HIV PREVENTION OF MOTHER TO CHILD TRANSMISSION COMMUNICATION STRATEGIES: A CASE STUDY OF CHELSTON TOWNSHIP IN LUSAKA

BY

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Lusaka

Declaration

I, Samantha Tayali declare that this dissertation:

(a) Represents my own work;

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ABSTRACT

Pediatric AIDS in Africa remains a major problem as it accounts for over 90% of HIV infections in children under the age of 15 years. While progress has been made with regard to Prevention of Mother to Child Transmission of HIV (PMTCT), progress has been more modest on other programmatic aspects of the PMTCT Global Plan, including primary HIV prevention for women and the unmet need for family planning services among women living with HIV continues to undermine efforts to eliminate new HIV infections among children.

This study assessed communication sources, messages and channels being used for PMTCT communication at Chelston clinic of Lusaka district in Zambia. A sample of 100 women of child bearing age was systematically selected for interviews as well as 6 health personnel from Chelston clinic. Findings were then processed and analyzed using Statistical Package for Social Sciences (SPSS) and content analysis.

Results of the study indicate that Chelston clinic is using PMTCT messages from credible sources and that the PMTCT messages are consistent on Antiretroviral Therapy (ART) adherence, exclusive breastfeeding and the need for HIV testing. However, other key PMTCT messages are not being addressed adequately. Mainly interpersonal and group communication is being used at the health centre while mass media is rarely used. Most of the respondents obtained PMTCT information from the health centre and when it came to use of mass media, radio was the most preferred communication channel. Further, the clinic had challenges with male involvement, limited space and number of antenatal drop outs.

In view of the research findings, it is recommended that Chelston clinic exploits alternative communication channels to complement interpersonal communication, involve both men and women from the community at every stage of PMTCT communication so as to encourage community participation, and finally the Lusaka District Health Management Team (LDHMT) is encouraged to facilitate continuous training for community health workers who mainly are engaged in PMTCT communication so as to keep them abreast with information and motivate them to communicate effectively with communities. With the recommended interventions, it is hoped that PMTCT results at Chelston clinic will be enhanced to a level that will facilitate realization of the elimination of mother –to-child transmission of HIV in Chelston and Zambia at large.

Dedication

To late mum (Agness Mwelwa Tayali) and dad (Wiseman Tayali)

(R.I.P)

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ACADA	Assessment, Communication, Analysis, Design, Action
ANC	Antenatal Care
ARV	Antiretroviral
CBH	Central Board of Health
CDC	Centre for Disease Control
DHMT	District Health Management Team
EMTCT	Elimination of Mother to Child Transmission of HIV
GARPR	Global AIDS Response Progress Reporting
HIV	Human Immunodeficiency Virus
IEC	Information and Education Communication
MCH	Mother and Child Health
MTCT	Mother To Child Transmission
MDG	Millennium Development Goals
NAC	National AIDS/STD/TB Council
NAC	National AIDS Council
PMTCT	Prevention of Mother To Child Transmission
SPSS	Statistical Package for Social Sciences
STD	Sexually Transmitted Diseases
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children Emergence Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Oranisation

INTRODUCTION

Strategic PMTCT communication is an integral part of every successful PMTCT programme as it is through clear, coordinated and consistent communication that awareness with regard to PMTCT and demand for the service is increased. The recognition of the importance of the role of adequate PMTCT communication in facilitating the realization of best PMTCT results has stimulated research in the area of PMTCT communication. This study assessed communication sources, messages and channels being used for PMTCT at Chelston clinic of Lusaka district in Zambia. It is divided into seven chapters.

The first chapter gives background information of the study. It starts by giving an overview of the HIV and Mother to Child Transmission of HIV (MTCT) problem on a global, regional and national level. It further provides the profile of Chelston, the township from which the research was conducted and then gives the statement of the problem followed by justification of the study and finally outlines the research objectives and questions.

Chapter two situates the study by reviewing literature related to PMTCT communication. The literature reviewed was organised from a global, regional and country perspective. In this regard countries for which PMTCT programmes were reviewed were: Trinidad and Tobago, Uganda, Botswana, South Africa and Zambia. Literature with regard to Europe and America was also reviewed.

The third chapter highlights the research methodology. Specifically the research design, research methods, data collection techniques, sampling procedures and data analysis procedures are given. It is in this chapter also that the study area and population was detailed.

Chapter four is based on the conceptual and theoretical framework of the study. Under this section, key terms that were used in this research including communication strategies and PMTCT have been defined. Further, the diffusion of innovation theory as well as the knowledge gap theory has been described in relation to the study.

The fifth part of this paper presents the findings of the research. The findings are presented in relation with the research objectives. In this regard, findings regarding the background characteristics of the respondents, sources of PMTCT information in Chelston, messages being used for PMTCT, communication channels being used for PMTCT communication at Chelston clinic and the challenges associated with PMTCT communication at Chelston clinic have been given.

Chapter six gives an analysis of the research findings as well as the interpretation in relation to the literature reviewed as well as the theories underpinning the study. The findings were analysed in line with the research objectives and the research questions were also answered under this section.

The last chapter of this paper is the conclusion. This part gives a summary of the study and its findings and goes further to give recommendations based on the findings and finally suggestions for future research on the subject are given based on the research findings and literature reviewed.

CHAPTER ONE

BACKGROUND INFORMATION

1.1. Introduction

HIV and AIDS has over the past 30 years been one of the major problems that has negatively affected development world over. The nature of the epidemic has been such that it has affected not just the health sector but other sectors also of the global, regional and national economies. Servaes suggests that HIV and AIDS is a socially complex problem covering different sectors of life (2008, p. 280). Frizelle and others added that the HIV and AIDS problem is driven by a complex set of factors which include social, cultural, historical, political, economic and gendered factors and that HIV and AIDS also touches on sensitive issues such as people's sexuality and identity (2009, p.10). For many developing countries, HIV and AIDS has affected development by slowing down the pace of development as lots of resources that could otherwise be used for health, social welfare, education, infrastructural development and indeed other areas of development are being used for HIV and AIDS programmes.

Since the beginning of the epidemic, almost 70 million people have been infected with the HIV virus and about 35 million people have died of AIDS; globally, 34.0 million (31.4–35.9 million) people were living with HIV at the end of 2011(www.who.int/gho/hiv/en/, accessed on 26th January 2014). An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions; Southern Africa remains most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and accounting for 69% of the people living with HIV worldwide (www.who.int/gho/hiv/en/, accessed on 26th January 2014).

Much of global approaches to HIV and AIDS initially focused on adults even though children were getting infected too. It is estimated that 5 million children and young people are currently living with HIV and over 90% of HIV infections in children under the age of 15 years are due to Mother-To-Child Transmission; more than 90% of the Mother-To-Child Transmission occurs in Sub-Saharan Africa (UNAIDS, 2011, p.10). As of 2014, of the estimated nearly 37 million people worldwide living with HIV, approximately 2.6 million were children under 15 years of

age, with 88 percent of these children residing in sub-Saharan Africa and an estimated 220,000 children were newly infected with HIV in 2014 (http://www.pedaids.org/pages/about-pediatric-aids, accessed on 29th August 2015). HIV has affected the modest gains made in the previous decades in maternal and child survival and has had devastating effects on families, households and communities (WHO, 2007, p.7).

In high-income countries however, the number of new HIV infections among children and maternal and child deaths due to HIV was virtually zero (UNAIDS, 2011, p.6) as PMTCT programmes had been introduced and intensively used by mid-1990's with an evidence-based package of interventions built around the use of antiretroviral drugs, the avoidance of breastfeeding and elective caesarean section (WHO and UNICEF, 2007, p.5). According to WHO and UNICEF, PMTCT has four pillars:

- Primary prevention of HIV especially among women of Child Bearing Age.
- Prevention of unintended pregnancies among HIV positive women.
- Prevention of HIV transmission from HIV positive women to their infants by ensuring HIV testing, counselling and access to the antiretroviral drugs to prevent infection being passed on to their babies during pregnancy, delivery and breastfeeding.
- Provision of appropriate care and support to women with HIV, their children and their families (WHO and UNICEF, 2007, p.2).

With the increase in the number of children with HIV as a result of Mother to Child Transmission (MTCT), the international community committed itself to eliminate pediatric AIDS by 2015 and shifted the focus from PMTCT which is scale up to impact - Elimination of Mother-To-Child Transmission (EMTCT). The Global Plan aims to reduce new child HIV infections by 90% and reduce HIV-associated deaths of women during pregnancy, childbirth, and puerperium by 50% from the 2009 baseline; and to reduce mother-to-child-transmission to less than 5%, a level low enough that mother-to-child transmission of HIV would no longer be considered a major public health problem (WHO and UNICEF, 2012, p. 4).

Although there has been progress in PMTCT during the past decade in low and middle income countries, pediatric AIDS remains a major concern. By 2012, the annual number of children infected with HIV was 260,000 in low and middle income countries showing a reduction of about 35% from 2009 (UNAIDS, 2013, p.6). However, most PMTCT programmes have neglected the most cost-effective approaches to reducing the proportion of infants living with HIV: preventing primary HIV infection among women of childbearing age and avoiding unintended pregnancy among women living with HIV who do not currently wish to become pregnant through family planning (WHO, 2007, p.7).

WHO suggests that when antiretroviral drugs are available as prophylaxis, HIV transmission can be reduced to less than 5%, preventing HIV infection among women at increased risk of HIV and meeting unmet family planning needs of women living with HIV can significantly contribute to reducing the need for antiretroviral prophylaxis and treatment (UNAIDS, 2011, p.6).

For most developing countries spending substantial amounts of resources on ART for PMTCT, more focus on primary prevention of HIV infections among women of child bearing age cannot be over emphasized as it is clearly a more financially viable option besides being the first of the four pillars of PMTCT proposed by World Health Organisation (WHO). To facilitate the realization of best results for PMTCT, effective communication is crucial as communication is a means by which individuals and communities obtain meaning from ideas such that their perceptions, behaviour and actions are to a larger extent shaped by their interpretation of meaning through various communications.

1.2. PMTCT in Zambia

In Zambia, since the first AIDS case was reported in the early 1980's, various efforts to prevent the spread of the disease as well as to provide support to People Living with HIV (PLHIV) have been made. Among the first government responses was the establishment of the National AIDS Surveillance Committee (NASC) and National AIDS Prevention and Control Programme (NAPCP) in 1986. The National HIV and AIDS/STD/TB Council (NAC) became operational in

2002 and has since been the single, high-level institution responsible for coordinating the actions of all segments of government and society in the fight against HIV and AIDS.

Although many programmes to prevent HIV spread were undertaken since 1984, Zambia's Prevention of Mother to Child Transmission (PMTCT) initiative was first launched in 1999. In order to provide guidance to all those engaged in PMTCT interventions, the Zambia National Prevention of Mother to Child Transmission Communication Strategy was put-up in 2004. At that time, the paper was guided by major communication challenges that had been seen to have had affected the performance of PMTCT. These included: women and partners had limited information on PMTCT, most communities had limited information on PMTCT, male involvement in PMTCT communication was inadequate, stigma surrounding HIV was limiting success of PMTCT and communication amongst couples in general was poor (CBH, 2004, pp.4-6).

The NAC Communication and Advocacy Strategy paper (2011-2015) indicates that adult access to antiretroviral treatment had outpaced children's access to essential services thereby raising concern for care and support for children living with HIV and above all for prevention of the transmission of HIV to infants given their vulnerability. Kellerman argues that Children are more vulnerable to HIV infection and have higher morbidity and mortality. Without treatment, half of those children infected will die before the age of 2 years, yet only one third of those eligible for treatment are currently receiving antiretroviral therapy (http://medicalxpress.com/news/2013-08-importance-pediatric-aidsagenda.html, accessed on 18th February 2014). Since children's immune systems are not fully developed, children living with HIV get sick more severely than adults. They may experience the same common pediatric infections as HIV-negative children, but cannot fight these infections as effectively (http://www.pedaids.org/pages/about-pediatric-aids, accessed on 29th August 2015).

1.3. Profile of Chelston Township

Chelston is a medium density area situated in Lusaka urban about 11km from Lusaka city centre. It falls under Munali constituency and Chakunkula ward.

Chelston clinic is a central public health centre that offers services to residents from Avondale (low density area), Chelston (medium density area) and Kamanga (high density area). According to the Chelston clinic focus chart for 2015, the clinic had a catchment population of 112,965 and expected to register 6,100 pregnancies for antenatal visits. The clinic however had no functional maternity ward.

1.4. Statement of the Problem

Southern Africa is disproportionately affected by pediatric HIV. About 2 million HIV-positive children below the age of 15 years live on the continent, accounting for approximately 90% of all the HIV-infected children worldwide (Byamugisha et al., 2010b).

With the high levels of pediatric HIV in Africa, Zambia initiated the PMTCT Programme in 1999 and since then, PMTCT communication has been central to the performance of PMTCT in Zambia as it has been in other countries and regions. The recognition of the importance of effective PMTCT communication led to the documentation of the Zambia National Prevention of Mother to Child Transmission Communication Strategy in 2004. A document whose goal was to empower individuals, families and communities to make informed choices to prevent HIV transmission, unintended pregnancies, use PMTCT services and access care and support through effective Behaviour Change Communication Strategies (CBH, 2004, p.10).

In 2014, Zambia recorded progress with regard to PMTCT as coverage had increased from 53% in 2009 to 95% in 2012; ARV coverage reached 88% from 58% in 2009 and consequently the rate of MTCT reduced from 24% in 2009 to 12% in 2012 (NAC, 2013, p.36). However, While access to antiretroviral medicines to prevent mother-to-child HIV transmission had increased, progress has been more modest on other programmatic aspects of the PMTCT Global Plan, including primary HIV prevention for women and the unmet need for family planning services among women living with HIV continues to undermine efforts to eliminate new HIV infections among children (UNAIDS, 2013, p.41).

Another study in Zambia found that slightly more than 50% of the participants in the study received family-planning counselling at their first antenatal visit; however, this decreased to 38% among HIV-positive women and to 50% among HIV-negative women at the time of their six-month postpartum visit (Frizelle et al., 2009, p.17). Research in a number of developing countries found that PMTCT sites often miss opportunities to provide clients with family-planning services (Frizelle et al., 2009, p.17). UNAIDS revealed that globally, the pace of decline in new HIV infections among women had slowed since 2008, underscoring the need for intensified efforts to prevent new HIV infections among women and their sexual partners (UNAIDS, 2013, p.42).

The trend in HIV infections and PMTCT practices in many African countries gives the basis for a new focus and research on PMTCT with the recognition of communication as a vital aspect of effective PMTCT. The number of HIV infections for infants born from HIV positive mothers is likely to increase if communication strategies for PMTCT are not effective (Frizelle et al., 2009, p.1). PMTCT practices suggest a communication problem given that progress has been more modest on other programmatic aspects of PMTCT such as primary HIV prevention among women of child bearing age and meeting the family planning needs of HIV positive women.

Without proper communication strategies, very little can be achieved in the struggle to curb HIV among women of child bearing age as well as to prevent unintended pregnancies among HIV positive women and ultimately to reduce MTCT of HIV.

1.5. Justification of the Study

It has been said often times that children are the future. Building a healthy tomorrow starts with taking care of the welfare of children they are vulnerable and dependent on parents and adults to make choices for them. It is, therefore, deliberate decisions by today's leaders, mothers, parents and adults to prevent the transmission of HIV to infants and children that will help build a healthy future free from HIV.

There is no known cure for HIV yet, hence prevention is an underlying aspect of addressing the multifaceted HIV and AIDS related problems that Zambia is facing. PMTCT communication plays an important role in increasing knowledge and understanding on PMTCT as well as influencing social and behaviour change. The United States Presidents Emergency Fund for AIDS Relief (PEPFAR) stresses that PMTCT is important as it has a triple life saving benefit: saving the life of the woman, protecting her new born baby from HIV infection as well as protecting the family from orphan-hood. PMTCT communication is crucial in the success of PMTCT by creating awareness, influencing attitudes, norms, values and behaviour change; and creating a supportive environment (UNICEF/UNAIDS/WHO/UNFPA, 2000, p.25).

The 2013 UNAIDS report shows that while access to ART has increased, progress has been slow with regard to HIV prevention for women of child bearing age, it suggests that communication and information technology offers new opportunities to expand and reintegrate social behavioral information and structural programming (UNAIDS, 2013, p.6).

When properly implemented, communication results in sustained change in policy, social norms and behaviour. Communication is also essential in overcoming barriers to access services and generating demand for such services (NAC, 2011, p.1).

Assessing communication strategies being used for HIV PMTCT in conjunction with their contributions to practices and HIV risk behaviour in Chelston will help in identifying challenges and potentials that exist within PMTCT communication and this information would be used to design appropriate and effective PMTCT communication strategies which will incorporate the four prong PMTCT approaches recommended by WHO.

1.6. Research Objectives

General Objective

To assess the HIV PMTCT communication strategies being used at Chelston clinic

Specific Objectives:

- To determine the sources of PMTCT information at Chelston Clinic.

- To establish the messages being used for PMTCT communication at Chelston Clinic.
- To identify the type of communication channels being used for PMTCT in Chelston township.
- To establish the challenges associated with PMTCT communication in Chelston.

1.7. Research Questions

General Research Question

- How effective are the PMTCT communication strategies being used at Chelston clinic?

Specific Research Questions

- What are the main sources of PMTCT information at Chelston clinic?
- What messages are being used for PMTCT in Chelston?
- Which channels of communication are being used for PMTCT in Chelston?
- What factors inhibit effective PMTCT communication in Chelston?

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This section of the research paper looks at other studies that have been conducted on HIV PMTCT communication. Ridley (2008, p.1) suggests that literature review is where reference to related research and theory in your field of study is made in order to position yourself and your research among other sources.

It helps to increase knowledge on the research field, identifies what could have been left out in previous studies and hence prevents duplication of work since the researcher would have seen other pieces of work.

For the sake of simplicity and better organization, this section of the paper was arranged into three parts: Global, Regional and National perspective.

2.2. Global Perspective

A number of studies have been undertaken on HIV prevention communication with much focus on the prevention of transmission among youths and adults. Studies have shown that the transmission of HIV from the mother to the child occurs during pregnancy, at delivery and during breast feeding (Frizelle et al., 2009, p.4). Most of the studies on PMTCT, therefore, have focused on prevention at the three stages of transmission.

The studies undertaken on PMTCT globally have taken different approaches mostly focusing on care and treatment for women including their access to anti retroviral therapy. For example in the United States and Europe studies focused on systematically targeting high risk factors such as high maternal HIV plasma viral load, low maternal CD4+ lymphocyte cell count, vaginal birth and breastfeeding (Sperling et al., 1996, p. 1).

The first clinical trials for antiretroviral (ARV) drug prophylaxis for women and infants were conducted in the United States of America and Europe where most HIV infected women have

access to good prenatal and delivery care, a range of laboratory tests and replacement feeding. Based on a package of interventions built around the use of antiretroviral drugs, the avoidance of breastfeeding and elective caesarean section (WHO and UNICEF, 2007, p.5), pediatric AIDS in the United States of America and Europe has since been eradicated (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2647351/, accessed on 20th March 2015).

The importance of PMTCT globally has been recognized thereby drawing high level attention from international aid agencies and the United Nations. In 2011, the international community endorsed the elimination of mother-to-child HIV transmission by 2015 as a global goal as AIDS remains the leading cause of death among women of reproductive age (15–44), especially during pregnancy and the post-partum period (WHO, 2009, p.3). To help monitor progress, the Global Monitoring Framework and Strategy for Global Plan towards Elimination of New HIV Infections among Children by 2015 and Keeping their Mothers Alive (EMTCT) was adopted. The EMTCT initiative placed emphasis on improving health outcomes for mothers and children. This was a shift from the previous emphasis on expanding the coverage of services for preventing mother-to-child transmission (PMTCT). The new emphasis on outcomes requires a corresponding shift in the focus of monitoring and evaluation of efforts for prevention of mother-to-child transmission of HIV (PMTCT) (WHO, UNICEF, 2012, p.4).

The document outlines a common framework for tracking progress towards EMTCT, including explanation of the targets outlined in the Global Plan, essential monitoring and evaluation activities at the country level and plans for reporting EMTCT (WHO, UNICEF, 2012, p.4).

In spite of the many global efforts on PMTCT, most programmes have focused almost entirely on interventions to prevent transmission from women living with HIV to their infants in antenatal care and delivery settings: these include HIV testing and counselling, antiretroviral prophylaxis, safer delivery practices and counselling and support on infant feeding. This is partly due to the lack of clear policy and operational guidance on how primary prevention of HIV among women of childbearing age and prevention of unintended pregnancies should be implemented in the context of PMTCT and within the framework of the overall national HIV prevention programmes (WHO, 2007, p. 9).

2.3. Use of PMTCT Video in Trinidad and Tobago

The Prevention of Mother to Child Transmission (PMTCT) Programme in Trinidad and Tobago was initiated in 1999, based on evidence, which showed that transmission of HIV from an infected mother to her child could be reduced between 51%-68%, with the introduction of anti-retroviral therapy during pregnancy. It was also shown that avoidance of breastfeeding resulted in a further reduction in the transmission of HIV from mother to child by 10-20% (http://www.academia.edu/10212712/, accessed on 15th February 2015).

Although HIV related information was communicated to populations through the internet and IEC materials at outreaches and sensitization sessions, the PMTCT programme was well integrated into the Antenatal Care (ANC) system and served as a link between primary health care screening and transition to tertiary treatment and care sites; the programme was able to achieve 84% adherence to ARV by pregnant women and 93% screening of HIV exposed infants with 1% transmission rate in 2012 (http://www.unaids.org/sites/default/files/, accessed on 26th May 2015).

As part of efforts to increase awareness on PMTCT for better PMTCT communication, Candice Lela – Rolingson assessed the effects of a twenty four minute video docudrama, 'POSITIVE and PREGNANT' on youth between 14-17 years old; attending secondary school in east (Valencia Secondary School) Trinidad and Tobago.

The following changes in behaviour were noted as a result of viewing the film:

- Looking at the film caused immediate changes in response to stigma and discrimination.
- Looking at the film caused positive changes in attitude and behaviour in the short term.
- Looking at the film effectively educated youths about 'HIV Testing', the importance of family planning and prophylactics.
- It was however inconclusive that the film would ultimately cause a lasting effect on behaviour (http://www.academia.edu/10212712/, accessed on 15th February 2015).

It can be concluded, therefore, that the film could be used as an effective tool in advocating for the awareness of the Prevention of Mother to Child transmission of HIV among the teenage age groups in the short term and if used in conjunction with other communication channels such as national television, bill boards and IEC materials would have long term effects on the audiences' sexual behaviour and practices. Although the film proved helpful in getting the PMTCT message across in the short term, Trinidad and Tobago used a well-coordinated ANC system, internet and IEC materials to achieve best results for PMTCT.

2.4. Regional Perspective

While MTCT is close to zero in developed countries, the situation is different in developing countries. Progress in terms of reduction in HIV transmission differs across countries and regions. Across Southern Africa, for example, HIV infections are still high among women of child bearing age. Although HIV prevalence among young women and men fell by 42% from 2001 to 2012, prevalence among young women remains more than twice as high as among young men throughout Southern Africa (UNDP, 2013, p.5). The pattern of HIV infection and distribution in Southern Africa suggests a link to cultural, social, gender and economic practices. In addition, women are more vulnerable to infections compared to men because of their biological make up as scientifically it has been proved that during vaginal sex, which is commonly practiced in Africa, the chance of HIV transmission from a man to a woman is two to three times greater than transmission from a woman to a man due to the biological make up of the female genital tract (www.rnanews.com/health/, accessed on 20th March 2014).

A number of different communication theories and approaches have been used in the context of PMTCT across Southern Africa, for example, communication for development and the ACADA process, behaviour change communication (BCC), information, education and communication (IEC) and community-oriented approach to behaviour change which recognises that behaviour change occurs in a context of social change; here information is placed within communities to facilitate dialogue, debate and collective action (Frizelle et al., 2009, p.13).

In a practical guide for PMTCT managers, UNICEF suggested that in order to increase the proportion of women who are tested for HIV on their first visit for antenatal care, PMTCT sites should carry out extensive community mobilization activities using a variety of communication methods to stimulate community dialogue and educate men and women about HIV, MTCT, and how to prevent it. PMTCT programmes should collaborate with VCT programmes aimed at the general populace to ensure that couple counselling takes place and that general-purpose VCT programmes adequately address PMTCT (UNICEF, 2003, p.12).

UNICEF's 'Communication for Development' Model is based on the understanding that effective communication relies on the synergistic use of three strategic components:

- Advocacy to ensure resources and political/social leadership commitment at all levels
- Social Mobilisation to engage civil society organisations and ensure their participation in the development issue being addressed.
- Behaviour Development Communication to encourage healthy behaviours and participation of individuals, families and communities (http://www.comminit.com/drum_beat_146.html, accessed on 23rd March 2015).

Some of the lessons learned from PMTCT communication interventions in Africa and Asia include**:**

- Community relevance is best ensured when strategic communication planning and overall programme design begins with participatory, community-based research.
- Capacity building and local ownership is key at all levels.
- Simple community dialogue tools can help communities to better identify and address stigma and discrimination, thus creating more caring and supportive environments for HIV-affected families.
- Interpersonal communication remains the most effective and powerful tool in addressing issues related to PMTCT.

- Involvement of male partners is key to women's acceptance of PMTCT services.

Desgrees-du-lou and others suggest that men's involvement plays a role in HIV prevention by helping to facilitate couple communication related to sexuality. Partner participation increases spousal communication about HIV and sexual risk (Desgrees-du-Lou et al., 2009a, p.1). While tremendous investment has been made to improve access to PMTCT services in developing countries, most efforts have only focused on women and perpetuate the idea that PMTCT only concerns women. A broader perspective moving beyond "a mother focused intervention" to "a couple focused intervention" was proposed as a way to overcome the obstacle linked to the low use of the PMTCT programme (http://www.emtct-iatt.org/wp-content/uploads/2012/11/Male-involvement-for-increasing-the-effectiveness-of-prevention-of-mother-to-child-HIV-transmission-PMTCT-programmes.pdf, accessed on 5th May 2015).

From the literature gathered, some of the common approaches to PMTCT communication in Africa have been: communication for development and the ACADA process, behaviour change communication (BCC), information, education and communication (IEC) and community-oriented approach to behaviour change. Although the approaches to PMTCT communication that are being used have been recommended based on the evidence that community mobilization brings forth better PMTCT results, most countries in Africa still experience challenges with PMTCT with regard to male involvement among other things. The experiences with regard to PMTCT communication in Africa suggest the need for alternative approaches to PMTCT communication if EMTCT is to be realized.

2.5. PMTCT in Uganda

In Uganda, PMTCT services started following a study done at Mulago Hospital in 1997 that demonstrated a 50% reduction in the risk of MTCT by administering a single dose of nevirapine to HIV positive mothers during labour. Following this finding, PMTCT was piloted in 2000 in five hospitals. Currently, these services are offered in all public health hospitals and in most primary health care centres (Atwiinie et al., 2012, p.10).

In a study aimed at exploring the knowledge and practices of women of child-bearing age of Mwizi sub-county region of Uganda regarding PMTCT, findings reviewed that there were high levels of awareness regarding MTCT, but relatively lower levels of awareness regarding PMTCT among women of child-bearing age and in as much as there were high levels of awareness regarding MTCT and PMTCT, the adequacy of knowledge regarding the two issues was low (Atwiine et al., 2012, p.34).

Health workers were the most important sources of information regarding MTCT and PMTCT for women of Mwizi sub-county and a number of women had participated in promoting PMTCT utilization among their friends or had themselves carried a number of activities to prevent infecting their own children (Atwiine et al., 2012, p.34).

Also high and low levels of awareness regarding MTCT and PMTCT respectively were found by Katushabe who reported that 80.8% and 51.6% of women attending antenatal care (ANC) in Mbale Regional Referral Hospital knew that MTCT occurs and it can be prevented respectively. She also found that the level of knowledge increased with being married, being educated and growing in age (http://researchonline.lshtm.ac.uk/3978/, accessed on 13th April 2015). In Mbarara, South Western Uganda, more than 80% of mothers attending ante-natal care (ANC) at an urban-based Regional Referral Hospital were aware that MTCT could be prevented and that the level of knowledge among both urban and rural women was similar (Bajunirwe et al., 2005, p. 2). Mbonye, and others (2010, p.13) found that there was low utilization and uptake of PMTCT services in Wakiso district in central Uganda and that most women were not empowered to make their own decisions concerning PMTCT.

Katushabe established that hospital health education was the most frequently (53%) stated channel through which women got information regarding MTCT and PMTCT. Other channels included friends, radios, seminars and newspapers at 20, 13, 7.4 and 7.2 percent mention respectively. Further, decision making was an important factor in accessing PMTCT services. Socioeconomic factors (wealth quintile, age, and education level) and institutional practices also influenced access to PMTCT (http://researchonline.lshtm.ac.uk/3978/, accessed on 13th April 2015).

From the literature gathered with regard to PMTCT in Uganda, it can be observed that health centres were the most stated channels through which PMTCT information was obtained and that while levels of knowledge on MTCT were high in both urban and rural settings, knowledge on PMTCT was not adequate in other areas such as rural settings. This could be attributed to the fact that issues of women empowerment had affected performance of PMTCT programmes thereby calling for complementary PMTCT communication approach that would be socially, culturally and economically appropriate.

2.6. PMTCT in Botswana

Botswana's PMTCT programme started with the establishment of a task group in 1998 (UNICEF/UNAIDS/WHO/UNFPA, 2000, p.7) and in 1999 the programme was introduced. This programme is now widely available in health facilities across the country and over 90 percent of pregnant women receive maternal care through public health services. The Government instituted routine HIV testing as part of antenatal care and also to increase the programme recruitment and participation, the government implemented widespread training programmes for PMTCT counsellors (www.gov.bw/Global/NACA%, accessed on 21st March 2015).

Over the years the PMTCT programme has had major achievements in terms of access, testing of pregnant mothers, HIV positive mothers taking up HIV prophylaxis and treatment, and the proportion of new-borns tested, at 6 weeks (down from the 18 months cut-off point used previously). Thus, HIV transmission from mother to child had decreased as of quarter ending

September 2008. However the battle is not yet won since a number of HIV pregnant mothers are repeat enrollers in PMTCT, presenting with second and third pregnancies. Given the existing socio-cultural influence around sexuality such as societal pressures to have children, family planning and condom use, as well as uneven gender power relations, and violence against women, a great deal of work remains to be done(www.gov.bw/Global/NACA%20, accessed on 21st March 2015).

Based on pilot programmes in Botswana and Rwanda, UNICEF encourages the use of communication-for-development-planning approach, which involves developing PMTCT communication strategies around advocacy, social mobilization and programme communication. Multispectral teams use the ACADA (assessment, communication, analysis, design and action) process to develop integrated PMTCT communication strategies for advocacy, social mobilization and programme communication (Frizelle et al., 2009, p.12).

In 2013, the PMTCT programme hosted successful community campaigns to improve the programme uptake. The Elimination of Mother-to-Child Transmission Strategy was also completed and the need to expand integration of PMTCT services was highlighted in focus group discussions. However, concerns over decreased funding were widely expressed. In particular how to maintain the same level of quality care with serious human resource constraints, which impact critical components of the programme such as lay counselling services and training for the provision for ART (Matlhare, 2014, p.22).

By 2013 Botswana had started using conventional and social media (SMS technology, twitter, and Facebook) for PMTCT Campaigns for the Elimination of Mother-to-Child-Transmission Strategy (Matlhare, 2014, p.74).

The literature gathered suggests that Bostwana has made headway with regard to PMTCT and that the communication-for-development-planning for development approach had been used to facilitate the progress. However unlike many other countries implementing PMTCT programmes in Africa, Botswana not only uses the communication for development approach but social media and internet technology is being used also. It must be noted however that issues of

funding, gender and power relations between sexes remains a challenge as was observed in Uganda.

2.7. PMTCT in South Africa

In 2002 the Government of South Africa, in collaboration with the Centre for Disease Control and Prevention (CDC) in the United States, tested the communication-for-development approach, based on the ACADA planning process, and concluded that this was the best option for South Africa. The approach is collaborative and meant to ensure community participation in the development of context-specific strategies for each province. The government is using the Communication for Development approach, combined with the ACADA Communication Planning System, both originally developed by UNICEF, and now adapted for specific use in South Africa with technical assistance provided by CDC South Africa (http://66.199.148.216/global/content/continuing-pmtct-communication-south-africa, accessed on 20th March 2015).

The approach creates the opportunity to build province-specific communication strategies that address the unique needs of each province, while at the same time, ensuring that a uniform and consistent approach is used throughout the country, ensuring quality communication interventions that meet the needs of provincial and national programming. Each provincial strategy addresses local issues related to advocacy, social mobilization, and behavioral development. Community involvement is key to the success of these strategies and community participation is well-represented in each workshop, with the initial workshop having 41% of its participants coming from community-based organizations (http://66.199.148.216/global/content/continuing-pmtct-communication-south-africa, accessed on 20th March 2015).

In 2009, UNICEF highlighted some factors that had inhibited effective PMTCT in Southern Africa including:

- Healthcare infrastructure shortages – here factors included; shortages in health staff, poor referral links and lack of communication within the health care system.

- Poor quality of counselling and health care worker's attitude and interaction with clients.
- Poverty and cultural barriers.
- Lack of awareness and knowledge in the general population on PMTCT.

When it came to communication, message themes were not consistent. In South Africa, research shows that while skills of counsellors were good for PMTCT, mothers' knowledge remained low (Frizelle et al., 2009, p.17). Observations of counselling found that 32% of the sessions in which inaccurate beliefs were corrected by counsellors did not accurately assess feeding practices, only 12 out of 34 clients were told about risks of MTCT (Frizelle et al., 2009, p.8).

However, another study undertaken by Peltzer and others (2005, p.27) to identify factors influencing the utilization of Prevention of Mother-to-Child Transmission (PMTCT) in a resource poor setting in South Africa found that more than 90% of the participants felt that they had received adequate information on most of the PMTCT components such as HIV testing, counselling, confidentiality, nevirapine dosage, feeding options and disclosure of HIV status to spouse. Items which were not sufficiently addressed during PMTCT were, in descending order: (1) advantages and disadvantages of disclosure of HIV status (29%), (2) disclosure of HIV status to family (27%), (3) transmission of HIV through breast milk (18%), HIV prevention (11%), and HIV and AIDS related illnesses. The study concluded that factors influencing the utilization of PMTCT (that is the acceptance of antiretroviral therapy to HIV positive women, facility-based delivery, and adherence to "take-home" ART identified for mother and newborn), included: HIV counselling by health care staff, physical access to a health facility, family and community support, stigma, delivery preference, and infant feeding preferences (Peltzer et al., 2005., p.27).

In this regard, UNICEF proposed clear consistent and current information on feeding practices; importance of ongoing training on PMTCT for health workers and emphasis on the importance of consistency in messages on PMTCT among other things (Frizelle et al., 2009, p.2). By 2012, the MTCT rate at 8 weeks in South Africa had dramatically decreased to about 2.6/2.7% in 2011/12, which was below the target of 7.5%. This was largely because PMTCT coverage of testing pregnant women had reached 100% and treatment of HIV positive women was around 90% (although still below target of 100%). However only 63.3% of children were tested and not

all eligible children were put on treatment (only 54.4%) (Pillay et al., 2014, p.26) and according to the 2010 PMTCT survey, only 20% of HIV-positive women were exclusively breastfeeding, 62% were formula feeding and 18% were practicing high-risk mixed feeding, suggesting a need for increased attention to infant feeding (Goga et al., 2012, p.1).

Most South Africans access some form of mass media a few days or more per week. National research in South Africa in 2005 found that exposure to radio was the highest, followed by television, newspapers and magazines. Further research confirmed that television reaches the greatest number of South Africans, followed by national radio, local radio, community radio and local community events. The research explored the impact of 19 HIV and AIDS communication programmes in South Africa; the reach ranged from 4% for participation in the government's Khomanani Campaign and The Journey community radio drama, to a high of 65% for the television drama Soul City (Frizelle et al., 2009, p.37).

Igumbor and others found high rates of ANC attendances in the catchment areas of Tshilidzini Hospital in South Africa, but the frequency of ANC attendance had no correlation with the level of exposure to health education and information (HEI) regarding PMTCT. Two-thirds of the participants received PMTCT information most frequently from radios (www.microresearch.ca/system/files, viewed on 11th March 2015).

A qualitative analysis of HIV and AIDS-related media coverage shows that newspapers in South Africa can be used more effectively to communicate information about HIV and AIDS related issues and consequently PMTCT. Newspapers tend to deliver responses that are largely based on occurrence of events, and the sources of these articles tend to be politicians, bureaucrats and civil society leaders. Newspapers and other forms of mass media can, therefore, clearly play a much more constructive role in communicating important information about PMTCT and the experiences of PLWHA, which will serve to increase awareness and help decrease stigma and discrimination (Frizelle et al., 2009, p.37).

The literature suggests that in South Africa, PMTCT programmes have worked well and that communication for development which was recommended by UNICEF has been used. The process of PMTCT communication in South Africa has been collaborative and that this approach has incorporated community participation of context-specific strategies for each province. Further, while television reached majority of South Africans, most obtained information on PMTCT through the radio channel. It can, therefore, be concluded that within the South African context mass media has contributed greatly to raising awareness on PMTCT and that since the newspapers tend to deliver responses that are largely based on occurrence of events, and the sources of these articles tend to be politicians, bureaucrats and civil society leaders, newspapers can therefore, complement other channels to facilitate positive behaviour change with regard to PMTCT. It can be argued therefore, that tremendous progress has been made with regard to PMTCT in countries such as Botswana and South Africa which have used a combination of mass media and communication for development approaches and not just a single approach.

2.8. National Perspective

HIV prevention in Zambia began as early as 1988 and the first prevention of mother-to-child transmission (PMTCT) initiative was launched in 1999. In Zambia, transmission of the HIV virus from mother to child at birth or during breastfeeding accounts for 90% of HIV infection in children aged 0-14 years (NAC, 2014, p.11).

In the initial phases of the roll-out of services, uptake remained low due to stigma associated with HIV, gender-based violence, inadequate male involvement in PMTCT and opt-in approach to counselling which relied on women consenting to an HIV test. The opt-out approach is provider initiated and pregnant women who do not want to be tested can still refuse the test (NAC, 2014, p.11).

In 2004, the Zambia National Prevention of Mother to Child Transmission Communication Strategy was made operational in order to guide those involved in PMTCT activities throughout Zambia in addressing key issues, which had affected the success of PMTCT interventions. Some of challenges included: increasing knowledge on MTCT and understanding of the importance of prevention, communicating to men and foster male involvement, improving access to VCT,

reducing stigma against mothers who do not breastfeed, making condom use acceptable within the context of marriage and reaching adolescents (UNICEF/UNAIDS/WHO/UNFPA, 2000, p.13).

The document was guided by eight principles which were: research, audience centered approach, focus on behaviour change and not merely information giving, comprehensive approach, community participation, use of multiple communication channels, partnership and dynamic environment (CBH, 2004, pp.6-7).

By 2007, 94% of pregnant women accessed antenatal care (ANC) services at least once during pregnancy, though more than 75% did so after the 3rd month of pregnancy. 47% had a skilled attendant during delivery; disparities were pronounced though, with utilization by 91% of the richest women and 83% of urban women, compared to 27% of the poorest women and 31% of rural women (UNICEF, 2012, p.35).

In 2012, Zambia adopted WHO's Option B+ regimen for PMTCT. This entails that all positive pregnant women receive treatment immediately and for life regardless of CD4 count and infants provided with ARVs from birth through to six weeks regardless of feeding method (www.emtct-iatt.org/countries/zambia/, accessed on 9th April 2015). The policy was taken to facilitate realisation of elimination of Mother to Child Transmission of HIV (EMTCT).

The Zambia Millennium Development Goals (MDG) progress report for 2013 shows that the proportion of young people with comprehensive knowledge of HIV and AIDS had improved from 31 percent in 2002 to 40.2 percent in 2009 (UNDP, 2013, p.41). However, HIV prevalence remains high amongst people with comprehensive knowledge of HIV and AIDS, suggesting a gap between knowledge and practice. Yazachew and Alem (2004, p.21) suggest that reinforcing factors (family, peers, teachers, employers, health providers, community leaders and decision makers) which are part of social networks influence persistence or repetition of behaviour. They stress that health education and communication is important to promote health through modifications in human, social and political factors that influence behaviour.

The proportion of infants born from HIV positive mothers and tested for HIV by two months of age increased to 57% in 2012 from 21% in 2010 (NAC, 2014, p.38). Zambia had increased the number of children and younger adolescents (less than 15 years) on ART from 18,040 in 2008 to 34,084 in 2012 yet this only represented 34% of children and adolescents (less than 15years) in need of treatment. About 36.8 % of infants born to HIV-infected women started cotrimoxazole prophylaxis within two months of birth in 2011 (NAC, 2014, p.38).

Zambia's GARPR report for 2013 shows a major success in PMTCT between 2011 and 2013. For example, approximately 81,727 women living with HIV delivered in 2012 out of which 76,963 received efficacious ARVs for PMTCT. These efforts have translated into a drop in the HIV transmission rate from mother to child from 24% in 2009 to 12% in 2012 (NAC, 2014, p.2).

However, 5 in 10 women or their infants did not receive antiretroviral medicines during breastfeeding to prevent mother to child transmission and in some facilities there are insufficient client spaces to accommodate men who accompany their pregnant partners (NAC, 2014, p, 36). While prevention and treatment services have rapidly expanded, access to treatment and use of more efficacious PMTCT regimens in rural areas has not kept pace with urban and peri-urban centres (http://www.unicef.org/zambia/5109_8456.html, accessed on 9th April 2015).

Over 90 percent of pregnant women attend antenatal care (ANC) services at least once during their pregnancy, but only 60 percent of women report visiting ANC clinics at least four times during a pregnancy. Therefore, numerous missed opportunities exist for identifying HIV positive pregnant women and to ascertain their treatment eligibility status. Many women also report late for antenatal care, with only 19 percent of pregnant women having their first antenatal visit in the first trimester of pregnancy. With 47 percent of pregnant women delivering at health facilities, there are immense challenges to ensure that eligible pregnant women receive the complete treatment to prevent transmission of HIV to their babies. In addition, attendance for post-natal care is poor, with 39 percent of women receiving a post-natal check-up by a skilled health worker within 48 hours of delivery. This is also more problematic in rural areas than urban areas.

Various challenges have been cited as causes of poor access and utilization of ante- and post-natal services with issues of long distances, inaccessible terrain, limited transport and resources for travel most prominent (http://www.unicef.org/zambia/5109_8456.html, accessed on 9th April 2015).

In Zambia as indicated in the literature review, PMTCT is mainly incorporated in the ANC system such that PMTCT communication is mainly facilitated by the ANC department. Further, most of the reporting on PMTCT has focused on ARV coverage for both women and children including HIV testing for pregnant mothers. However, PMTCT goes beyond ART and HIV testing and therefore, the need to consider more coverage on primary HIV prevention among women of child bearing age and prevention of unintended pregnancies as the two aspects of PMTCT are not only more financially viable but promote sustainable HIV prevention.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This section discusses the way in which the research was carried out; the design, sample area, procedure and size; research instruments used and the means used in the collection and analysis of data.

3.2. Research Design

A research design gives guidance on how the study will be undertaken. Parahoo (1997, p.142) describes a research design as "a plan that describes how, when and where data are to be collected and analysed" (http://uir.unisa.ac, accessed on 14th March 2015).

In this study a case study design was used. A case study investigates a specific instance or phenomenon and generalizes to the rest of the population (Cohen, 2007, p. 256). Cohen explains that case studies give analytical rather than statistical generalizations and that because normally they involve smaller samples, they are able to provide in-depth information on a particular situation (Cohen, 2007, p. 256). The case study approach was used to allow for collection of in depth information regarding communication strategies being used for PMTCT in Chelston.

3.3. Methods of Research

3.4. Data Collection Techniques

During data collection, both qualitative and quantitative methods were used in order to maximize benefits of both approaches.

3.4.1. Quantitative Methods

Quantitative data guides in understanding the magnitude and scale of a problem by providing a numeric picture of its impact. It addresses the questions: how many and how much (http://www.acaps.org/, accessed on 2nd August 2014)). In this study, quantitative research methods facilitated to gather information with regards to the number of women of child bearing

age who had accessed PMTCT services and with what kind of channels. Further, quantitative methods were also used to summarize field data.

3.4.2. Qualitative Methods

Qualitative data, on the other hand, focuses on determining the nature of the impact of a problem upon affected populations. Qualitative data answers questions of how and why coping strategies have adapted, or failed to adapt to the changed circumstance (http://www.acaps.org/ accessed on 2nd August 2014). In this research, qualitative methods of research helped to obtain information on perceptions about PMTCT communication. Open ended questions in the questionnaire facilitated obtaining of qualitative data.

3.4.3. In-depth interviews

An in−depth interview is a conversation with an individual conducted by trained staff. The goal of the interview is to deeply explore the respondent's point of view, feelings and perspectives (http://www.ivm.vu.nl/en/Images/PT8_tcm53-161513.pdf, accessed on 14th March 2015). In this regard, an interview guide was used to collect information from six in-depth interviews conducted at Chelston clinic with three nurses and three community health workers at the ANC department. This information helped in giving detailed information on PMTCT messages, perceived PMTCT communication challenges and knowledge on PMTCT by health workers.

3.4.4. Direct Observation

Direct observation provides an opportunity for researchers to observe directly what is happening in the social setting, interact with participants, and participate in activities; direct observation provides insight into the taken-for-granted aspects of everyday activities that may go unreported by participants, gives the researcher direct experience of the phenomena being studied, and creates an opportunity to see and hear what is happening in a social setting rather than focusing solely on narrative descriptions of participants (http://srmo.sagepub.com/view/encyc-of-case-

study-research/n114.xml, accessed on 6th June 2015). In this study, direct observation was used in order to capture information that would be relevant to the study but may not have been mentioned by respondents.

3.5. Study Area and Population

The study was conducted at Chelston clinic in Lusaka. The clinic was purposively selected as it is one of the clinics offering PMTCT services in Lusaka.

Chelston falls under Munali Constituency and Chakunkula Ward of Lusaka. The study area had a total of 6,395 households and a total population of 32,382. Out of this number, 16,901 were female according to the 2010 Census Report (CSO, 2012, p.67). The researcher selected a sample of 100 women of child bearing age for the purposes of the study.

3.6. Sampling Procedure

Sampling involved selecting of participants in the study. During this process, 50 participants were purposively selected from the Mother Child Health Centre (MCH) at Chelston clinic while the other 50 were systematically sampled from Chelston Township to capture women of child bearing age that were not expecting or had not visited the health centre. Women were the primary focus because they are child bearers. Pepe explains that systematic sampling is conducted by sampling every Kth item in a population after the first item is selected at random from the first K items (www.lexjansen.com/sugi/sugi21/po/185-21, accessed on 10th February 2015). For each household selected a woman aged between 15 – 45 participated in the study if they agreed to, for households that did not have women of this age group the house was skipped and the 3rd house from the sampled was selected.

3.7. Data Analysis

Data analysis involves summarizing large amounts of data collected to make sense out of it. Patton suggests that three things occur during data analysis: data are organized, reduced through summarization and categorization and patterns and themes in the data are identified and linked (http://konference.fdvinfo.net/rc33/2004/Data/PDF/stream_03-18.pdf, accessed on 30th May

2015). The purpose of analysis is to interpret and hence convert the data into a story that describes the phenomenon or participants' view. The process involves collecting data that will inform the study, breaking down the data into various categories and making connections between these categories in terms of relationships among them and interpreting them (http://konference.fdvinfo.net/rc33/2004/Data/PDF/stream_03-18.pdf, accessed on 30th May 2015).

Quantitative data obtained through questionnaires under closed ended questions was first organized by checking for completeness and accuracy then summarized and analyzed using Statistical Package for Social Science (SPSS) version 20. Qualitative data obtained through in-depth interviews and open ended questions in the questionnaire was grouped in terms of similar responses then after analyzed using content analysis.

3.8. Ethical Considerations

In order to ensure recognition and protection of the rights and general well-being of the participants, a responsibility that researchers have (Canterbury Christ Church University, 2006, p.1) the researcher obtained approval from the Lusaka District Management Team (DHMT) to be attached to Chelston clinic and conduct this research in Lusaka. This was done before the onset of the study. Further, consent was sought from participants to ensure information was given freely and no mention of names was made so as to ensure confidentiality.

3.9. Study Limitations

During the process of administering questionnaires which were in English, translating from English into the local languages was sometimes a challenge thereby affecting the meaning of some questions. Secondly, as a result of inadequate space for meetings at the clinic, in-depth interviews were strictly timed to allow for other meetings at the clinic, this could have restricted interviewees in terms of amount of information they could give. Finally, the sample size was too small to adequately represent the entire Chelston population.

CHAPTER FOUR

CONCEPTUAL AND THEORETICAL FRAMEWORK

4.1. Introduction

This chapter of the report looks at various theories and concepts which were relevant to the study. Theories are explanations for social phenomena to help understand why things happen the way they do and with a better understanding, society is able to find more realistic solutions to social problems.

A theory has been defined by Kerlinger as a set of interrelated constructs (concepts), definitions and prepositions that presents a systematic view of the phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena (Cohen, 2007, p.12). A theoretical framework is a collection of interrelated concepts which guide research, determining what things the researcher will measure, and what statistical relationships there may be (www.analytictech.com/mb313/elements, accessed on 16th January 2014).

Miles and Huberman defined a conceptual framework as a visual or written product, one that "explains, either graphically or in narrative form, the main things to be studied— the key factors, concepts, or variables and the presumed relationships among them" (http://www.sagepub.com/upm-data/48274_ch_3.pdf, accessed on 14th March 2015).

In this regard the theoretical and conceptual frameworks helped in understanding key concepts and in explaining relationships amongst finding regarding PMTCT communication strategies in Chelston.

4.2. Conceptual Definitions

4.2.1. ACADA

The ACADA model (Assessment, Communication Analysis, Design, and Action) has been developed and is widely used by UNICEF. It shows the process of using systematically-gathered data to link a communication strategy to the development problem (UNICEF, 2008, p.8).

The term has been used the same way in this report.

4.2.2. AIDS

AIDS stands for Acquired Immuno Deficiency Syndrome. This is caused by the immune system being depleted of its cells by HIV. Once enough of these cells have been destroyed by HIV, the body is not capable of fighting off other bacteria and viruses as easily, particularly called opportunistic infections (beatnikboy.tripod.com/basic.htm, accessed on 5th February 2014). The immune system in this regard is that part of the body that fights off diseases.

The term is being applied in the same context in this report.

4.2.3. Antiretroviral Therapy (ART)

ART are medications that treat HIV. The drugs do not kill or cure the virus. However, when taken in combination they can prevent the growth of the virus. When the virus is slowed down, so is the HIV disease. Antiretroviral drugs are referred to as ARVs (www.aidsinfonet.org, accessed on 24th November 2014) examples of antiretroviral drugs used in ART include nevirapie, zidovudine and enfuvirtide.

The term has been applied the same way in this report.

4.2.4. Behaviour Change

Behaviour change in this research implies but is not limited to alterations in an individual or community practices such that there is less engagement in sexual activities that increase chances of contracting HIV. This would be seen in terms of positive response to PMTCT by reduction

in the number of sexual partners, adherence to ART, avoidance of premarital sex and consistency in the use of condoms. It is, therefore, a qualitative indicator in HIV prevention.

4.2.5. Behaviour Change Communication (BCC)

Behaviour Change Communication (BCC) is an interactive, researched and planned process that aims at changing social norms as well as individual behaviour; it involves complementary approaches, drawing on a socio-ecological model to find an effective tipping point for change, either addressing knowledge, skills, and motivation needed; desired modification for social and gender norms; or what would constitute an enabling environment for change (Parker, 2012, p.5).

The term has been applied the same way in this report.

4.2.6. Communication

Communication has been defined differently by different scholars but central to its definition has been that it involves sharing of information. "Communication," which is etymologically related to both "communion" and "community," comes from the Latin communicare, which means "to make common" (Weekley, 1967, p. 338) or "to share." DeVito (1986, p.61) expanded on this, writing that communication is "the process or act of transmitting a message from a sender to a receiver, through a channel and with the interference of noise". Communication, therefore, is a two way process which involves not just sending information but receiving feedback also since sharing is a two way process.

Hovland, Janis and Kelly in 1953 defined communication as a process where people send stimulus in purpose to influence or make behaviours of other people (www.solocommunication.blogspot, accessed on 15th February 2014).

Communication is central to change and development in society as it is the means through which innovations and ideas move from one place to another. It is also being used in public health to manage health concerns through awareness campaigns among other things to seek to influence positive behaviour change.

The term has been applied the same way in this report.

4.2.7. Communication Audience

Communication audience refers to the community and or persons for whom the messages or information being shared is intended for, in most cases, with the intention to influence the behaviour or attitudes towards something. In the cases of HIV and AIDS prevention, the communication audience is the persons or groups for which the messages are intended in order to influence their behaviour and choices. If the message falls on deaf ears, then there tends to be waste of time and energy, therefore it is important to have a well defined audience when communicating a message.

4.2.8. Communication Channel

A channel is the "vehicle or medium through which signals are sent", this channel may convey the message visually or aurally (DeVito, 1986, p.52). Examples are radio, television, newspapers and email. With global advancement in technology, communication channels are increasing while the rates of transmitting the information are increasingly becoming faster giving audiences a lot of information at a particular time. The type of channel is crucial in designing communication strategies because different kinds of people tend to have a tendency to prefer certain channels compared to others. Children for example may tend to prefer television compared to radio since they are able to see images from television.

The term has been applied the same way in this report.

4.2.9. Communication strategies

These are plans for sharing information related to a specific issue, event, situation and or audience (www.epa.govt, accessed on 12th February 2014). In relation to this study, these are plans that guide the type of messages, channels and audiences for HIV PMTCT interventions at national, provincial and district levels.

4.2.10. Human Immuno - Deficiency Virus (HIV)

Human because this virus can only infect human beings, immuno-deficiency because the effect of the virus is to create a deficiency, or a failure to work properly within the body's immune system and Virus: because this organism is a virus, which means one of its characteristics is that it is incapable of reproducing by itself; it reproduces by taking over the machinery of the human cell (www.sfaf.org, accessed on 5th February 2014). The virus causes AIDS when it advances and depletes the human immune system.

The term is being applied the same way in this report.

4.2.11. Mass Media

Mass media is the media that is intended for a large audience. It may take the form of broadcast media, as in the case of television and radio, or print media, like newspapers and magazines. Internet media can also attain mass media status, and many media outlets maintain a web presence to take advantage of the readily available internet in many regions of the world (www.sociology.org.uk/media_defined, accessed on 16th January 2014). Media in this regard implies the vehicle through which messages are being transmitted from the source to the targeted individual or group.

In this report, mass media includes but is not limited to radio, television, the public address system, internet, brochures, newspapers, fliers, posters and billboards.

4.2.12. Message

A message may include verbal content (written or spoken words, sign language, e-mail, text messages and phone calls) and will include nonverbal content (meaningful behaviour beyond words such as body movement and gestures, eye contact, artifacts and clothing, vocal variety, touch and timing). Intentionally or not, both verbal and nonverbal content is part of the information that is transferred in a message (www.grammar.about.com, accessed on 11th February 2014).

In communication, message type and design is important to ensure the correct information is shared, if not, misunderstandings come up and the intention of the communication may not be met.

The term has been applied the same way in this report.

4.2.13. Mother to child Transmission (MTCT)

Refers to HIV infection transmitted from an HIV-infected mother to her child during pregnancy, delivery or breastfeeding (Frizelle et al., 2009, p. 4).

The term is being used in the same way in this report.

4.2.14. Prevention of Mother to Child Transmission (PMTCT)

Under the UNAIDS terminological guidelines of 2011, PMTCT refers to a four-pronged strategy for stopping new HIV infections in children and keeping mothers alive and family healthy. It begins before pregnancy with primary prevention and family planning; includes prophylaxis or treatment during pregnancy and extends beyond child birth to include treatment, care and support for mothers and infant prophylaxis, feeding, diagnosis, care and treatment to age eighteen months (UNAIDS, 2012, p.13).

The term is being applied in the same way in this research.

4.3. Theoretical Framework

The theories used in the study helped in understanding the findings of the study as well as to draw conclusions. The main theories used in the study were the diffusion of innovation theory and the knowledge gap theory.

4.3.1. Diffusion of Innovation Theory

The diffusion of innovation theory by Everett Rogers describes the process of how an idea is disseminated throughout a community. One reason why there is so much interest in the diffusion

of innovations is because getting a new idea adopted even when it has obvious advantages, is often very difficult; there is a gap in many fields between what is known and what is actually put into practice (Rogers,1983, p.2).

Instead of focusing entirely on individual decision-makers or social structures, the Diffusion of Innovation theory places its emphasis on innovation as an agent of behaviour change, with innovation defined as 'an idea, practice, or object perceived as new' and diffusion as a process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication in that the messages are concerned with new ideas' (Rogers, 2003, p. 12). Rogers proposed four elements of the diffusion process:

Innovation: The perceived newness of the idea for the individual determines his or her reaction to it. The "newness" aspect of an innovation may be expressed in terms of knowledge, persuasion, or a decision to adopt (Rogers, 2003, p. 11). He explained that, an innovation does not just need new knowledge to be adopted but favorable attitude on the part of the adopter. The favorable attitude would persuade the users to adopt the innovation. Further, he observed that the development of the favourable attitude towards a new idea would be determined by factors such as:

- **Relative advantage** which is seen as the degree to which an innovation is perceived as better than the idea it supersedes. The degree of relative advantage may be measured in economic terms but social-prestige factors, convenience, and satisfaction are also often important components.
- **Compatibility** which is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. An idea that is not compatible with the prevalent values and norms of a social system will not be adopted as rapidly as an innovation that is compatible.
- **Complexity** the degree to which an innovation is perceived as difficult to understand and use. Some innovations are readily understood by most members of a social system; others are more complicated and will be adopted more slowly.

- **Trialability** which is the degree to which an innovation may be experimented with on a limited basis. New ideas that can be tried on the installment plan will generally be adopted more quickly than innovations that are not divisible (Rogers, 1983, p.15).

Time: As an element of the diffusion of innovation, time was seen in terms of the rate of adoption which is defined as the relative speed with which an innovation is adopted by members of a social system; The rate of adoption is usually measured by the length of time required for a certain percentage of the members of a system to adopt an innovation and is measured using an innovation or a system, rather than an individual, as the unit of analysis. Innovations that are perceived by individuals as possessing greater relative advantage, compatibility, and the like, have a more rapid rate of adoption (Rogers, 1983, p.23).

Social system: Defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal; members in a social system are not all identical in their behaviour, structure then exists within the system. Structure gives regularity and stability to human behaviour in a social system; it allows one to predict behaviour with some degree of accuracy. Thus, structure represents one type of information in that it decreases uncertainty (Rogers, 1983, p.24). Under the social system, Rogers identified two key players in the social system; opinion leaders and change agents. He suggested that opinion leaders are members of the social system in which they exert their influence (Rogers, 1983, p.29) for example traditional leaders and politicians while change agents were professionals that where trained to influence clients; change agents use opinion leaders within a given social system as lieutenants in diffusion campaigns (Rogers, 1983, p.29). Both opinion leaders and change agents have a role in persuading members of the social system to either adopt or not adopt an innovation since they exert influence on the social system within which they live.

Communication Channel: The nature of the information-exchange relationship between the pair of individuals determines the conditions under which a source will or will not transmit the innovation to the receiver, and the effect of the transfer. For example, mass media channels are often the most rapid and efficient means to inform an audience or potential adopters about the existence of an innovation, that is, to create awareness-knowledge. On the other hand,

interpersonal channels are more effective in persuading an individual to adopt a new idea, especially if the interpersonal channel links two or more individuals who are near peers. Interpersonal channels involve a face-to-face exchange between two or more individuals (Rogers, 1983, p.18).

4.3.2. Relevance of theory to this study

The Diffusion of innovation theory is relevant to this study in that it explains how different factors affect the rate of adoption of new ideas. The theory demonstrates how the bottom up approach to information dissemination compared to the top down approach can affect the rate of adoption and inevitably development in relation to communication for development. By suggesting that social systems affect the adoption process, the theory recognises the role that individual units play in disseminating information as well as in persuading other members to adopt new ideas. The important role individual members play in a social system by participating in communication was demonstrated when in 2001, Leonard and colleagues presented persuasive evidence from 40 years of development projects in various sectors and concluded that projects with substantial community engagement are more likely to succeed; they convincingly extend the argument to community engagement in PMTCT programmes (UNAIDS, 2012, p.15).

With regard to PMTCT, programme planners can relate to the theory by considering the type of social structure within which the PMTCT communication would be done as well as recognising the role that the local leaders and community members can play in facilitating positive behaviour change. Further, given the complex nature of the HIV problem, communicating PMTCT as an innovation needs to take into account a wide range of factors that influence and affect sexuality including gender, culture, religion and socio economic factors in relation to the audiences and time. When PMTCT communication is responsive to characteristics of the social system and time, identification of appropriate communication channels would be made possible thereby enabling the audience to access PMTCT information easily while making it possible for them to make better choices with regard to their sexuality with the information they get and hence reduce chances of getting HIV.

4.3.3. Knowledge Gap Theory

The knowledge gap theory was first proposed by Tichenor, Donohue and Olien at the University of Minnesota in the 1970s. They believed that the increase of information in society was not evenly acquired by every member of society, people with higher socioeconomic status tend to have better ability to acquire information (http://www.utwente.nl/cw/theorieenoverzicht/Theory%, accessed on 1st June 2015).

The knowledge gap theory was developed to try and explain certain phenomena among the masses and questions such as: why is the population is not fully aware of emerging issues that are covered by the media? On an individual level people who were informed about such issues seemed to be divided in two different groups. On one hand there were people who had more education and resources or a higher socioeconomic status, and on the other hand there were people who had less of these. The conclusion that was drawn by this was that between these two groups, there was a definite gap in knowledge. This gap in knowledge causes concern because, "Knowledge helps citizens make choices and develop preferences that reflect their needs and interests" (Cho et al., 2007, p. 205).

The knowledge-gap theory argues that news media exacerbate knowledge disparities between the individuals with high and those with low socio economic status, given that the individuals with high socio economic status have greater access to and make more efficient use of information from these media," (Slater et al., 2009, p. 517). The attempt to improve people's life with information via the mass media might not always work the way it is planned. Mass media might have the effect of increasing the different gaps between members of social classes (http://www.utwente.nl/cw/theorieenoverzicht/Theory%20Clusters/Media,%20Culture%20and%20Society/knowledge_gap/, accessed on 18th March 2015).

According to Tichenor, Donohue and Olien (http://www.utwente.nl/cw/theorieenoverzicht/Theory%, accessed on 1st June 2015) there are five reasons why there is this knowledge gap:

- People of higher socioeconomic status have better communication skills, education, reading, comprehending and remembering information.
- People of higher socioeconomic status can store information more easily or remember the topic form background knowledge
- People of higher socioeconomic status might have a more relevant social context.
- People of higher socioeconomic status are better in selective exposure, acceptance and retention.
- The nature of the mass media itself is that it is geared toward persons of higher socioeconomic status.

4.3.4. Relevance of theory to this study

The knowledge gap theory is relevant to this study given that it assumes that gaps exist in communication as a result of differences in social economic status and education in the social system. Development gaps in terms of access to resources are a characteristic feature of most developing countries including Zambia. The theory is, therefore, applicable and may help explain differences in terms of access to PMTCT information in the study.

CHAPTER FIVE

PRESENTATION OF FINDINGS

5.1. Introduction

This section of the report gives details of the findings of the study. The findings are presented in line with the research objectives. The first part gives the demographic characteristics of the sample, the second reveals the sources of PMTCT information in Chelston, then the next part presents findings regarding messages being used for PMTCT followed by the channels being used for PMTCT communication and the last part gives the perceived challenges in PMTCT communication.

5.2. Background Characteristics of Respondents

5.2.1. Age

Figure 1 shows that out of the 100 respondents sampled for the study, n=24 (24%) were aged between 21-25 years, n=23 (23%) were aged between 26-30 years, n=20 (20%) of the respondents were aged between 31-35 years, n=18 (18%) were aged between 15-20 years and n=15 (15%) were aged between 36-40 years.

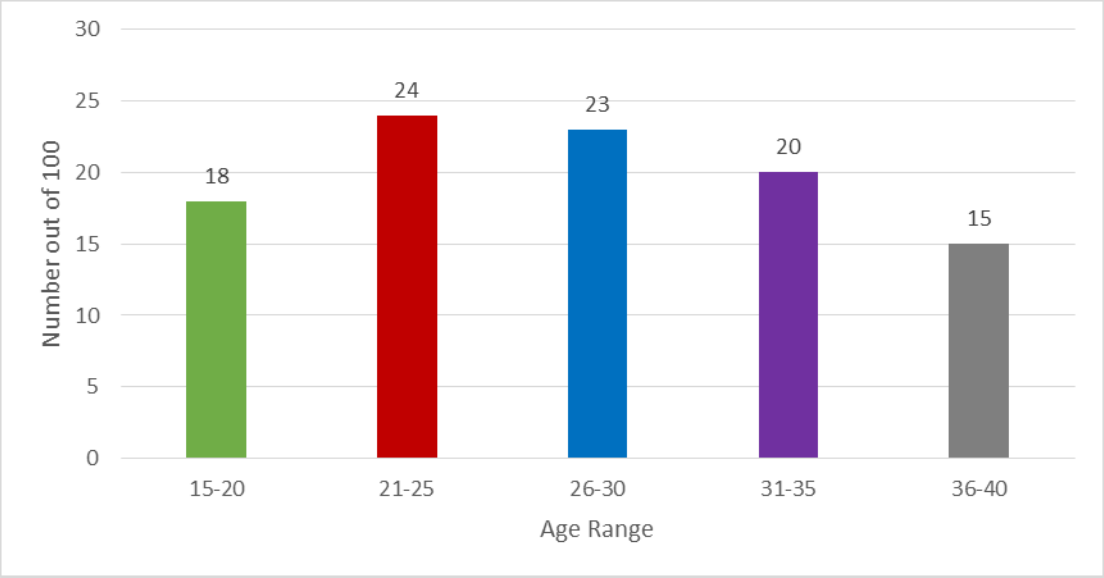

Figure 1

The findings indicate that the age of respondents was evenly spread from 15 to 40 with most of the respondents (24%) coming from the ages 21-25 and the least (15%) from the age range 36-40. The age distribution for the respondents shows that the study only had women of child bearing age participate in the study as was indicated in the study design. The women of child bearing age were targeted because they are child bearers.

5.2.2. Marital status: In terms of marital status, figure 2 shows that out of the 100 respondents, n=61 (61%) of respondents said that they were married, n= (35%) single and n=4 (4%) divorced. None of the respondents reported they were widowed.

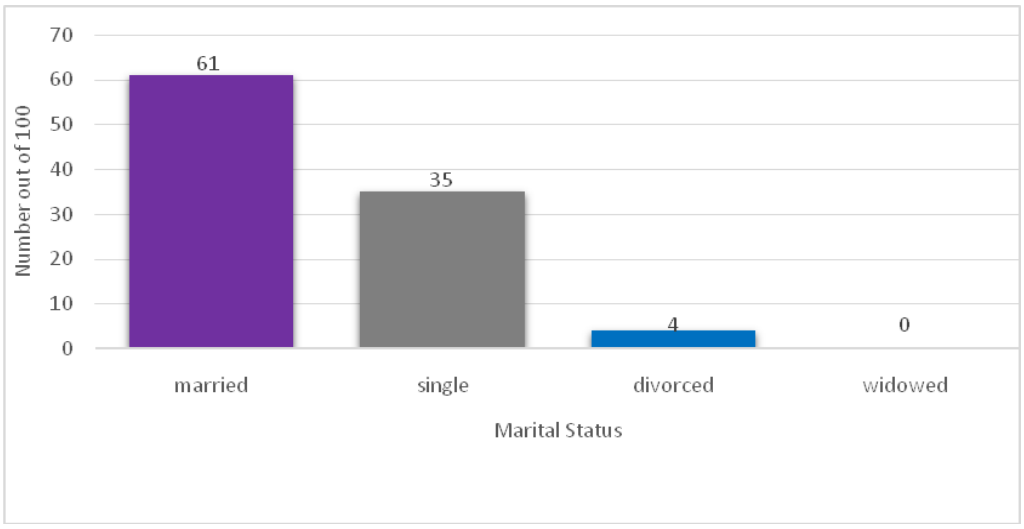

Figure 2

5.2.3. Employment status: Table 1 that follows illustrates the distribution of employment status of respondents. Out of the 100, n=31 (31%) were formally employed, n=44 (44%) were informally employed and n=25 (25%) were unemployed. Information on employment status was necessary as it gives an impression of income levels. Levels of income have an influence on the ability to access information through different sources.

	Frequency	Percentage (%)
Unemployed	25	25
Formally employed	31	31
Informally employed	44	44
Total	**100**	**100**

Table 1

5.2.4. Have children: In terms of having children, n= 54 (54%) of the respondents said that they had children and n= 46 (46%) had no children. Figure 3 gives a summary of the number of women with and without children who participated in the study.

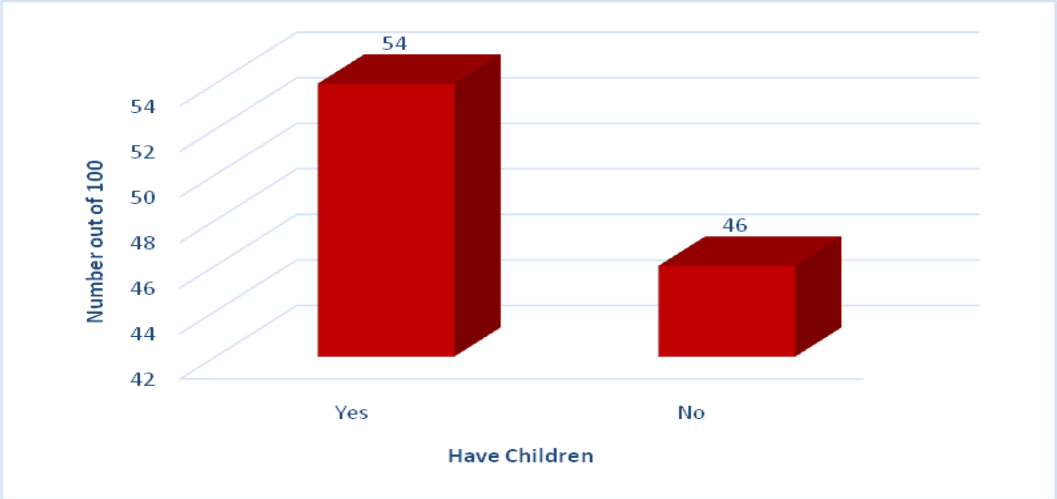

Figure 3

5.2.5. Literacy: Table 2 that follows shows the distribution of respondents that could read and write and those that could not; n=94 (94%) of the respondents said that they can read and write and n=6 (6%) could neither read nor write.

	Frequency	**Percentage (%)**
Read and write	94	94
None	6	6
Total	**100**	**100**

Table 2

5.2.6. Level of Education: Table 3 shows the distribution of the level of education attained by the respondents. The results show that n=47 (47%) of the respondents had reached secondary school, n= 33 (33%) had reached college education, n=11 (11%) had reached primary and n=9(9%) of the respondents had reached university level of education. Majority of the respondents had attained secondary education and the least level of education attained was university education.

	Frequency	**Percentage (%)**
Primary	11	11
Secondary	47	47
College	33	33
University	9	9
Total	**100**	**100**

Table 3

5.3. Sources of PMTCT Information at Chelston Clinic

5.3.1. Heard of PMTCT

Out of the 100 respondents sampled for the study, majority n=92 (92%) said that they had heard of PMTCT while respondents n= 8(8%) said that they had not heard of PMTCT. Figure 4 illustrates the distribution of respondents who had or had not heard of PMTCT.

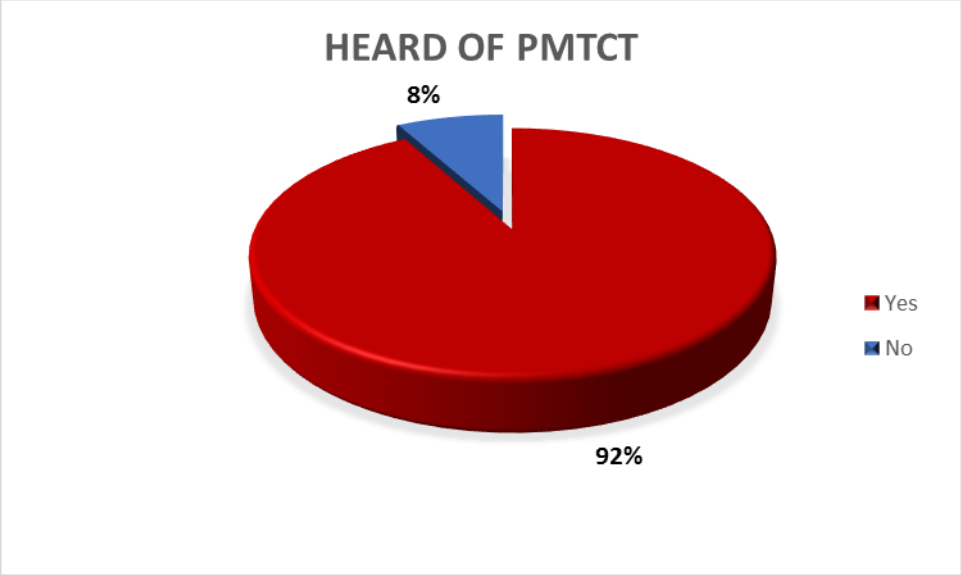

Figure 4

5.3.2. First Heard of PMTCT from?

Figure 5 that follows shows that out of the 92 respondents who had heard of PMTCT, majority n=59(64%) of the respondents first heard of PMTCT from Health Centres (clinic or hospital), followed by n=12(13%) who noted that they first heard of PMTCT from the community, n=11(12%) claimed that radio was their first source of PMTCT information, n=5(5.4%) first heard of PMTCT from television and n=5(5.4%) said pamphlets and brochures were their first source of PMTCT information.

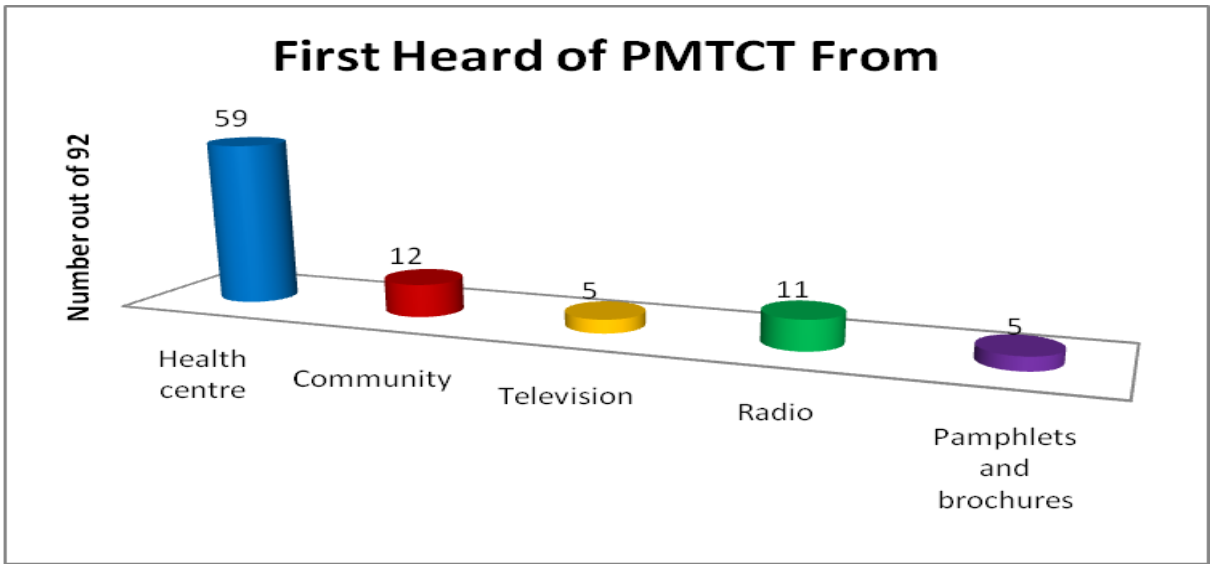

Figure 5

5.3.3. Understanding on PMTCT

	Frequency	**Percentage (%)**
Involves preventing unborn child from getting HIV	66	71.74
Involves not breastfeeding the baby if the mother is HIV positive	3	3.26
Involves taking of Antiretroviral therapy when pregnant and HIV positive	22	23.91
Not sure	1	1.09
Total	**92**	**100**

Table 4

Table 4 gives a summary of the findings regarding respondents' understanding on PMTCT. Out of the 92 respondents who said they had heard of PMTCT, majority, n=66 said PMTCT involves preventing unborn child from getting HIV, n=3 said it involves not breastfeeding the child if the mother was found to be HIV positive, n=22 claimed that it has to do with taking Antiretroviral drugs when a woman is pregnant and HIV positive and n=1 noted that they were not sure.

5.3.4. Main Source of PMTCT messages

When asked about their main source of PMTCT information, n=53 of the respondents said that the health centre (clinic or hospital) was their main source of PMTCT messages while n=12 mentioned that radio was the main source of PMTCT messages, n=9 of the respondents claimed that the family was their main source of PMTCT messages, n=7 mentioned pamphlets and brochures, n=5 said it's the community while another n=5 said newspaper and finally n=1 identified the internet as their main source of PMTCT messages. Table 5 shows the distribution of the main sources of PMTCT information as given by respondents who had heard of PMTCT.

	Frequency	**Percent (%)**
Community meetings	5	5.44
Radio	12	13.04
Newspaper	5	5.44
Health centre (Hospital or Clinic)	53	57.61
Internet	1	1.09
Family	9	9.78
Pamphlets and brochures	7	7.61
Total	**92**	**100**

Table 5

5.4. Messages Being Used for PMTCT Communication at Chelston Clinic

5.4.1. Language being used for PMTCT Communication

Out of the 260 cases of language mentioned, Nyanja appeared 92 times, Bemba was mentioned 90 times, while English appeared 68 times and Tonga 10. The figure below gives a summary of the responses given regarding languages being used for PMTCT communication in Chelston.

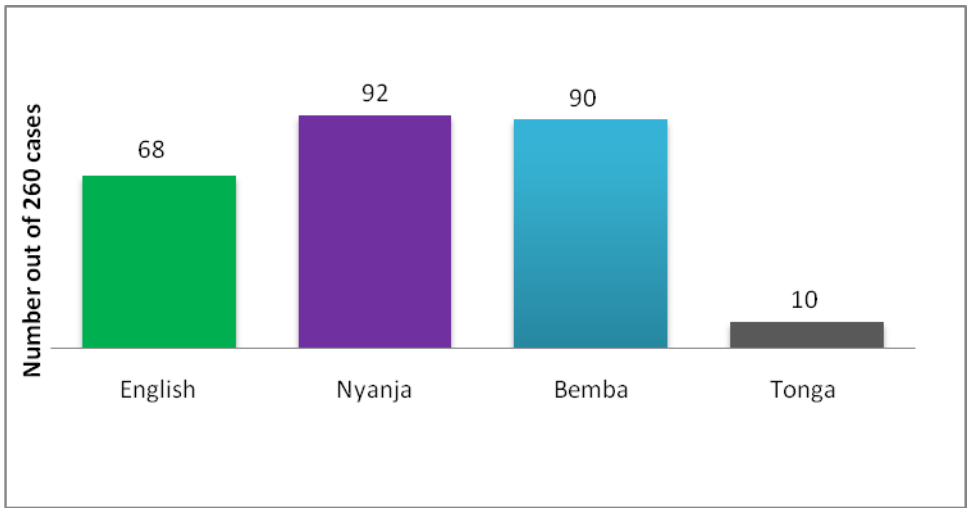

Figure 6

5.4.2. If HIV prevention among women of child bearing age is part of the PMTCT message

Figure 7 that follows shows the responses from the respondents with regard to the messages being communicated concerning PMTCT. Out of the 92 respondents who had heard about PMTCT, majority n=69(75%) said prevention of HIV and AIDs among women of child bearing age was not part of the PMTCT message, n=22(24%) of the respondents said HIV and AIDs prevention was part of the PMTCT message and n=1(1%) did not give a response.

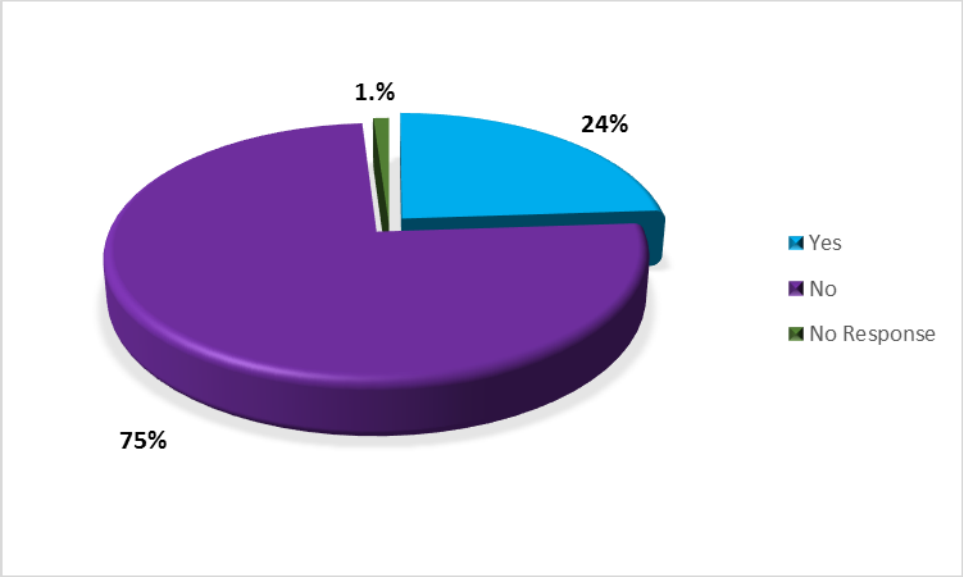

Figure 7

5.4.3. Key PMTCT messages being used at Chelston Clinic?

Key informants noted the following messages as the key PMTCT messages being used at Chelston clinic.

Adherence to ART.
Exclusive breastfeeding up to 6 months.
Importance of testing for HIV and other STI's.
How HIV transmission occurs from the mother to the child.

5.4.4. Who designs the messages?

In-depth interviews with health staff at Chelston clinic revealed that the following agencies were responsible for the design of the PMTCT messages being used at Chelston clinic:

The Ministry of Health, Mothers Alive, USAID, Centre for Disease Research in Zambia (CIDRZ), World Health Organisation (WHO) and Centre for Disease Control

5.5. Communication Channels Being Used for PMTCT in Chelston Township

5.5.1. Preferred Mass Media for PMTCT

Out of the 92 respondents who had heard of PMTCT, n=57(61.96%) mentioned that they preferred radio while n=34(36.96%) indicated that they preferred television and, n=1(1.09%) mentioned newspaper as their preferred mass media. Figure 8 gives a summary of the preferred mass media for PMTCT in Chelston.

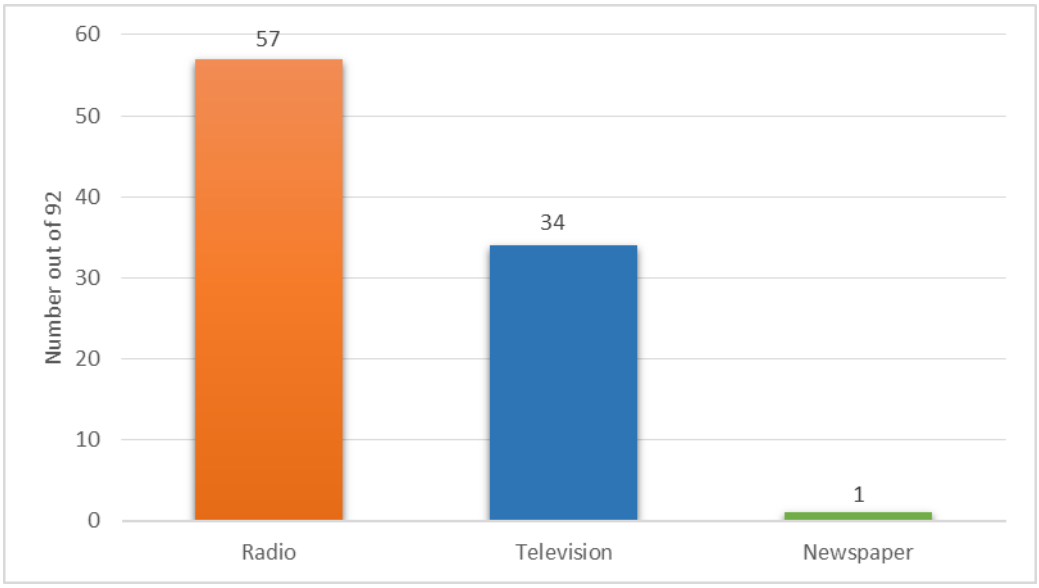

Figure 8

5.5.2. Reasons for Mass Media Preference

The table that follows gives a summary of reasons given for mass media preferences. Out of 92 women of child bearing age who had heard of PMTCT, 57 suggested that they preferred radio as it was easy to access and it reaches people from all walks of life, 34 advised that they preferred television as it shows pictures which made it easier for them to remember and 1 suggested that they preferred newspaper as it was easier to refer back to.

	Frequency	**Percentage (%)**
Radio is easy to access and reaches people from all walks of life	57	61.96
Television shows pictures so it is easy to remember	34	36.96
Newspaper is better as it can easily be referred back to	1	1.09
Total	**92**	**100**

Table 6

5.5.3. Participation

Figure 9 gives a summary of the responses regarding participation in PMTCT communication at Chelston clinic. Out of the 92 women of child bearing age who had heard of PMTCT, 66 (72%) said that they had participated in PMTCT communication while 26(28%) said they had not.

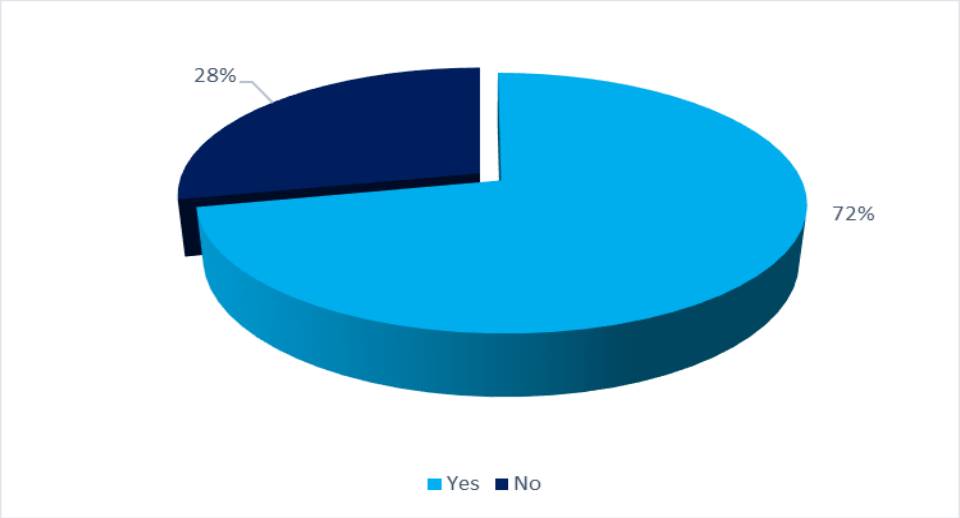

Figure 9

5.5.4. Type of Participation

Table 7 shows that out of the 66 women who said they had participated in PMTCT communication, majority 42 said they had participated during health talks at the health centre while 15 noted that they had participated by sharing information on PMTCT with family members and 9 had shared information on PMTCT with community members.

	Frequency	**Percentage (%)**
During health talks at Health Centre	42	63.63
Sharing information with friends within my community	9	13.64
Sharing information with family members	15	22.73
Total	**66**	**100**

Table 7

5.5.5. Has PMTCT Communication affected people's behaviour in any way?

Out of the 92 women who said they had heard of PMTCT, 68(74%) said that they felt PMTCT had affected people's behaviour while 24(26%) said that they had not seen any changes. The figure 10 below gives a summary of responses regarding whether or not respondents felt PMTCT communication had affected people's behaviour in Chelston.

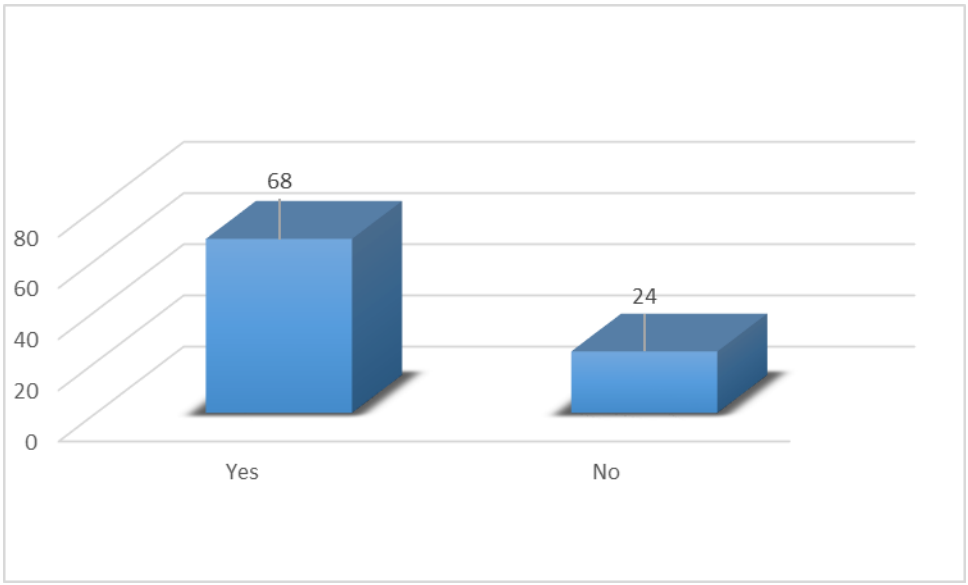

Figure 10

The 24 who mentioned that they had not seen any changes observed that people do not take HIV messages seriously as they engage in risky sexual behaviour in spite of knowing HIV preventive measures. Further, they observed that it was difficult to see the changes in people after PMTCT communication as they would rarely meet.

5.5.6. Changes Noticed

Table 9 that follows shows that out of the 68 women who mentioned that they had noticed changes in people's behaviour as a result of PMTCT communication, n=32 (47.06%) noted that women are finding it easier to adhere to ART while n=15(22.06%) observed that HIV positive

women are now able to breastfeed and n=21(30.88%) mentioned that as a result of PMTCT communication more people are able to use condoms.

	Frequency	**Percentage**
Women are finding it easier to adhere to ART	32	47.06
Women HIV positive are now able to breastfeed	15	22.06
More people are able to use condoms	21	30.88
Total	**68**	**100**

Table 8

5.5.7. What kind of PMTCT programmes do you have at Chelston Clinic?

In-depth interviews with health personnel at Chelston clinic revealed that B-Option plus was the PMTCT programme being implemented at the health centre. Health workers explained that B-Option plus involves putting pregnant women on ART immediately they are found HIV positive, previously they would wait depending on CD4 count but now with B-Option plus it was automatic**.**

5.5.8. To what extent does Chelston Clinic use the following mass media for PMTCT?

When asked about the extent to which Chelston clinic uses television, radio, newspapers, internet, public address and brochures for PMTCT communication, key informants gave the following response:

Television	*We were using videos and TV when we just started the programme but because of limited funding we do not do that anymore. There are no decks and films and TV is not working*
Radio, Newspapers and Internet	*We do not use these channels as Chelston Clinic*
Public address	*Sometimes when we go for outreach programmes*
Brochures	*When we get from ministry of health*

5.5.9. Which PMTCT communication strategy is thought to have yielded positive results?

Responses
At the moment, direct discussion is working well for the mothers as seen from results in terms of very few babies born positive. But television and videos would help us to increase understanding as we explain. Direct and group discussion is working well because women are able to participate and makes them feel comfortable.
Health talks are proving effective since when pregnant women are together they share common interests and feel free to participate often times.

5.6. What are some of the challenges in PMTCT communication?

Responses
In terms of mothers who come for antenatal the first time, sometimes after testing positive and given ARVs some stop coming to antenatal, these cases are common but we often do follow ups to try and get them back.
Some clients don't take messages seriously.
Tracing clients who drop out is a problem given that some of the houses do not have proper addresses and some of the contacts given are not always reachable.
Male involvement is very low so when they get the message some of the women's spouses do not allow them to follow medical advice. If they come together or get messages together it will be easier for both to agree. To encourage, male participation in PMTCT we attend to couples first.

CHAPTER SIX

ANALYSIS AND INTERPRETATION OF FINDINGS

6.1. Introduction

This part of the report discusses the findings of the study in relation to the objectives of the study and will refer to existing literature in order to show validity of the findings.

6.2. Background Information

The background characteristics were obtained for the purposes of the study given that background information is important in drawing comparisons among conclusions and could also help to explain causes and effects of behaviour.

The marital status of respondents shows that majority, 61% of the respondents, were married, 35% single and 4% divorced. The information suggests that majority of respondents were most likely to have been exposed to sex at one time or another and consequently to the risk of getting HIV. In this regard, it can be noted that information on PMTCT was relevant to the respondents and that even though only 54% had children, 46% would have a chance to have children within the time of their child bearing age. Knowledge of age, marital status and whether or not the respondent has had a child is important when designing PMTCT communication as Katushabe found that the level of knowledge on PMTCT increased with being married, level of education and age in Mbale Regional Referral Hospital of Uganda (http://researchonline.lshtm.ac.uk/3978/, viewed on 13th April 2015).

Several studies have also indicated that health education and literacy is a necessary intervention for people with chronic health conditions to ensure adherence with long or life therapies and increase participation in self-care. While adherence is a multifactorial process, increasing health literacy among HIV-infected patients at all stages of living with HIV has been shown to improve treatment outcomes (www.ajol.info/index.php/thrb/article/view/56112, viewed on 11th April 2015).

The background characteristics of this study also shows a relationship between socioeconomic status, education and access to information on PMTCT in line with the knowledge gap theory

which assumes that mass media is not evenly accessed by every member of society; people with higher socioeconomic status tend to have more access to information compared to people with lower socioeconomic status. Given that majority of the respondents had heard of PMTCT and that majority of them were employed shows the link. Further, 94% of the respondents were able to read and write and 75% were employed both formally and informally showing that majority of the respondents were able to access a certain level of resources to enable them access information through different channels. This could be explained by the fact that Chelston is a medium density area.

6.3. Sources of PMTCT information at Chelston Clinic

The results of the study show that majority (64%) of the respondents first heard of PMTCT from the health centres (clinic or hospital) followed by the community (13%) then radio (12%), pamphlets and brochures (5.4%) and television (5.4%) respectively. The results are similar to those of Katushabe who established that hospital health education was the most frequently (53%) stated channel through which women got information regarding MTCT and PMTCT in Uganda. Other channels included friend's, radios, seminars and newspapers at 20, 13, 7.4 and 7.2 percent mention respectively. Further, decision making was an important factor in accessing PMTCT services. Socioeconomic factors (wealth quintile, age, education level) and institutional practices also influenced access to PMTCT (http://researchonline.lshtm.ac.uk/3978/, viewed on 13th April 2015).

However another study carried out in South Africa by Igumbor, and others found that the frequency of ANC attendance had no correlation with the level of exposure to health education and information regarding PMTCT and that two-thirds of the participants received PMTCT information most frequently from radios (www.microresearch.ca/system/files, accessed on 11th March 2015).

The information regarding sources of PMTCT messages is important as it has a direct influence on the effect the messages have on the receiver. Correlation between the type of communication source, credibility and the effectiveness of communication can be associated

to the first generation of research on persuasion and attitude change by Carl Hovland of Yale University from the late 1940s through the 1960s. Hovland and colleagues sought to discover which factors influenced the success or failure of persuasion. Hovland highlighted three variables:

- Characteristics of the communicator (the person conveying the message) such as whether the person is an expert.
- Characteristics of communication (what information is conveyed) such as what arguments are employed.
- Characteristics of the situation (the circumstances in which the message is conveyed) such as whether the person receiving the message is in comfortable surroundings (http://www.intropsych.com/ch15_social/hovlands_analysis_of_factors_in_persuasion.html, viewed on 5th May 2015).

Source credibility is defined within the persuasion literature as "judgments made by a perceiver concerning the believability of a communicator" (O'Keefe, 1990, pp. 130-131). McGinnis reported that a highly credible source was more persuasive than less credible communicator (McGinnis, 1973, p.1). In health communication, source credibility or believability can increase the effect of the message delivered, including ultimately on behaviour but also on antecedents such as beliefs and attitudes (http://chirr.nlm.nih.gov/source-credibility.php, viewed on 5th May 2015).

Judging from many day to day examples of communication campaigns, there appears to be a widespread belief that having the right source can increase the effectiveness of your message (http://uts.cc.utexas.edu/~tecas/syllabi2/adv382jfall2002/.pdf, viewed on 5th May 2015).

When asked about their understanding on PMTCT, majority 71.7% said it involves means of preventing the unborn child from getting HIV, 3.3% said it involves not breastfeeding an infant

if the mother was found to be HIV positive, 23.9% mentioned that it had to do with taking antiretroviral drugs when a woman was pregnant and HIV positive and 1.09% noted that they were not sure. The responses suggest that the sources of PMTCT communication were credible given that majority respondents had some understanding on the subject but the respondent's level of knowledge on PMTCT was not comprehensive provided that the respondents could only give part of what PMTCT involves and not all aspects.

In relation to the diffusion of innovation theory, it can be argued that the source credibility of information can increase perceived relative advantage of the message or innovation and thereby increase acceptability and possibility of adoption of the message by the audience who in this case are women of child bearing age.

In relation to the findings of this study, majority of the respondents got PMTCT information from the health centre through health personnel who are experts. Therefore, it can be argued that the source of PMTCT information was credible and as Hovland and others concluded, most women who had visited antenatal from the health centre were easily persuaded to believe the PMTCT messages and adhered to ART thereby contributing to the reduction in the number of infants getting HIV from their mothers in Zambia as reported in the 2013 GARPR report. However, the source was not suitable for all women of child bearing ages, certain age groups such as ages between 15 to 18 who most likely would still be in secondary school do not normally attend antenatal and hence do not get PMTCT information from health centres. In this regard, other communication channels such as the internet, bill boards, school meetings and church gatherings among others would be used to provide PMTCT information to other population segments that may not be captured at the health centres.

Given this revelation, it is clear that health workers have a very important role in PMTCT communication and that it is important that they receive adequate training on PMTCT such that they deliver adequate information. However, health centres are not able to provide PMTCT information to all suitable audiences and hence the need for mass media which covers wider audiences. While television, pamphlets and brochures were the least mentioned sources, they have great potential in providing PMTCT information in other population segments such as

among tertiary education students, formally employed populations and in low density areas. Furthermore, as was indicated by the respondents who preferred to access PMTCT information through television, the pictures that are displayed on television would make it easier for audiences to remember PMTCT information. Television uses the printed and spoken word, pictures in motion, colour, music, animation and sound effects — all blended into one message thereby offering a vast range of possibilities for telling a story (https://dinfos.blackboard.com/bbcswebdav/library/Library%20Content/, accessed on 26th June 2015). It is, therefore, important to consider the use of television for PMTCT communication.

Drawing practical examples from other countries such as Trinidad and Tobago where HIV prevention and PMTCT programmes were communicated through the internet and results show programme success, it can also be beneficial to explore the potential that internet has in effectively communicating PMTCT in Zambia.

It can be concluded, therefore, that the inability of health centres to provide information on PMTCT to all men and women of child bearing age has undermined performance of PMTCT in Chelston and could have also contributed to the perpetuation of limited male involvement, unintended pregnancies and transmission of HIV among women of child bearing age among other things.

6.4. Messages being used for PMTCT communication at Chelston Clinic

According to the findings of the study, PMTCT messages at Chelston clinic are being designed by the Ministry of Health, Mothers Alive, USAID, CIDRZ, WHO and Centre for Disease Control. Majority (75%) of the respondents indicated that HIV prevention was not part of the PMTCT message, 24% noted that HIV prevention was part of the PMTCT message while 1% did not respond. The findings support the conclusion made by WHO when evidence from most countries implementing PMTCT programmes showed that they had focused almost entirely on interventions to prevent transmission from women living with HIV to their infants in antenatal care and delivery settings: these include HIV testing and counselling, antiretroviral prophylaxis, safer delivery practices and counselling and support on infant feeding (WHO, 2007, p. 9). This

was partly due to the lack of clear policy and operational guidance on how primary prevention of HIV among women of childbearing age and prevention of unintended pregnancies should be implemented in the context of PMTCT and within the framework of the overall national HIV prevention programmes (WHO, 2007, p. 9).

The messages being used were: *Adherence to ART, exclusive breastfeeding up to 6 months once the infant is born, importance of testing for HIV and other STI's and how HIV transmission occurs from mother to child.*

This information was important to the study given that the message content has a fundamental effect on the rate at which the audience responds to the communication and the manner in which they do. Wigington explains that in today's world there is a bombardment of urgent, instant, up-to-the minute news and messages, and that important messages for protecting health must compete with information about seemingly anything and everything. Therefore, in order to help these messages get through in the chaos of information overload, it is essential to create materials in plain language (easy to understand and presented in an easy-to-read format) (www.cdc.gov/nceh/ehs/docs/jeh/2008/june_08_wigington.pdf, accessed on 5th May 2015).

The study results indicate that the messages being used at Chelston clinic do not adequately address all the key issues regarding PMTCT such as primary HIV prevention among women of child bearing age, prevention of unintended pregnancies among HIV positive women, importance of male involvement and sexual rights. While the messages being used are important, the approach is not comprehensive and may achieve only part of PMTCT success indicators while others may be left out which may not produce sustainable PMTCT results. It can be suggested therefore, that there exists a relationship between the kind of PMTCT messages being used at Chelston clinic and the rate of male involvement as well as the rate of antenatal dropouts at the health centre. Hence it is critical for Chelston clinic to ensure that PMTCT messages that are being communicated are adequate and comprehensive.

It was observed however, that family planning services were available, but were being offered on a different desk which was voluntary rather than the PMTCT briefings which were compulsory for all women attending antenatal. Further, HIV prevention programmes were available also but were being carried out under the VCT (Voluntary Counselling and Testing) department which was situated about 25 metres from the ANC department. What is needed for Chelston clinic therefore, is the integration of family planning and HIV prevention programmes into the PMTCT programme so as to provide a comprehensive approach to PMTCT.

The findings are similar to those of the study undertaken to identify factors influencing the utilization of Prevention of Mother-to-Child Transmission (PMTCT) in a resource poor setting of South Africa by Peltzer and others (2005, p.27) where 90% of the participants felt that they had received adequate information on most of the PMTCT components such as HIV testing, counselling, confidentiality, nevirapine dosage, feeding options and disclosure of HIV status to spouse. In this study, results indicate that primary prevention of HIV among women of child bearing age was not incorporated in the PMTCT programmes as was the case at Chelston clinic.

Another study in Zambia found that slightly more than 50% of the participants in the study received family-planning counselling at their first antenatal visit; however, this decreased to 38% among HIV-positive women and to 50% among HIV-negative women at the time of their six-month postpartum visit. Research in a number of developing countries found that PMTCT sites often miss opportunities to provide clients with family-planning services (Frizelle et al., 2009, p.17).

Given the gaps in the message content, it can be observed that leaving out or not adequately addressing issues such as male involvement, family planning, sex rights of HIV positive women and primary HIV prevention among women of child bearing age within the PMTCT message could have contributed to the challenges being faced which are undermining the performance of PMTCT at Chelston health centre.

Desgrees-du-lou and others suggest that men's involvement plays a role in HIV prevention by helping to facilitate couple communication related to sexuality. Partner participation increases spousal communication about HIV and sexual risk (Desgrees-du-Lou et al., 2009a, pp.348-355). The lack of male involvement in PMTCT consequently undermines the potential benefits of antenatal HIV preventive efforts, thus representing a missed opportunity to effectively prevent vertical HIV transmission (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599633/, accessed on 31st August 2015). Further, since male partners influence women's ability and willingness to adhere to diverse product use including PMTCT interventions, there is the need for cooperation and agreement between couples to prevent both horizontal and vertical transmission of HIV (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599633/, accessed on 31st August 2015).

In 24 studies from peer-reviewed journals; 21 from sub-Saharan Africa, 2 from Asia and 1 from Europe, barriers to male PMTCT involvement were mainly at the level of the society, the health system and the individual. The most pertinent was the societal perception of antenatal care and PMTCT as a woman's activity, and it was unacceptable for men to be involved. Health system factors such as long waiting times at the antenatal care clinic and the male unfriendliness of PMTCT services were also identified (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599633/, accessed on 31st August 2015).

Madiba and others discovered that disclosure of HIV status to a partner is always the main gate to progress in PMTCT uptake and that pregnant women in Southern Africa do not have the confidence to do this, due to the fear of negative reactions they will face from their husbands and relations (http://iosrjournals.org/iosr-jnhs/papers/vol3-issue5/Version-1/A03510107.pdf, accessed on 5th May 2015). In Abidjan Cote d'Ivoire, prenatal couple counselling and testing improved couple communication on sexual risks among both HIV positive and negative women (Desgrees-du-Lou et al., 2009a, pp.348-355).

It is therefore clear from the discussion that PMTCT messages need to cover all aspects of PMTCT if desired PMTCT results are to be achieved.

6.5. Language Being Used

The language in which messages are being communicated has a direct effect on the ability of the audience to understand the message. If, for example, messages are communicated in a language that is not understood by the audience, then the audience will be unable to get the message. In this study, respondents indicated that mainly Nyanja and Bemba followed by English were being used for PMTCT communication. Considering that Nyanja and Bemba are very common languages in Lusaka, it can be concluded that the languages being used for PMTCT communication at Chelston clinic are appropriate. The findings are not consistent with those from a study undertaken in Uganda where respondents suggested that the trainers responsible for running PMTCT-information workshops may not have had the appropriate skills and may have used the language and terminology that was unfamiliar to the target audience, who may, therefore, not understand some important aspects of PMTCT (Frizelle et al., 2009, p.17).

In another study undertaken in South Africa with regard to PMTCT, findings revealed that message themes were not consistent and that while skills of counselors were good for PMTCT, mothers' knowledge remained low (Frizelle et al., 2009, p.17). The study shows a link between the message content and levels of knowledge and consequently on the diffusion of PMTCT and the rate of adoption. If the messages are inadequate, it is most likely that the women will lack relevant knowledge on PMTCT and this will affect their attitudes and practices regarding PMTCT. In the case of Chelston however, over 90% of the women who had heard of PMTCT had some understanding of the subject. Even though the knowledge may not have been comprehensive, it enabled HIV positive women to adhere to ART and exclusively breastfeed their infants.

What is needed in the context of HIV and AIDS is an approach to communication that takes seriously the social context in which people negotiate their lives and that recognises the need for long-term and sustained efforts that engage local communities in the development of contextually relevant and appropriate responses. Such an approach promotes collective discussion and debate in addition to individual reflection and self-awareness, and simultaneously

attempts to address social, cultural, economic and political factors in an attempt to create health-enhancement (Frizelle et al., 2009, p.10).

It is for this reason that South Africa adopted the use of communication for development based on the ACADA planning process. The approach is collaborative and meant to ensure community participation in the development of context-specific strategies for each province (Frizelle et al., 2009, p.10). For more complex innovations such as HIV PMTCT, use of multiple communication channels would complement other communication channels and cover more audiences. In this regard, the communication for development approach on its own may not be adequate and thus the need for use of multiple communication approaches that would capture diverse cultural and socio economic orientations.

6.6. Type of communication channels being used for PMTCT in Chelston Township

The study revealed that the most preferred mass media for PMTCT communication in Chelston was radio (62%) followed by television (37%) and lastly newspaper (1 %). Respondents explained that radio was easy to access and was, therefore, the most preferred channel.

However, the in-depth interviews with health personnel indicated that radio, television and other forms of mass media were not being used. Health personnel were using interpersonal and group communication. Video and television had been used when the programme was first initiated but was no longer being used as there was no allocation for funding in that area and no discs and films were available. The public address system would be used during outreach which was normally done for child health week and VCT. However, it was rare to incorporate PMTCT programmes in VCT as it is under a separate department.

The findings are not consistent with those of the study in Masaka and Sembabule districts of Uganda, where an evaluation of a community-based Information Education and Communication (IEC) HIV and AIDS programme found that video and drama were the most preferred channels of mass media, followed by leaflets and community educators among rural respondents

(www.microresearch.ca/system/files/.../Report_PMTCT_March_2012.pdf, accessed on 15th March 2015).

Another study in South Africa suggested that while television was the most used, form of mass media radio was mostly preferred when it came to accessing PMTCT information. The differences in preferences with regard to mass media across different African countries can be attributed to differences in socio and economic contexts and hence the need for PMTCT communication to be driven by cultural, economic and social set ups.

Everett Rogers suggests that mass media channels are more effective in creating knowledge of innovations, whereas interpersonal channels are more effective in forming and changing attitudes towards a new idea, and thus in influencing the decision to adopt or reject a new idea (1983, p.18.). He however, cautioned that mass media channels such as agricultural magazines were satisfactory for less complex innovations but interpersonal contact with extension change agents was more important for innovations that were perceived by farmers as more complex. If inappropriate communication channels were used, such as mass media channels for complex new ideas, a slower rate of adoption resulted (Rogers, 1983, p.207). Given the complex nature of HIV and AIDS as observed by Frizelle and others when they noted that the HIV and AIDS epidemic is driven by a complex set of factors which include social, cultural, historical, political, economic and gendered factors and that HIV and AIDS also touches on sensitive issues such as people's sexuality and identity (2009, p.10), the importance of the use of interpersonal and group communication channels cannot be ignored nor can the exclusive use of these channels of communication be adequate enough to solve the HIV and AIDS communication problem.

Given the nature of the HIV and AIDS problem, the use of a combination of different communication channels would add great value to PMTCT in Chelston. While interpersonal and group communication has proved effective in terms of increasing adherence to ART and consequently increasing the number of children born free of HIV from HIV positive mothers in Zambia, the use of multiple communication channels would facilitate realization of the elimination of MTCT. Peltzer and others stated that media campaigns can improve male participation in the prevention of HIV programmes as shown in Botswana. There is plainly a

need to look into the possibility of using mass media communication to support interpersonal and community PMTCT communication strategies (Frizelle et al., 2009, p.37).

To enhance the understanding on PMTCT, the use of video and television would increase the degree to which an innovation may be experimented on a limited basis. Rogers calls this triability. He explained that new ideas that can be tried on the installment plan will generally be adopted more quickly than innovations that are not divisible (Rogers, 1983, p.15). While the use of visual communication channels can increase understanding and acceptance, interpersonal communication would reinforce the messages and other mass media such as radio, newspapers and the internet would capture wider populations that would otherwise not make it to the health centres but are in fact in need of the information.

6.6.1. Participation

When it came to participation in PMTCT communication, 66 of the 92 respondents who had heard of PMTCT said they had participated while 26 did not. Of the 66 who had participated, majority 63.6% had participated during health talks at health centres while 22.7% had participated by sharing information with family members and 13.6% had participated by sharing information with community members. In this regard, participation in PMTCT communication was not at all stages of communication and it was mainly from the health centres which suggest the need for more participation at community level where norms and perceptions on innovations are influenced to a greater extent. The diffusion of innovation theory explains that diffusion occurs within a social system and that the social structure of the system affects the innovation's diffusion in several ways (Rogers, 1983, p.25). It is important therefore, to ensure viable interpersonal networks exist within the social system and that persons that have much influence in the social structure otherwise seen as opinion leaders are incorporated in the diffusion process.

Nonetheless, the importance of greater community involvement in PMTCT cannot be overemphasised for sustainability and achievement of elimination of MTCT in Zambia. Leonard and colleagues presented persuasive evidence from 40 years of development projects in various sectors and concluded that projects with substantial community engagement are more likely to

succeed; they convincingly extend the argument to community engagement in PMTCT programmes (UNAIDS, 2012, p.15).

In relation to Chelston, the need for greater participation in PMTCT communication is clear given the existing challenges of inadequate male involvement and relatively high numbers of antenatal drop outs. Participation not only enhances communication at community level but also at household level where decisions with regard to sexuality, family planning and child health are made. It can be argued, therefore, that increasing levels of community participation in PMTCT communication would encourage male involvement and decrease to a great extent antenatal drop outs.

6.6.2. Perceived Effects

In order to assess the effectiveness of PMTCT communication strategies at Chelston clinic, respondents were asked whether or not they felt PMTCT communication in Chelston had an effect on the behaviour and attitudes of the people. Out of 92, majority 68 respondents indicated that they had noticed changes while 24 said they had not. Of the 68 women who mentioned that they had noticed changes in people's behaviour and attitude as a result of PMTCT communication, 47.06% noted that women are finding it easier to adhere to ART while 22.06% observed that HIV positive mothers are now able to breastfeed and 30.88% mentioned that as a result of PMTCT communication more people are able to use condoms. The results suggest that generally respondents felt that PMTCT communication in Chelston has been effective and that as a result women are finding it easier to adhere to ART, positive mothers are now able to breastfeed and that more people are able to use condoms.

The perceived effects are in fact valid as they are in conformity with Zambia's GARPR report for 2013 which shows success in PMTCT between 2011 and 2013; of the approximately 81,727 women living with HIV who delivered in 2012, 76,963 received efficacious ARVs for PMTCT. These efforts have translated into a drop in the HIV transmission rate from mother to child from 24% in 2009 to 12% in 2012 (NAC, 2014, p.2).

Zambia's GARPR report however only measures PMTCT success in terms of ARV access and coverage giving the impression that most of the health care centres in Zambia which are providing PMTCT are focusing on ARV provision, HIV testing and exclusive breastfeeding as is the case for Chelston. WHO suggests that focusing on HIV testing and counselling, antiretroviral prophylaxis, safer delivery practices and counselling and support on infant feeding is partly due to the lack of clear policy and operational guidance on how primary prevention of HIV among women of childbearing age and prevention of unintended pregnancies should be implemented in the context of PMTCT and within the framework of the overall national HIV prevention programmes (WHO, 2007, p. 9).

In this regard, there is need for a shift in PMTCT communication at Chelston clinic so as to embrace a more comprehensive approach which would bear sustainable PMTCT results.

6.7. Challenges associated with PMTCT communication in Chelston.

Results of the study indicate that the main challenges with regard to PMTCT communication at Chelston clinic were limited male involvement, dropping out of mothers from antenatal after first visit of which tracing is a problem, limited space leading to mixing of clients and separation of VCT, family planning and PMTCT departments. In both in-depth interviews and field interviews, the issue of limited male involvement came out as a challenge. Health personnel also mentioned that after testing positive and given ARVs, some mothers stop coming for antenatal but added that follow ups to try and get them back are made even though tracing clients who drop out was a problem and that some pregnant women don't take messages seriously. Additionally, the health personnel from safe motherhood department cited problems in terms of incorporating HIV prevention in PMTCT as the programme of HIV prevention was being implemented by another department, although occasionally the departments worked together. Lastly, limited space at the clinic made it difficult for one on one counselling and resulted in mixing up clients when counselling or giving health talks. This was uncomfortable for some women.

The GARPR 2013 report for Zambia also cited that in some facilities there are insufficient client spaces to accommodate men who accompany their pregnant partners (2013, p.11) and recent

studies have also indicated that male involvement in PMTCT in Zambia is still a challenge. Since some of the PMTCT communication challenges that were cited at the time the Zambia National Prevention of Mother to Child Communication Strategy Paper was released in 2004 are still being experienced over ten years down the line, there is need to reevaluate PMTCT communication strategies being used in Zambia as clearly evidence shows that gaps exist.

The challenges cited at Chelston clinic are similar to PMTCT communication challenges being faced in many other African countries. Evidence suggests that while many women may enrol in a PMTCT programme, a number of factors result in a high drop-out rate. A study undertaken in Uganda revealed that the role of education was more pronounced, mothers who had attained postsecondary education compared to counterparts with no education, are 0.4 ($p<0.05$) to 0.5 ($p<0.01$) percentage points more likely to use antenatal care content. Whereas partner's education is important in influencing the utilization of antenatal care content, it is not as strong as maternal education both in terms of significance and magnitude (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562912/, accessed on 26th June 2015).

Location differences are revealed to be significant in influencing the utilization of antenatal care content also. Being in the rural area, compared to one in the urban area, reduces the utilization of antenatal care content by 0.3 ($p<0.01$) to 0.4 ($p<0.01$) percentage points and finally media penetration in leading to the utilization of antenatal care content could not be underestimated as women having access to media at least once a week and those having access daily are 0.5 ($p<0.01$) to 0.7 ($p<0.01$) percentage points more likely to use antenatal care content compared to counterparts who have no access at all (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562912/, accessed on 26th June 2015).

Coverage of key HIV interventions for women with children drops at the time of childbirth through to postnatal care. Statistical data of healthcare coverage in South Africa showed that while 94% of women attended antenatal at least once, only 73% attended four or more times, and only 27% attended antenatal by the time their infant was 20 weeks old. This shows a cascade of diminishing service use and highlights that there are many missed opportunities for PMTCT, especially through follow-up services (Frizelle et al., 2009, p.14).

In Zambia, men are the heads of households and most of the decisions taken by women with regard to their sexuality and child care are influenced by men. Improvement in communication between couples, therefore, can be seen as a factor that can facilitate male involvement in PMTCT and consequently contribute to reduction in the number of antenatal dropouts. It must be noted however, that male involvement in PMTCT and improvement in couple communication in Zambia as is in many other African countries is to a larger extent influenced by gendered, social, economic and cultural factors and hence the need for increased research in this area to facilitate the design of more appropriate communication strategies.

According to Reece, the perception of male gender inequality is a barrier to male involvement in PMTCT. Men believed that culturally ANC/PMTCT is a women's activity and so a man should not be seen there (http://iosrjournals.org/iosr-jnhs/papers/vol3-issue5/Version-1/A03510107.pdf, viewed on 5th May 2015).

There is ample evidence documenting the impact of men's involvement on the various components of PMTCT programmes (Falnes et al., 2011, p.21): men play an important role in terms of women's risk of acquiring HIV (Msuya et al., 2006b, p. 27), and prevention, in terms of condom use in the couple relationship (Farquhar et al., 2007, pp. 1620-1626).

Based on the studies undertaken in South Africa, Botswana and Uganda, it can be argued that PMTCT at Chelston clinic and indeed in Zambia would produce best results if messages on the importance of male involvement were consistently included in the health talks being given to expecting women as part of the PMTCT message. Provided that Chelston community has been persuaded to adhere to ART and exclusively breastfeed as part of PMTCT, it is most likely that when the importance of male involvement, importance of family planning and primary prevention of HIV among women of child bearing age is communicated consistently as part of PMTCT, the audience will be persuaded to adopt the messages and consequently there will be sustainability of PMTCT.

The information, therefore, indicates that there is need for alternative and complementary PMTCT communication approaches to make PMTCT sustainable in Chelston and Zambia at large.

6.8. Summary

The findings of the study have revealed that Chelston clinic is mainly using interpersonal communication for PMTCT and that the messages being used are consistent and in line with the Ministry of Health and WHO guidelines for PMTCT. However, some of the key PMTCT messages are not being used. The problem of limited male involvement and increased antenatal drop outs has continued to undermine effective PMTCT communication at Chelston clinic.

When it came to primary prevention of HIV among women of child bearing age and prevention of unintended pregnancies, key informants did not identify them as part of PMTCT and majority of the respondents noted that primary prevention of HIV was not part of the PMTCT message. The findings indicate clearly a gap in PMTCT communication given that primary prevention of HIV among women of child bearing age and prevention of unintended pregnancies among HIV positive women is part of PMTCT. PMTCT communication at Chelston clinic has focused on adherence to ART, exclusive breastfeeding up to six months, HIV testing and how HIV is transmitted from mother to the child. However, given that Zambia is a developing nation, and that substantial amounts of resources are being used for ART, primary prevention of the problem is a more financially viable option.

Although Zambia has recorded good results in terms of reducing MTCT based on adherence to ART , increased coverage and exclusive breastfeeding among other things, the rate of drop outs which remains one of the major challenges as well as limited male involvement and not adequately addressing family planning during PMTCT communication has the potential to slowly but surely diminish the PMTCT gains recorded and hence the need to address the root cause of the problem which lays in primary HIV prevention among women of child bearing age and meeting of unmet family planning needs. It is at this point that strategic communication comes in.

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATIONS

7.1. Introduction

This chapter of the report gives the conclusion of the findings of the study as well as recommendations on what could be done to improve PMTCT communication at Chelston clinic so as to achieve the elimination of MTCT.

7.2. Conclusion

Given the fact that HIV and AIDS is still a problem in Zambia, the importance of PMTCT cannot be overemphasized. Zambia has made progress with regard to PMTCT since it was first initiated in 1999. However, given the complex nature of the HIV and AIDS problem, the potential in realizing the elimination of MTCT is yet to be realized. The realization of the elimination of Mother to Child Transmission will require that main challenges that have been identified as affecting PMTCT negatively such as limited male involvement, limited space for counselling at ANC centres, relatively high dropout rates and limitation on the variety of communication channels being used for PMTCT be addressed.

The purpose of the study was to assess the communication sources, messages and channels being used at Chelston clinic such that once assessed their effectiveness would be deduced. Results of the study indicate that Chelston clinic has credible sources of PMTCT messages and that most of the key PMTCT messages are being used. However, PMTCT communication channels are limited to mainly interpersonal and group counselling and other important messages such as sex and reproductive rights for HIV positive women, family planning and the importance of male involvement are not adequately covered during the PMTCT briefings. Leaving out some of the key PMTCT messages as well as focusing on only interpersonal communication channels could have contributed to reinforcing limited male involvement, unintended pregnancies and HIV infections among women of child bearing age. Further, while mothers were encouraged and given chance to participate during the group health talks at ANC, they were not involved in the designing of messages that were being used.

The findings suggest the need for use of comprehensive PMTCT messages as well as the use of alternative and complementary PMTCT communication strategies at Chelston clinic.

7.3. Recommendations

The following recommendations are made based on the literature review and the findings of the study. It is hoped that they would be used in designing more responsive PMTCT communication strategies that would facilitate achievement of best results for PMTCT at Chelston clinic and beyond.

- PMTCT communication planners need to involve women, men and community leaders at every stage of PMTCT communication from designing of messages to dissemination of PMTCT information.

- Management at Chelston clinic needs to merge the VCT and family planning units with the PMTCT programme such that PMTCT will be communicated as a complete package.

- There is need for PMTCT communicators to create fora to share best results for PMTCT at different levels so as to demonstrate the reality of PMTCT.

- The government and other stakeholders need to facilitate infrastructural development at Chelston clinic so as to provide adequate space for PMTCT communication and prevent mixing of clients with different health needs.

- Management at Chelston clinic need to consider the use of mass media such as the internet, billboards and the public address system among others for PMTCT so as to increase the number of people that have access to PMTCT information and capture men who, according to the findings of the study, do not often go with their partners to health centres for antenatal.

- The Ministry of Health needs to partner with the local community, churches and market entities in PMTCT communication so as to increase awareness and participation.

- DHMT needs to facilitate continuous training for community health workers who often give the PMTCT health talks. Constant training on PMTCT will keep community health workers abreast with PMTCT information and motivate them to give the best of their knowledge on PMTCT to communities.

7.4. Future Research

In the course of this study it was observed that more research was needed in some areas such as the role of communication and mass media on family planning and primary HIV prevention among women of child bearing age in PMTCT. The suggestion is given in the light of the observation that most reporting with regard to PMTCT was on the impact of ART and increased programme coverage on PMTCT. However, it is important to investigate the impact of communication on family planning and HIV prevention among women of child bearing age as the two are important aspects of PMTCT and strategic communication is an integral part of every successful PMTCT programme. Once further research is conducted, the information would be very useful in the design of contextually appropriate PMTCT communication approaches.

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APPENDIX I: Structured Questionnaire for Women of Child Bearing Age (Chelston)

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF MASS COMMUNICATION

Research Topic: HIV Prevention of Mother to Child Transmission Communication Strategies: The case of Chelston Township.

Dear respondent,

My name is Samantha Tayali a student at the University of Zambia carrying out a study on Communication Strategies being used for HIV Prevention of Mother to Child Transmission in Chelston. You have been randomly sampled to take part in this research and your input in answering the questions in this questionnaire will help to find more effective communication strategies for Prevention of Mother to Child Transmission of HIV in Chelston. You are therefore, kindly being asked to answer each question truthfully. Your answers will be treated confidentially and you do not need to write your name anywhere on this paper as the information is strictly for academic purposes.

Instruction:

Please indicate your answer by crossing in the appropriate box [X] and/or write in the space underlined where your opinion is required**.**

SECTION A

Background Information

1. Sex

1. Male ☐
2. Female ☐

2. Age last birthday

1. 15 – 20 years ☐
2. 21 - 25 years ☐
3. 26 - 30 years ☐
4. 31 - 35 years ☐
5. 36 – 40 years ☐
6. 41 - 45 years ☐

3. Marital Status

1. Married ☐
2. Single ☐
3. Divorced ☐
4. Widowed ☐

4. Do you have children?

1. Yes ☐
2. No ☐

5. Are you able to read or write?

1. Read only ☐
2. Write only ☐
3. Read and Write ☐
4. None ☐

6. What is your highest level of Education?

1. Primary ☐
2. Secondary ☐
3. College ☐
4. University ☐
5. Others (Specify)……..

7. What is your employment status?

1. Unemployed ☐
2. Formally employed ☐
3. Informally employed ☐

SECTION B

Sources of Information on PMTCT

8. Have you ever heard of Prevention of Mother to Child Transmission of HIV?

1. Yes ☐
2. No ☐

9. If yes to question 8, where did you first hear about PMTCT from?

_____

_____

10. What do you understand by Prevention of Mother to Child Transmission of HIV?

_____

_____

11. What is your main source of information on PMTCT, please specify

_____

_____

SECTION C

Content of the Messages

12. Which language do you normally use in your community?

1. English ☐

2. Nyanja ☐

3. Bemba ☐

4. Tonga ☐

5. Others Specify _____

13. Which language is normally used when communicating PMTCT prevention? (You may tick more than one)

1. English ☐

2. Nyanja ☐

3. Bemba ☐

4. Tonga ☐

5. Others Specify _____

14. Is HIV prevention in women part of the message for PMTCT?

1. Yes ☐

2. No ☐

15. Do you think the type PMTCT messages and education information is comfortable to women in Zambia?

1. Yes ☐

2. No ☐

16. Give reasons to your answer

_____

_____

17. What are some of the PMTCT messages that you get?

_____

_____

_____

SECTION D

Which channels are being used?

18. Which of the following do you get information on PMTCT from? (Cross all that apply)

1. Community meetings ☐
2. Church ☐
3. Radio ☐
4. Television ☐
5. Newspapers ☐
6. Health centre (Hospital or clinic) ☐
7. Internet ☐
8. Family ☐
8. Pamphlets and brochures ☐
9. Other Please specify_____

19. Which mass media do you prefer to access PMTCT information from? (Please tick only one).

1. Television ☐
2. Radio ☐
3. Newspapers ☐
4. Magazines ☐
5. Brochures ☐
6. Billboards ☐
8. Internet ☐
7. Other please specify_____

20. Why do you prefer the mass media you have picked in question 19?

_____

_____

_____

21. Do you participate in Prevention of Mother to Child Transmission?

1. Yes ☐

2. No ☐

22. If yes, how do you participate?

_____

_____

23. According to your understanding, do you feel PMTCT communication has affected people's behavior and attitudes in any way?

1. Yes ☐

2. No ☐

24. If yes, what are some of the changes you have noticed?

_____

_____

25. If No, in your understanding, why do you think the messages have not had any influence?

APPENDIX II: Interview guide for in-depth interview with Health Staff.

1. What kind of PMTCT programmes do you have at Chelston clinic?

2. In your opinion do you think the PMTCT programmes are having any impact on prevention of HIV transmission among women of child bearing age?

3. What communication strategies is Chelston clinic using for PMTCT?

4. What are some of the key messages in your PMTCT programmes?

5. Who is your target audience?

6. Who designs the messages?

7. To what extent does Chelston Clinic use the following communication channels for PMTCT

    - Television
    - Radio
    - internet,
    - newspapers,
    - public address
    - broachers

8. Which of the channels discussed do you feel is yielding better results in PMTCT?

9. Does your PMTCT programme include HIV prevention in women of child bearing age? Please give detail.

10. Which strategy used for communication is thought to have yielded positive results in changing people's attitudes, perceptions and behaviour towards sexual behaviour and HIV prevention?

10. What have been some of your challenges in PMTCT communication?

12. How has been the response to PMTCT from your target audience?

13. Does the audience participate in sharing PMTCT activities? Kindly give detail.

14. What key changes in information dissemination on PMTCT communication would you make if given a chance?