiretroviral prophylaxis in their HIV infected pregnant partners. According to Aluisio et al., (2011), 140 of the 456 female participants had been accompanied by their partners to the antenatal clinic. Among the 441 infants who were tested for HIV, 82 were positive by one year of age. The findings showed that the infant vertical transmission risk was lower among infants born to women with partner attendance with incident HIV infection of 16.30 per 100 person-years compared to 30.86 per 100 person-years of those born to mothers without partner attendance. Furthermore, the authors reported an HIV incidence of 18.30 per 100 person-years for children born to women whose partners had been tested for HIV as opposed to an HIV incidence of 35.13 per 100 person-years among infants born to women who said that their partners had not been tested. The study also noted that the mortality risk for HIV uninfected infants born to women whose partners had accompanied

them to the clinic was 63% less than those born to women who had no support (Aluisio et al., 2011).

Consistent with the above findings were those of a study conducted by Mephram et al, (2011) in KwaZulu-Natal regarding challenges in PMTCT antiretroviral adherence which found similar results in relation to antiretroviral therapy adherence. Of the 89 women who participated in the study, the 63 women who had disclosed their status to their partners reported a greater than 95% adherence to ARV prophylaxis, unlike the 26 women who had not disclosed their status to their partners reporting a less than 95% adherence to treatment.

Various authors have noted that although the PMTCT programmes are obviously a good entry point for involving males in the prevention of sexual and perinatal HIV transmission, few men are actually participating in the programme (Msuya et al., 2008; Kurewa et al, 2010). Authors Kurewa et al., (2010) also state that in order for PMTCT to be successful, there has to be a complete follow up of mothers and their infants to ensure that they fully conform and adhere to the interventions that have been implemented within the programme. Studies have shown that male partner support is a key element in facilitating women's ability to accept interventions (Okonkwo et al., 2007; Msuya et al., 2008; Peltzer et al 2008; Dahla et al., 2008; Peltzer, Sikwane and Majaja, 2011b). The studies have also shown that women who disclose their HIV status to their partners have a higher likelihood of accepting ARV prophylaxis, adhering to feeding choices and carrying out safer sex practices, unlike women who lack partner support (Msuya et al., 2008; Peltzer, Sikwane and Majaja, 2011b)

## **2.9. SUMMARY OF THE CHAPTER**

This chapter presented a review of the literature to gain some insight on male involvement in PMTCT and maternal and child health services that may support the topic of choice as well as to identify gaps that exist in the literature. Numerous sources were consulted to find the

literature and these included the internet, textbooks, and previous theses and dissertations. The sources used helped conceptualise concepts such as male involvement, PMTCT and HIV. They also aided in understanding the factors that influence male involvement.

## **CHAPTER THREE: METHODOLOGY**

### **3. INTRODUCTION**

The methodology used to conduct research on male involvement in PMTCT is discussed in this chapter. The chapter includes a discussion on the research paradigm and design, the study setting, the study population and the sample, validity and reliability, the data collection method and instrument, ethical considerations and the method of data analysis.

#### **3.1. RESEARCH PARADIGM AND DESIGN**

A positivist exploratory paradigm formed the basis of this research study. As discussed by Polit and Beck (2008), paradigms for human inquiry are often characterized in terms of the ways in which they respond to philosophical questions. For example, ontology relates to the nature of reality, epistemology relates to the relationship between the inquirer and that which is being studied, axiology relates to the role of values in the inquiry and methodology relates to how the inquirer should obtain knowledge.

According to Gillis and Jackson (2001), positivists are interested in understanding the patterns of human responses and therefore emphasis is placed on identifying, measuring and expressing the relations among variables with mathematical precision. The philosophical underpinnings of a positivist paradigm, as discussed by Gillis and Jackson (2001), are that all human behaviour is naturally determined; therefore, to understand human behavioural responses, one has to examine the natural world to explore the cause-and-effect relationship of external factors and the outcome of human responses. This notion therefore implies that reality exists. The ontologic assumption is central to this study, which aims to explore and describe male partner involvement in the PMTCT services while examining external factors that influence their involvement. As for epistemology, which is another important assumption

at the basis of this study, the researchers are required to put their personal values aside to avoid influencing the outcomes of the study (Gillis and Jackson 2001). In other words, the research should be conducted objectively and be free of bias. This concept of objectivity is also referred to as axiology, and is therefore applied to the study through the methods of the selected research design (Polit and Beck, 2008).

### **3.2. RESEARCH DESIGN**

This study uses a quantitative exploratory descriptive design to examine the relationship between male partner involvement in PMTCT services and the factors that influence their involvement.

Botma et al, (2010) state the purpose of an exploratory design is to develop an initial understanding of a phenomenon. According to Gillis and Jackson (2001), a descriptive design enables the researcher to assess specific dimensions or characteristics of individuals, groups, situations or events by summarizing the commonalties found in discrete observations. It is concerned with gathering information from a representative sample (the male partners) to get a broader picture of the phenomenon as it occurs. This study has a descriptive aspect to every variable studied. As stated in the objectives, the aim of the study is to explore and describe male partner involvement in PMTCT services. Variables such as knowledge, socio-cultural factors and programmatic factors have been explored in order to gain an understanding of their influence on male involvement in PMTCT.

### **3.3. RESEARCH SITE**

The primary health care facility that was selected for the study is situated in the EThekweni health district, in Durban, KwaZulu-Natal. It is an outpatient facility situated in an area with a population of 24466 (DOH, 2001a). The facility is centrally situated making access easy for

those living in the catchment area, which includes both informal and formal housing. The facility is committed to the Batho Pele principles and Patient Rights Charter (DOH, 2001). Services offered at the primary health care facility include, but are not limited to, HIV and AIDS counselling and testing (HCT), an ARV clinic, PMTCT and maternal and child health care services.

The province of KwaZulu-Natal is situated on the east coast of South Africa and covers a total area of 94,361 square kilometres. In the year 2011, the population was estimated at 10,819,130 and the population density at 107.52 people per square kilometre (DOH, 2001b). KwaZulu-Natal is one of the most culturally diverse provinces in South Africa, with its rich melting pot of cultures, namely Zulu, Indian, Anglo and Afrikaner. However, it is also the province which has the highest rate of HIV infection in South Africa. In 2009, according to UNAIDS, the rate of HIV infection in KwaZulu-Natal was 39% (DOH, 2001b).

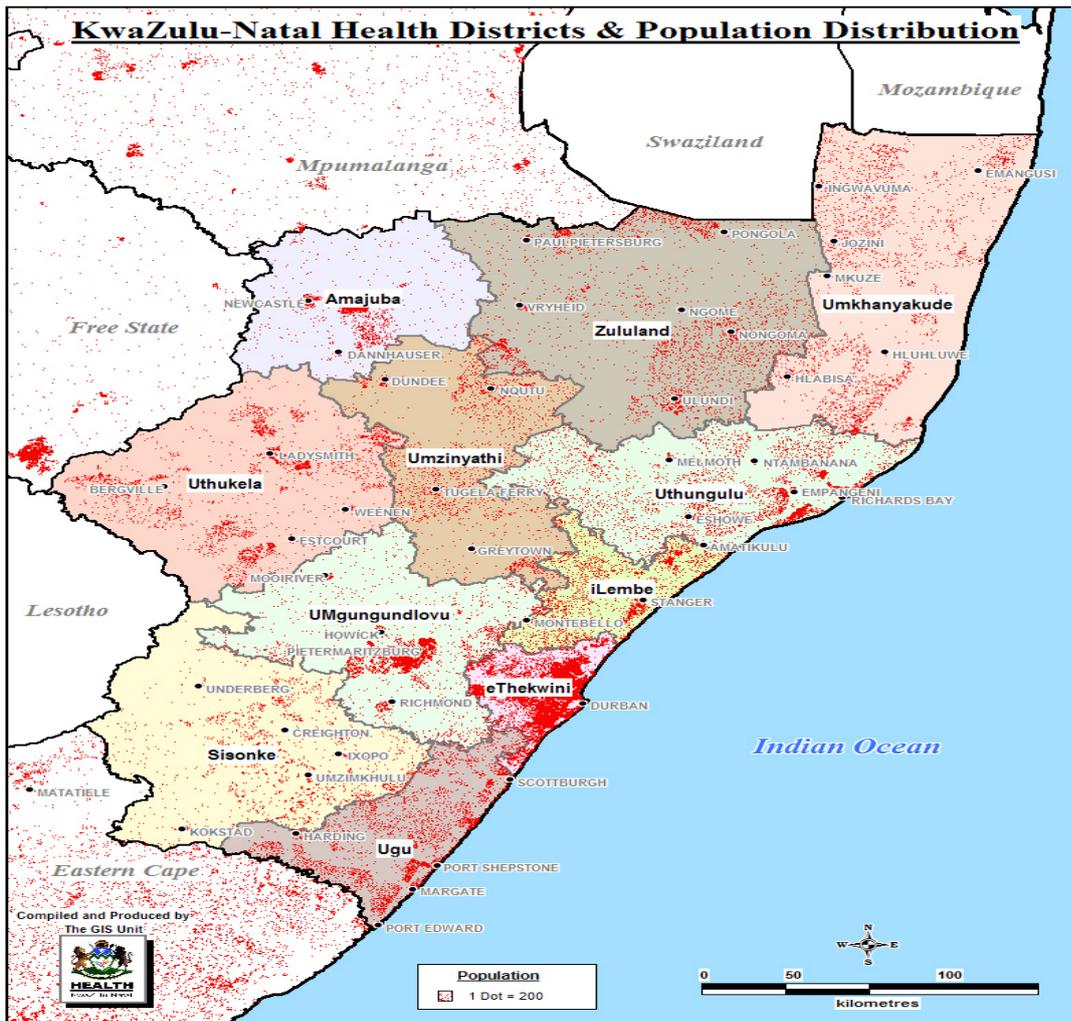


Figure 3.1: Health District Map Of KwaZulu-Natal (DOH, 2001)

### 3.4. STUDY POPULATION AND SAMPLING

Sampling is an important process to ensure that the representation of the population is adequate so that the study problem can be generalised. Burns and Grove (2009) state that in order for a sample to be representative, it must be like the target population in as many ways as possible.

### **3.4.1. Population**

Burns and Grove (2009) refer to a research population as all the elements or subjects that meet the criteria for inclusion. Polit and Beck (2008) state a population consists of the entire group of persons or objects that the researcher is interested in studying and refers to the aggregate or totality of those conforming to a set of specifications. The population that was used in this study included men who were either married to or sexual partners of women who were participating in the PMTCT services at the selected primary health care facility in KwaZulu-Natal or had previously used the services.

**Inclusion criteria:** Polit and Beck (2008) state quantitative researchers must specify characteristics that set the limits of the study population through eligibility criteria. Therefore, in this study, the sample consisted of males who were residing in the area around the selected primary health care facility in the EThekweni district in the province of KwaZulu-Natal. They were either husbands or sexual partners of the women who were currently participating in the PMTCT programme at the selected health care facility or had previously used the services.

### **3.4.2. Sample**

A purposive sampling method was used to ensure representativeness of the sample for this study. According to Burns and Grove (2005) it is a non probability technique which involves conscious selection by the researcher of certain subjects or elements to include in the study. The accessible population for this study was 95 men. The Rao soft computer software was then used to assist with the calculation of the sample size. A target population of 90 men out of 95 was deemed to be appropriate. According to Tashakkori and Teddlie (2010) a confidence limit of .05 was attained which meant that there is a 95% chance that the sample is statistically representative of the population.

### **3.5. DATA COLLECTION INSTRUMENT**

Burns and Grove (2009) define data collection as the process of selecting subjects and gathering data from these subjects. The instrument used for data collection in this study was a questionnaire. The questionnaire was adapted and modified from two questionnaires that had been previously used in similar studies. It consisted of five sections. The first section had a set of 5 questions pertaining to demographic factors; the second section consisted of 10 closed-ended questions to assess participants' knowledge of PMTCT; the third section had 10 Likert-scale questions regarding socio-cultural factors; the fourth section had 10 Likert-scale questions relating to programmatic factors; and the fifth section had 11 Likert-scale questions concerning male involvement in PMTCT services.

The first study to develop the instrument was conducted by Tshibumbu in the Mambwe district of Zambia (2006), who used the questionnaire to assess factors influencing men's involvement in PMTCT services. Tshibumbu (2006) states that different approaches were used in the development of the study instrument, such as information obtained from the literature review and findings from prior studies. The reliability and validity of the instrument was then assured by testing the questionnaire twice before its use to ensure that it measured what it was intended to measure (Tshibumbu, 2006).

A second study that utilised the instrument was done by Byamugisha et al., (2010) in Uganda on determinants of male involvement in the prevention of mother-to-child transmission of HIV programme, but the questions were adapted to suit the aims of the study. The modified questionnaire was also pre-tested prior to its use to test for reliability and validity (Byamugisha et al 2010).

### 3.5.1. Measuring of variables on the instrument

“*Male involvement*” and “*factors influencing men*” were the variables being measured by the instrument with the former being regarded as the dependant variable and the latter as the independent variable. The *factors influencing men* variable had four sections namely; demographic factors (5 questions), knowledge (10 questions), socio-cultural factors (10 questions) and programmatic factors (10 questions).

The demographic characteristics measured included age, education, length of relationship, religion and tribe.

The knowledge items consisted of three response options (yes, no, don't know) which were scored as follows;

- No correct answers to the 10 questions was equivalent to *no knowledge*
- 1 to 3 correct answers was considered *low knowledge*
- 4 to 7 correct answers was regarded as *medium knowledge*
- 8 to 10 correct answers was considered as *high knowledge*

The socio-cultural factors section consisted of a 10 item Likert scale with a 5 response option ranging from “strongly agree” to “strongly disagree”. The scoring of the responses ranged from 1 to 5 from which four categories were established for the composite measure as follows:

- A total score of 0 to 19 was considered *low socio-cultural influence*
- A total score of 20 to 29 was equivalent to *moderate socio-cultural influence*
- 30-39 total score was regarded as *high socio-cultural influence*
- A total score of 40 to 50 was *very high socio-cultural influence*

Programmatic factors were also measured using a 10 item Likert scale which consisted of 5 response option similar to socio-cultural factors. The composite measure was, therefore, also grouped as follows:

- A total score of 0 to 19 indicated *low programmatic influence*
- A total score of 20 to 29 was considered *moderate programmatic influence*
- A total score of 30-39 was considered as *high programmatic influence*
- 40 to 50 was considered *very high programmatic influence*

*Male involvement* was measured using an 11 item Likert scale with a 5 response option similar to socio-cultural and programmatic factors. The scoring of the responses ranged from 1 to 5. The composite score was grouped as follows:

- 0 to 19 total score was *very high male involvement*
- 20 to 29 was considered *high male involvement*
- 30-39 was regarded as *moderate male involvement*
- 40 to 51 was *low male involvement*

### **3.6. RELIABILITY AND VALIDITY OF THE INSTRUMENT**

According to Polit and Beck (2008), reliability is the consistency with which an instrument measures the attribute it is intended to measure. Reliability is the main criterion for assessing quality in a quantitative study (Polit and Beck, 2008).

Burns and Grove (2009) define the validity of an instrument as a determination of the extent to which the instrument actually reflects the abstract construct being examined.

### **3.6.1. Reliability**

To ensure reliability, the instrument was assessed for stability. The test/retest method was conducted and the questionnaire was administered to five men at Howard Campus at the University of KwaZulu-Natal who were randomly selected. Permission was obtained from the men to participate in the study. It took them approximately 10 minutes each to respond to all the questions and no issues were raised. After three days the instrument was handed out to 5 men again to establish internal consistency of the instrument. No inconsistencies were noted. A test of reliability of scale on the data was then conducted. According to DeVellis (2003) the cronbach alpha coefficient of a scale ideally should be above 0.7. The results found show that the cronbach coefficient for the scales was as follows: socio-cultural factors (0.867), programmatic factors (0.804) and male involvement (0.910). These findings were superior to 0.7 which meant that the scales were reliable.

### **3.6.2. Validity**

Burns and Grove (2009) define content validity as a means of examining the extent to which the method of measurement includes all major elements relevant to the construct being measured. For this study, validity of the instrument was assured by checking items in the data collection tool against the study objectives and concepts in the conceptual framework to establish whether they would measure all elements to be investigated. This is illustrated in table 1.1.

**Table 3.1: Content Validity**

<b>Objectives</b>	<b>Theoretical Model</b>	<b>Questionnaire</b>
To explore and describe demographic factors affecting male partner involvement in PMTCT	Impact of participant (men) characteristics on adoption of practice. Factors to be investigated to determine if they correlate	<b>Section 1:</b> Demographics (5 items)
To explore and describe the level of knowledge male partners have regarding PMTCT	The more closely the programme meets the participant objectives, the more likely the participant is to adopt a practice.	<b>Section 2:</b> Knowledge ( 10 items)
To explore and describe socio-cultural factors affecting male partner involvement in PMTCT	Impact of participant (men) characteristics on adoption of practice. Factors to be investigated to determine if they correlate.	<b>Section 3:</b> Social Cultural Factors (10 items)
To explore and describe programmatic factors' influence on male partner involvement in PMTCT	Situations where participants(men) keep in contact with instructors(nurses), change agents following the educational programme are more effectual	<b>Section 4:</b> Programmatic Factors (10 items)

**3.7. DATA COLLECTION PROCEDURE**

Data collection was initiated upon receiving the required ethical approvals, including permission to conduct the research at the selected PHC facility. As an ethical requirement, an introductory and informative session was held between the researcher and the nurse manager

of the selected PHC facility upon receiving ethical clearance from the Department of health, to explain the purpose of the research and to agree on a convenient time for data collection. Appointments for data collection were then set. The researcher was responsible for handing out all of the questionnaires and collecting data. The participants were approached individually at the clinic and were informed about the study whereby their consent was obtained if they were willing to participate in the study. A questionnaire was then directly handed to them which they filled out and returned to the researcher upon completion approximately within 15 minutes each. Each participant was given an information document with the contact details of the researcher should they wish to withdraw from the study.

To ensure comprehension of consent by participants, the questionnaires were also translated into isiZulu, which is the local language. The linguistics department of the University of KwaZulu-Natal was used in terms of the translator. Reliability of the translated instrument and items therein was ensured through the translator translating the Zulu version back to English to ensure the meaning was not lost, also during pilot study participants assessed the wording of the translated version (as illustrated in Appendix). Due to the nature of the instrument being self-report, participants were able to answer without assistance from the researcher. In places where clarity was needed, an isiZulu translator assisted the researcher in interpreting the information required by the participants.

### **3.8. DATA ANALYSIS**

The questionnaires were numbered and coded to facilitate data capturing and auditing of captured data and to ensure confidentiality of the data. The data collected from the questionnaires was then analysed using the Statistical Package for Social Sciences (SPSS) and STATA 11.1 software for data analysis. Considering that the categories had many variables, it was important that characteristics within the same category be aggregated into

some representative variable. For instance, where a question had five responses such as strongly agree, agree, undecided, disagree and strongly disagree, each statement was attributed a score between (5-1) according to an expected answer from the respondent which could be negative or positive. A cut-off score of 70% was then set as a basis for measuring indexes. This was fixed based on 10 statements of the index whereby the maximum score for each statement counted for 5. Therefore, the maximum score of each index was 50. Each respondent was scored against this maximum score. Nonparametric tests were also constructed to test for associations between the identified factors explored and male partner involvement in PMTCT.

### **3.9. ETHICS**

Ethical consideration related to the protection of the rights of human subjects underpinned this study. Ethics is defined as a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participants (Polit and Beck, 2008). In accordance with these obligations, the research proposal was sent for approval and ethical clearance to the Research and Ethics Committee of the University of KwaZulu-Natal.

Gillis and Jackson (2001) highlight the importance of conducting a research study in an ethical manner by adhering to the guiding principles of ethics. The three main principles that guided this study were respect for persons, beneficence and justice.

*Respect for persons:* This principle forms the foundation of the participants' right to informed consent, privacy and confidentiality (Gillis and Jackson, 2001). Information regarding this research study was offered both verbally and in the form of a document to the participants of the study and the consent of participants was obtained upon their review of the information packet.

Confidentiality and anonymity of the target population was ensured by not having any identification on the data collection tool. Relevant indicators were used instead of participants' names so that information could not be traced back to individuals. The data collection tools will be stored in a safe and locked place for a period of 5 years in the School of Nursing at the University of KwaZulu-Natal and only the researcher and research supervisor will have access to the data collected and copies of relevant review documents.

*Beneficence:* The data collected in the study will not be used to exploit or inflict harm on the participants, but rather help in making recommendations based on the research findings that may aid in improving services for women and their male partners in the province of KwaZulu-Natal.

*Justice:* All participants in the research study were treated equally and fairly. The population sample selection was conducted randomly so as to avoid bias.

### **3.10. DATA MANAGEMENT**

All questionnaires will be stored in a locked drawer in an office at the School of Nursing at the University of KwaZulu-Natal where it can only be accessed by the researcher and the research supervisor. After 5 years, the stored data will be destroyed by shredding the hard copy and permanently deleting the data from the computer hard drives.

### **3.11. DISSEMINATION OF THE FINDINGS**

The findings of this study will be presented to the University of KwaZulu-Natal and the selected health centre. The researcher and supervisor will publish the findings in an accredited scientific nursing journal.

### **3.12. SUMMARY OF THE CHAPTER**

This chapter discussed the methodology that was used in the study. A quantitative exploratory descriptive design in conjunction with a positivist paradigm approach was used to examine the relationship between male partner involvement in PMTCT services and the factors that influence their involvement. Purposive sampling technique was used for this study. The Rao soft computer software programme was also used to determine a sample of 90 men. The chapter also discussed the data collection procedure and explained the instrument, which is a questionnaire consisting of 5 sections containing questions regarding demographic factors, knowledge, socio-cultural factors, programmatic factors and male involvement. Reliability and validity, data analysis and ethical considerations were also highlighted in the chapter.

## **CHAPTER FOUR: RESULTS AND DISCUSSION**

### **4.1. INTRODUCTION**

A discussion of the results from the data collected using the methodology discussed in Chapter three will be presented in this chapter. As presented in Chapter one, the study objectives were to explore and describe the:

- Demographic factors that influence male partner involvement in PMTCT
- Level of knowledge male partners have on PMTCT
- Socio-cultural factors affecting male partner involvement in PMTCT
- Programmatic factors influencing male partner involvement in PMTCT
- Interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors on male partner involvement in PMTCT

The results of the analysis will therefore be presented according to the five sections of the questionnaire that were investigated namely: demographic factors, knowledge, socio-cultural factors, programmatic factors and male involvement. Where appropriate, the results will be presented in form of tables and graphs.

### **4.2. SAMPLE REALISATION**

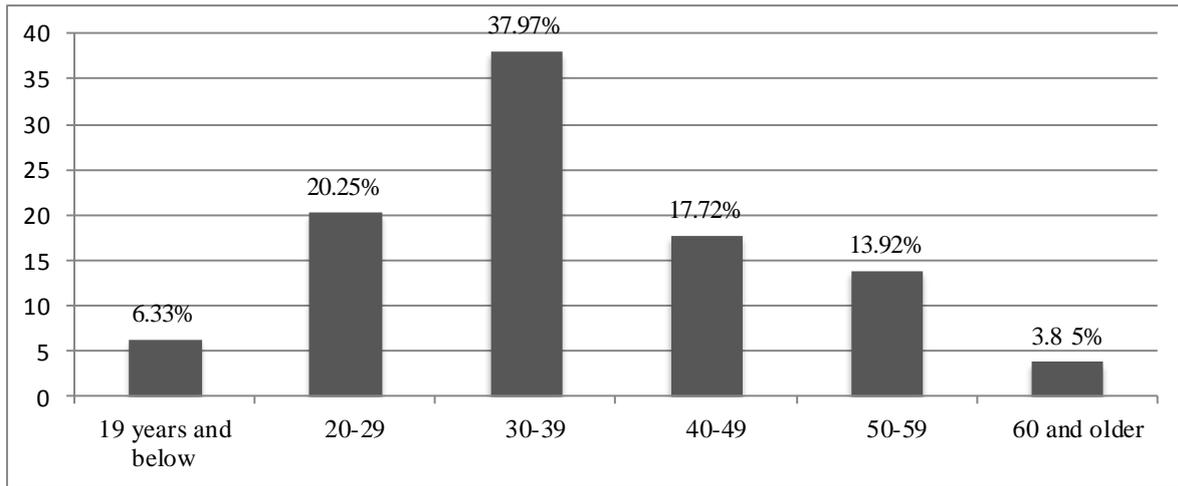
The sample size expectation for this study was 90 male participants who were either married or sexual partners of women who were currently partaking in the PMTCT programme or had been through the programme. A total of 90 questionnaires were distributed to 90 men and all questionnaires were received back with a 100% response rate.

### **4.3. SECTION 1 – DEMOGRAPHIC FACTORS INFLUENCING MALE INVOLVEMENT IN PMTCT**

In order to understand the influence demographic factors have on male involvement in PMTCT services, certain demographic variables of the respondents (namely age, education, length of relationship with partner, religion and ethnic group) were measured against the scores obtained in Section 5 of the questionnaire regarding male involvement, which is subsequently referred to as the male involvement index. A cut-off score of 70% was set as a basis for measuring all indexes. This was fixed based on 11 statements of the index whereby a maximum score for each statement counts for 5 hence the maximum score of the index is 55. Each respondent was scored against this maximum score.

#### **4.3.1 Age (n=90)**

Six age categories, namely, *19 years and below*; *20-29 years*; *30-39 years*; *40-49 years*; *50-59 years*; and *60 years and older* were listed on the questionnaire and participants were requested to tick the category into which their age fell. The findings illustrated in figure 4.1 show that 6.33% (n=6) of the respondents were *19 years and below*; 20.25% (n=18) were *20-29 years*; 37.97% (n=34) were *30-39 years*; 17.72% (n=16) fell under *40-49 years*; 13.92% (n=13) were within *50-59 years* of age; and 3.85% (n=3) were *60 years and older*. The majority of male participants 37.97% (n=34) therefore belonged to those within the age category of *30-39 years*, with the smallest number of respondents, 3.85% (n=3) belonging to the *60 years and older* age category.



**Figure 3.1: Distribution of Age Category (n=90)**

**Effects of age on male partners’ perceptions of PMTCT (n=90)**

To examine the effects of age on male partners’ perceptions on PMTCT, a cross tabulation of male partners’ involvement in PMTCT and age was formulated. According to Burn and Grove (2009), cross tabulation allows the researcher to visually compare summary data output related to two variables within the sample. Results in table 4.1 show a total of all the respondents according to their age category as follows: 6 respondents were 19 years and below; 18 were 20-29 years; 34 were 30-39 years; 16 were 40-49 years; 13 were 50-59 years; and 3 were 60 years and older. All 100% (n=6) of the respondents that fell under the age category of 19 years and below had a male involvement partner index score greater than 70%. Of the 18 participants who were aged between 20-29 years, 88% (n=16) attained a score greater than 70% under the male partner involvement index, while 13% (n=2) had a score of less than 70%. Out of the 34 respondents who fell into the 30-39 year old bracket, 77% (n=27) achieved a score greater than 70% on the male partner index, while 23% (n=7) had a score less than 70%. Of the 16 participants who were 40-49 years of age, 75% (n=12) had a score greater than 70% on the male involvement index, while only 25% (n=4) had a score of less than 70%. Additionally, of the 13 respondents who were 50-59 years old, 85% (n=11)

scored more than 70% on the male partner involvement index and 15% (n=2) scored less than 70%. Lastly, of the 3 respondents who were 60 years and older, 85% (n=2) had a male partner index score of greater than 70%, while 15% (n=1) had a score of less than 70%. The findings therefore indicate that the younger respondents in the age categories of 19 years and below and 20-29 years were highly involved in the services (100 %, 88%) respectively, as compared to the older respondents in age category 60 and above (85%). A Fisher's Exact test to establish significance showed that there was no significant relationship among age and the participants perception with the fisher value = 7.646, df = 0 and p value = 0.102.

**Table 4.1: The effect of age on male partner's involvement in PMTCT (n=90)**

In which age category do you fall	Male partner involvement index		Total
	Score<70	Score>=70	
19 years and below	0 (0%)	6 (100%)	6 (100%)
20 - 29 years	2 (13%)	16 (88%)	18(100%)
30 - 39 years	7 (23%)	27 (77%)	34(100%)
40 - 49 years	4 (25%)	12 (75%)	16(100%)
50 - 59 years	2 (15%)	11 (85%)	13(100%)
60 and above	1 (15%)	2 (85%)	3 (100%)
<b>Total</b>	16 (20%)	74 (80%)	90(100%)

#### **4.3.2. Level of education (n=90)**

The questionnaire presented six levels of education and participants were requested to tick the appropriate level. These levels were: did not complete primary school; completed primary school; did not complete secondary school; completed secondary school; did not complete college/university; and completed college/university. The results presented in table 4.2 below show that 3.8% (n=3) of the participants had not completed primary school; 3.8% (n=3) had completed primary school; 17.72% (n=16) had not completed secondary school; 29.11% (n=26) had completed secondary school; 24.05% (n=22) had not complete college/university; and 21.52% (n=20) had completed college/university. Thus, based on the results, the majority

of participants 29.11% (n=26) had completed secondary school, with only 3.8% (n=3) indicating that they had not completed primary school.

**Table 4.2: Level of participants education (n=90)**

Level of Education	Percentage	n
Did not complete primary school	3.8	3
Completed primary school	3.8	3
Did not complete secondary school	17.72	16
Completed secondary school	29.11	26
Did not complete college/university	24.05	22
Completed college/university	21.52	20

**Influence of education on male involvement (n=90)**

For the purpose of analysis, the levels of education were further grouped into three categories as follows: *primary* (did not complete primary school and completed primary school); *secondary* (did not complete secondary school and completed secondary school); and *higher education* (did not complete college/university and completed college/university). A cross tabulation of the educational levels and male involvement was then conducted. The end result illustrated in table 4.3 shows a total of 6 respondents fell under primary education level; 42 had a secondary education; and another 42 had a high level of education. Of the 6 respondents who had a primary education level, only 30% (n=2) achieved a score greater than 70% on the male partner involvement index, while 70% (n=4) had a score of less than 70%. As for the 42 participants who had a secondary level of education, 84.21% (n=36) had a male partner index score greater than 70%, while 15.79% (n=6) scored less than 70%. Furthermore of the 42 respondents with a high level of education, 89.19% (n=38) attained an index score greater than 70%, while only 10.81% (n=4) scored less than 70% on the male partner involvement index. Hence the findings show that there is a stronger association between high

level of education (89.19%) and male involvement in PMTCT, as compared to primary level of education (30%). In addition a Fisher's Exact test for significance revealed the result was statistically significant with a value =22.732, df =0, p value=0.000.

**Table 1.3: Influence of education on male involvement (n=90)**

Education level	Male partner involvement index		Total
	Score < 70%	Score ≥ 70%	
Primary	4 (70.00%)	2 (30.00%)	6 (100.00%)
Secondary	6 (15.79%)	36 (84.21%)	42 (100.00%)
Higher	4 (10.81%)	38 (89.19%)	42 (100.00%)
Total	14 (20.00%)	76 (80.00%)	90 (100.00%)

#### 4.3.3. Length of relationship with female partner (n=90)

An analysis of the length of the current relationship was conducted. The length of the relationship was measured according to the following three categories: partners who had been together for less than five years; partners who had been together for 5 to 10 years; and partners who had been together for more than 10 years. The findings presented in table 4.4 show that the largest number of participants 40.26% (n=36) had been in the relationship for less than five years, with the second largest number of 33.77% (n=30) respondents indicating to have been in the relationship for more than 10 years. The least number of participants 25.97% (n=24) had been in the relationship for 5 to 10 years.

**Table 4.4: Length of relationship with female partner (n=90)**

Length of relationship	Percentage	N
Less than five years	40.26	36
5 to 10 years	25.97	24
More than 10 years	33.77	30

#### Effect of length of relationship on male involvement (n=90)

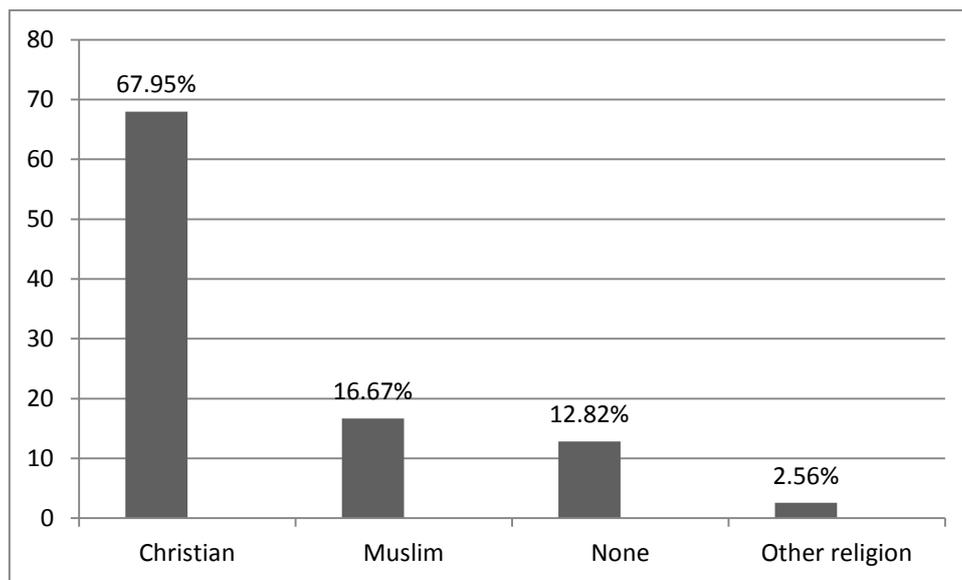
To assess the influence of duration of a relationship on male involvement, a cross tabulation was conducted between the length of the relationship and male involvement in PMTCT. The results depicted in table 4.5 below show that out of the 36 participants who had been in the relationship for less than five years, 90.63% (n=33) had scored more than 70% on the male partner involvement index, as compared to 9.38 % (n=3) whose index score was less than 70%. Of the 24 participants who had been in the relationship for 5 to 10 years, 76.19% (n=19) respondents had a male involvement index score of greater than 70%, unlike 23.81% (n=5) of the participants who scored less than 70%. On the other hand, of the 30 participants who had been in the relationship for more than 10 years, 70% (n=21) had a male involvement index score of greater than 70%, while only 30% (n=9) of the respondents had an index score of less than 70%. The results, therefore, show that participants who had been in their current relationship for less than five years were more involved in the programme (90.63%) than those who had been in the relationship for more than 10 years (70%). The Fisher's Exact test for significance on the other hand showed a non significant result with value = 1.575, df =0 and p-value = 0.452.

**Table 4.5: Length of relationship influence on male involvement (n=90)**

For how long have you been living with Wife/partner?	Male partner involvement index		Total
	Score <70	Score >=70	
Less than five years	3 (9.38%)	33 (90.63%)	36 (100.00%)
5 to 10 years	5 (23.81%)	19 (76.19%)	24 (100.00%)
More than 10 years	9 (30.00%)	21 (70.00%)	30 (100.00%)
<b>Total</b>	<b>17 (20.48%)</b>	<b>73 (79.52%)</b>	<b>90 (100.00%)</b>

#### 4.3.4. Religious affiliations (n=90)

Religion was categorized on the questionnaire as Christians; Muslims; none; and other religion. According to the analysis, figure 4.2 shows that the majority of respondents (67.95%, (n=61) were Christians; 16.67% (n=15) were Muslims; 12.82% (n=12) had no religious affiliation; and 2.56% (n=2) indicated other religion.



**Figure 4.2: Religious affiliations of participants (n=90)**

#### Influence of religion on male involvement (n=90)

To test whether there was a relationship between religion and male partner involvement in PMTCT, a cross tabulation of religion and male partner involvement was done. The results illustrated in table 4.6 show that of the 61 participants who were Christians, 86.79% (n=54) had a male involvement index score greater than 70%, with 13.21% (n=7) scoring less than 70%. Out of the 15 respondents who were Muslim, 68.75% (n=10) had a male involvement index score greater than 70% and the other 31.25% (n=5) had an index score below 70%. For the 12 participants who had no religious affiliation, 58.33% (n=7) had a male index score above 70%, while 41.67% (n=5) had an index score below 70%. Additionally all participants

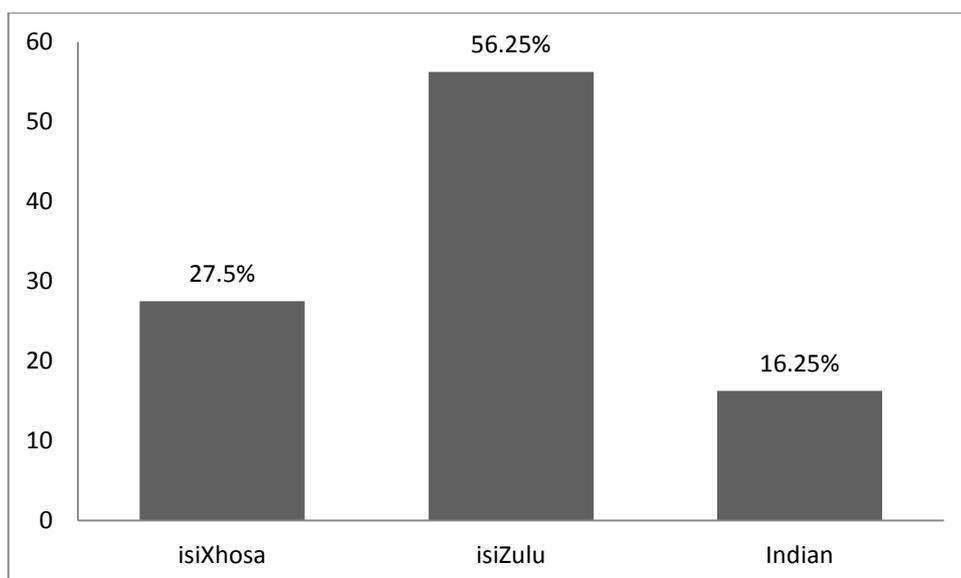
who indicated that they belonged to another religion 100% (n=2) had a male involvement index score higher than 70%. This showed that while other religions also played a significant role, Christian partners had a higher likelihood of being involved with PMTCT (86.79%) as compared to Muslim partners (68.75%). Fisher's Exact test revealed result was statistically significant with value =6.922, df =0 and p-value = 0.049.

**Table 4.6: Religion and male partner involvement in PMTCT (n=90)**

What religion do you belong to?	Male partner involvement index		Total
	Score <70	Score >=70	
<b>Christian</b>	7 (13.21%)	54 (86.79%)	61 (100.00%)
<b>Muslim</b>	5 (31.25%)	10 (68.75%)	15 (100.00%)
<b>None</b>	5 (41.67%)	7 (58.33%)	12 (100.00%)
<b>Other religion</b>	0 (0.00%)	2 (100.00%)	2 (100.00%)
<b>Total</b>	17 (20.24%)	73 (79.76%)	90 (100.00%)

#### 4.3.5. Ethnic group (n=90)

In regards to ethnic group, an analysis of the findings shows that most participants in the study belonged to the isiZulu tribe 56.25% (n=50) with the isiXhosa tribe forming the second largest group 27.5% (n=25) and Indians the smallest group with 16.25% (n=15), as presented in figure 4.3.



**Figure 4.3: Ethnic group of participants (n=90)**

#### **4.4. SECTION 2 – MALE PARTNERS’ LEVELS OF KNOWLEDGE REGARDING PMTCT**

Section 2 of the questionnaire consisted of 10 questions/statements that had been formulated to assess male partners’ knowledge of how HIV can be transmitted from mother to child during pregnancy, birth and feeding practices and their knowledge of the PMTCT programme and how it operates. Participants were requested to respond by answering yes, no or I don’t know.

Out of the 90 respondents, a large percentage 73.75% (n=66) were aware that a mother who is HIV positive can transmit the AIDS virus to her child during pregnancy, compared to 16.25% (n=15) who responded that mother-to-child transmission (MTCT) is not possible during pregnancy. A small percentage 10% (n=9) responded that they did not know whether MTCT can occur during pregnancy

Of the participants, 60% (n=54) responded that it is possible for a mother to transmit the AIDS virus to her child during breast feeding, 30% (n=27) responded that it is not possible

for the AIDS virus to be transmitted during breastfeeding and 10% (n=9) responded that they did not know whether or not transmission can occur during breastfeeding

Based on the findings, 58.75% (n=53) were aware that MTCT can occur during delivery with 26.25% indicating that it is not possible for MTCT to occur during delivery. Only 15% (n=13) were unsure whether MTCT can occur during delivery.

The majority 70% (n=63) of the men were aware that ARV drugs can reduce the chances of HIV transmission from mother to child. Only 7.5% (n=7) responded that ARV drugs do not reduce chances of MTCT, while 22.5% (n=20) did not know whether the drugs reduce transmission or not.

Interestingly, only 25% (n=23) of the participants answered “yes” to the possibility of a caesarean section reducing MTCT. A larger percentage of 52.5% (n=47) participants responded that they “did not know” whether a C-section reduces MTCT and 22.5% (n=20) selected the “no” option.

Of the respondents, 51.9% (n=47) believed that avoiding breastfeeding can reduce MTCT, unlike 18.99% (n=17) who believed that it cannot reduce MTCT and 29.11% (n=26) who were not sure.

The majority of respondents 70% (n=63) had heard of the PMTCT programme, while 27.5% (n=25) indicated that they had not heard of the programme.

Despite the results indicating that 70% of the men had heard about the PMTCT programme, as discussed in the previous paragraph, only 42.5% (n=38) were aware that it was offered at the clinic. The majority 55% (n=50) indicated that they did not know whether it was offered at the clinic and small portion 2.5% (n=2) indicated that it was not offered at the clinic.

Most of the respondents 70.89% (n=64) were aware that pregnant women were counselled and tested for HIV, while 29.11% (n=26) indicated that they did not know whether the women were counselled and tested for HIV.

According to the findings, 65.82% (n=59) of the respondents were aware that their partner had been tested for HIV during her last pregnancy, 13.92% (n=13) responded that the partner had not been tested and 20.25% (n=18) did not know if their partner had been tested or not during the last pregnancy.

#### 4.4.1. Overall score of knowledge (n=90)

An overall score of each participant's knowledge was calculated based on the total number of correct answers to the 10 items on *knowledge* discussed above. The higher the score meant the more knowledgeable the respondent was about PMTCT (refer to Chapter 3). An analysis of the results shows the minimum score that could be obtained was 0 and the maximum score was 10. The mean was 5.79, median 6 and the standard deviation (SD) was 2.73. The distribution in the level of knowledge as presented in table 4.7 shows that the majority of participants, 46% (n=41) had *medium knowledge* of PMTCT.

**Table 4.7: Categories of the level of knowledge of PMTCT (n=90)**

		n	%
<b>No knowledge</b>	0 correct answers	1	1.00
<b>Low Knowledge</b>	1-3 correct answers	18	20.00
<b>Medium knowledge</b>	4-7 correct answers	41	46.00
<b>High knowledge</b>	8-10 correct answers	30	33.00
<b>Total</b>		<b>90</b>	<b>100.00</b>

#### 4.4.2. Effects of knowledge on male involvement (n=90)

A cross tabulation of participants' levels of knowledge and male involvement was also conducted to assess the influence knowledge has on male involvement. The results in table

4.8 show that the majority of participants who scored more than 70% on the knowledge index also have a greater male involvement index score (80.23%). Of the 55 respondents who had a knowledge index score of less than 70%, 27.45% (n=14) had a score of less than 70% on the male partner involvement index. As for the 35 respondents who had a score greater than 70% on the knowledge index, 91.43% (n=32) also had a score greater than 70% on the male involvement index. A Fisher's Exact test showed a significance result with value = 0, df = 0, and p-value =0.078.

**Table 4.8: Effects of Knowledge on Male Involvement (n=90)**

Knowledge	Male partner Involvement Index		Total
	Score < 70	Score >=70	
Score < 70%	14 (27.45%)	41 (72.55%)	55 (100.00%)
Score > = 70%	3 (8.57%)	32 (91.43%)	35 (100.00%)
<b>Total</b>	17 (19.77%)	73 (80.23%)	90 (100.00%)

#### 4.5. SECTION 3 – SOCIO-CULTURAL FACTORS INFLUENCING MALE INVOLVEMENT IN PMTCT (n=90)

The socio-cultural factors items in Section 3 were grouped on a Likert scale with 5 options ranging from “strongly agree”, “agree”, “undecided”, “disagree”, and “strongly disagree”. To facilitate analysis due to the low response in the “strongly” options, the terms “strongly agree” and “agree” were grouped together while “disagree” and “strongly disagree” were also grouped together. The opinions of the respondents have been presented in table 4.9 as follows:

**Table 4.9: Items on socio-cultural factors (n=90)**

Statement	Agree		Undecided		Disagree	
	n	%	n	%	N	%
A pregnant woman can be tested for HIV without the permission of her husband/partner	52	57.5	1	1.25	32	41.25
Men should accompany their pregnant wives/partners	54	60	3	3.75	32	36.25

to ANC/PMTCT clinics						
Men who accompany their female partners to ANC/PMTCT clinics are weak or bewitched.	12	12.5	8	8.75	71	78.75
It is taboo for men to discuss with women about HIV testing during pregnancy	18	20	7	7.5	65	72.5
Men and women should undergo HIV testing at the same time at PMTCT clinics	51	56.25	3	3.75	32	40
Couples can use condoms to reduce chances of mother to child transmission of HIV	68	74.68	10	11.39	12	13.93
ANC/PMTCT clinics are for women and children only	48	52.5	16	17.5	27	30
A positive HIV test in a pregnant woman shows that she has been unfaithful to her husband.	15	16.45	17	18.99	58	64.56
If a pregnant woman is found to be HIV positive, she should be divorced	13	13.25	11	12.5	66	73.75
PMTCT information should be given first to men then to women	18	20	9	10	64	70

The results show that the majority of men 57.5% (n=52) believe that women can be tested for HIV without their partners' consent unlike 41.25% (n=32) who feel that women should first seek permission before getting tested. Only 1.25% (n=1) of the respondents were undecided.

Also noted in the results was that 60% (n=54) of the men agreed that pregnant women need to be accompanied to the ANC/PMTCT clinic by the male partners while 36.25% (n=32) disagreed. A small percentage of 3.75% (n=3) were unsure.

In regards to the perception that men who accompany their partners to ANC/PMTCT are viewed as weak, surprisingly, a large percentage 78.75% (n=71) disagreed with this notion. Only 12.5% (n=12) agreed with this statement while 8.75% (n=8) were undecided. Similarly the majority of participants 72.5% (n=65) disagreed with the belief that it is taboo for men to discuss HIV testing with their partners during pregnancy while 20% (n=18) agreed with this statement. A few respondents 7.5% (n=7) were undecided.

The results also show that 56.25% (n=51) of the participants agreed that men and women should undergo HIV testing at the clinic at the same time, whilst 40% (n=32) disagreed and only 3.75% (n=3) were unsure. In terms of couples using condoms to reduce chances of MTCT, 74.68% (n=68) agreed with only 13.93% (n=12) disagreeing and 11.39% (n=10) undecided.

In relation to men viewing ANC/PMTCT clinics as a services for women and children only, a large percentage of respondents 52.5% (n=48) agreed, while 30% (n=27) disagreed and 17.5% (n=16) remained undecided.

The findings also show that most respondents 64.56% (n=58) disagreed with the belief that an HIV positive test in a pregnant woman is a sign of her unfaithfulness. Only a few respondents 16.45% (n=15) agreed with this statement, while 18.99% (n=17) were undecided. Therefore, it is not surprising that 73.75% (n=66) of the respondents disagreed that an HIV positive test in a pregnant woman was grounds for divorce. The results show that only 13.75% (n=13) agreed with this opinion and the remainder of the participants 12.5% (n=11) had no opinion on this issue.

Lastly, in regards to PMTCT information being given to men first, 70% (n=64) of the participants disagreed with this concept, while 20% (n=18) agreed and 10% (n=9) were undecided.

#### **4.5.1 Overall score of socio-cultural factors (n=90)**

Each respondent was measured with a possible maximum total of 50 on a Likert scale in order to attain a composite measure of the level of influence socio-cultural factors have on male involvement in PMTCT. The higher the score, the higher the level of influence socio-cultural factors have on male involvement. The results yielded a minimum score of 21 with a

maximum of 42. The mean of the respondents score was 31.5, the median 32 with an SD of 4.4. The distribution in the level of influence of socio-cultural factors, as presented in table 4.10, shows that the majority of respondents 71% (n=64) were in the high level of socio-cultural influence category.

**Table 4.10: Distribution in level of influence of socio-cultural factors (n=90)**

	Score	n	%
Low level	0 -19	0	0.00
Moderate level	20-29	19	21.00
High level	30-39	64	71.00
Very high level	40-50	7	8.00
<b>Total</b>		90	100.00

#### 4.5.2 Effects of Socio-cultural factors on male involvement (n=90)

In order to assess the influence socio-cultural factors have on male involvement, a cross tabulation between the two variables was also conducted. The results presented in table 4.11 illustrate that participants who scored higher than 70% on the socio-cultural index also had higher scores on the male partner involvement index (79.76%). Of the 40 respondents who had a score of less than 70% on the socio-cultural index, 35% (n=14) had a male partner involvement index score of less than 70%. On the other hand, the 50 respondents whose score on the socio-cultural index was greater than 70%, 93.18% (n=47) scored more than 70% on the male partner involvement index. These results therefore indicate that that 93.18% (n=47) of respondents who had a higher social-cultural score were highly involved in the PMTCT programme. A Fisher's Exact test however indicates the result is statistically non-significant with value =0, df = 0, and p-value = 0.682.

**Table 4.11: Socio-cultural influence on male involvement (n=90)**

Socio- cultural index	Male partner involvement index		Total
	Score < 70	Score >= 70	
Score <70%	14 (35.00%)	26 (65.00%)	40(100.00%)
Score >= 70%	3 (6.82%)	47(93.18%)	50(100.00%)
<b>Total</b>	17 (20.24%)	73(79.76%)	90(100.00%)

#### 4.6. SECTION 4 –PROGRAMMATIC FACTORS INFLUENCING MALE INVOLVEMENT IN PMTCT (n=90)

The programmatic factors items were also presented on a Likert scale with 5 options ranging between “strongly agree”, “agree”, “undecided”, “disagree”, and “strongly disagree”. For the purpose of analysis the terms “strongly agree” and “agree” have been combined as well as “disagree” and “strongly disagree” due to the low response rate in the “strongly” option. The opinions of the respondents have been presented in the table below

**Table 4.12: Items on programmatic factors (n=90)**

Statement	Agree		Undecided		Disagree	
	n	%	n	%	N	%
Men should have “male only PMTCT clinics”	22	27.5	2	2.5	56	70
At the MCH/PMTCT clinics men should be attended to by male health workers only	22	27.5	5	6.25	53	66.25
Health workers do not like to see men at MCH and PMTCT clinics	9	11.25	7	8.75	64	80
MCH/PMTCT clinics are made for women and children only	39	48.75	12	2.5	39	48.75
PMTCT/MCH clinics should also be opened during weekends and evening so that men can access also	34	42.5	13	16.25	33	41.25
Staff at the MCH/PMTCT do not keep any secret about HIV results of men and women	13	16.25	11	13.75	56	70
PMTCT programmes have done very little to involve men	42	46.25	23	28.75	15	18.75
You can attend PMTCT clinic if invited by health worker to come	53	66.25	8	10	19	23.75
PMTCT clinics are conducted very far from your home	27	33.75	10	12.5	43	53.75

and transport is expensive						
You can do HIV test with your wife, only if you are promised to be given ARVs thereafter.	27	33.75	8	10	45	56.25

Based on the findings regarding the opinion that there should be male only PMTCT clinics for men, the results showed that 70% (n=56) of the participants disagreed with this statement, 27.5% (n=22) supported this idea and only 2.5% (n=2) were undecided. Results also showed that 66.25% (n=53) did not agree with the statement that men should only be attended to by male health workers at MCH/PMTCT clinics, while 27.5% (n=22) were in favour of this opinion.

The results also show that the majority of respondents 80% (n=64) disagreed with the statement that health workers do not like to see men at MCH and PMTCT clinics, while 11.25% (n=9) agreed with this statement. A small portion of respondents 8.75% (n=7) were undecided in this case.

When it comes to the belief that MCH/PMTCT clinics were for women and children only, 48.75% (n=39) of the participants concurred with this notion, unlike 51.25% (n=51) who indicated differently. Of these 51.25%, 48.75% (n=39) did not agree that MCH/PMTCT clinics are for women and children only, while 2.5% (n=12) remained undecided.

Also noted in the findings was that there was a marginal difference between the respondents who were of the opinion that PMTCT/MCH clinics should be open on weekends and in the evenings and those who were not for the idea. The results show that 42.5% (n=34) of the participants agreed with the statement, while 41.25% (33) did not agree. The remaining 16.25% (n=13) were undecided.

In regards to the statement that staff at MCH/PMTCT do not keep HIV results of men and women secret, 70% (n=56) disagreed, 13.75% (n=11) were unsure and 16.25% (n=13) agreed with this statement.

In terms of PMTCT programme having done very little to involve men, almost half of the respondents 46.25% (n=42) agreed with this statement, 18.75% (n=15) disagreed and 28.75% remained undecided. Encouragingly, 66.25% (n=53), which was the majority of the respondents, agreed that they would attend PMTCT clinic if invited by a health worker.

Quite a number of respondents 53.73% (n=43) disagreed with the statement that PMTCT clinics were conducted far from their home and that transport was expensive, 33.75% (n=27) agreed, while 12.5 % (n=10) were undecided.

As for respondents getting an HIV test with their wife only if promised ARVs thereafter, 56.25% (n=45) disagreed, 33.75% (n=8) agreed and 10% (n=8) were unsure.

#### **4.6.1. Overall score of programmatic factors (n=90)**

The composite measure of the level of programmatic factors' influence of each participant was measured using a 10 item Likert scale. The higher the score meant the higher the level of programmatic influence. Results showed a minimum score of 17 with a maximum score of 46. The mean score was 31, median 33 with an SD of 6.9. According to the grouped levels of programmatic influence, as discussed in Chapter 3, table 4.13 below is a representation of the distribution of scores based on the findings. The results therefore show that the majority of respondents 56% (n=50) were in the *high level* category.

**Table 4.13: Level of programmatic influence (n=90)**

	Score	n	%
Low level	0 -19	0	0.00
Moderate level	20-29	28	31.00
High level	30-39	50	56.00
Very high level	40-50	12	13.00
<b>Total</b>		<b>90</b>	<b>100.00</b>

#### 4.6.2. Effects of programmatic factors on male involvement

To gain an understanding of the influence programmatic factors have on male involvement a cross tabulation of the two variables was also done. Based on the results presented in table 4.14, of the 57 respondents who had a programmatic index score of less than 70%, 28.30% (n=15) had a score less than 70% on the male partner involvement index. As for the 33 participants who scored more than 70% on the programmatic factor index, 93.94% (n=31) also had a score greater than 70% on the male partner involvement index. According to the Fisher's Exact test the result is statistically significant with value= 0, df= 0, p-value = 0.012.

**Table 4.14: Programmatic factors influence on male involvement (n=90)**

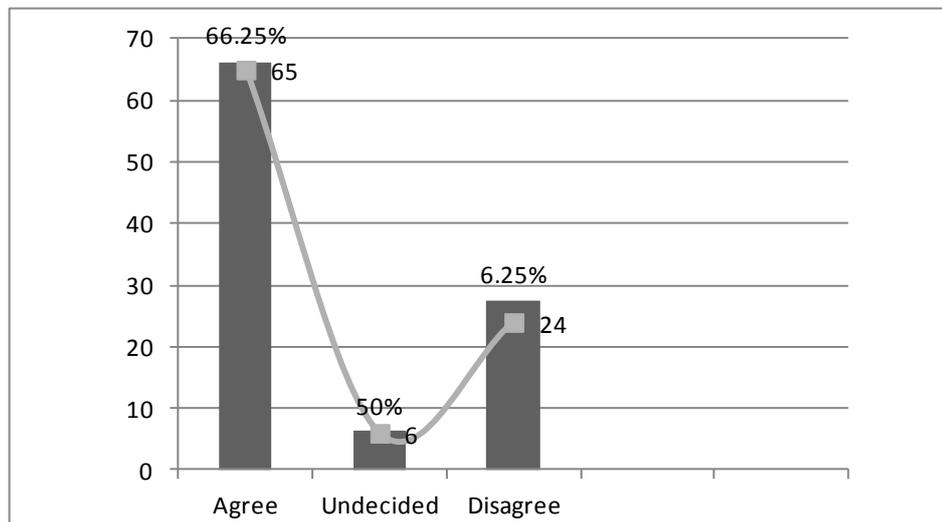
Programmatic index	Male partner involvement index		Total
	Score < 70	Score >= 70	
Score <70%	15(28.30%)	42(71.70%)	57(100.00%)
Score >= 70%	2(6.06%)	31(93.94%)	33(100.00%)
<b>Total</b>	17(19.77%)	73(80.23%)	90(100.00%)

#### 4.7. SECTION 5 – MALE INVOLVEMENT IN PMTCT

Section 5 of the questionnaire contained 11 statements to do with male involvement in their partners' ANC and PMTCT procedures, interventions and treatment and their attitudes towards healthy sexual behaviour during pregnancy. Participants were requested to indicate whether they agreed, strongly agreed, disagreed, strongly disagreed with the statement or

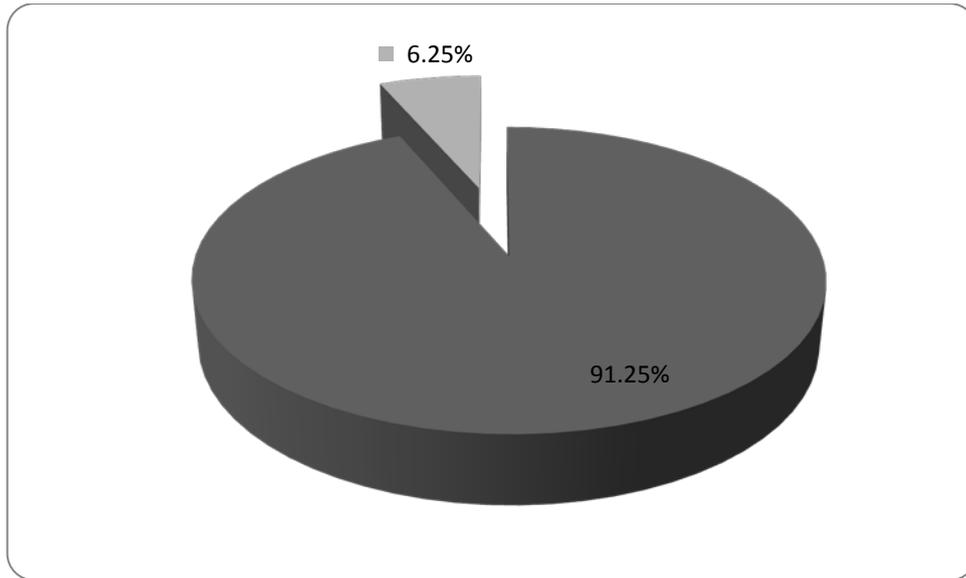
whether they were undecided in the matter. As with the other sections, agree and strongly agree, and disagree and strongly disagree were combined to facilitate analysis.

Figure 4.4 demonstrates that a large percentage of respondents in the study 66.25% (n=65) were of the opinion that male partners should attend PMTCT visits and appointments with their partners, unlike 27.5% (n=24) who indicated that they need not to. Only 6.25% (n=6) were undecided.



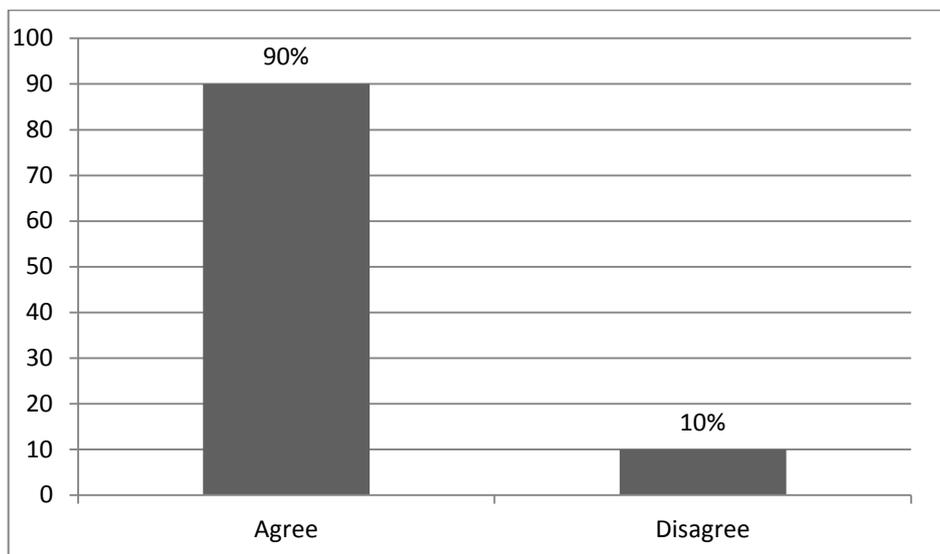
**Figure 4.4: Attending PMTCT visits and appointments with partner (n=90)**

The pie chart below shows that 91.25% (n=82) of respondents feel that males should know about their partners' PMTCT and antenatal appointments, while only a few 6.25% (n=8) disagreed with this statement.



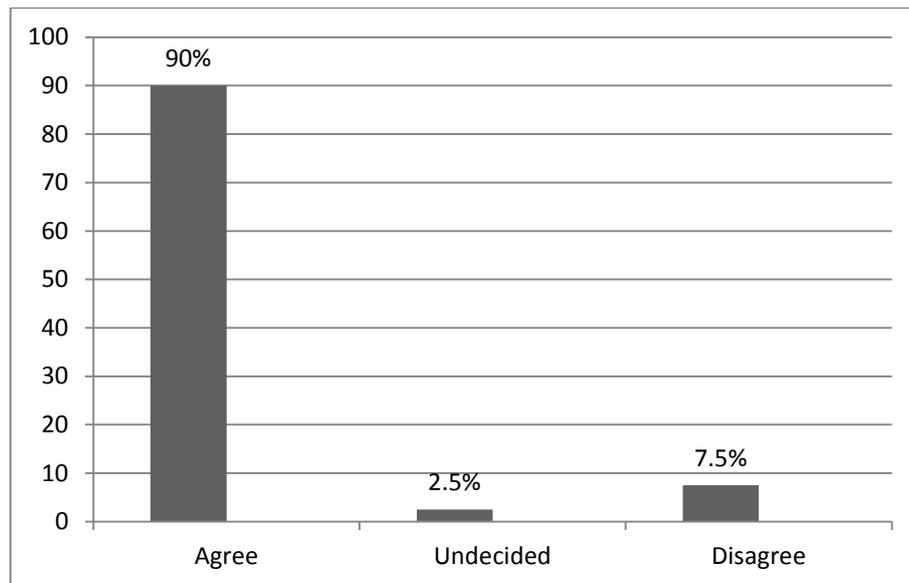
**Figure 4.5: Being awareness of partners' PMTCT appointments (n=90)**

As illustrated in Figure 4.6, the majority of respondents 90% (n=81) agreed with the statement that men should discuss ANC and PMTCT procedures, interventions and treatment with their partner, compared to only 10% (n=9) who disagreed.



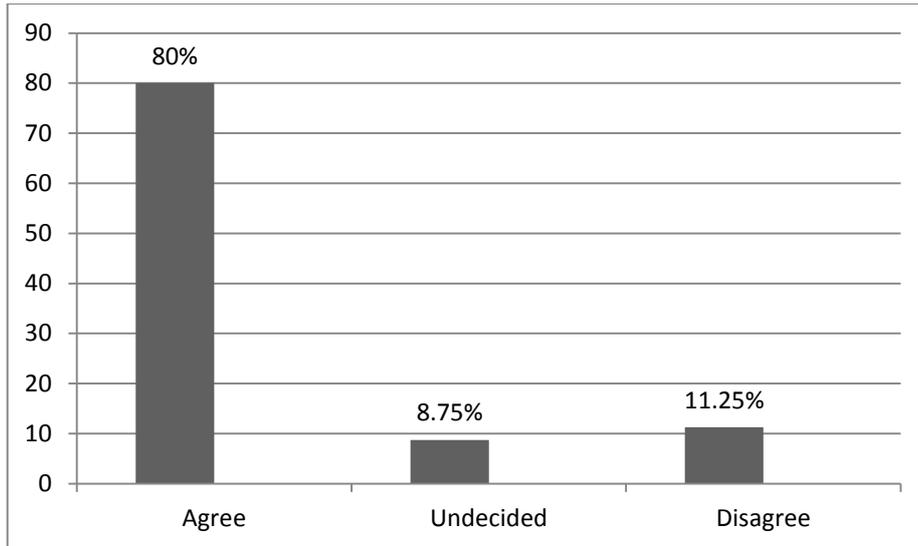
**Figure 4.6: Discussing ANC and PMTCT procedures, interventions and treatment with partners (n=90)**

The results showed that the majority of participants 90% (n=81) feel that men should financially support their partners' antenatal and PMTCT visits, while only a small percentage 7.5% (n=7) disagreed with this statement.



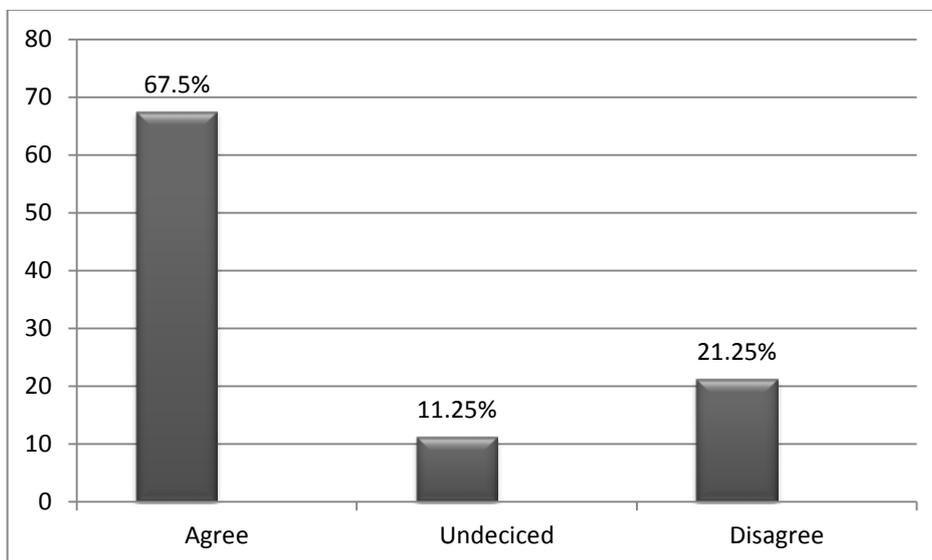
**Figure 4.7: Financially supporting partners' ANC and PMTCT visits (n=90)**

The results indicated that most of the respondents 80% (n=72) are in favour of taking time to find out about ANC and PMTCT treatment regimes with only 20% who felt differently. As illustrated in figure 4.8 below, of these 20%, 11.25% (n=10) disagreed with this statement, while 8.75% (n=8) were undecided.



**Figure 4.8: Learn about ANC and PMTCT treatment regime (n=90)**

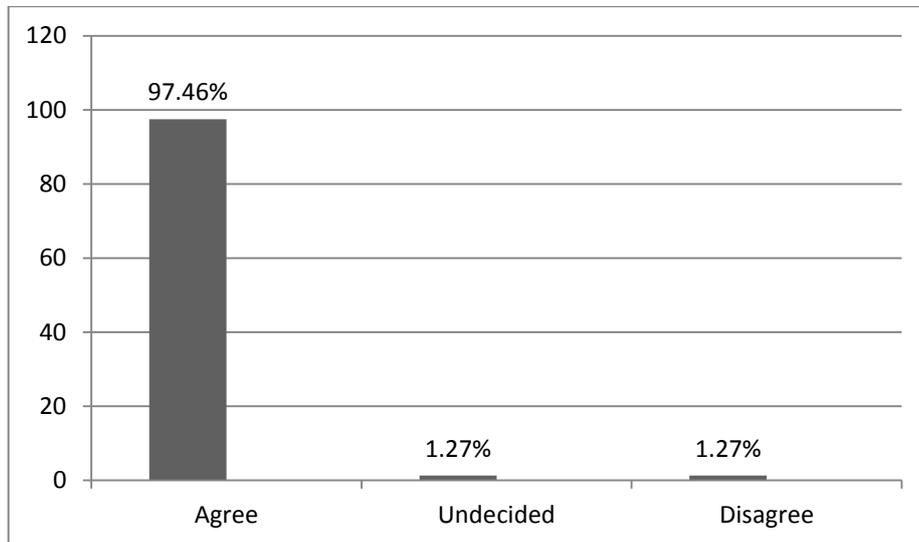
As demonstrated in figure 4.9 below, 67.5% (n=61) of the participants agreed that males should be proactive in using a condom during their partners' current pregnancy, unlike 21.25% (n=19) who disagreed with this statement. The other 11.25% (n=10) indicated that they were undecided.



**Figure 4.9: Using a condom during partner's current pregnancy (n=90)**

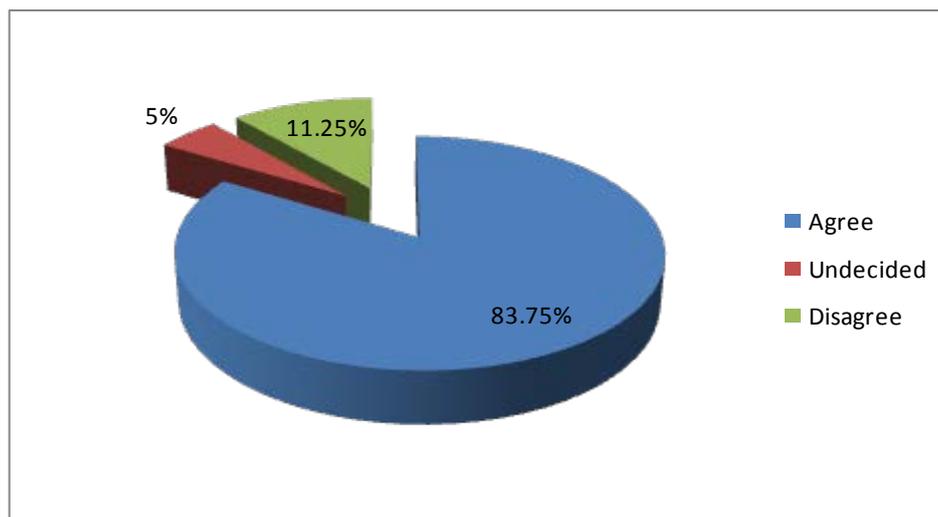
An astounding 97.46% (n=88) of the participants agreed that men should be involved in promoting HIV prevention within their family and relationship by being faithful to their

partners, with only 2.54% (n=2) of the participants choosing differently, as shown in figure 4.10 below.



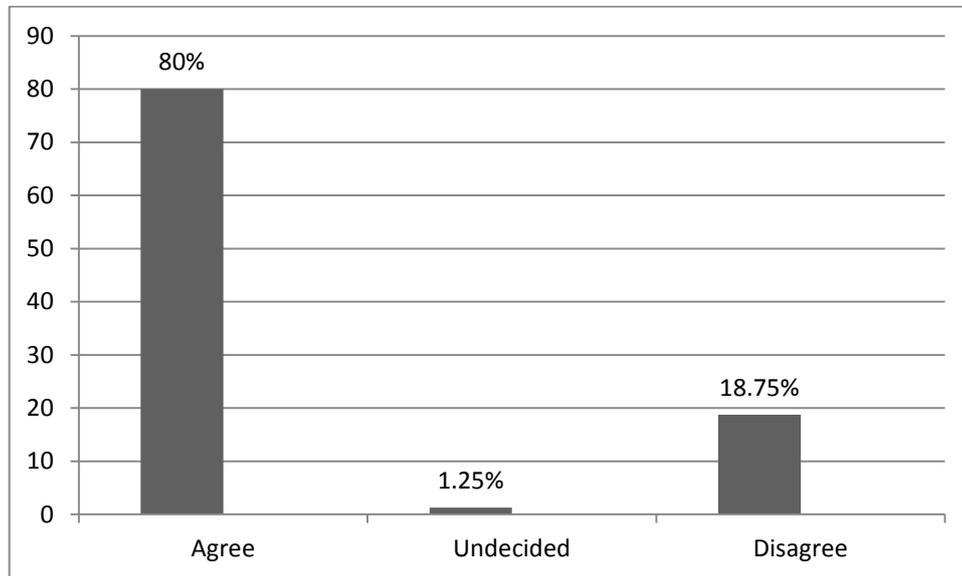
**Figure 4.10: Promoting HIV prevention by remaining faithful to partner (n=90)**

As illustrated in the pie chart below, 83.75% (n=75) of the participants agreed that they should be communicating with their partner about all aspects of her current pregnancy, including PMTCT treatment. Only 11.25% (n=10) disagreed and the remaining 5% (n=5) were undecided.



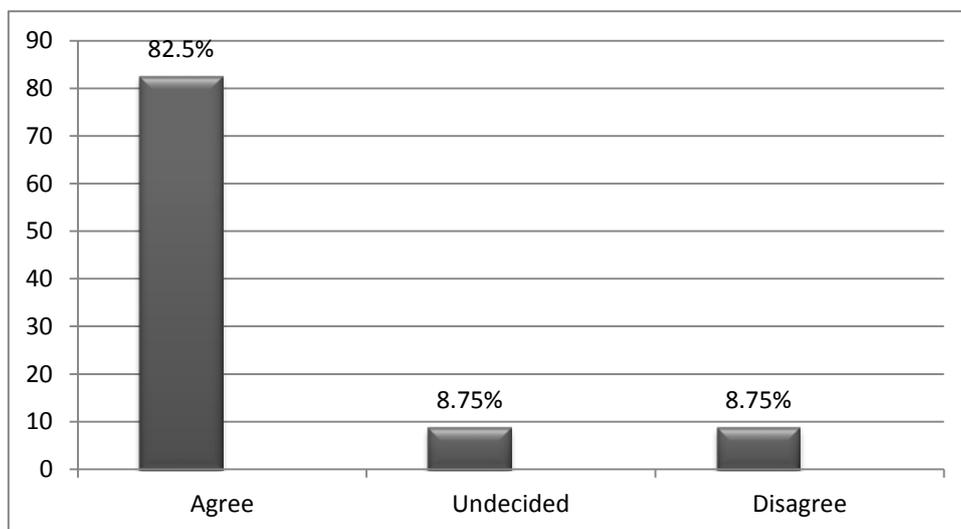
**Figure 4.11: Communicating with female partner about all aspects of current pregnancy, including PMTCT (n=90)**

The findings showed that 80% (n=72) of the respondents agreed that males should accompany their partners for HCT, while 18.75% (n=17) disagreed with this statement. Only one participant 1.25% (n=1) felt undecided. These results are shown in figure 4.12 below.



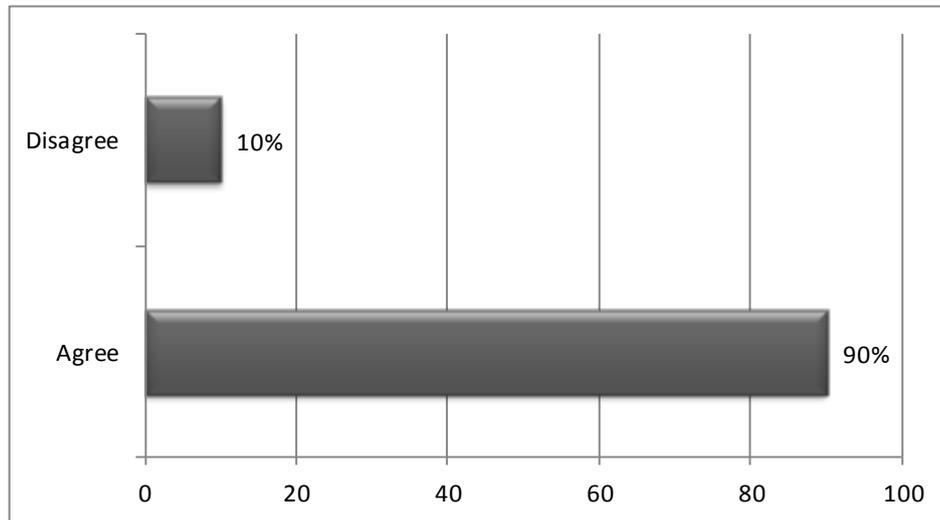
**Figure 4.12: Attending HCT with partner (n=90)**

According to the results and as shown in figure 4.13 below, the majority of respondents (82.5%, n=74) agreed that male partners should be active in decision making regarding their partners' PMTCT, 8.75% (n=8) disagreed, while the other 8.75% (n=8) remained unsure,



**Figure 4.13: Involved in decision making regarding partners PMTCT (n=90)**

Of the respondents, 90% (n=81) believed that male partners should be involved with their partner in maintaining a healthy lifestyle after HIV diagnosis, unlike only 10% (n=9) who disagreed with this concept.



**Figure 4.14: Striving together with partner to maintain a healthy lifestyle after HIV diagnosis (n=90)**

#### **4.7.1. Overall score for male involvement (n=90)**

A composite measure of the level of male involvement for each respondent was calculated based on an 11 item Likert scale with a possible maximum score of 55. The lower the score meant the higher the involvement in PMTCT. The results yielded a minimum score of 13 and a maximum of 46. The mean was 22.79, median 22 with an SD of 7.47. Table 4.15 below shows a distribution of the scores based on grouped categories of male involvement. The results thus indicate that a large number of respondents 49% (n=44) had a *high level of involvement* score.

**Table 4.15: Levels of male involvement (n=90)**

	<b>Score</b>	<b>N</b>	<b>%</b>
<b>Very high level of involvement</b>	0 -19	31	34.40
<b>High level of involvement</b>	20-29	44	49.00
<b>Moderate level of involvement</b>	30-39	9	10.00
<b>Low level of involvement</b>	40-55	6	6.60
<b>Total</b>		<b>90</b>	<b>100.00</b>

#### **4.8. INTERRELATIONSHIPS BETWEEN DEMOGRAPHICS, KNOWLEDGE, SOCIO-CULTURAL AND PROGRAMMATIC FACTORS AND MALE INVOLVEMENT IN PMTCT (n=90)**

Nonparametric tests were conducted to establish the interrelationship between demographic factors, knowledge, socio-cultural factors, programmatic factors and male involvement in PMTCT, and the findings have been discussed in the following paragraphs.

##### **4.8.1. Demographic factors (n=90)**

The Kruskal Wallis test was conducted in order to see whether there was any correlation between demographic factors (age, education, length of relationship, religion and ethnic group) and knowledge, socio-cultural factors, programmatic factors and male involvement. The results revealed that there was no significant relationship between age and knowledge (p-value = 0.350), age and socio-cultural factors (p-value = 0.782), age and programmatic factors (p-value = 0.248), and age and male involvement (p-value = 0.471). In regards to education, however, the findings indicated that there was a significant correlation between education and knowledge (p-value = 0.005), education and programmatic factors (p-value = 0.022), and education and male involvement (p-value = 0.008). The test showed no association between education and socio-cultural factors (p-value = 0.416).

The test further showed no correlation between length of relationship and knowledge (p-value = 0.780), length of relationship and socio-cultural factors (p-value = 0.256), length of

relationship and programmatic factors (p-value = 0.139), and length of relationship and male involvement (p-value = 0.133).

Findings regarding religion, however, revealed that there is an association between religion and knowledge (p-value = 0.006), religion and programmatic factors (p-value = 0.017), and religion and male involvement (p-value = 0.000). There was no association between religion and socio-cultural factors (p-value = 0.128).

Lastly, results also showed no relationship between ethnic groups and knowledge (p-value = 0.511), ethnic groups and socio-cultural factors (p-value= 0.631), ethnic groups and programmatic factors (p-value= 0.541) and tribe and male involvement (p-value= 0.119)

#### **4.8.2. Knowledge, socio-cultural factors, programmatic factors and male involvement (n=90)**

Spearman’s test was conducted to test whether there was a relationship between knowledge, socio-cultural, programmatic factors and male involvement. The results presented in table 4.16 below indicate that there is no linear correlation between knowledge and male involvement (p-value = -0.372), socio-cultural factors and male involvement (p-value = -0.063) and programmatic factors and male involvement (p-value = -0.445).

**Table 4.16: Correlation results for knowledge, socio-cultural, programmatic factors and male involvement**

			Knowledge	Socio-cultural	Programmatic	Male involvement
Spearman's rho test	Knowledge	Correlation Coefficient	1.000	.086	.243	-.372**
		Sig. (2-tailed)	.	.427	.024	.000
		N	90	90	90	90
	Socio-cultural	Correlation Coefficient	.086	1.000	.321**	-.063
		Sig. (2-tailed)	.427	.	.002	.561
		N	90	90	90	90
	Programmatic	Correlation Coefficient	.243*	.321**	1.000	-.445**
		Sig. (2-tailed)	.024	.002	.	.000
		N	90	90	90	90

Male involvement	<b>Correlation Coefficient</b>	<b>-.372**</b>	<b>-.063</b>	<b>-.445**</b>	<b>1.000</b>
	<b>Sig. (2-tailed)</b>	<b>.000</b>	<b>.561</b>	<b>.000</b>	<b>.</b>
	<b>N</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>
<i>*. Correlation is significant at the 0.05 level (2-tailed).</i>					
<i>** Correlation is significant at the 0.01 level (2-tailed).</i>					

#### 4.9. SUMMARY OF THE CHAPTER

The chapter presented an in depth discussion of the analysis and the interpretation of the data. The analysis was based on 90 respondents. In regards to demographic factors, the results show that the majority of respondents were middle aged and that there was a significant relationship between the younger male participants and male involvement in PMTCT services. Also noted in the findings was that there was a significant correlation between higher education levels and male involvement as well as the length of the relationship and male involvement; in that those who had been in a relationship for a shorter period of time were more involved in the services unlike those who had been with their partners for a longer period of time. An analysis of the influence of knowledge on the other hand revealed that the majority of respondents had an average level of knowledge regarding PMTCT services and that their involvement in programme was highly influenced by the level of knowledge they had about PMTCT. The findings also show that the majority of respondents were highly influenced by socio-cultural and programmatic factors.

## **CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS**

### **5.1. INTRODUCTION**

As established earlier on in Chapters one and two of this study, male partner involvement in PMTCT services has been regarded throughout the literature as an important strategy in improving the uptake and health outcomes of pregnant women in PMTCT services. Yet despite the importance of having male partners involved in reproductive health services such as PMTCT, numerous studies have shown that their involvement remains low. The overall aim of this study, therefore, was to explore and describe male partner involvement in PMTCT services in a selected primary health care facility in KwaZulu-Natal. This chapter thus entails a discussion of the key findings of this study, as presented in Chapter four, coupled with empirical evidence which will be aligned with the study objectives. It will also discuss the limitations of the study and put forward some recommendations based on the findings.

### **5.2. THE FINDINGS**

The research findings will be discussed according to the objectives of the study, which were to explore and describe:

- Demographic factors that influence male partner involvement in PMTCT
- Level of knowledge male partners have on PMTCT
- Socio-cultural factors affecting male partner involvement in PMTCT
- Programmatic factors influence on male partner involvement in PMTCT
- Interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors on male partner involvement in PMTCT

### **5.2.1. Influence of demographic factors**

The findings as previously presented show that variables such as age and education highly influence male partner involvement in PMTCT services.

#### ***The influence of age***

According to the results, the majority of respondents in this study were middle aged. The findings also show that the younger male respondents were much more involved in supporting their partners in the ANC and PMTCT services than the older respondents. Similar results can also be seen in studies that were conducted in Kenya and Malawi. Katz et al., (2009) in the Kenya study, found that the majority of men who participated in counselling with their partners were younger and Aarnio et al., (2009), in the Malawian study, reported that the younger generation were more willing to be involved in PMTCT services than the older men. However, in a study conducted in Cameroon by Nkuoh, Meyer and Nkfusai, (2010), the findings were different as these researchers found that the proportion of men accompanying their wives increased with age so in their study, it was the older males who were more involved in the services.

#### ***The influence of education***

The findings presented in Chapter four show that the majority of respondents had secondary school education. The results also showed that there was a strong association between a high level of education and male involvement since the higher the level of education the participant had, the more involved they were in the PMTCT services. Similarly, Byamugisha et al., (2010), in the Ugandan study, found that men who were highly educated were 2 times more likely to get involved in the PMTCT programme than those with less education.

### **5.2.2. Influence of knowledge**

The findings presented in Chapter four show that the majority of the respondents had an average level of knowledge regarding PMTCT. The majority of respondents indicated that they were aware of the PMTCT programme. Findings showed that a large proportion of the participants knew that a mother who is HIV positive can transmit the AIDS virus to her child during pregnancy and most of them knew that ARV drugs can reduce the chances of HIV transmission from mother to child. The findings also showed that most of the respondents believed that avoiding breastfeeding could reduce MTCT. Furthermore, when knowledge and male involvement were cross tabulated, the results showed a strong association between knowledge and male involvement in PMTCT in that the more knowledge a participant had of PMTCT, the higher their involvement. Additionally a Kruskal Wallis test revealed that there was also a significant relationship between education and knowledge and between religion and knowledge. Likewise the studies conducted by Kadomoto, et al., (2011), in the Philippines, also found that the level of knowledge men have on maternal and child health services influenced their willingness to participate in the services. According to Kadomoto et al., (2011), teaching men in the community about the benefits of reproductive health services resulted in improved levels of knowledge, which, in turn, highly influenced the men's involvement in the services. In addition, Theuring et al., (2009) found that men in their study in Tanzania attributed the lack of knowledge and information of PMTCT to their low involvement in the services.

### **5.2.3. Socio-cultural influence**

As previously discussed, the overall composite measure based on the grouped levels of socio-cultural influence showed that the majority of respondents were influenced by socio-cultural factors. Based on the findings, the socio-cultural factor that mainly influenced male

involvement in this study was the perception that the services mainly catered for women and children. For instance, the findings show that most of respondents agreed with the concept that ANC/PMTCT clinics are women and children's services, an opinion which in itself might hinder their participation in the services. When compared to the findings in other studies in the literature, a few studies yielded similar findings to this study in that men viewed ANC/PMTCT clinics as a woman's domain. For example, the findings of a study conducted in Nepal by Mullany (2005) show that male participants attributed their low involvement in services to reasons such as feeling uncomfortable in an environment perceived as feminine. Similarly, Byamugisha et al., (2010), in Uganda, also found that the male partners felt they did not want to be involved in PMTCT services since they felt uncomfortable in the ANC environment. In KwaZulu-Natal, Ndinda et al., (2007) also found that men were unwilling to participate in reproductive health services since they viewed childbearing mainly as the responsibility of women.

The findings of the current study unlike other studies presented in the literature, found that the male participants were more open-minded when it came to some socio-cultural factors that hindered male involvement in other studies. For instance the results in this study show that a large percentage of respondents disagreed with the perception that men who accompany their partners to ANC/PMTCT are viewed as being weak. Byamugisha et al's (2010) findings in Uganda, on the other hand, contradict this study's findings whereby men in their study attributed their low involvement to factors such as fear of being viewed by their male peers as being weak if they accompanied their wives to clinic.

The majority in the current study disagreed that women can be tested for HIV without seeking their partners' consent. This is contrary to findings of various other studies. Tshibumbu (2006), in Zambia, found that most men involved in the study indicated that women should seek permission from their male partners first before testing for HIV.

Likewise, Aarnio et al's (2009) findings in Malawi support Tshibumbu's (2006) results whereby a large percentage of men in their study agreed that their wives need to consult their husbands first before getting tested.

The findings presented in this study also revealed that most respondents disagreed with the belief that an HIV positive test in a pregnant woman is a sign of her unfaithfulness. Tshibumbu (2006) in Zambia found similar results in which the majority of men that participated in the study also felt a positive test in a pregnant woman was not a sign of her infidelity

This study also found that most of the respondents disagreed that an HIV positive test in a pregnant woman was grounds for divorce. Similarly Tshibumbu (2006), in Zambia, found that most men did not think that a pregnant woman who is HIV positive should be divorced based on her HIV status. Aarnio et al., (2009) in Malawi, however, found that men felt that wives not disclosing their status was equal to disrespect in marriage and could form grounds for divorce.

With regards to PMTCT information being given to men first, the results show the majority of the participants disagreed with this concept. Contrary to this study's findings, Tshibumbu (2006) in Zambia found most men felt the PMTCT information should be given to them first and not their female partners. Likewise, Wambui and Alehagen (2009), in their Kenyan study, also found that men felt family planning programmes placed more focus on women than men, despite the fact that men are the head of household. This made them feel belittled and therefore disinclined to participate in the services

#### **5.2.4. Programmatic Influence**

The results portray that the majority of respondents were influenced by programmatic factors. As discussed in the analysis, the majority of the participants were in agreement that very little has been done to involve men in the PMTCT programme. Moreover most of the respondents in the study also agreed that they would attend the PMTCT clinic with their partner if invited by a health worker. This may be in part due to the fact that some studies as presented in the literature have acknowledged that men from various cultures find it unacceptable to receive orders from their partners and would be more open to attending the services if health care workers took the initiative and formally invited them to participate. For example, Falnes et al., (2011) in Tanzania found that men were reluctant to attend PMTCT clinics with their wives because the invitation to attend the programme had come from their partners rather than the health care workers. This is also in accordance with a study conducted in Gauteng by Maja (2007), where it was found that the majority of men who participated in the study indicated that they would become involved in reproductive health services if they were invited to. Additionally Msuya et al., (2008), in Tanzania, also attributed the low levels of male partner involvement to the gaps identified in the services whereby the invitations to accompany their partners came from the pregnant partners and not from the health care providers. Mlay, Lugina and Becker (2008), in Tanzania as well, found that the mode of inviting men to participate in the PMTCT services by using their female partners proved to be a barrier to their involvement.

As for the statement that health workers do not like to see men at MCH and PMTCT clinics, a large number of respondents in this study disagreed with statement. Likewise, Shroff's (2008) results in Vietnam also support these findings whereby the men in that study viewed the health care providers at the antenatal clinics as kind hearted and felt they were supportive

and proved good services. In Uganda, however, Byamugisha et al., (2010) found that the men in their study felt health care workers were rude and rough in handling pregnant women.

In regards to PMTCT/MCH clinics opening weekends and evenings, the findings show a marginal difference between the respondents who were in favour of this and those who were not. A few studies, as presented in the literature, indicated that most men attributed lack of time as one of the reasons why they did not participate in reproductive services. For instance, Shroff (2008) in Vietnam found that most men indicated that they could not take their wives for their pregnancy tests because they had to go to work. Similarly, Reece et al., (2010), in the Kenyan study, also found that although men were very supportive of the antenatal clinic, they found it difficult to accompany their partners because of work commitments and the perception of the long waiting times at the clinic. In their study in Cameroon, Nkuoh, Meyer and Nkfusai (2010) also found that a large percentage of the men felt they could not accompany their partners because of lack of time due to work and the long waiting hours at the clinics. On the other hand, however, Msuya et al., (2008), in Tanzania, found that despite the fact that the antenatal clinics opened weekends to accommodate the male partners who worked during the week, only a few men came with their partners.

#### **5.2.5. Interrelationship between demographic factors, knowledge, socio-cultural factors and programmatic factors on male involvement in PMTCT**

As previously discussed, the findings show variations in regards to the correlation between demographic factors, knowledge, socio-cultural and programmatic factors on male involvement. For instance, the Spearman's test showed that there was no linear correlation between male involvement and knowledge, socio-cultural and programmatic factors. The Kruskal Wallis test of independence, on the other hand, revealed that there was a significant correlation between education and knowledge; education and programmatic factors; and

education and male involvement. It also showed a significant relationship between religion and knowledge; religion and programmatic factors; and religion and male involvement. Such findings thus support the concept presented in the literature whereby various studies discussed insinuate that variables of interest are not independent of each other, but are rather intertwined in their relationship whereby one variable may influence another.

Such is evident in some of the studies that have been discussed, such as that of Nkuoh, Meyer and Nkfusai, (2010) in Cameroon, whereby there was a relationship between one of the demographic factors, namely age, and knowledge. As discussed in their study, younger men were more knowledgeable about PMTCT, unlike older men, and thus were more willing to participate in the services (Nkuoh, Meyer and Nkfusai, 2010). Additionally, a study by Falnes et al, (2011) in Tanzania, shows how socio-cultural and programmatic factors interplay and in the process affect male involvement in the services. According to the study, Falnes et al, (2011) found that men in the Tanzanian culture do not take orders from their female partners. As a result the gap identified in the services whereby health workers didn't take the initiative to formally invite the men to participate in the services proved to be a barrier to their involvement in the programme. A study by Dutki (2010) in Uganda also identified the relationship between the lack of education about PMTCT and its influence on male involvement. As discussed in by Dutki (2010), the lack of knowledge of the services by the men resulted in low levels of their involvement. Thorsen, Sundby, and Martinson (2008) in their Malawian study also found that the lack of knowledge of the importance of PMTCT affected male involvement in the services.

Furthermore the diffusion of innovation theory, which guided this study, also supports the existence of a relationship among the variables since according to the theory, in order for an innovation such as male involvement to be successful, one has to understand the variables

(demographic, knowledge, socio-cultural and programmatic factors) that interact and in turn affect that innovation.

### **5.3. RECOMMENDATIONS**

With reference to the above discussion of the findings and conclusions, the following have been recommended as strategies for improving the level of male involvement in PMTCT;

#### **5.3.1. Clinician**

In order to improve clinical practice I recommend that:

- Reproductive health services such as PMTCT should be made friendlier to men and the health care providers need to ensure that men are involved at every level of the programme.
- Health care providers need to devise effective strategies in inviting male partners to participate in the programme.
- Health care workers need to implement effective outreach programmes in order to attract and target the male partners who are not involved in the services.

#### **5.3.2. Community health nurses**

In order to improve practice within the community I recommend the following:

- Scaling up of PMTCT programme awareness needs to occur throughout the communities with the use of available resources such as media outlets in order to educate and inform men of the importance of their participation in the services.
- Strengthen partnerships within the communities and ensure that they collaborate with communities elders in addressing some of the challenges that impede male involvement in the services.

- Develop dedicated health education programmes targeted for couples in terms of comprehensive involvement of male partners in the PMTCT programme and also in terms of long term Antiretroviral Medication Adherence.

### **5.3.3. Nurse educators**

- Incorporate in the curriculums the need to involve men as partners in improving health outcomes of women and children in reproductive health services.
- Enhance the education of males through secondary school campaigns in terms of education of boys of PMTCT and partner involvement in comprehensive maternal care

### **5.3.4. Researchers**

- Conduct further studies involving men to generate credible and relevant information on the phenomenon at hand.

### **5.3.5. Areas for further study**

- There is a need for further studies that explore factors affecting male involvement in reproductive health services that involves the men in the community who seldom attend clinics and are not involved in reproductive health services.
- Further research needs to be carried out to assess variations in service delivery provided by different clinics that may affect male involvement.
- Additional studies need to be done exploring other factors that influence dropout of women from PMTCT programmes.

#### **5.4. LIMITATIONS OF THE STUDY**

The major limitation to the study was that the sample was derived from male participants who were already present at the clinic which may have produced biased results secondary to the fact that the men are already supportive of their partners. In addition, finding male partners of women who are under PMTCT or had currently completed the programme proved to be a challenge, since only a few male partners accompany their partners to ANC clinics. Therefore, sampling had to include men who were present in the HCT clinic in order to find those who had partners who had been or were still currently participating in the PMTCT programme. Additionally, communicating in the local language with the participants when obtaining the data at the selected primary health centre in the province of KwaZulu-Natal proved to be a challenge.

The researcher also noted that there is a shortfall in extensive literature in this area of study which was a challenge in providing sufficient credible evidence to support the findings of this study.

#### **5.5. SUMMARY OF THE CHAPTER**

Chapter five presented a discussion of the research findings based on the results of the data analysis and interpretation of the results presented in Chapter four against the studies found in the literature. Overall, the findings presented show that certain factors were found to influence male partner involvement.

#### **5.6. CONCLUSION OF THE STUDY**

This study set out to explore and describe factors that influence male partner involvement in PMTCT services in the province of KwaZulu-Natal. The variables to be measured against male involvement were demographic factors, knowledge, socio- cultural and programmatic

factors; including the interrelationship between these variables and male involvement. Therefore a sample of 90 men who were either husbands or sexual partners of pregnant women who were under PMTCT or had completed the programme were selected to participate in the study. Thus results obtained from the analysis of the generated data indicate that there was some association between certain variables of interest and male involvement. According to the diffusion of innovation theory and Cervero conceptual model employed in this study, in order for men to adapt to a practice such as being involved in reproductive health services a variety of factors influencing their uptake have to be considered. The findings obtained from this study have therefore been applied to the theory and model in order to come up with recommendations that would help improve practice. For instance the results show that even though most of the participants indicated that they were aware of the PMTCT programme and seemed to want to do the right thing in supporting their partners, various demographic, socio-cultural and programmatic factors were hindering their participation. Also noted in the findings was that younger men and those with a higher education were more willing to be involved than those who were older or those with a lower level of education. In addition the findings also show that the general perception of ANC/PMTCT as mainly feminine also hindered men's involvement in the services. Additionally, the fact that men felt PMTCT services did little to involve them and that health care workers did not invite men to participate in the services also affected their involvement in the services. Hence with that in mind, if some of the recommendations that have been suggested are followed, it might encourage more male partner involvement which will then help increase the uptake of pregnant women and reduce the dropout rate of those women who have been initiated into the programme. This might, as a result, contribute towards a reduction in mother to child transmission of HIV.

## REFERENCES

- Aarnio, P., Olsson, P., Chimbiri, A., & Kulmala, T. (2009). Male involvement in antenatal HIV counseling and testing: exploring men's perceptions in rural Malawi. *AIDS Care, 21*(12), 1537-1546. doi: 10.1080/09540120902903719
- Abdool Karim, Q., Meyer-Weitz, A., Mboyi, L., Carrara, H., Mahlase, G., Frohlich, J. A., & Abdool Karim, S. S. (2008). The influence of AIDS stigma and discrimination and social cohesion on HIV testing and willingness to disclose HIV in rural KwaZulu-Natal, South Africa. *Global Public Health, 3*(4), 351-365.
- Adeleye, O. A., Aldoory, L., & Parakoyi, D. B. (2011). Using Local Culture and Gender Roles to Improve Male Involvement in Maternal Health in Southern Nigeria. *Journal of Health Communication: International Perspectives, 16*(10), 1122-1135.
- Aluisio, A., Richardson, B. A., Bosire, R., John-Stewart, G., Mbori-Ngacha, D., & Farquhar, C. (2011). Male Antenatal Attendance and HIV Testing Are Associated With Decreased Infant HIV Infection and Increased HIV-Free Survival. *J Acquir Immune Defic Syndr, 56*(1), 76-82.
- Auvinen, J., Suominen, T., & Valimaki, M. (2010). Male participation and prevention of human immunodeficiency virus (HIV) mother-to-child transmission in Africa. *Psychology, Health & Medicine, 15*(3), 288-313.
- AVERT. (2011). Preventing mother-to-child transmission of HIV Retrieved 12 May 2012, 2012, from <http://www.avert.org/motherchild.htm>
- Bajunirwe, F., & Muzoora, M. (2005). Barriers to the implementation of programs for the prevention of mother-to-child transmission of HIV: a cross-sectional survey in rural and urban Uganda. *AIDS Research and Therapy 2*(10).
- Botma, Y., Greef, M., Mulaudzi, F. M., & Wright, S. C. D. (2010). *Research in Health Sciences* (1st ed.). Heinemann Capetown: Pearson Education South Africa (pty) Ltd.
- Burns, N., & Grove, S. K. (2009). *The Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence* (6 ed.): Saunders.
- Bwirire, L. D., Fitzgerald, M., Zachariah, R., Chikafa, V., Massaquoi, M., Moens, M., . . . Schouten, E. J. (2008). Reasons for loss to follow-up among mothers registered in a prevention-of-mother-to-child transmission program in rural Malawi. *The Royal Society of Tropical Medicine and Hygiene, 102*, 1195-1200.
- Byamugisha, R., Tukwine, J. K., Semiyaga, N., & Tylleskar, T. (2010). Determinants of male involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda: a cross-sectional survey. *Reproductive Health, 7*(12), 1-9.
- CDC. (2012). Basic Information about HIV and AIDS Retrieved 22 December 2012, 2012, from <http://www.cdc.gov/hiv/topics/basic/index.htm>
- Chetty T., K. S., Giddy J. Crankshaw T.L., Butler L.M. and Newell M.L. (2012). A retrospective study of Human Immunodeficiency Virus transmission, mortality and loss to follow-up among infants in the first 18 months of life in a prevention of mother-to-child transmission programme in an urban hospital in KwaZulu-Natal, South Africa. *BMC Pediatrics, 12*(146), 1-8.
- Croyle, R. (2005). *Theory at A Glance: Guide for Health Promotion Practice 2nd Edition*. U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES.
- Dahla, V., Mellhammar, L., Bajunirwe, F., & Bjorkman, P. (2008). Acceptance of HIV testing among women attending antenatal care in south-western Uganda: risk factors and reasons for test refusal. *AIDS Care, 20*(6), 746-752.
- DeVellis, R. F. (Ed.). (2003). *Scale development: Theory and applications* (2nd ed.). California: Sage: Thousand Oaks.

- DOH. (2001a). Community Health Centre Retrieved 5 April 2012, 2011, from <http://www.kznhealth.gov.za/catomanor.htm>
- DOH. (2001b). Health District Retrieved 1 June 2012, 2012, from <http://www.kznhealth.gov.za/districts.htm>
- DOH. (2008). *Policy and Guidelines for the Implementation of the PMTCT Programme*. South Africa: Lebone Printers.
- DOH. (2010). ANNUAL REPORT 2010/11. In D. o. Health (Ed.), *Vote 7* (pp. 143). KWAZULU-NATAL: DOH.
- Doherty, T., Chopra, M., Nsiband, D., & Mngoma, D. (2009). Improving the coverage of the PMTCT programme through a participatory quality improvement intervention in South Africa. *BMC Public Health*, *9*, 406. doi: 10.1186/1471-2458-9-406
- Dunkle, K. L., Jewkes, R. K., Brown, H. C., Gray, G. E., McIntyre, J. A., & Harlow, S. D. (2004). Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. *Lancet*, *1*;363(9419), 1415-1421.
- Dutki, M. (2010). Male Involvement In Prevention of Mother-To-Child Transmission of HIV (PMTCT) Program in Kayunga District.
- Falnes, E. F., Moland, K. M., Tylleskar, T., de Paoli, M. M., Msuya, S. E., & Engebretsen, I. M. S. (2011). "It is her responsibility": partner involvement in prevention of mother to child transmission of HIV programmes, northern Tanzania. *Journal of the International AIDS Society*, *14*(21), 1-12.
- Fowler, M. G., Lampe, M. A., Jamieson, D. J., Kourtis, A. P., & Rogers, M. F. (2007). Reducing the risk of mother-to-child human immunodeficiency virus transmission: past successes, current progress and challenges, and future directions. *American Journal of Obstetrics & Gynecology*, S3-S9. doi: 10.1016/j.ajog.2007.06.048
- Friedman, I., Bam, N., & Mthembu, W. (2006). The Impact of Mens Sexuality on Women's and Childrens Health. *South African Health Review*, *151*(9), 151-164.
- Frizelle, K., & Solomon, V. (2009). Strengthening PMTCT through communication: A review of the literature (pp. 49): Center for AIDS Development Research and Evaluation.
- Gillis, A., & Jackson, W. (2001). *Research for Nurses: Methods and Interpretation* (1 ed.): F. A. Davis Company.
- Glanz, K., Rimer, B. K., & Lewis, F. M. (Eds.). (2002). *Health Behavior and Health Education: Theory, Research and Practice* (3 ed.). San Francisco: John Wiley & Sons.
- Harrison, A., O'Sullivan, L. F., Hoffman, S., Dolezal, C., & Morrell, R. (2006). Gender Role and Relationship Norms among Young Adults in South Africa: Measuring the Context of Masculinity and HIV Risk. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, *83*(4). doi: 10.1007/s11524-006-9077-y
- Hoosen, S., & Collins, A. (2004). Sex, sexuality and sickness: Discourses of gender and HIV/AIDS among KwaZulu-Natal women. *South African Journal of Psychology*, *34*(3), 487-505.
- Horwood, C., Haskins, L., Vermaak, K., Phakathi, S., Subbaye, R., & Doherty, T. (2010). Prevention of mother to child transmission of HIV (PMTCT) programme in KwaZulu-Natal, South Africa: an evaluation of PMTCT implementation and integration into routine maternal, child and women's health services. *Tropical Medicine and International Health*, *15*(9), 992-999. doi: 10.1111/j.1365-3156.2010.02576.x
- Horwood, C., Vermaak, K., Butler, L., Haskins, L., Phakati, S., & Rollins, N. (2012). Elimination of paediatric HIV in KwaZulu-Natal, South Africa: large-scale

- assessment of interventions for the prevention of mother-to-child transmission. *Bull World Health Organ*, 90, 168-175. doi: 10.2471/BLT.11.092056
- HRSA. (2012). Primary Care: The Health Centre Programme Retrieved 15 January 2013, 2013, from <http://www.bphc.hrsa.gov/about/>
- Hubbard, W. G., & Sandmann, L. R. (2007). Using Diffusion of Innovation Concepts for Improved Program Evaluation Retrieved 20 May 2012, 2012, from <http://www.joe.org/joe/2007october/a1.php>
- Hussain, A., Moodley, D., Naidoo, S., & Esterhuizen, T. M. (2011). Pregnant women's access to PMTCT and ART services in South Africa and implications for universal antiretroviral treatment. *Plos ONE*, 6(12). doi: 10.1371/journal.pone
- Jones, S. A., Sherman, G. G., & Varga, C. A. (2005). Exploring socio-economic conditions and poor follow-up rates of HIV-exposed infants in Johannesburg, South Africa. *AIDS Care*, 17(4), 466-470.
- Kadomoto, N., Iwasa, H., Takashi, M., Dulnuan, M. M., & Kai, I. (2011). Ifugao males, learning and teaching for the improvement of maternal and child health status in the Philippines: an evaluation of a program. *BMC Public Health*, 11(280), 1-10.
- Kaida, Kipp, Hessel, & Konde-Lule. (2005). Male participation in family planning: results from a qualitative study in Mpigi District, Uganda. *J Biosoc Sci*, 37(3), 269-286.
- Kaliyaperumal, K. (2004). Community Ophthalmology: Guideline for Conducting a Knowledge, Attitude and Practice (KAP) Study. *A ECS Illumination*, IV(1), 7-9.
- Katz, D. A., Kiarie, J. N., John-Stewart, G. C., Richardson, B. A., John, F. N., & Farquhar, C. (2009). Male Perspectives on Incorporating Men into Antenatal HIV Counseling and Testing. *Plos ONE*, 4(11).
- Kebaabetwe, P. M. (2007). Barriers to participation in the prevention of mother-to-child HIV transmission program in Gaborone, Botswana: a qualitative approach. *AIDS Care*, 19(3), 355-360.
- Kekki, P. (2003). *Primary health care and the Millennium Development Goals: issues for discussion*. Paper presented at the The Global Meeting on Future Strategic Directions for Primary Health Care 27-29 October 2003.
- Kunene, B., Beksinska, M., Zondi, S., Mthembu, N., Mullick, S., Ottolenghi, E., . . . Cuthbertson. (2004). MIXED SUCCESS INVOLVING MEN IN MATERNAL CARE WORLDWIDE *Involving men in maternity care: South Africa,* FRONTIERS Final Report (pp. 3). Population Briefs: Population Council.
- Kurewa, E. N., Kandawasvika, G. Q., Mhlanga, F., Munjoma, M., Mapingure, M. P., Chandiwana, P., . . . Stray-Pedersen, B. (2010). Realities and Challenges of a Five Year Follow Up of Mother and Child Pairs on a PMTCT Program in Zimbabwe. *Open AIDS J*, 5, 51-58. doi: 10.2174/1874613601105010051
- KwaZulu-Natal, H. (2010). *Strategic Plan 2010-2014*. KwaZulu-Natal: Department of Health Retrieved from [www.kznhealth.gov.za/stratplan2010-14.pdf](http://www.kznhealth.gov.za/stratplan2010-14.pdf).
- Lifshay, J., Nakayiwa, S., King, R., Reznick, O. G., Katuntu, D., Batamwita, R., . . . Bunnell, R. (2009). Partners at risk: motivations, strategies, and challenges to HIV transmission risk reduction among HIV-infected men and women in Uganda. *AIDS Care*, 21(6), 715-724.
- Maja, T. M. M. (2007). Involvement of males in promoting reproductive health. *Curatonia*, 30(1), 71-76.
- Mason, J. B., Sanders, D., Musgrove, P., Soekirman, & Galloway, R. (2006). *Community Health and Nutrition Programs* (2nd ed.). New York Oxford University Press.
- MEDICAM. (2004). Male Involvement is Key to Reproductive Health 2012(28 May 2012).
- Medley, A., Garcia-Moreno, C., McGill, S., & Maman, S. (2004). Rates, barriers and outcomes of HIV serostatus disclosure among women in developing countries:

- implications for prevention of mother-to-child transmission programmes. *Bull World Health Organ*, 82(4), Rates, barriers and outcomes of HIV serostatus disclosure among women in developing countries: implications for prevention of mother-to-child transmission programmes.
- Mephram, S., Zondi, Z., Mbuyazi, A., Mkhwanazi, N., & Newell, M. L. (2011). Challenges in PMTCT antiretroviral adherence in northern KwaZulu-Natal, South Africa. *AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV*, 23(6), 741-747.
- Mlay, R., & Lugina, H. B., S. (2008). Couple counselling and testing for HIV at antenatal clinics: Views from men, women and counsellors. *AIDS Care*, 20(3), 356-360.
- Msuya, S. E., Mbizvo, E. M., Hussain, A., Uriyo, J., Sam, N. E., & Stray-Pedersen, B. (2008). Low male partner participation in antenatal HIV counselling and testing in northern Tanzania: implications for preventive programs. *AIDS Care*, 20(6), 700-709.
- Mugume, A., Muwa, B., Buzaalirwa, L., Nsabagasani, Kintu, P., Nkwake, A., & Kasaija, J. (2008). Interventions to Mitigate Gender-based Violence: Experiences from Uganda. *UPHOLD*, 1-14.
- Mullany, B. C. (2005). Barriers to and attitudes towards promoting husbands' involvement in maternal health in Katmandu, Nepal. *Social Science & Medicine* 62, 2798–2809.
- Mullick, S., Kunene, B., & Wanjiru, M. (2005). Involving men in maternity care: health service delivery issues. *Gender, Culture and Rights*, 124-135.
- Nassali, M., Nakanjako, D., Kyabayinze, D., Beyeza, J., Okoth, A., & Mutyaba, T. (2009). Access to HIV/AIDS care for mothers and children in sub-Saharan Africa: adherence to the postnatal PMTCT program. *AIDS Care*, 21(9), 1124-1131.
- Ndinda, C., Uzodike, U. O., Chimbwete, C., Pool, R., & MDP. (2007). Gender relations in the context of HIV/AIDS in rural South Africa. *AIDS Care*, 19(7), 844-849.
- Nel, A., Mabude, Z., Smit, J., Kotze, P., Arbuckle, D., Wu, J., . . . van de Wijgert, J. (2012). HIV Incidence Remains High in KwaZulu-Natal, South Africa: Evidence from Three Districts. *Plos ONE*, 7(4). doi: 10.1371/journal.pone.0035278
- Ngubane, G., Lawson, L., & Bellis, K. (2011). Strengthening South Africa's Response to HIV and Health. In N. Programme Manager for the A Plan, SARRAH (Ed.), *A national strategy to strengthen services to prevent mother-to-child transmission of HIV (PMTCT) in South Africa. Lessons from A-Plan* (pp. 1-8). South Africa.
- Nkuoh, G. N., Meyer, D. J., & Nkfusai, J. (2010). Barriers to Men's Participation in Antenatal and Prevention of Mother-to-Child HIV Transmission Care in Cameroon, Africa. *J Midwifery Womens Health*, 55, 363–369.
- Nyawo, N. N., Sathiparsad, R., Taylor, M., & Dlamini, S. B. (2006). Acceptance of Violence Amongst Female Learners in Rural High Schools of Kwazulu Natal (KZN) *Understanding Human Sexuality Seminar Series "Sexual Violence in the Public Sphere: Myths, Facts and Responses"* (pp. 16). KwaZulu-Natal South Africa: University of KwaZulu Natal.
- Okonkwo, K. C., Reich, K., Alabi, A. I., Umeike, N., & Nachman, S. A. (2007). An Evaluation of Awareness: Attitudes and Beliefs of Pregnant Nigerian Women toward Voluntary Counseling and Testing for HIV. *AIDS PATIENT CARE and STDs*, 21(4), 252-256. doi: 10.1089/apc.2006.0065
- Otieno, P. A., Kohler, P. K., Bosire, R. K., Brown, E. R., Macharia, S. W., & G.C, J.-S. (2010). Determinants of failure to access care in mothers referred to HIV treatment programs in Nairobi, Kenya *AIDS Care* 22(6), 729-736.
- Panditrao, M., Darak, S., Kulkarni, V., Kulkarni, S., & Parchure, R. (2011). Socio-demographic factors associated with loss to follow-up of HIV-infected women attending a private sector PMTCT program in Maharashtra, India. *AIDS Care*, 23(5), 593-600.

- Peltzer, K., Jones, D., Weiss, M., & Shikwane, E. (2011). Promoting male involvement to improve PMTCT uptake and reduce antenatal HIV infection: a cluster randomized controlled trial protocol. *BMC Public Health*, *11*, 778.
- Peltzer, K., Mosala, T., Dana, P., & Fomundam, H. (2008). Follow-up Survey of Women Who Have Undergone a Prevention of Mother-to-Child Transmission Program in a Resource-Poor Setting in South Africa. *JOURNAL OF THE ASSOCIATION OF NURSES IN AIDS CARE*, *19*(6), 450-460.
- Peltzer, K., Sikwane, E., & Majaja, M. (2011). Factors associated with short-course antiretroviral prophylaxis (dual therapy) adherence for PMTCT in Nkangala district, South Africa. *Acta Paediatrica Nurturing The Child*, *100*, 1253-1257. doi: 10.1111/j.1651-2227.2011.02253.x
- Polit, D. F., & Beck, C. T. (2008). *Nursing Research: principles and methods* (8 th ed.): Lippincott Williams & Wilkins.
- Ramjee, G., Coumi, N., Nozizwe, D. Q., Ganesh, S., Gappoo, S., Govinden, R., . . . T., P. (2010). Experiences in conducting multiple community-based HIV prevention trials among women in KwaZulu-Natal, South Africa. *AIDS Research and Therapy*, *7*(10).
- Rao, A., Shetty, P., Antony, J., Sebastian, D., Shetty, P., & Shetty, A. K. (2006). HIV-Related Knowledge, Attitudes, Perceived Benefits, and Risks of HIV Testing Among Pregnant Women in Rural Southern India. *AIDS PATIENT CARE and STDs* *20*(11).
- Reece, M., Hollub, A., Nangami, M., & Lane, K. (2010). Assessing male spousal engagement with prevention of mother-to-child transmission (pMTCT) programs in western Kenya. *AIDS Care*, *22*(6), 743-750.
- Rogers, A., Meundi, A., Amma, A., Rao, A., Shetty, P., Antony, J., . . . Shetty, A. k. (2006). HIV-Related Knowledge, Attitudes, Perceived Benefits, and Risks of HIV Testing Among Pregnant Women in Rural Southern India. *AIDS PATIENT CARE and STDs*, *20*.
- Ross, J. (2010). Male involvement in the prevention of Mother to Child transmission Retrieved 28 June 2012, 2012, from <http://blog.aidsalliance.org/2010/09/male-involvement-in-pmtct>
- Sarker, M., Sanou, A., Snow, R., Ganame, J., & Gondos, A. (2007). Determinants of HIV counselling and testing participation in a Prevention of Mother-to-Child Transmission programme in rural Burkina Faso *Tropical Medicine and International Health* *12*(12), 1475–1483
- Sathiparsad, R., & Taylor, M. (2006). Diseases come from girls’: perspectives of male learners in rural KwaZulu-Natal on HIV infection and AIDS. *Journal of Education*, *38*, 118-137.
- Sathiparsad, R., Taylor, M., & De Vries, H. (2010). Masculine Identity and HIV Prevention among Male Youth in Rural South Africa. *Social Science* *25*(1-2-3), 159-168.
- Shroff, R. (2008). Male Partner Involvement in Prevention for Mother-to-Child Transmission in Vietnam: Challenges and Opportunities for Intervention A report based on qualitative research conducted in Vietnam.
- Sorrentino, D. (2011). Socio-Cultural Intelligence: Understanding the Theories, Practice and Importance of the Sociological and Cultural Discipline as it applies to your Collection and Analysis of Intelligence Data. 9-11.
- Sprague, C., Chersich, M. F., & Black, V. (2010). Health system weaknesses constrain access to PMTCT and maternal HIV services in South Africa: a qualitative enquiry. *AIDS Research Therapy*, *8*(10).
- Sprague, C., Chersich, M. F., & Black, V. (2011). Health system weaknesses constrain access to PMTCT and maternal HIV services in South Africa: a qualitative enquiry. *AIDS Research and Therapy*, *8*(10).

- Stone, J. M., Ojikutu, B., Diese, M., & Blazer, C. (2011). Technical Brief: Integrating Prevention of Mother to Child Transmission of HIV interventions with Maternal, Newborn and Child health Services *Task order 1*. Arlington, VA: USAID.
- Story, W. T., & Burgard, S. A. (2012). Couples' reports of household decision-making and the utilization of maternal health services in Bangladesh *Social Science & Medicine* 2012.
- Tashakkori, A., & Teddlie, C. (2010). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. London: Sage Publications (CA).
- Theuring, S., Mbezi, P., Luvanda, H., Jordan-Harder, B., Kunz, A., & Harms, G. (2009). Male Involvement in PMTCT Services in Mbeya Region, Tanzania. *AIDS Behav.* doi: 10.1007/s10461-009-9543-0
- Thorsen, V. C., Sundby, J., & Martinson, F. (2008). Potential Initiators of HIV-Related Stigmatization: Ethical And Programmatic Challenges for PMTCT Programs *Developing World Bioethics* 8(1), 43–50.
- Tshibumbu, D. D. (2006). *Factors Influencing Men's Involvement in Prevention of Mother-To-Child Transmission (PMTCT) Of HIV Programmes In Mambwe District, Zambia*. Master Of Public Health, University Of South Africa.
- UNAIDS. (2009). AIDS Epidemic update (Vol. 9, pp. 100).
- UNDP. (2010). Millennium Development Goals Retrieved 20 April 2012, 2012, from <http://web.undp.org/mdg/basics.shtml>
- UNGASS. (2008). PROGRESS REPORT ON DECLARATION OF COMMITMENT ON HIV AND AIDS (pp. 40). South Africa.
- Vika, N., Chima, I., Ntsimane, S., & Mpofu, D. (2010). Male involvement in PMTCT; an experience from Olivenhoutbosch Clinic in Tshwane District - South Africa.
- Wambui, T., & Alehagen, S. (2009). Perceptions of family planning among low-income men in Western Kenya. *International Nursing Review*, 56, 340-345.
- WHO. (2007). *Prevention of Mother-To-Child Transmission (PMTCT)*. Paper presented at the Briefing Note
- WHO. (2008). Primary Health Care Retrieved 18 May 2012, 2012, from [http://www.who.int/topics/primary\\_health\\_care/en/](http://www.who.int/topics/primary_health_care/en/)
- WHO. (2009). Technical Guidance for Global Fund HIV Proposals Integrated approach to decentralization of HIV Prevention, Care and Treatment within primary health care (pp. 5).

## **LIST OF ANNEXES**

### **ANNEXURE 1: INFORMATION FOR MALE PARTICIPANTS**

Information document for male participants

Dear Participants,

My name is Tamara Phiri; I am a student at the University of KwaZulu-Natal, undertaking a Master's degree in Community Health Nursing. One of the requirements for the degree is to conduct a research project.

This letter serves to ask consent from you to take part in this research.

The purpose of the research is to explore male partner involvement regarding prevention of mother-to-child transmission services.

This will aid in understanding the factors influencing male involvement in prevention of mother-to-child transmission services and thereby help improve the services provided to you in KwaZulu-Natal.

You are thereby requested to answer a questionnaire with five parts. The first part asks you questions regarding socio-demographic characteristics such as age; the second part is questions about knowledge you have on the prevention of mother-to-child transmission services; the third part asks you questions regarding your beliefs (socio-cultural factors) about women participating in the prevention of mother-to-child transmission services; the fourth part asks you questions relating to your beliefs about the prevention of mother-to-child transmission services (programmatic factors); and the fifth part asks you questions regarding male involvement in prevention of mother-to-child transmission services.

Your participation in this research is voluntary. If you decide not to participate there will be no negative consequences for you. If you do decide to participate there will be no benefits for you. However, if you participate in this research your contribution will help improve prevention of mother-to-child transmission services for pregnant women and their partners in future time. It will take you approximately between 15-20 minutes of your time to complete the questionnaire. After that, you are going to keep one letter of declaration of consent to participate in the research on which you will have already signed and I will keep the other one similar for my records.

#### Contact Details

##### 1. Contact details of researcher

Tamara Phiri

University of KwaZulu-Natal

School of Nursing  
tameerap@yahoo.com  
Tel: 0791815455

##### 2. Contact details of the research supervisor

Dr Joanne R Naidoo  
School of Nursing  
5th Floor Desmond Clarence Building  
Howard College Campus  
Faculty of Health Sciences  
University of KwaZulu-Natal  
DURBAN

Email: [kistenjr@ukzn.ac.za](mailto:kistenjr@ukzn.ac.za)  
Tel: +27 31 260 22 13  
Fax. No: +27 31 260 15 43

Thank you for your decision to take part in this research.

Yours truly,

Tamara Phiri

Research Supervisor: Dr Joanne R Naidoo

**ANNEXURE 2: DECLARATION OF CONSENT TO PARTICIPATE IN THE RESEARCH BY MALE PARTNER PARTICIPANTS**

I hereby confirm that I understand the contents of this document and the nature of the research project and I consent to participating voluntary in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

**SIGNATURE OF PARTICIPANT**

**DATE**

.....

Full names of participant: .....

## **ANNEXURE 3: QUESTIONNAIRE**

### **ANNEXURE 3.1: Data collection instrument**

**Study Title:** Exploring Male Partner Involvement Regarding PMTCT Services in a Selected Primary Health Care Facility in KwaZulu -Natal

**Participant Number:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Instructions:** There are five parts to this questionnaire. Section 1 asks you questions on demographic characteristics such as age; Section 2 asks questions regarding knowledge you have on the prevention of mother-to-child transmission services; Section 3 asks you questions regarding your beliefs (socio-cultural factors) about women participating in the prevention of mother-to-child transmission services; Section 4 asks you questions relating to your beliefs about the prevention of mother-to-child transmission services (programmatic factors) ;and Section 5 asks you questions regarding male involvement in prevention of mother-to-child transmission services.

Please complete all five parts.

**SECTION 1: DEMOGRAPHIC FACTORS**

*Instructions: Please tick (✓) appropriate response:*

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 education completed? (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  
 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 (1.4.1)  
 Muslim (1.4.2)  
 None (1.4.3)  
 Other religion (Specify)\_\_\_\_\_ (1.4.4)

1.5. What Tribe do you belong to? \_\_\_\_\_(Specify)



## SECTION 2: KNOWLEDGE OF PMTCT

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

**Yes, No, Don't know**

	Yes	No	Don't Know
1. Can a mother who is HIV positive transmit the AIDS virus to her child during pregnancy?	1	2	3
2. Can a mother who is HIV positive transmit the AIDS virus to her child through breast milk?	1	2	3
3. Can a mother who is HIV positive transmit the AIDS virus to her child during delivery	1	2	3
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?	1	2	3
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?	1	2	3
6. In your own opinion, can avoiding breastfeeding reduce the chance of transmission of HIV from a mother to her child?	1	2	3
7. Have you ever heard about a programme called Prevention of Mother to Child Transmission (PMTCT)?	1	2	3
8. Are PMTCT services offered at X clinic?	1	2	3
9. At the PMTCT clinics, are pregnant women counselled and tested for HIV?	1	2	3
10. Was your wife or partner tested for HIV when she was last pregnant?	1	2	3
<b>Total scores (2.1)</b>			

**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)***

	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
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 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 be given first to men then to women	5	4	3	2	1
<b>Total score (3.1)</b>					

**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)***

	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
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 weekends 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 you are promised to be given ARVs thereafter	5	4	3	2	1
<b>Total scores (4.1)</b>					

## SECTION 5 : MALE PARTNER INVOLVEMENT

*Instructions: The following questions deal with your level of agreement regarding a male partner's involvement within the PMTCT programme. Please circle the most appropriate number reflecting the respondent opinion as follows:*

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

	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
1. Male partners should attend PMTCT visits and appointments with his partner	1	2	3	4	5
2. A male partner should know his partners PMTCT and antenatal visit appointments	1	2	3	4	5
3. A male partner should discuss antenatal and PMTCT procedures, interventions and treatment options with his partner	1	2	3	4	5
4. Male partner should support his partner's antenatal and PMTCT visits financially	1	2	3	4	5
5. The male partner should take time to find out what goes on in the antenatal clinic and the PMTCT treatment regime	1	2	3	4	5
6. The male partner needs to be proactive in using a condom during his partners current pregnancy	1	2	3	4	5
7. A male partner should be involved in promoting HIV prevention within his family and relationship by being faithful	1	2	3	4	5
8. A male partner should communicate with his wife about all aspects of the current pregnancy including his partners' treatment (PMTCT)	1	2	3	4	5
9. The male partner should go with his partner for HCT	1	2	3	4	5
10. A male partner should be active in decision-making regarding his partners' PMTCT	1	2	3	4	5
11. A male partner should be involved in a health living lifestyle after the HIV diagnosis together with his partner	1	2	3	4	5
<b>Total Score(5.1)</b>					

## **UHLU LWEZITHASISELO**

### **ISITHASISELO 1: ULWAZI KWABESILISA ABAZOZIBANDAKANYA**

Ulwazi kwabesilisa abazozibandakanya

Ngiyabingelela,

Igama lami ngingu-Tamara Phiri; ngifunda e-University of KwaZulu-Natal, ngenza iziqu ze-Masters kwi-Community Health Nursing. Ezinye zezidingo zalezi ziqu ukwenza ucwaningo. Le ncwadi icela imvume yakho ukuthi uzibandakanye nalolu cwaningo. Inhloso yalolu cwaningo ukubheka ukuzibandakanya kowesilisa kulowo asuke ethandana naye ezinhlelweni zokuvikela ukudluliswa/ukutheleleka kwengane yigciwane lisuka kumama. Lokhu kuzosiza ekuqondeni izimbangela ekuzibandakanyeni kowesilisa ezinhlelweni zokuvikela ukudluliswa/ukutheleleka kwegciwane enganeni lisuka kumama, kanti lokhu kuzokwenza ngcono izinhlelo ozitholayo eziphuma lapha KwaZulu-Natal.

Uyacelwa-ke ukuba uphendule uhla lwemibuzo olunezingxenye ezine. Ingxenye yokuqala ikubuza ngezinto eziphathelele nohlobo lwabantu ngokuhlala endaweni ikakhulukazi ngobudala; ingxenye yesibili yimibuzo ngolwazi onalo mayelana nezinhlelo ezikhona zokuvikeleka kokusuleleka/ kokutheleleka kwengane isulelwa wumama ngegciwane, ingxenye yesithathu ikubuza mayelana nezinkolelo zakho (izizathu ezihlanganisa inhlalo namasiko) ngabesifazane bezibandakanya ezinhlelweni zokuvikeleka ukusuleleka/ukutheleleka kwengane ngegciwane isulelwa wumama; ingxenye yesine ikubuza imibuzo emayelana nezinkolelo zakho ngezinhlelo zokuvikela ukusuleleka/ukutheleleka kwengane wumama ngegciwane.

Kuwukuvolontiya ukuzibandakanya kwakho. Ngeke kube nemiphumela emibi uma usucabanga ukungazibandakanyi. Ayikho inkokhelo noma imihlomulo uma ucabanga ukuzibandakanya, kodwa ukuzibandakanya kwakho kulolu cwaningo kuyosiza ukwenza ngcono izinhlelo zokuvikela ukusuleleka/ukutheleleka kwengane yigciwane lisuka komama abakhulelwe kanye nabathandana nabo esikhathini esizayo. Kuzothatha isikhathi sakho cishe phakathi kwemizuzu ewu-15-20 ukuphendula yonke le mibuzo. Emva kwalokho, uzogcina incwadi eyodwa, ozobe usuyisayinile, lapho uvuma khona ukuzibandakanya nalolu cwaningo, nami ngizogcina eyodwa efana neyakho.

Imininingwane

1. Imininingwane Yomcwaningi  
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Tel: +27 31 260 22 13  
Fax. No: +27 31 260 15 43

Ngiyabonga ngesinqumo sakho sokuzibandakanya kulolu cwaningo.

Ozithobayo,

Tamara Phiri

Umhloli Wocwaningo: Dr Joanne R Naidoo

**ISITHASISELO 2: Ukuzibophezela kowesilisa othandana naye ekuzibandakanyeni kulolu cwaningo**

Ngiyakuqinisekisa ukuthi ngiyakuqonda okuqokethwe yilo mbhalo nanohlobo locwaningo kanti ngiyazivumela ukuzibandakanya ngokuthanda kulolu cwaningo. Ngiyakuqonda ukuthi ngikhululekile ukuthi ngingayeka ukuzibandakanya nalo nanoma yinini uma ngifisa.

**Osayinile**

**Usuku**

.....

Amagama aphelele alowo

ozibandakanyayo:.....

## **ISITHASISELO 3: IMIBUZO**

### **ISITHASISELO 3.1: Ithuluzi lokuqoqa ulwazi**

**Isihloko Socwaningo:** Exploring Male Partner Involvement Regarding PMTCT Services in a Selected Primary Health Care Facility in KwaZulu -Natal

**Inombolo yozibandakanyayo:** \_\_\_\_\_

**Usuku:**

**Imiyalelo:** Zine izingxenye kulolu hlu lwemibuzo. Ingxenye 1 ikubuza ngezinto eziphathelene nohlobo lwabantu ngokuhlala endaweni ikakhulukazi ngobudala; Ingxenye 2 ikubuza ngolwazi onalo ngezinhlelo ezikhona zokuvikela ukusuleleka kwegciwane lisuka kumama liya enganeni; Ingxenye 3 ibuza imibuzo mayelana nezinkolelo zakho ngabesifazane abazibandakanya ezinhlelweni zokuvikela ukusuleleka kwegciwane lisuka kumama liya enganeni; kanti Ingxenye 4 ikubuza imibuzo ephathelene nezinkolelo zakho mayelana nezinhlelo zokuvikela ukusuleleka kwegciwane lisuka kumama liya enganeni (programmatic factors).

**Sicela ugcalise zonke izigaba ezinhlanu**

1. ISIGABA 1: IZIZATHU NGOHLOBO LWABANTU ABAHLALA  
ENDAWENI

*Imiyalelo: Beka uphawu (✓) empendulweni eshaya emhloneni:*

1.1. Uphakathi kweyiphi iminyaka ngobudala? (Beka uphawu endaweni eyodwa ✓)

- \_\_\_ iminyaka ewu-19 nangaphansi (1.1.1) \_\_\_ iminyaka ewu-40 kuya ku-49 (1.1.4)  
\_\_\_ iminyaka ewu-20 kuya ku-29 (1.1.2) \_\_\_ iminyaka ewu-50 kuya ku-59 (1.1.5)  
\_\_\_ iminyaka ewu-30 kuya ku-39 (1.1.3) \_\_\_ iminyaka ewu-60 nangaphezulu (1.1.6)

1.2. Ugcine kuliphi ibanga ngokwemfundo? (Beka uphawu endaweni eyodwa ✓)

- \_\_\_ Angikaze ngifunde esikoleni (1.2.1) \_\_\_ ngiqede esikoleni samabanga aphezulu (1.2.5)  
\_\_\_ angiqedanga esikoleni samanga aphansi (1.2.2) \_\_\_ angiqedanga ekolishi/yunivesithi  
\_\_\_ ngiqede esikoleni samabanga aphansi (1.2.3) \_\_\_ ngiqede ekolishi/yunivesithi (1.2.7)  
\_\_\_ angiqedanga esikoleni samabanga aphezulu (1.2.4)

1.3. Sesingakanani isikhathi uhlala nalo nkosikazi wakho/umaqondana wakho? (Beka uphawu endaweni eyodwa ✓)

- \_\_\_ ngaphansi kweminyaka eyisihlanu (1.3.1)  
\_\_\_ iminyaka ewu-5 kuya kweyi-10 (1.3.2)  
\_\_\_ ngaphezu kweminyaka eyi-10 (1.3.3)

1.4. Ukhonza ngaphansi kwayiphi inkolo? (Beka uphawu endaweni eyodwa ✓)

- \_\_\_ UMKhrestu (1.4.1)  
\_\_\_ Muslim (1.4.2)  
\_\_\_ Angisonti (1.4.3)  
\_\_\_ Enye inkolo (Chaza) \_\_\_\_\_ (1.4.4)

1.5. Ungaphansi kwasiphi isiZwe? \_\_\_\_\_ (Chaza)

## 2. ISIGABA 2: ULWAZI NGE-PMTCT

*Imiyalelo: Beka uphawu oluyindilinga enombolweni ezokhombisa umbono walowo ophendulayo kanje:*

***Yebo ,Cha, Angazi***

	<b>Yebo</b>	<b>Cha</b>	<b>Angazi</b>
1. Angalidlulisela igciwane lesandulela ngculazi enganeni umama okhulelwe?	1	2	3
2. Umama onesandulela ngculazi angadlulisela enganeni ingculazi ngokuyincelisa ngebele?	1	2	3
3. Umama onesandulela ngculazi angadlulisela enganeni ingculazi ngesikhathi ebeletha?	1	2	3
4. Ngowakho umbono ukunikezwa kukamama nengane amaphilisi ama-Anti Retro Viral kungakunciphisa ukudluliseka kwesandulela ngculazi kusuka kumama kuya enganeni?	1	2	3
5. Ngowakho umbono, kungabe ukubeletha ngomthungo (Caesarean Section) kungawanciphisa amathuba okudluliseka kwesandulela ngculazi kumama kuya enganeni?	1	2	3
6. Ngowakho umbono, kungabe ukugwema ukuncelisa ngebele kungawehlisa amathuba okudluliseka kwesandulela ngculazi kusuka kumama kuya enganeni?	1	2	3
7. Usuke wezwa ngohlelo olubizwa nge-Prevention of Mother to Child Transmission (PMTCT)?	1	2	3
8. Kungabe izinhlelo ze-PMTCT ziyatholakala emutholampilo X?	1	2	3
9. Emitholampilo ene-PMTCT, kungabe abesifazane abakhulelwe bayalulekwa futhi bahlololwe isandulela ngculazi?	1	2	3
10. Kungabe unkosikazi wakho noma othandana naye wahlololwa isandulela ngculazi ngesikhathi ekhulelwe okokugcina?	1	2	3
<b>Total scores (2.1)</b>			

3. ISIGABA 3: IZIZATHU NGENHLALO NAMASIKO:

*IMIYALELO: Beka uphawu oluyindilinga enombolweni ezokhombisa umbono walowo ophendulayo kanje:*

**Ngivuma kakhulu (SA),Ngiyavuma (A), Angazi kahle (U), Angivumi (D), Angivumi kakhulu (SD)**

	SA	A	U	D	SD
1. Owesimame okhulelwe angahlolelwa isandulela ngculazi ngaphandle kwemvume yomkhwenyana wakhe noma yomuntu athandana naye.	1	2	3	4	5
2. Amadoda kufanele aphelezele amakhosikazi awo akhulelwe/abathandana nabo uma beya emitholampilo ene-ANC/PMTCT.	1	2	3	4	5
3. Amadoda aphelezela abantu babo besifazane uma beya emitholampilo ene-ANC/PMTCT bantekenteke noma bathakathiwe.	5	4	3	2	1
4. Kuyichilo kwabesilisa ukuxoxa kwabesifazane ngokuhlololwa isandulela ngculazi ngesikhathi owesifazane ekhulelwe.	5	4	3	2	1
5. Abesilisa nabesifazane kufanele bayohlololwa isandulela ngculazi ngesikhathi esisodwa emitholampilo ene-PMTCT.	1	2	3	4	5
6. Abathandanayo bangawasebenzisa amakhondomu ukunciphisa amathuba okudlulisa isandulela ngculazi kusuka kumama kuya enganeni.	1	2	3	4	5
7. Imitholampilo engama-ANC/PMTCT awabesifazane nezingane kuphela.	5	4	3	2	1
8. Ukuba nesandulela ngculazi kowesifazane okhulelwe kusho ukuthi ubengathembekile kumkhwenyana wakhe.	5	4	3	2	1
9. Uma ngabe kutholakala owesifazane okhulelwe ukuthi unesandulela ngculazi kufanele adivoswe.	5	4	3	2	1
10. Ulwazi nge-PMTCT kufanele luqale lunikezwe amadoda ngaphambi kokuba lunikezwe abesifazane.	5	4	3	2	1

<b>Total score (3.1)</b>					
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4. ISIGABA 3: IZIZATHU MAYELANA NEZINHLELO:

*IMIYALELO: Beka uphawu oluyindilinga enombolweni ezokhombisa umbono walowo ophendulayo kanje:*

**Ngivuma kakhulu (SA),Ngiyavuma (A), Angazi kahle (U), Angivumi (D), Angivumi kakhulu (SD)**

	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
1. Amadoda kufanele abe neyawo kuphela imitholampilo ene-PMTCT	5	4	3	2	1
2. Emitholampilo ene-MCH/PMTCT amadoda kufanele asizwe yizisebenzi zasemitholampilo ezingabesilisa kuphela.	5	4	3	2	1
3. Izisebenzi zezempilo azithandi ukusiza abesilisa emitholampilo ene-MCH nawe-PMTCT.	5	4	3	2	1
4. Imitholampilo ene-MCH/PMTCT enzelwe abesifazane nabesilisa kuphela.	5	4	3	2	1
5. Imitholampilo ene-PMTCT/MCH kufanele ivulwe nangezimpelasonto nasebusuku ukuze nabesilisa bakwazi ukufinyelela kuyona.	5	4	3	2	1
6. Izisebenzi zase-MCH/PMTCT aziyigcini imfihlo ngemiphumela yesandulela ngculazi yabesilisa nabesifazane.	5	4	3	2	1
7. Izinhlelo ze-PMTCT zenze okuncane kakhulu ukubandakanya abesilisa.	5	4	3	2	1
8. Ungaya emtholampilo ene-PMTCT uma ucelwe unompilo ukuthi ufike.	1	2	3	4	5
9. Imitholampilo ene-PMTCT ibekwa kude nasekhaya lakho kanti nezinto zokuhamba ziyabiza.	5	4	3	2	1
10. Ungahlololwa isandulela ngculazi kanye nomkakho, uma uthembisa ukuthi uzovuma ukunikezwa ama-ARVs emva kwalokho.	5	4	3	2	1
<b>Total scores (4.1)</b>					

5. ISIGABA : UKUZIBANDAKANYA KOWESILISA NATHANDANA NAYE

*Imiyalelo: Le mibuzo elandelayo ikhuluma ngezinga lokuvuma kwakho mayelana nokuzibandakanya kowesilisa ohlelweni lwe-PMTCT. Sicela ufake inombolo okuyiyona yona ezokhombisa umbono walowo ophendulayo, kanje:*

*Ngivuma kakhulu (SA), Ngiyavuma (A), Angazi kahle (U), Angivumi (D), Angivumi kakhulu (SD)*

	SA	A	U	D	SD
1. Umaqondana wesilisa kufanele avakashele kwi-PMTCT kanye nalowo athandana naye.	1	2	3	4	5
2. Umaqondana wesilisa kufanele azi izinsuku nezikhathi zalowo athandana naye uma ezoya kwi-PMTCT ngaphambi kokubeletha.	1	2	3	4	5
3. Umaqondana wesilisa kufanele axoxe nathandana naye ngendlela ezosetshenziswa yi-PMTCT esalungiselela ukubeletha, ukungenelela kanye nezindlela zokulashwa ezikhona.	1	2	3	4	5
4. Umaqondana wesilisa kufanele asekele ngemali athandana naye uma eya kwi- PMTCT kanye futhi nalapho eselungiselela ukubeletha.	1	2	3	4	5
5. Umaqondana wesilisa kufanele azinike isikhathi ukwazi ukuthi kwenzekani emtholampilo wokulungiselela ukubeletha kanye nokwelashwa nge-PMTCT.	1	2	3	4	5
6. Umaqondana wesilisa kufanele kube nguyena oqinisekisa ukusebenzisa ikhondomu ngesikhathi lowo athandana naye esakhulelwe.	1	2	3	4	5
7. Umaqondana wesilisa kufanele azibandakanye ekuthuthukiseni ukuvikelwa kwi-HIV emndenini wakhe nasebudlelwaneni ngokuthi athembeke.	1	2	3	4	5
8. Umaqondana wesilisa kufanele axoxisane nonkosikazi wakhe ngakho konke okuthinta ukukhulelwa kanye nokwelashwa kukankosikazi (PMTCT).	1	2	3	4	5
9. Umaqondana wesilisa kufanele ahambe	1	2	3	4	5

nathandana naye uma eya kwi-HCT					
10. Umaqondana wesilisa kufanele abambe iqhaza elikhulu ngokuthathwa kwezinqumo ezimayelana nathandana naye nge-PMTCT	1	2	3	4	5
11. Umaqondana wesilisa kufanele azibandakanye ohlelweni lokuphila olunempilo nathandana naye emva kokuhlololwa i-HIV.	1	2	3	4	5
<b>Total Score(5.1)</b>					

## ANNEXURE 4: APPROVAL LETTER FROM HEALTH DEPARTMENT

21/11 2012 08:28 FAX 0313113530

HEALTH

002/003



### HEALTH, SOCIAL SERVICES Health Unit

9 Archie Gumede Place  
P O Box 2443, Durban, 4000  
Durban, 4001  
Tel: 031 311 3523, Fax: 031 311 3530  
www.durban.gov.za

13 November 2012.

Dear Tamara Phiri

**Re: Permission to undertake research study:**

Exploring male partner involvement regarding PMTCT services in a selected primary health care facility in KwaZulu -Natal

Approval has been granted for you to undertake the above study at Newlands West Clinic or Glen Earle clinic. The following sites, Cato Manor or Prince Cyril Zulu and Chesterville cannot be researched since there's currently studies that are taking place.

**The following to be noted:**

- Submission of the indemnity form obtainable from the eThekweni Health Unit before commencement of the study.
- Prior arrangements to be made with the facility and an assurance that all services will not be disrupted.
- Progress reports to be provided and the final report of the study with an oral presentation to the eThekweni Municipality Unit.
- Obtain permission from the eThekweni municipality health department for press releases and release of results to communities/stakeholders.
- The department has to receive recognition for the assistance given.
- Any amended to the study to be communicated with the Health Unit, and the relevant amendment form obtainable from the unit to be submitted.
- Withdrawal of permission to conduct research will be left to the discretion of the eThekweni Health Unit.
- Onsite visits will be undertaken by the research committee to monitor the research.

Yours faithfully,

Dr. Ngomane   
Deputy of Health: eThekweni Municipality.

Date: 16.11.2012

## ANNEXURE 5: APPROVAL LETTER FROM SCHOOL



26 September 2012

Ms Tamara Phiri 212558038  
School of Nursing and Public Health  
Howard College Campus

Dear Ms Phiri

Protocol reference number: HSS/0939/012M  
Project title: EXPLORING MALE PARTNER INVOLVEMENT REGARDING PMTCT SERVICES IN A SELECTED PRIMARY HEALTH CARE FACILITY IN KWAZULU-NATAL

**Provisional approval - Expedited**

This letter serves to notify you that your application in connection with the above has been approved, subject to necessary gatekeeper permissions being obtained.

**This approval is granted provisionally and the final approval for this project will be given once the above condition has been met. Please quote the above reference number for all queries/correspondence relating to this study.**

Kindly submit your response to the Chair: Prof. S Collings % Ms. P Ximba, Research Office as soon as possible

Yours faithfully

Professor Steven Collings (Chair)  
Humanities & Social Sciences Research Ethics Committee

/px

cc Supervisor Dr Joanne Naidoo  
cc Academic leader Professor Mars  
cc School Admin. Mrs C Dhanraj

Professor S Collings (Chair)  
Humanities & Social Sc Research Ethics Committee  
Westville Campus, Govan Mbeki Building  
Postal Address: Private Bag X54001, Durban, 4000, South Africa  
Telephone: +27 (0)31 260 3587/8350 Facsimile: +27 (0)31 260 4609 Email: ximbap@ukzn.ac.za / snymanm@ukzn.ac.za  
Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS



## ANNEXURE 6: EDITING DECLARATION

Editing Declaration

P O Box 531  
Hillcrest  
3650  
KwaZulu-Natal

2013-05-27

### TO WHOM IT MAY CONCERN

Thesis Title: Exploring Male Partner Involvement Regarding PMTCT Services in a Selected Primary Health Care Facility in KwaZulu-Natal.

Author: Tamara Phiri

This is to certify that I have edited the above thesis from an English language perspective and have made recommendations to the author regarding spelling, grammar, punctuation, structure and general presentation.

A marked-up version of the thesis has been sent to the author and is available as proof of editing.

I have had no input with regard to the technical content of the document and have no control over the final version of the thesis as it is the prerogative of the author to either accept or reject any recommendations I have made.

I accept no responsibility for the final assessment of the document

Yours faithfully



Margaret Addis