

**A SURVEY ON KNOWLEDGE, ATTITUDES AND PRACTICES OF HIV- POSITIVE
WOMEN OF REPRODUCTIVE AGE (15 – 49 YRS) AT KATUTURA HEALTH
CENTRE TOWARDS DIFFERENT FAMILY PLANNING METHODS**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
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ABSTRACT

In recent years there has been an increase in the incidence of pregnancies in HIV-positive women, which increases the risk of mother-to-child transmission (MTCT) of HIV. However, once HIV-positive women become aware of their sero-status, many demonstrate a reduced desire for pregnancy, particularly because most of them know that there are risks involved in delivering an HIV-positive child. Others, on the other hand, want to have children despite their HIV-positive status. Accordingly, HIV-positive women have reproductive needs that have to be respected and attended to.

Family planning services are the cornerstone of the prevention of MTCT of HIV. Nevertheless, family planning services are not integrated into HIV care and treatment, making it difficult for both HIV-positive women to access such services and for the health care providers to know whether their clients have received these services or not. As a result, many women fall pregnant unintentionally, with some of them accepting the situation, while others opt for back-door abortion services or, if they do not get them, baby dumping becomes an option.

The type of the family planning method used by HIV-positive women is influenced on the one hand by the availability and accessibility of different family planning methods and, on the other, by the attitudes of these women and their knowledge of the importance of family planning in HIV-positive women. It is against this background that the researcher carried out a research study that assessed the knowledge, attitudes and practices (KAP) of HIV-positive women of reproductive age (15–49 yrs.), relating to different family planning methods at the Katutura Health Centre.

During this KAP study, the researcher used a quantitative, descriptive cross-sectional research

method. A standard questionnaire with closed and open-ended questions was employed. The questionnaire comprised four sections, containing demographic, attitude, and knowledge and practice questions respectively. The questionnaire was piloted before data collection to ensure its validity and appropriate changes were made before data collection started.

A random sampling method was used to select 347 women of reproductive age, that is, between 15 to 49 years, out of a study population. After data collection, all the responses were filled in questionnaires that were identified by number and not by name, hence ensuring anonymity and confidentiality. Verbal consent was sought from those respondents who could not read while written consent note was obtained from literate respondents. Those respondents who started the study but fell out later were allowed to do so with no adverse consequences, and privacy was taken into consideration during the research process.

Data analysis was done using a computer program called Epi Info, and appropriate statistics, namely, p-values and chi-squares, were calculated. Throughout the data coding and analysis, the researcher was guided by supervisors who are experienced in the field of research. The study revealed that HIV-positive women of reproductive age (15–49 yrs) attending the Katutura Health Centre have good knowledge (95.7%) of the importance of family planning in the prevention of MTCT of HIV and a positive attitude (80.1%) towards family planning methods and issues generally. Regarding the practices of HIV-positive women towards family planning, the study revealed that 73.7% of women use family planning methods, of whom 57.8% use condoms and only 14.6% use dual family planning methods (condoms and hormonal methods).

It is recommended that providers should initiate counselling and family planning services should be provided every time an HIV-positive woman visits care and treatment centres for regular monitoring or check-ups. Health providers responsible for the treatment and care of HIV-positive women should be trained on the importance of family planning and on the appropriate counselling of these women in order to empower them to make informed choices. In order to increase the availability and accessibility of family planning services for HIV-positive women, the responsible authorities should integrate family planning services into the already existing HIV care and treatment services provided countrywide.

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DEDICATION

This thesis is dedicated to my husband Mr. Deogratias Egidio, our son Christian and our daughter Faith.

It is also dedicated to my mother and role model, Dr. Susan Tinkishaba Mahela Ikerra.

DECLARATION

I, Dr. Hellen Thomas, declare hereby that this study is true reflection of my own research and that no part of this work has been submitted for a degree in any other institution of higher education.

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Date.....

Dr. Hellen Thomas (MD)

LIST OF ACRONYMS/ABBREVIATIONS

AIDS	Acquired immunodeficiency virus
ART	Anti-retroviral treatment
ARV	Anti-retroviral
CDC	Centre for Disease Control
FHI	Family Health International
FP	Family planning
HIV	Human immunodeficiency syndrome
IUCD	Intra uterine contraceptive device
MOHSS	Ministry of Health and Social Services
MTCT	Mother-to-child transmission
MWRA	Men and women of reproductive age
PEPFAR	The President's Emergency Plan for AIDS Relief
PMTCT	Prevention of mother-to-child transmission
STI	Sexually transmitted infection
UNAIDS	Joint United Nations Plan for HIV/AIDS
VCT	Voluntary counselling and testing
W H O	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Orientation of the Study

The acquired immunodeficiency virus (AIDS) epidemic has had a unique impact on women as a result of their reproductive role in society and their biological make up which makes them more vulnerable to human immunodeficiency virus (HIV) infection than men (UNAIDS, 2010). In many countries women are less likely to be able to negotiate condom use, therefore they are more likely to be subjected to unprotected sexual intercourse and, thus, to HIV and other sexually transmitted infections (STIs) (UNAIDS, 2010).

However, the increase in the prevalence of HIV in women is accompanied by an increased risk of the HIV virus being transmitted to new-born babies through mother-to-child transmission (MTCT). Consequently globally each day 1,800 children become infected with HIV virus through MTCT. Of these, the vast majority are in Africa (UNAIDS, 2006). The risk of MTCT occurs during pregnancy, delivery and breastfeeding. During pregnancy and labour the risk of transmission is calculated as being 15 to 30%. Breastfeeding up to 18 to 24 months increases the overall risk from 30 to 40% (De Cock., Fowler. Mercier, Vincenzi. Saba. Hoff, et al., 2000).

MTCT of HIV is one of the major ways in which HIV is transmitted. Pregnancy in HIV-positive women therefore carries serious consequences and, without intervention, about one-third of pregnant mothers will pass the virus on to their new-born babies. It is estimated that 430,000 children were infected with HIV in 2008, the vast majority of them through MTCT

(WHO, MTCT Report, 2008, p. 1).

However, HIV-positive women have a need for and a right to children. Hence, it is important for their pregnancies to be planned – planning in this context means making sure that their CD4 is equal or above 500 and that their viral loads are at the minimum level. Therefore, the planning of pregnancy in HIV-positive mothers is one of the most important interventions for reducing MTCT of HIV, as unplanned pregnancy could pose a high risk of MTCT (MOHSS, 2008).

There is a number of prevention of mother-to-child transmission (PMTCT) services available, of which the reduction of unintended pregnancies is one and particularly very important, especially in high prevalence countries. A number of studies have found that a moderate fall in the unintended pregnancy rate, ranging from 5.6 to 3.4%, can result in the same number of prevented infections as the current use of Nevirapine (Sweat, O'Reilly, Schmid, Denison, & De Zoysa, 2004). Another study done by Reynolds and Wilcher to compare the effectiveness of family planning and Nevirapine in the prevention of MTCT of HIV found that HIV-positive births could be reduced by the prevention of unintended pregnancies through intensive family planning use at the same rate as the use of Nevirapine during labour and in new-born babies (Reynolds & Wilcher, 2006).

Family planning is the key strategy for reducing the number of babies born to HIV-positive women. Making an informed choice about contraceptive use involves recognising and acknowledging different methods and their effectiveness against pregnancy, as well as the need to prevent STIs and HIV. Health workers should provide family planning services at antenatal care (ANC), anti-retroviral treatment (ART) sites, maternity and postnatal care clinics, and under-fives clinics (MOHSS, 2010). Health workers should encourage clients to use dual family planning methods, that is, the use of both condoms and another contraceptive

method which should be hormonal in nature (WHO, 2004). The dual method is particularly important for anyone who is sexually active but is not planning on becoming pregnant (MOHSS, 2010).

Current WHO guidance gives women with HIV a choice of many methods (WHO, 2004). Accordingly, the WHO states that having HIV/AIDS or undergoing anti-retroviral treatment (ART) places no limitations on the use of hormonal methods such as oral contraceptive pills, injectable contraceptives and implants. Where there is theoretical concern that ART might reduce the effectiveness of oral contraceptives, many studies have proved that women undergoing ART can safely use oral contraceptive pills with negligible failures (WHO, 2004).

There is an important relationship between voluntary HIV counselling and family planning services. HIV-positive women, especially those on ART have an increased need for voluntary HIV testing and family planning services (UNAIDS 2001a). The achievement of the United Nations goal of reducing HIV infections among children by 50% by the year 2010 requires the prevention of unwanted pregnancies among HIV-positive women (UNAIDS, 2001b). This can easily be done by integrating family planning services into already existing HIV treatment and care programmes.

For those women who know that they are HIV positive, the literature points to different scenarios regarding their fertility intentions. Some studies have found that even when HIV-positive women were told of their status and are counselled on the risk of MTCT, pregnancy levels remain high.

A study carried out in South Africa by Cooper and her colleagues to look at reproductive intentions and choices among HIV-infected individuals in Cape Town revealed that in common with uninfected men and women, many HIV-infected individuals felt that children gave meaning to their lives and gave them reason to live. Many of them expressed a desire to

leave something of them behind after they died, while some women expressed a desperate need to have a child especially if they had no children. Married women in particular reported strong family pressure to reproduce especially if they had not disclosed their HIV status. Children represented a realisation of hope and a sign of normality. (Stephen and Mitchel 2004)

In the same study, it was found that the reproductive intentions of a significant number of participants, that is, 35%, were governed by health concerns. Equally, many HIV-infected men and women were firm in their desire not to have children. Both men and women feared infecting their partner or the baby and were anxious about leaving their future children orphans. They were also concerned about their ability to support their children financially given their illness. Women who had given birth to an infected child expressed mixed feelings about becoming pregnant again (Cooper and Johnson 2005).

A cross-sectional study involving 490 HIV-positive women of reproductive age living in Ontario, Canada, found that 69% of these women desired children and 58% intended to become pregnant in the future, regardless of their HIV status. The above findings support the importance of respecting the sexual and reproductive needs of HIV-positive men and women (Loutfy., Hart., Mohamed., Su., Ralph., Walmsley., et al., 2009).

Another study done in South Africa to assess the level of use of family planning services among HIV-positive and HIV-negative women revealed greater pregnancy desires and lower contraceptive and condom use in HIV-positive than in HIV-negative women. This finding once again underscores the fact that HIV prevention and family planning services should acknowledge the reproductive desires of HIV-positive people (Peltzer, Chao, & Dana, 2009).

In contrast to above, research conducted in Kenya has shown that HIV-positive women who

are aware of their status are less likely to want to have a child in the future than HIV-negative women and, therefore, will seek family planning services (Reynolds & Wilcher, 2006). Furthermore, a study carried out in Uganda found that only 7% of HIV-positive women who knew their status would like to have a child (Nakayiwa, Abang, Packel, Lifshay, Purcell, & King, et al 2006).

Similarly, Heys, Kippwater, Gians, Arif and Rubaale (2009) revealed that the probability of HIV-positive women wanting to stop childbearing was 6.25 times higher than it was for HIV-negative women. This confirms the finding that HIV-positive women tend to want fewer children than their HIV-negative counterparts, mainly because they are aware of the risks of MTCT and do not want to go through the difficulties of having an HIV-positive child. Overall, the fertility desires of HIV-positive women are generally lower compared to HIV-negative women, mainly because they are aware of the possibility of their being widowed, divorced, having an HIV-positive child or becoming infected with a sexually transmitted disease (Lewis, Ronsmanns, Eze, & Gregson, 2004; Terceira, Gregson, Zaba, & Mason, 2003). This finding in respect of HIV-positive women wishing to have fewer children shows the importance of health authorities either bringing closer or incorporating family planning services in to the HIV care and treatment clinics.

Further, studies have shown that most HIV-positive women have a positive attitude towards family planning methods, especially sterilisation in older women and condoms in younger women. This can be attributed to their knowledge of the risk of MTCT of HIV and the fact that this can be reduced by the prevention of unintended pregnancies through family planning. The choice of family planning method is related to the range of methods available, health and religious beliefs, perceptions of the effectiveness of a particular method, convenience, and the risk of side-effects in the particular method (Mitchell & Stephens,

2004;)

The government of Namibia has acknowledged that HIV/AIDS is a serious developmental problem and has invested substantially in fighting the disease. In Namibia, PMTCT of HIV services started in 2006, under the auspices of the United States President's Emergency Plan for AIDS Relief (PEPFAR). Since then, 175 community counsellors have been trained to provide counselling services and to perform HIV rapid testing. More than half of all public health care facilities offer PMTCT services through the National well organised PMTCT programme and this programme is closely linked to HIV care and treatment, meaning that all HIV-positive pregnant mothers at these facilities are enrolled in the programme (PEPFAR, PMTCT 2009 Report p. 1).

However, recent evidence suggests that there are high rates of unwanted pregnancies in HIV-infected women that sometimes end up in abortions or the dumping of babies in rubbish bins (Tjaronda, 2009). Family planning is, therefore, a cornerstone of the PMTCT of HIV and can help reduce maternal mortality. Nevertheless, family planning services are not accessible at many public health care centres providing HIV care and treatment (Craig, 2010). Moreover, PMTCT programmes are very expensive and currently only reach an estimated 5% of the HIV-positive population. Accordingly, it is maintained that, instead of these programmes being run in isolation, they could be integrated into the already existing networks of family planning services, or vice versa, as the family planning programmes are already achieving a wide coverage and, hence, reach out to more women, couples and their children.

As a result of their desire for children some HIV-positive women choose to conceive despite the chances of poor pregnancy outcomes, while other sexually active HIV-positive women want contraception. Therefore, providers need to understand how to counsel and serve HIV-

positive women and to be aware that deliberate efforts are needed to find out the HIV status of those women who do not reveal their status when they come for family planning services.

In settings where HIV prevalence is high, family planning providers should discover how HIV can affect their client's families. Ideally, contraceptive counselling should include a description of HIV risk factors and an evaluation of the clients' risks of infection. Some programmes may also be able to offer HIV testing to women at high risk of HIV infection (Rutenber and Baek, 2004). Many HIV-infected women do not know their HIV status before they conceive, while others only discover it when they receive ante-natal services, if such testing is available (MOHSS, 2010).

According to the Namibian Government HIV treatment guidelines, all HIV-positive women, whether on treatment or not, are supposed to be offered family planning services. When they come for treatment and care services, they are usually advised to use condoms to prevent re-infection and to make use of family planning services to protect them from unwanted pregnancies. This is because unplanned pregnancies carry a high risk of HIV transmission to the new-born baby. At the treatment and care centres, patients are usually advised to go to the family planning clinics that are available at all primary health care facilities. However, because these family planning services and HIV care and treatment services are not integrated, it is difficult to find out whether these mothers have in fact accessed the family planning services as advised or not.

1.2 Problem Statement

As a medical doctor working in an anti-retroviral (ARV) treatment clinic, I have seen many HIV-positive mothers who come to the clinic to report that they have become pregnant by mistake. They state that either the condom broke or that they had tried to use the rhythm method without success. The fact that they conceived after a condom had broken shows that they are using no family planning method other than condoms.

When these women were asked whether they were using other hormonal family planning method apart from condoms, many responded that they have tried to use some but they stopped following undesirable side effects like amenorrhea and prolonged vaginal bleeding. Others said that they were not allowed by their husbands to use any hormonal family planning method because it encourages promiscuity. Despite reporting that they use condoms many however reported that sometimes they don't use them as their partners refuse to use them due to lack of pleasure and others come too drunk not entertaining any conversation regarding condoms.

It was obvious that many women were not aware of the importance of using condoms together with the available hormonal family planning methods. For those who knew that it was important fear of side effects and disapproval from their spouse was an obstacle.

However, when many of these women were asked if they have been communicating with their partners regarding the issue of family planning they reported that they haven't been doing so due to the fear of being regarded as prostitutes having other partners outside their relationships. The fact that these women could not speak to their partners regarding any issue on family planning tells us that these women have a negative attitude towards the issue of family planning. In addition to that other women develop a negative attitude towards all

family planning methods after suffering side effects to a particular method which doesn't always mean that these particular women will be affected by all available family planning methods. Therefore a wrong mentality regarding family planning and a negative attitude which develops after suffering side effects are likely to lead to lack of utilization of available family planning methods or choosing condoms only. All these lead to the high rates of unintended pregnancies with serious consequences to the health of these women.

Therefore after getting undesirable side effects many of these women end up using condoms alone. Some of them know that they are not fully protected but they don't have an option after suffering from side effects. Others have not tried to use hormonal family planning methods at all due to lack of information or as a result of wrong information they have received from other women in the community. All these comprise a large group of women who rely on condoms as their main contraceptive method, a practice which has contributed to a big percentage of unwanted pregnancies in HIV positive women whose consequences are, an increase in paediatric HIV, general HIV prevalence, baby dumping and criminal abortions.

Knowledge and attitude of a particular woman towards family planning are important factors that affect the use of family planning. If a woman does not know the importance of a particular method and/or has a negative attitude towards it, then she will not use that particular method and therefore the negative repercussion will follow. From the responses of the women attending CDC clinic, it becomes evident that they lack knowledge or the right attitude to practice hormonal methods and therefore they rely on the condoms which are even not approved by their partners.

The unwanted pregnancies are a result of many factors. Many HIV-positive women do not become pregnant by choice and as a result opt for abortion. However if they cannot access those services baby dumping then becomes an option. This may therefore be one explanation

for the high incidence of baby dumping in Namibia (Tjaronda; 2009). Those who are unable to abort the baby do carry the pregnancy to the end, however with psychological torture of knowing that their new born baby might end up being HIV positive. This is for any unplanned pregnancy.

It is against this back ground that this study was conducted to assess the knowledge, attitude and practices of HIV-positive women of reproductive age (15-49yrs) regarding different available family planning methods

1.3 Objectives of the Study

The main purpose of the study is to assess the knowledge, attitudes and practices of HIV-positive women of reproductive age at the Katutura Health Centre: Centre for Disease Control (15–49 yrs.) towards different methods of family planning.

The specific objectives of the study are as follows:

- (i) To determine knowledge and attitudes of HIV-positive women (15–49 yrs.) relating to different family planning methods
- (ii) To identify and describe the different family planning methods being used by HIV-positive women (15-49yrs).

1.4 Significance of the Study

Insight into the knowledge, attitudes and practices of HIV-positive women relating to family planning methods will tell us why these women are not making proper use of the family planning methods available. It could, thus, form a logical step in the planning and design of different programmes that will help these women to make better use of family planning services. This could be done by, for example, integrating such services into already existing

HIV care and treatment programmes, and reinforcing education on family planning so as to improve women's levels of knowledge and change their attitudes.

1.5 Summary

This chapter gave a general overview and the rationale of the study, including the research problem, the research purpose and the objectives. It also defined the main concepts and the research method. In the next chapter a review will be conducted of the current literature on the importance, barriers and results of different studies on family planning carried out on HIV-positive women.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter gave a general overview and the rationale of the study, including the research problem, the research purpose and the objectives, and defined the main concepts. In this chapter the researcher presents a review of the pertinent literature.

As mentioned in the chapter 1, there have been increased incidences of unwanted pregnancies in HIV-positive women (UNAIDS, 2010). It should be emphasised here that the sexual and reproductive needs of HIV-positive women have to be respected and, therefore, these women have the right to fall pregnant and have children like any other women should they wish to do so. However, it is essential that their pregnancies be planned, owing to the fact that a high viral load and a low CD4 count in pregnant women increases the chances of these women giving birth to HIV-positive babies. Consequently, family planning is the only reliable method that is recommended for planning pregnancies in such cases (Chersich and Rees 2008).

Mother to child transmission (MTCT) is the second largest mode of HIV transmission worldwide accounting for some 370,000 infection in the world in 2007, (UNAIDS, 2008). In the developing world, particularly in Sub – Saharan Africa, the prevention of Mother to Child remains promising but yet complex and challenging programmatic undertaking. In 2007 uptake for anti- retroviral for PMTCT (ARV-PMTCT) reached 33% in Sub- Saharan Africa, (WHO, 2008). In many countries PMTCT programs focus on antenatal HIV testing, provision of ARV prophylaxis to HIV infected women and their newborns and counselling on safer infant feeding practices. However these three components constitute just one of four pillars for PMTCT, the remaining being primary HIV prevention in women of child bearing age,

family planning (FP) for prevention of unwanted pregnancies as well as and treatment for HIV infected women, (WHO, 2002).

Prevention of unintended pregnancies among women living with HIV is a critical step towards reducing mother to child transmission and is a core component of the international standards for comprehensive approach to prevention of mother to child transmission of HIV, (PMTCT). All women irrespective of HIV status need services that can help them make informed decision and provide them with contraceptive option if and when they are desired. By enabling women living with HIV to prevent or delay pregnancies, access to these services could avert HIV infection in infants, (WHO, 2002; UNFPA, 2004).

It is recommended that dual family planning should be practised by HIV-positive women. This includes a highly effective hormonal method used together with barrier methods, such as condoms, (WHO, 2010). Condoms have been found to be reliable for the both prevention of pregnancy and HIV infection, as well as other sexually transmitted diseases. Hormonal contraceptive methods are used as a back-up for the prevention of conception in case the condom bursts. Apart from the availability and accessibility of family planning methods, religion, culture, educational status and age, as well as the attitudes and knowledge of HIV-positive women towards the available family planning methods, are important factors affecting the use and the choice of family planning methods (WHO, 2004).

2.2 The Importance of Family Planning

UNAIDS/WHO estimates that 42 million people are living with HIV/AIDS world wide and 50% of all adults with HIV infection are women predominantly infected via hetero-sexual transmission,(UNAIDS., 2010). Despite this there is little evidence about contraception use in HIV positive women and effects on transmission risk. Without evidence based guidelines

contraception management for women with HIV infection remains pragmatic and individual.

The issues around contraception choice for an HIV positive women living in poverty in a resource poor country with inadequate health care services and without access to antiretroviral therapy will be different from those faced by a women in a developed country receiving highly active antiretroviral therapy (HAART) with a wide range of contraception methods available to them.

Preventing unintended pregnancies among HIV-positive women is an effective approach to reducing paediatric HIV infection and is vital in meeting HIV-positive women's sexual and reproductive health needs, (WHO, 2002). Although contraceptive services for HIV-positive women are one of the four cornerstones of a comprehensive programme for PMTCT of HIV, a review of PMTCT programmes found that implementers have not prioritised family planning (Rutenberg & Baek, 2004).

Most HIV – infected women in Sub –Saharan Africa bear children and their access to anti-retroviral therapy may increase the child bearing desires and or fertility resulting in greater need for contraception. Most contraceptive option can be safe and effectively used by HIV positive women. The unmet need for contraception is high in this population with 66-92% of women reporting not wanting another child (now or ever) but only 20-43 % using contraception. During pregnancy and delivery HIV infected women need access to prevention PMTCT services, a skilled birth attendant and quality post- partum care to prevent HIV transmission to the infant. Innovations in biomedical and behavioural interventions may improve reproductive health care for HIV infected women; but in sub –Saharan Africa modes of integrating HIV and PMTCT services with family planning and reproductive health services will be important to improve reproductive outcome. HIV infected women in sub-Saharan Africa have myriad needs related to reproductive health including access to high quality family planning information and options, and high quality pregnant care and trained

providers. Integrated services that help to prevent unintended pregnancies and optimize maternal and infant health before, during and after pregnancy will both maximize limited resources as well as provide reproductive outcomes. (Sarngquist, Rahangdale and Maldonadol, 2013)

Approximately 90% of HIV infections among children are acquired by MTCT. Transmission from the HIV-positive woman to her child can occur during pregnancy, labour and delivery, or through breastfeeding. The World Health Organization (WHO) estimates that the risk of transmission ranges from 15 to 30% in non-breastfeeding populations and 20 to 45% in breastfeeding populations. In the absence of interventions, HIV-infected children may die during infancy and early childhood (Gliemann, Becquet, Ekoweve, Leloy, Perez and Dabis; 2008).

There are important synergistic links between voluntary counselling and testing and family planning services. HIV-positive women, especially those on ART, have an increased need for family planning services. These women should be informed that a wide range of contraceptive options are safe and they should therefore be available to them (UNAIDS, 2006).

A high degree of protection against HIV sexual transmission is provided by consistent correct condom use, (UNAIDS, 2004). Inconsistent or incorrect use is not protective. Most global HIV transmission and unwanted pregnancies occur because condoms are not used at all during sexual intercourse, (Pullum, Cleland, and Shah, 2005).

In the WIHS cohort study in which the HIV status of sexual partners is not known, 60% of women with HIV infection used condoms consistently. Consistent use was associated with having a partner, greater income, absence of illicit drug use and when condoms were the only contraceptive method used, (Adamchak, Janowitz, Amenyah, and Nagai, 2006). Women who

also use effective or long term methods of contraception are less likely to report consistent condom use. Condom use is also related to whether a woman has informed her partner of her status. Less consistent use is reported by concordant couples, even within discordant partnerships consistent condom use is reported by only approximately 50% couples,(Adamchak, Janowitz, Amenyah R et al., 2006)

Obstacles to greater use of male condoms include lack of availability, fear of being perceived as having multiple partners and being unfaithful to a regular partner, opposition on religious grounds, and male dominance in decision making(Sarna, Luchters, Shikely, Mandalya and Rutenberg., 2006). Women living with HIV infection may feel unable to disclose their HIV status and negotiate condom use with new sexual partners for fear of abandonment, domestic violence, loss of economic support and social isolation.

Condom accidents are reported by 1-12% of users and the method contraceptive failure rate is at least 12 %, (Cooper, Myer, Zweigenthal, Moodley and Bekker, 2006). Dual protection , the simultaneous use of an effective contraception method with consistent condom use have been advocated to reduce the risk of unplanned pregnancy, horizontal transmission of HIV to a non-infected partner with HIV infection, and the risk of acquisition of other STIs including high risk human papillomavirus (HPV) types, (Berr., 2006).

The consistent and correct use of condoms can significantly reduce the rate of HIV infection. Moreover, many couples as well as HIV-positive women want to avoid becoming pregnant and many effective family planning methods are available to assist them. By averting unintended and high risk pregnancies, family planning reduces the MTCT of HIV as well as the number of AIDS orphans whose life chances are seriously diminished because they have lost a parent, particularly a mother (Smith, Ashford, Gribble, & Clifton, 2009).

The achievement of the United Nations goal of reducing HIV infection among children by 50% by the end of 2010 has required the prevention of unwanted pregnancies among HIV-positive women (UNAIDS, 2001). This could be easily achieved if family planning services were to be integrated into already existing HIV treatment and care programmes, such as voluntary counselling and testing (VCT) and PMTCT. This is supported by the 2010 Family Health International (FHI) report, which states:

“Minimizing HIV infected births will likely be best achieved by a combination of approaches that includes preventing unplanned pregnancies among HIV infected women and preventing HIV infection among reproductive age women. Accomplishing these important approaches requires new thinking about how various reproductive health and HIV services can be integrated in a setting where women are likely to seek health care. Integrating family planning services into VCT services helps those women who test positive to prevent unintended pregnancy”, (FHI, 2010, pg. no 1)

Therefore, preventing HIV infection among women of childbearing age and helping HIV-positive mothers to avoid unintended pregnancies should be the primary emphasis of strategies to reduce MTCT (FHI, 2010).

In March 2002, Namibia introduced PMTCT services at the Katutura and Oshakati state hospitals. Since then, services have been rolled out to all 35 hospitals in the country, as well as to 135 of the 335 health centres and clinics (MOHSS, 2008). This is indeed an excellent achievement. However, there is a gap in the PMTCT programme – it says nothing about family planning. As we have seen, this is a very important tool for preventing the reinfection of pregnant women.

Spaulding., Brickley., Kennedy., Almer’s., Packel., Mirjahangi et al. (2009) conducted a systemic review of the literature to examine the effectiveness, optimal circumstances and best practices for strengthening linkages between family planning and HIV intervention. They found that interventions linking family planning and HIV services were considered by many health care providers to be more feasible and effective although the overall rigour was low. A

study to compare the cost of preventing unintended pregnancies in HIV-positive women and the cost of providing ARV prophylaxis to them in order to prevent MTCT revealed that it was cheaper to prevent unintended pregnancies in those who wish to do so rather than to provide prophylaxis in HIV-positive women for PMTCT (Reynolds, Janowitz, Wilcher, & Cates, 2008).

Therefore, in order to promote the health of women and their partners, all need to be educated prior to conception and during pregnancy on family planning and healthy living (Spaulding , Bricklev, Kennedy, Almer's, Packel, Mirjahangi *et al.*, 2009); (Grabbe, Stephenson, Vwalika, Ahmed, Vwalika, Choruba, *et al.*, 2009); (Brickley.,Dung Hanh., Thi Nguyet., Mandel., Giang., *et al.*, 2009).

2.3 Knowledge of HIV-positive women about the importance of family planning

In HIV-positive women, both knowledge of own status and knowledge of a particular woman about the importance of family planning have a significant effect on the level of use of available family planning services. For those women who know that they are HIV positive, the literature points to different scenarios regarding their fertility intentions. Some studies have found that even if an HIV-positive woman is told of her status and is counselled on the risk of MTCT, pregnancy levels remain high. In high fertility societies some women may wish to have a child as a way to conceal their HIV status and avert the suspicion that they are infected with HIV. Having children may also provide a sense of normalcy to family life, (Abiola; Akinyemi Akanni and Adedini 2008).

A study done in South Africa to assess the level of use of family planning services among HIV-positive and HIV-negative women revealed that there are higher pregnancy desires and lower contraceptive and condom use in HIV-positive than in HIV-negative women (Peltzier, Chao, & Dana, 2009), a finding which underscores the fact that HIV prevention and family

planning services should acknowledge the reproductive desires of HIV-positive men and women.

A study done in Kenya Nyanza Province to look at fertility intentions and interest in integrated family planning services among women living with HIV revealed that despite increasing efforts to address the reproductive needs of people living with HIV there is still a high unmet need for contraception among women living in Sub – Saharan Africa. Women preferred an HIV clinic as the site for family planning access for reason of convenience, provider competence and a sense of belonging, though some had privacy concerns. These findings support the accessibility of integrated family planning and HIV services. Efforts to empower women living with HIV to prevent unintended pregnancies must expand access to contraceptive methods, provide confidential services and take into account women varied reproductive intentions, (Harrington, Newman, Onono, Schwartz, Bukusi and Cohan et al 2012)

In contrast to above findings, it has been reported that mothers who know their HIV status exhibit fertility desires and contraceptive behaviours that differ from those of other women. Many women will be less likely to want future pregnancies and therefore they will seek family planning services. This is because they know that they are at risk of giving birth to an HIV-positive child and that there is also the possibility that they will die and leave an orphan behind who will have no one to care of him/her. It is also due to the fact that many such women are of a low social economic status and are ill most of the time, thus fearing to have a child whom they will be unable to care for (Hoffman, Martinson, Powers. Chilongozi., Msiska., Kachipapa *et al.*, 2008).

In common with these findings, a study conducted on HIV-infected men and women in the Tororo and Busia districts of rural eastern Uganda by Homsy and colleagues revealed that,

generally, there is a reduced desire to have children in HIV-positive men and women. However, the study found that because ART increases fertility and sexual desire in both sexes, there was an increased incidence of unintended pregnancies. This finding supports the argument that women on ART and their partners should be consistently counselled on the effects of ART in restoring their fertility and that they should be offered regular, frequent, free and comprehensive family planning services as part of their standard package (Homsy, Bunnel, Moore, King, Malamba and Nakityo, *et al.*, 2009).

2.4 Attitudes of HIV positive women towards different family planning methods.

Very little research has been devoted to the attitudes of HIV-positive women. However, the attitudes of many HIV-positive women towards family planning depend on the knowledge of their HIV status and, therefore, their knowledge of the importance of family planning to them as HIV-positive women.

Generally, most HIV-positive women have positive attitudes towards various family planning methods, especially sterilisation in older women and condoms in younger women, most likely as a result of their absence of side-effects (Mitchell & Stephens, 2004).

A study done in eastern Turkey to find out the reason for women not using family planning revealed that 35% of women did not have the approval of their husbands, while 65% had negative attitudes towards family planning and had various reasons for not using it. Of the 65% with a negative attitude, 14% believed and was scared that the medicines could cause bleeding, 7.3% believed that they could cause infertility, 4.7% believed that family planning could cause cancer and 3.4% believed contraceptives could cause pelvic pain (Sahin & Sahin, 2003.)

2.5 Practices of HIV positive women towards different family planning methods.

The practices of HIV-positive women relating to different family planning methods, namely, the type of family planning methods they prefer their consistence of use and reasons for using or not using, are all affected by their knowledge and attitudes toward the different family planning methods. Those with negative attitudes to and poor knowledge of family planning methods will not use them or they will stop if they experience the feared side-effects

There is wide variation in contraception prevalence ranging from 8% of women aged 15-49 years in western Africa up to 78% in northern Europe Female sterilization (32%), intrauterine devices (22%) and oral contraceptive pill (14%) account for more than two thirds of all contraceptive practice world-wide. In less developed countries 70% of contraception users rely on female sterilization and intrauterine devices, in part because they are advocated by health care services as a result of cost effectiveness in terms of pregnancy prevention and service provision, (Mitchell and Stephens, 2004).

Recent studies have been addressed to the issue of use of contraception among HIV – infected women in France (Heard,Potard, Costagliola, Kazatchkine 2004), in the USA (Massad, Evans,Wilson, Golub, Sanchez-Keeland, Minkoff, Weber and Watts., 2007) and among postpartum Kenyan women (Balkus, Bosire, John-Stewart, Mbori- Ngacha, Schiff, Wamalwa, Gichuhi, Obimbo, Wariua, and Farquhar., 2007). The use of effective contraception (sterilization, hormonal or intrauterine contraception) was low. (<30%) both in France and the USA where as high uptake of hormonal contraception (up to 70%) was reported during the first few months after delivery in Kenya.

A quarter of the American women reported the use of sterilization whereas hormonal contraception was used by <10% (Massad et al., 2007). In the French study the prevalence of

effective contraceptive use was <20% (Massad et al., 2007). Sero- status of the partner had a significant effect on the contraceptive practices- consistent condom use was reported during 84% of the visits when the partner was HIV negative but only 57% if the partner was HIV-sero- positive.(Heard, Potard, Costagliola, Kazatchkine., 2004). However, the prevalence of effective contraceptive was higher (31 versus 4%) among sero-concordant couples (Heard et al., 2004). Thus among sero-discordant couples, minimizing the risk of HIV transmission by means of condom use was highlighted, whereas sero-concordant couples prevention of pregnancy had become more important.

The effect of use of anti-retro viral medication on contraceptive practices has also been assessed. In France, HIV – infected women using HAART were less likely to use effective contraception (Heard et al., 2004). The prevalence of effective contraception use decreased significantly among sero -discordant couples after the introduction of HAART (Heard et al 2004). However in the USA, use of HAART did not have an effect on contraceptive practices (Massad, Evans, Wilson, Golub, Sanchez-Keeland, Minkoff, Weber, and Watts. 2007). Dual contraception was used by only a small minority in both studies (Heard et al., 2004) and (Massad et al., 2007). Thus effective contraception remains underused among HIV infected women, even those living in developed countries.

Contraception use and compliance is related to the range of methods available, patient choice, prevalent health and religious beliefs, perceptions of method effectiveness and side effects (for example, women may have less tolerance for heavy and prolonged vaginal bleeding than amenorrhea (Myer, Denny, Wright, Kuhn., 2007). Correct use of most user dependent methods requires a basic knowledge of reproduction and literacy skills to follow written instructions. (Lavreys, Baeten, Martin, Overbaugh, Mandaliya, Ndinya-Achiola,and Kreiss., 2004). In many countries women are unable to make autonomous decisions about their sexual

and reproductive health because of political instability within society, lack of economic independence and prevailing cultural or religious attitudes to women rights. (Lavreys, et al 2007)

A systemic review of studies on family planning was done by Lopez and his colleagues. They compared 3 most important studies and the following were the findings. In one study there was a use of non - condom birth control and fewer pregnancies. In another study women were given more enhanced services compared to the first study. These two studies had same results from the baseline. In the third study women were provided with hormonal family methods, condoms and HIV care and treatment facilities. They later discovered that these women used condoms and spermicides than hormonal methods and were less likely to get pregnant compared to the previous study, (Lopez, Hilgenberg, Chen, Denison, and Stuart, 2013).

A research study done in Rine, India, to find out the factors influencing repeat pregnancies in women with a known HIV status revealed that there is a likelihood of repeat pregnancies in HIV-positive (70%) and in HIV-negative women (36%). Inability to terminate the pregnancy (31%) and familial obligations (40%) appear to be important factors for continuing with unplanned pregnancies. Despite high repeated contraceptive use by HIV-positive women, pregnancy still occurs and subsequent pregnancies were more likely in women who did not disclose their HIV status to their spouse. Thus, the majority of repeated pregnancies in HIV-positive women were both unplanned and unwanted (Suryavanshi., Pisal., Shaukara, Bhosale., Bollinger., Phadke ., *et al.*, 2008).

Another study done in India to find out the prevalence and the context of consistent condom use among heterosexual men and women living with HIV showed that the barriers to consistent condom use among regular partners were the fact that they believe that condom

use is not important in sero-cordant couples. Other reasons for inconsistent condom use include a lack of satisfaction with condoms, a desire for a child, husband's alcohol abuse, fear of disclosure of one's HIV status which has previously caused shame and discord in many couples and, lastly, inadequate counselling by health workers. Therefore, the need for a child, the stigma attached to condom use and a fear of disclosure all call for a need for family planning methods to be integrated into HIV care and treatment programmes (Chakrapani, Newman, Shunmugam, & Dubrow, 2010).

A study conducted in the southern parts of the United States to find out about decision making in HIV-infected women showed that, compared to women who did not get pregnant after receiving a diagnosis of HIV, women who became pregnant were more likely to be young, single and diagnosed earlier in the epidemic and also to have more recently used injectable contraceptives. Among women who did not become pregnant, 63% reported that their diagnosis had greatly affected their decision. Having a partner who wanted children was not associated with pregnancy. Therefore, HIV has an important influence on the reproductive choices of infected women regardless of the decision being made. Reproductive counselling by HIV care providers needs to be sensitive to all the issues faced by these women (Bedimo-Rung, Clark, Dumestre, Rice, & Kissinger, 2005).

The consistence of use of family planning and the resulting unintended pregnancies has also been studied. A study done in Rwanda to find out the level of use of family planning and the occurrence of unwanted pregnancies in HIV-positive and negative women showed that, after two years of follow-up of a selected number of HIV-positive and negative women, pregnancy incidence was 43% in HIV-positive women and 58% in HIV-negative women. Moreover, HIV-positive women with fewer than four children were more likely to become pregnant than those with four or more children. At the end of the study, over 40% of non-users of

contraceptives said that they would use hormonal contraceptives if these were provided at the clinic. In addition, 40% of the HIV-positive women wanted to have children (Allen, Stephenson, Weiss, Karita, Priddy, Fuller et al 2007).

In another study done in Mwanza in the northern part of Tanzania, which examined the reproductive choices, contraceptive history and intentions of HIV-positive and negative women, it was shown that HIV-positive women were more likely to have used family planning methods, particularly hormonal methods, if the services were accessible to them. The pattern of family planning use and the unmet needs for contraception yielded useful information for the design of family planning services at ante-natal clinics. The differences in reproductive history and intentions between HIV-positive and negative women highlight the necessity for tailoring family planning services and counselling to their specific needs (Keogh, Urassa, Kumoglay, Mngara & Zaba, 2009).

The practices of HIV positive women towards family planning are also affected to a significant extent by some social-cultural demographic factors. Education level, age, religion, marital status, occupation and parity are demographic factors which have been found to affect the use of family planning (Mekonnen and Worku, 2011).

Educated women tend to use family planning more compared to uneducated ones because educated women are more likely to be aware and able to take care of their health and hence avoid pregnancy by family planning (NFHS-III India., 2007). Most of educated women are of higher occupation status and economically independent therefore they are able to incur costs that are needed for family planning. Older and women of higher parity tend to use family planning more compared to younger and women of low parity. The prominent reason to this is that women start family planning after they have reached a desired family size which

usually corresponds to older ages and higher parities of women, (Mohanani, Kamathi, Sajjan, 2003 and NFHS-III, India 2007).

Married and cohabiting women tend to use family planning more compared to single women because married women's sexual activities are more frequent than those of single women. Religion and husband's approval have been found to affect the use of family planning by many reproductive health studies that have been done so far. A study done in Eastern Sudan to find out factors affecting the unmet need for family planning in that region found that husband non approval and religious beliefs were influential determinants for family planning (Ali and Okudi, 2011).

2.6 Summary

This chapter reviewed important findings from the literature that highlight the importance of family planning in HIV-positive women, their knowledge about the importance of family planning, the attitudes of such women towards different family planning methods and how these women use the different existing family planning methods in different settings. The following chapter will cover the research methodology, namely, the procedures and methods used for data collection and analysis in this study.

CHAPTER THREE

RESEARCH METHOLOGY

3.1 Introduction

In the previous chapter the literature review was presented. In this chapter the researcher presents the research design and methods. The main purpose of this study was to assess the knowledge, attitudes and practices of HIV-positive women of reproductive age (15–49 yrs) at Katutura Health Centre: Centre for Disease Control (CDC) towards different family planning methods and determine the relationship between important demographic factors and the use of family planning. The design and methods used in this study will be fully explained in this chapter.

3.2 Research Design

A research design is a set of logical steps taken by the researcher to answer a research question (Van der Walt & Van Rensburg, 2006). The researcher in this particular study wanted to describe the knowledge, attitudes and practices of HIV-positive women (aged 15–49 yrs) attending Katutura CDC at the time when the study was done. She also wanted to assess the nature of the women’s knowledge, attitudes and practices in terms of the different family planning services available. For this purpose she used a descriptive quantitative cross-sectional research design. Descriptive research designs can be cross-sectional or longitudinal. Cross-sectional descriptive research designs are used to examine data at one point in time, that is, data that are collected on one occasion rather than from the same subject at several points in time, (Burn & Grove, 2003).

3.3 Research Population

A study population is a group of people or units that a researcher has an interest in. The group should have a set of characteristics about which the researcher wishes to draw a conclusion (Welman, Kruger, & Mitchell, 2005). The research population is the entire group of persons or subjects that is of interest to the researcher; in other words, it is the group that meets the criteria that the researcher is interested in studying. Delineating the population is described as setting boundaries with regard to the elements or subjects (Burns & Grove, 2003). It is obvious that researchers rarely have access to the entire population; that is, the population that the researcher does have access to and actually studies usually differs in one or more aspects. This population is known as the accessible population or the study population.

Clearly, it is critical that the researcher carefully define and describe the population and specifically stipulates the criteria for inclusion in it. These criteria are referred to as eligibility criteria, inclusion criteria or distinguishing criteria. The inclusion criteria in this study were being a woman, being HIV positive, being aged between 15 and 49 years and being registered at Katutura CDC. Accordingly, 3,477 HIV-positive women at the Katutura CDC met these inclusion criteria. The study population in this particular study was therefore 3,477 HIV-positive women who were attending the Katutura CDC.

3.4 Sample and Sampling Process

A sample is a part or a fraction of a whole or a subset of a larger set selected by the researcher to participate in a research study. A sample therefore consists of a selected group of elements or units of analysis from a defined population. In sampling, the element is the most basic unit about which information is collected (Burns & Grove, 2003). Sampling is the process of

selecting units from the population of interest so that by studying the sample it may fairly generate the results back to the population from which it was taken (Trochim ; 2006).

A sample is taken because the population is generally too large for the researcher to attempt to survey all its members. However, a carefully chosen sample could be used to represent the population. In this study a random sampling method was used to select 10% of the eligible women from the study population of 3,744 women of reproductive age (15 to 49 yrs). Therefore, the sample size in this study was 347 HIV-positive women of reproductive age (15–49 yrs). A random sampling method was used in order to prevent bias, as in random sampling each subject or unit has an equal and independent chance of being randomly selected (Van Dyk, 2008). Every third woman was picked from the consultation cue so as to ensure random selection and therefore to avoid bias.

3.5 Research Instrument

A standard questionnaire with two open-ended and 15 closed questions was used for data collection. The questionnaire consisted of four sections. The first section dealt with demographic data, the second section with knowledge questions, the third section with attitude questions and the fourth section contained questions on practices. The questionnaire was piloted at Khomasdal clinic with a sample size of six women. This off site study was conducted using a random sampling method where by every third women was picked from the consultation cue to the interview room. The information obtained was filled into the research questionnaire. All research ethics principles were followed during the entire pilot study. The data was analysed manually as it comprised a small sample size.

A pilot study is a study used to test the practical aspects of a research study. It is a small-scale study conducted prior to the main study on a limited number subjects from the population at

hand. Its purpose is to investigate the feasibility of the proposed study and to detect possible flaws in the data collection process, such as ambiguous instructions and wording (Van der Walt & Van Rensburg, 2006).

During the pilot study it was discovered that Questions 1 and 4.1 were not appropriate and therefore appropriate changes were made. Question 1 was having multiple choices for the respondents while it was asking them to give the meaning of family planning in their own words, this was not appropriate and therefore it was changed to open ended question. Question 4.1 contained medical terminology which could not be understood by most respondents and even the research assistants. For example, excessive bleeding was termed *menorrhagia* and cessation of menstruation was termed *amenorrhea*.

3.6 Procedure

Before starting the data collection process, the researcher identified the common Namibian languages spoken by the clinic attendees. These included Oshiwambo, Oshihero, Damara-Nama, Afrikaans and English. As the researcher could not speak any of the Namibian languages except English, a need for a translator was identified for the data collection process. Three nurses who were able to speak Damara-Nama, Afrikaans and Oshiwambo were identified. However, the researcher could not find a Herero-speaking nurse and therefore only those Herero women who could speak Afrikaans and English were included in the study.

The three nurses were given two training sessions on the English version of the questionnaire. During this training the researcher made sure that each of the questions was clear to the nurses and that they meant the same to both the researcher and the nurses. Clear instructions, like not to ask leading questions, were also given during these short training sessions.

An English version of the questionnaire was used to collect data from the eligible women. As explained in the section on sampling, a random sampling method was used to select those women who met the inclusion criteria, namely, HIV-positive women aged 15 to 49 years. Accordingly, every third women was selected from the consultation queue and taken to the room that was used for the interview. Verbal consent was sought from those women who could not read or write, while written consent was sought from those women who could write.

3.7 Data Analysis

After completion of the data collection process, all questionnaires were numbered from 1 to 347. A data entry sheet, consistent with the research questionnaire, had been constructed and all numbered questionnaires were entered onto this sheet. Data analysis was done by inferential statistics using the Epi Info computer program where by p-values—that is ,the probability that the outcome is owing to chance—are used to communicate the significance or lack thereof of data, (Van der Walt and Van Rensburg, 2006). Initially, general results such as the number of women using family planning, the number of women with positive attitudes toward family planning and the number of women with a good knowledge of family planning were obtained. A cross-tabulation was later done between the variables in which the researcher had an interest and then the final results were generated. The following chapter will present all the results in logical sequence.

3.8 Research Ethics

Research ethics are the principles, rules and regulations that all researchers should follow and abide by while conducting research. There are three fundamental ethical principles that guide researchers, namely, the principle of respect for persons, the principle of beneficence and the

principle of justice. These principles are based on the human rights that need to be respected in all research processes. These human rights include the right to self-determination whereby a subject has the right to participate in a study or to refuse to do so by signing or not signing a consent form. Another human right that has to be respected during research is the right to privacy and confidentiality (Van der Walt & Van Resburg, 2006).

Approval to conduct this research was sought from the appropriate authorities including the University of Namibia and the Ministry of Health and Social Services. Verbal consent was obtained from the respondents who did not know how to read and write, as well as those who could not be bothered to give written consent, which applied to most of the respondents. Any potential respondent who was approached but refused to take part in the study was not forced to do so. Moreover, some respondents opted out even after they had given consent and they were allowed to do so. The entire interview was conducted in a private room and, before the interview started, all the study subjects were reassured that the information they gave would be regarded as confidential. Respondents were selected at random from the consultation queue to make sure that no bias or unfair selection occurred. Moreover, the questionnaires were not labelled with the respondent's name but were numbered instead. The completed questionnaires were kept at a secure location.

Data collection and analysis were conducted ethically. The researcher made sure that no questionnaires were completed off site. The results were represented honestly and nothing was omitted or changed in any way. This report is the researcher's own work and is the product of the proposal presented at the beginning, the data collected and the results of the data analysis.

3.9 Summary

This short chapter gave an overview of research design used in the research process, research population, sample and sampling process, research instrument, the procedures followed during the research process, how data analysis was done and the most important research ethics that were considered when conducting research. It also discussed the way in which the researcher adhered to ethical practices in the entire data collection, analysis and report writing process. The following chapter will present and discuss the research findings.

CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION

4.1 Introduction

The previous chapter presented the research methodology. The chapter included a discussion on the research design that was used and the reasons why researchers choose that particular research design. The study population, the sample and the sampling methods that were used to obtain the sample were presented, as were the research instruments that were used for data collection. Finally, the way in which the data were analysed was discussed.

This chapter presents the findings obtained from the analysis conducted on the data that were collected using the research tools, as well as in view of the objective questions that assessed the knowledge, attitudes and practices of HIV-positive women of reproductive age (15–49 yrs) towards different family planning methods.

In this chapter the findings and the discussion will be divided into four sections. The first section will present the social demographic data, and the way in which the data are related to the knowledge, attitudes and practices of HIV-positive women will be discussed. The second section will present the findings on the HIV-positive women's knowledge of family planning methods and how it affects their use. The third section will present the practices of HIV-positive women relating to different family planning methods. The fourth section will present the findings on the attitudes of HIV-positive women age (15–49 yrs) and the way in which these attitudes influence the use of different family planning methods. In this section the number of HIV-positive women using family planning will be presented together with the types of family planning method they prefer. The reasons for not using or stopping the use of family planning will also be discussed.

4.2 Social Demographic Characteristics

This study involved 347 women of reproductive age. The oldest woman in the sample was 49 years old, while the youngest was 15. A large proportion, 50.1%, of the women was aged between 30 and 39 years (i.e. 174), that is, half of the sample population. Eighty-three (23.9%) respondents fell into the 20 to 29 age group, while 82 (23.6%) fell into the 40 to 49 year age group. Finally, just three women (0.9%) fell into the 15 to 19 year age group.

The majority of the women, 196 (56.5%), belonged to the Lutheran denomination, 60 (17.3%) were Roman Catholics, 53 (15.3%) were Anglicans and 32 (9.2%) were Pentecostals, while those of other religious groups numbered six (1.7%).

Looking at the respondents' level of education, more than half, that is, 184 (53%), had obtained a junior secondary level of education, 61 (17.6%) a senior secondary level, 60 (17.3%) an upper primary level and 17 (4.9%) a lower primary level. Meanwhile, 16 (4.65%) had no formal education at all while four stated they had an informal education. On the other hand, two (0.6%) had tertiary education and three (0.9%) had received vocational training.

On the issue of marital status, of the 347 women who took part in the study, 130 (37.5%) were single, 87 (25.1%) had boyfriends, 78 (22.5%) were cohabiting, 47 (13.5%) were married, two (0.6%) were widowed, two (0.6%) were separated and one (0.3%) was divorced.

Table 4. 1: Demographic data presentation

Demographic factor	Frequency	Percentage
MARITAL STATUS		
Married	47	13.5
Cohabiting	78	22.5
Widowed	2	0.6
With boyfriend	87	25.1
Separated	2	0.6
Divorced	1	0.3
Single	130	37.5
TOTAL	347	100
AGE		
15–19	8	2.3
20–29	83	23.9
30–39	174	50.1
40–49	82	23.6
TOTAL	347	100
EDUCATION LEVEL		
Not attended school	20	5.8
Lower primary (1–4)	17	4.9
Upper primary(5–7)	60	17.3
Junior secondary(Grade 8–10)	184	53
Senior secondary (11–12)	61	17.6
Tertiary education	2	0.6
Vocational training	3	0.9
TOTAL	347	100
RELIGION		
Lutheran	196	56.5
Roman Catholic	60	17
Anglican	53	15.3
Pentecostals	32	9.2
Other	6	1.7
TOTAL	347	100

4.2.1 The relationships between the Age of a Woman and the Use of family planning

Age is one of the most important demographic factors that affect the use of different family planning methods. Older and middle-aged women tend to use family planning more than young women because couples usually start using family planning methods only after they have reached a desired family size which usually corresponds to older ages and parities of women. Older women, on the other hand, tend to opt for more permanent methods of family planning, such as sterilisation, may be because they are too old to take care of children and due to the fear of being sicker being HIV positive (Sharma, Mohan, Das, and Awasthi., 2012). Most of young women are single and their sexual activities are sporadic and therefore they don't use family planning more compared to older women and most of them use condoms more than hormonal family planning methods.

The overall prevalence of family planning use among the sample population was 73.3%. In this study, the age group 15 to 19 used family planning the most (66.6%). This group had 3 respondents where by two were using family planning and all were using condoms. The second age group was age 30-39 who had a user rate of 52.7%. Within this group condoms were most used (27.3%), followed by injections (19.5%). The third largest users of family planning were those in the age group 20 to 29 (24.4%). In this group users of the contraceptive pill comprised 6%, condom users 44.6% and injection users 22.8%, while 1.2% was sterilised. This group was followed by the age group 40 to 49 (21.8%), where 3.6% were using contraceptive pills, 46.3% condoms, 15.8% injections and 2.4% IUCD. These figures are contrary to the literature, which states that middle and older women tend to use family planning more than younger ones and most of them use permanent methods like sterilization because at middle and older ages most women have attained the desired number of children ,and on the other hand younger women tend to use family planning less and most of them use condoms rather than hormonal methods because most of them are single and therefore

their sexual activities are sporadic and not frequent (Renjhen, Gupta, Barua, Jaju, and Khati, 2008).

However, the association between age and use of family planning was not statistically significant. The results of this study, although not statistically significant, do correlate to some extent with those found in Kenyan slums, where the age group 20 to 29 had the highest user rate of 49%, followed by the age 30 to 39 with 41% and, lastly, 40 to 49 with 6% (Okechi, Wawire & Mburu, 2011).

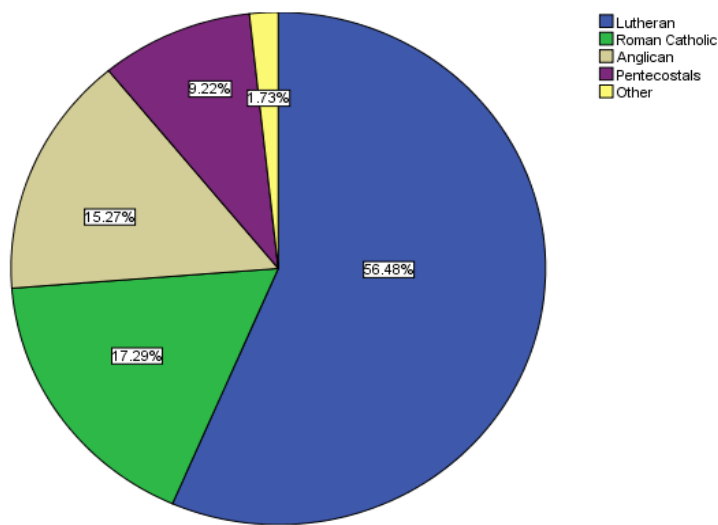
4.2.2 The relationship between the Religion of a women and the Use of Family Planning

Religion is a known demographic factor that affects the use of family planning (Ramesh, Gulati and Retherford; 1996). Lutherans, which comprised 56.7% of the sample, were more inclined to use family planning than other religious denominations mostly in the form of condoms (57.2%) and injections (37.9%). Roman Catholics comprised 16.6% of users of family planning followed by Anglicans at 13.6%. Pentecostals demonstrated the lowest percentage of use at 8.2%. The relationship between a respondent's religion and use of family planning was statistically significant, with a p value = 0.001.

The reason why Lutherans use family planning more than any other religious denomination can be attributed to the fact that they tend to be more liberal in comparison to Pentecostals and Roman Catholics. This correlates to some extent with the results of a study done in Kenyan slums, which showed Protestants as having the highest user rate of about 52%, trailed by Muslims at 35% and Catholics at 13% (Okechi, Wawire & Mburu, 2011).

Figure 4. 1: Relationship between religion and use of family planning

Relationship between the religion and the use of family planning



4.2.3 The relationship between the education level of a woman and the use of family Planning

The study found that there was a positive association between a respondent's education level and the level of use of family planning. The study revealed that those women with tertiary education had a 100% use rate, followed by secondary education at 83.6%, junior secondary at 73.5%, and upper primary at 68.3%, while those who had not attended school had the lowest user rate of 62.5%. The relationship between education and the use of family planning was statistically significant with a p value = 0.000008.

These results correlate with those found in the study conducted in Kenyan slums. In that study it was found that the majority of those who used family planning had post-primary education, while those who used family planning the least had no formal education. In percentage terms, whereas 49% of users of family planning had secondary education and 28% had university education, only 15% of users had primary education and 6% reported no formal education (Okechi, Wawire, & Mburu, 2011).

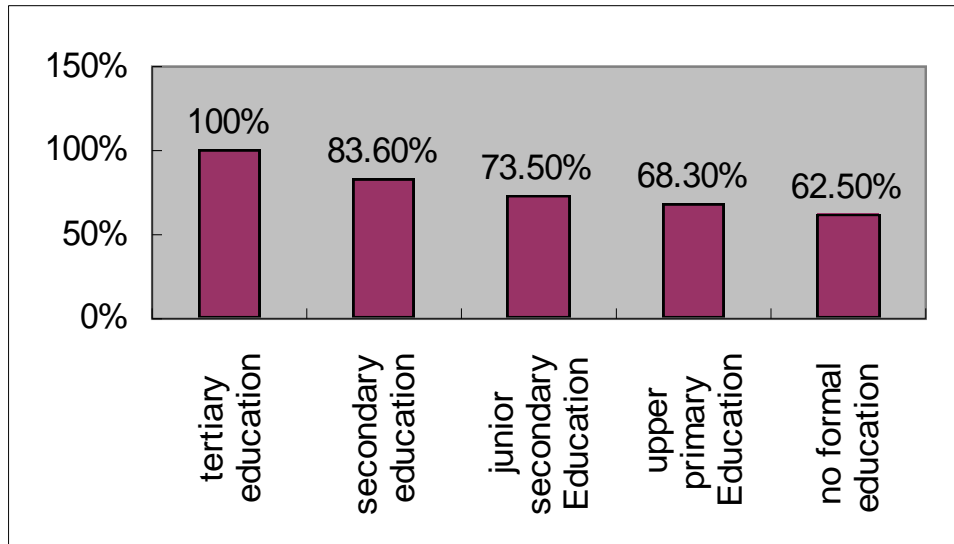


Figure 4. 2: Relationship between education level and use of family planning

4.2.4 The Relationship of Marital Status and the Use of Family Planning

Marital status is another demographic factor that affects the use of family planning. The literature suggests that those women who are in more or less permanent sexual relationships, that is, who are married, cohabiting or have a boyfriend, tend to use family planning more than those who are single, widowed or separated (Ross and Mirowsky, 1999).

The women who are married, cohabiting or had a boyfriend seem to use family planning more compared to those who are single and widowed, and those who are separated from their partners. The relationship between marital status and use of family planning was found to be statistically significant (p value = 0.0001). This is due to the fact that women in permanent relationships tend to engage in sexual relations more frequently than those who are not (Regan & Atkins, 2006).

Looking at the results of this study, the married and cohabiting women who participated in this study had an impressive a use rate of 18.3% and 29.8% respectively. Even for those with boyfriends, the user rate was quite high at 32.8%. These results match the results of a study done in Pakistan, the findings of which revealed that of the nearly 24 million men and women

of reproductive age (MWRA) in Pakistan, 22% use a modern and 8% a traditional method of family planning, corresponding to 5.1 and 1.9 million MWRA respectively. Of these, female sterilisation accounted for 1.9 million (38%), pills, injections and IUCD around half million each (10% each) and condoms 1.6 million (31%). Male sterilisation accounted for 0.1% of couples (Babar, Ahmed, Khan & Khan, 2009).

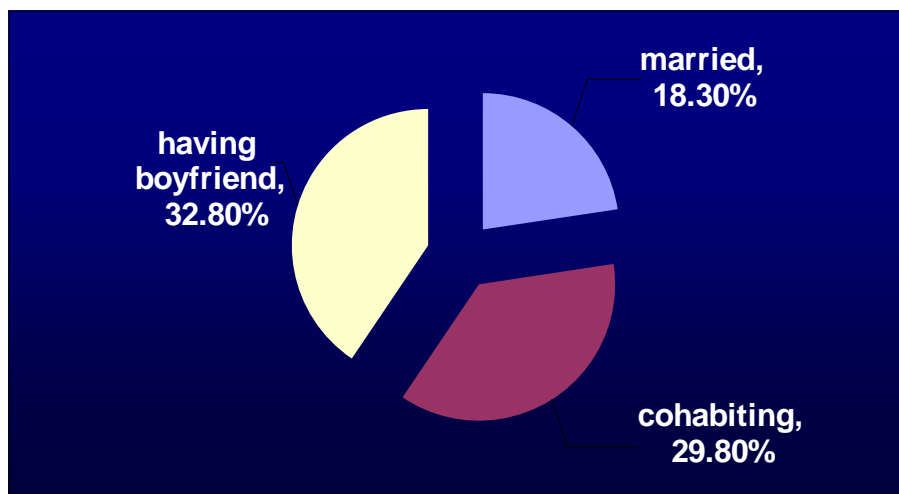


Figure 4. 3: Relationship between marital status and use of family planning

4.3 Knowledge of HIV positive Women towards Family Planning

The study revealed that 97% of the HIV-positive women who participated in the study knew that it is important for them to protect themselves against unintended pregnancies and 83% knew that prevention of unintended pregnancies minimises the chances of transmitting HIV to their new-born baby. It also revealed that 95.7% of these women knew that it is important for them to use condoms together with the other hormonal family planning methods available, because condoms can burst and, if used on their own, they could fall pregnant.

The reasons for the women actually possessing this knowledge were not explored during this study. However, one important possible reason could be the positive living counselling that HIV-positive women generally receive on the importance of family planning. Another reason could be the fact that women receiving HIV treatment and care have more regular contact with health care professionals as a function of the clinical follow-up required in monitoring the health of HIV-positive individuals. During these regular clinic visits, reproductive and sexual health issues are raised and the opportunity to discuss and commence use of contraception is presented.

The good knowledge that HIV-positive women have on the importance of family planning in HIV-positive women has been reported elsewhere. Lewis, Ronsmannes, Eze and Gregson (2004) found out that most HIV-positive women are aware of the possibility of being divorced, having an HIV-positive baby or contracting a STI and therefore they will use family planning. Moreover, Allen et al. (1992) found out that if an HIV-positive woman does not want to have children in the future or if she wants to space her births, it is an unmet need for contraception that may put her at risk of pregnancy, and not her poor knowledge.

Another study done in the Kabarole district of Uganda revealed that the probability of HIV-positive women wanting to stop childbearing was 6.25 times higher than it was for HIV-negative women. HIV-positive women tended to want fewer children than their HIV-negative counterparts mainly because they are aware of the risks of MTCT and they do not want go through the difficulties of having an HIV-positive child (Hey, Kippwater, Gians, Arif & Rubaale, 2009).

Contrary to the above-mentioned studies, a study done in South Africa to assess the level of use of family planning services among both HIV-positive women and HIV-negative women revealed that there is a higher pregnancy desire and lower contraception and condom use in HIV-positive women than in HIV-negative women (Peltzier, Chao, & Dana, 2009). This South African finding explains the observation made at Katutura CDC that HIV-positive women were falling pregnant despite knowing that they run the risk of having an HIV-positive baby. This finding points to the need to respect the reproductive needs and desires of HIV-positive women.

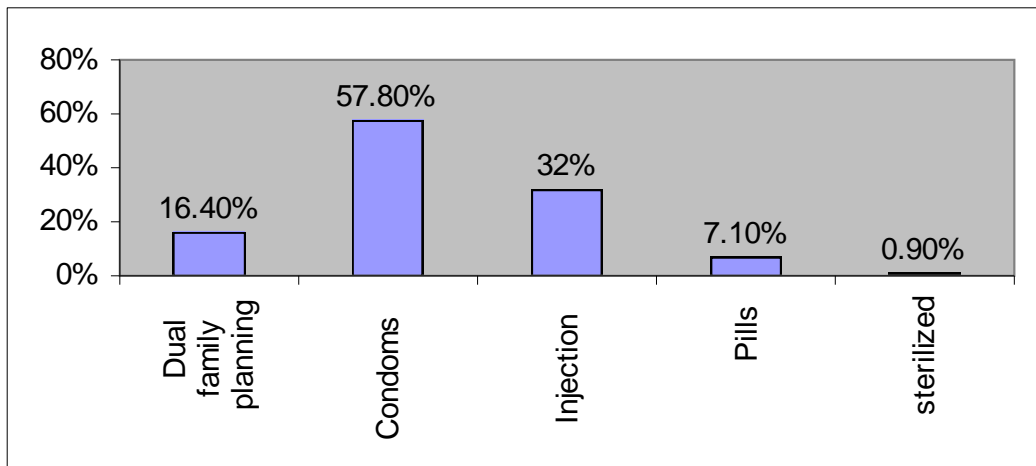
Table4.2: Responses on HIV-positive women’s regarding knowledge on the importance of family planning

Category	Percentage (%)
The percentage of HIV-positive women who knew that it is important for them to protect themselves from unintended pregnancies	97%
The percentage of HIV-positive women who knew that prevention of unintended pregnancies minimises the chances of MTCT	83%
The percentage of HIV-positive women who knew that it is important for them to use condoms together with hormonal family planning methods	95.7%

4.4 Practices of HIV-positive women relating to different family planning methods

Another objective of this study was to determine the practices (e.g. method preferred, consistence etc.) of HIV-positive women of reproductive age (15–49 yrs.) attending the Katutura CDC towards different family planning methods. The study revealed that 256 (73.7%) of the 347 respondents were using family planning. Of the 256 respondents who were using family planning, only 42 (16.4%) were using dual family planning methods. Moreover, the study showed that, of the 256 respondents who were using family planning, 148 (57.8%) were using condoms, 82 (32%) were using injections and 19 (7.1%) pills, while three (0.9%) were sterilised and four (1.5%) were using intrauterine contraceptive devices (IUCDs). This high preference for condom usage and low percentage (16.4%) of dual protection could be one of the explanations for the high occurrence of unplanned pregnancies observed at Katutura CDC.

Figure 4.4: Practices of HIV-positive women relating to different family planning methods



The preference for condoms can be due to their easy availability and accessibility, as patients can just help themselves with condoms from the boxes displayed in public places at all clinics and hospitals, as well as public offices. This free availability of family planning methods means that women do not have to go through the special processes involved at family planning delivery points in primary health care facilities and hospitals. Condom use can also be explained by the absence of major side-effects, such as amenorrhea and menorrhagia, which result from hormonal family planning methods apart from minor itches that happens when some types of condoms are being used.

Another finding showed that, of the 256 respondents who were using family planning, 82 (32.1%) were using injectable contraceptives. This is a reasonable percentage, which can be explained by the convenience and privacy of injectable contraceptives. In this regard, women only have to go to a service delivery point every two to three months and can do so without their partner's knowledge should they not approve. The lower percentage of use of hormonal contraceptives compared to condoms can be explained by the side-effects that often accompany their use.

The high prevalence of family planning use in HIV-positive women, the preference for condoms and the low percentage of use of dual protection have been observed in several other studies.

A study done in Kenya to ascertain the prevalence of contraceptive use and the preferred family planning methods revealed that 44.2% of respondents used family planning, condoms were the most preferred type of contraception and were used by 81.5% and only 13.5% of those who used family planning used dual protection (Mutiso, Kinuthis, & Quresh, 2008). A similar study explored contraceptive use and the most preferred method of family planning in HIV-positive women in Soweto, South Africa. This study found that overall use of family planning was 78.1%. In contrast to this study, the current study found a slightly higher percentage of dual protection at 33% and again there was a preference for condoms over other family planning methods in the absence of a partner.

4.5 The attitudes of HIV positive Women towards Family Planning

Another objective of this study was to determine the attitudes of HIV-positive women of reproductive age (15–49 yrs) attending the Katutura CDC to different family planning methods. The study findings show that, generally, the respondents exhibited positive attitudes to family planning (81.55%). This is reflected by respondents' behaviour in that they have spoken to at least one person about family planning in the previous year. Figure 4.5 shows that among the 283 respondents with positive attitudes toward family planning, 222 (86.7%) were using family planning compared to 13.28% of those with a negative attitude.

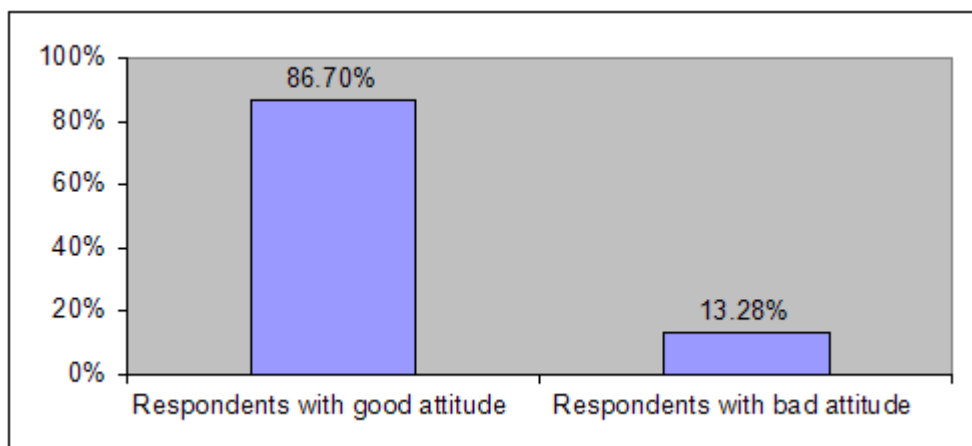


Figure 4.5: HIV-positive women's attitudes to family planning

The relationship between respondents' attitudes and use of family planning was statistically significant ($p = 0.00000009$). Those women had discussed family planning with or spoken to at least one person about family planning during the previous year, which in this study was regarded as having a good attitude towards family planning. Consequently, 80.1% of the respondents had a positive attitude towards family planning methods, as they had discussed or spoken to at least one person about family planning in the previous year. This positive attitude can be explained by the effective knowledge they have acquired on the importance of family planning, as one cannot have a negative attitude towards something they know is of importance.

A study done by Mitchel and Stephens (2004) revealed that many HIV-positive women have a positive attitude towards different family planning methods, especially condoms in young women and sterilisation in older women. This attitude is attributed to the knowledge they have acquired on the risk of the MTCT of HIV, which can be reduced by the prevention of unintended pregnancies using family planning (Mitchel and Stephens, 2004).

4.6 Reasons for stopping the use of family planning

Among the 91 women surveyed who were not using family planning, 41 had been using it but had stopped for various reasons. The main reason for stopping family planning was the side-

effects of a particular method (58.5%), becoming pregnant (17%), and a few of them wanted a child (5%), 1 client stopped using family planning because when she went to the hospital she found that medicines were out of stock (2%), inconvenience (2%) and health workers being rude (1%). Below is a pie chart for more illustration.

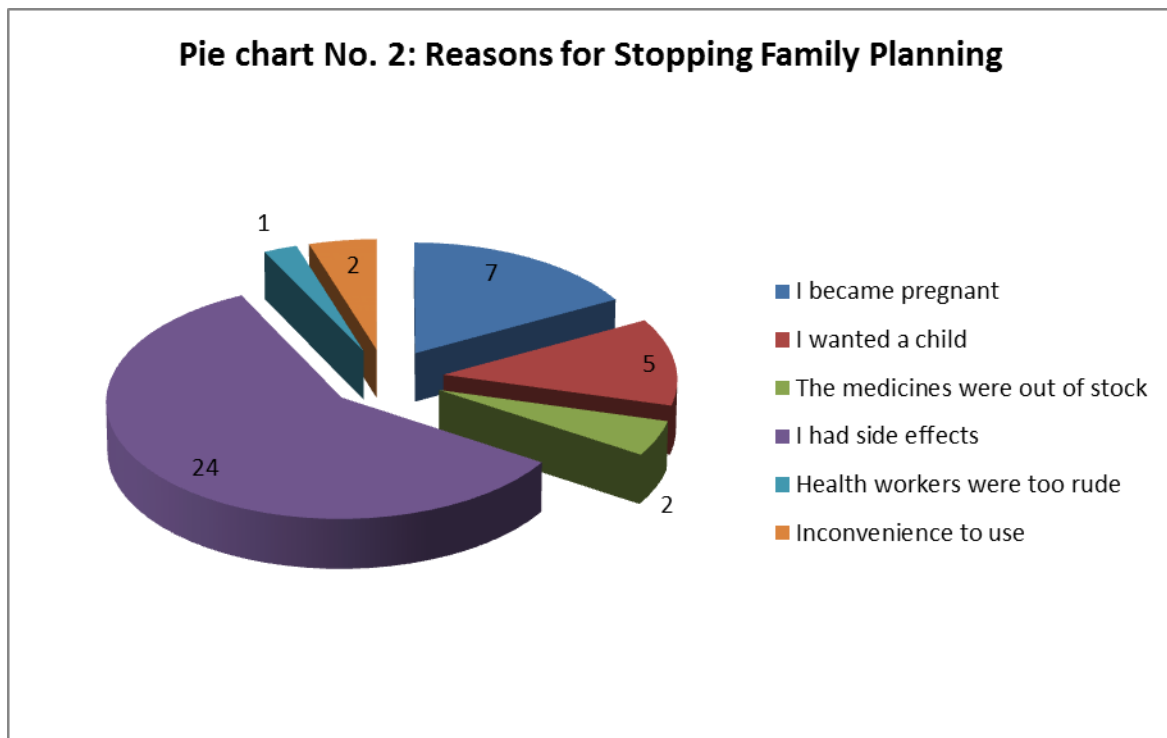


Figure4.6: Reasons for stopping family planning

While this study demonstrates a high level of knowledge among HIV-positive women, which resulted in an increase in contraceptive use, other studies have found a lack of persistent use of contraception beyond one year or no significant difference compared to HIV-negative women, which is due to the desire for a child, side-effects, lack of a partner and failure of the contraceptive method, that is, client fell pregnant while using contraception (Olufemi, Oluwoji, Okanlawon, Oluwafayokemi., 2005).

4.7 Summary

This chapter gave the results of the study according to the objectives. The results show that HIV-positive women attending Katutura CDC have good knowledge and a positive attitude towards different family planning methods. The family planning use rate is high but most of the women use condoms and very few use dual methods (condoms and hormonal family planning methods). The following chapter will give the conclusions that were arrived at and will also discuss the limitations that were encountered during the research.

CHAPTER FIVE

5.0 LIMITATIONS, RECOMMENDATIONS AND CONCLUDING REMARKS

5.1 Introduction

This is the final chapter of this research discussion and contains an evaluation of the overall aim of the study, together with its two objectives. Subsequently, conclusions are drawn and recommendations made. The overall aim of this study was to assess the knowledge, attitudes and practices of HIV-positive women of reproductive age (15–49 yrs) attending the Katutura CDC towards different family planning methods.

Accordingly, it is concluded that the research aim was achieved to a large extent by the findings of this study. To justify this conclusion, the findings were appraised against the research intention and the two research objectives for the study. These objectives were: 1) To determine knowledge, attitudes of HIV-positive women of reproductive age (15–49 yrs) attending the Katutura CDC towards different family planning methods; and 2) To identify and describe the different family planning methods being used by HIV-positive women (15-49yrs) attending the Katutura CDC towards different available family planning methods.

The study revealed that 97% of the HIV-positive women who participated in the study knew that it was important for them to protect themselves against unintended pregnancies and 83% knew that the prevention of unintended pregnancies minimises the chances of their new-born babies having HIV. It was also revealed that 95.7% of these women knew that it is important to use condoms together with other hormonal family planning methods, because condoms alone can burst and hence they might fall pregnant. The attitudes of the respondents were tested through the interest they had demonstrated in discussing family planning issues during

the previous year with at least one person. Accordingly, 80.1% of the respondents reported that they discussed family planning issues with at least one person in the previous year and therefore they were regarded as having a positive attitude toward family planning. However, their good knowledge and positive attitudes did not have an effect on the use of family planning, as most of them, that is, 148 (57.8%), were using condoms only, with only 16.4% using the dual family planning method that is recommended for HIV-positive women.

The youngest women (15-19) were found to be using family planning more with a user rate of 66.6% followed by middle aged women (30-39) who had user rate of 52.7% followed by the age group of 20-29 with a user rate of 24.4%. The older women (40-49) had a user rate of 21.8%. The relationship between age and the use of family planning was not statistically significant.

Lutherans were found to be using family planning more with a user rate of 56.7% followed by Roman Catholics and Pentecostals who had a user rate of 16.6 % and 8.2% respectively. The relationship between religion and the use of family planning was found to be statistically significant.

Education was found to have a positive effect on the use of family planning where by women with tertiary education were found to have a family planning user rate of 100%, those of senior secondary education had a user rate of 83.6%, those with junior Secondary had a user rate of 73. % and those with upper primary education were found with a user rate of 68.3%. The relationship between education and the use of family planning was found to be statistically significant.

Married women had a user rate of 18.3%, Cohabiting women a user rate of 29.8% and women with boyfriends had a user rate of 32.8%. The relationship between marital status and family planning was not statistically significant.

5.2 Limitations

The researcher does not speak any of the Namibian languages and therefore an interpreter had to be used to obtain the relevant information from the non-English-speaking respondents. Consequently, this could have led to the misinterpretation or distortion of important information. To prevent this, the researcher identified experts (nurses) who were fluent in the commonly spoken languages and gave them one day's training on the content of the data collection tool.

Furthermore, owing to African culture and taboos, the respondents may have been psychologically affected by the types of question that were asked and this may explain why some opted to withdraw from the interviews.

Parity and occupation are other demographic factors that affect the use of family planning. However the researcher didn't look at the effects of these factors on the use of family planning which can lower the credibility of this study.

5.3 Recommendations

- The results of this study show that majority of these women have got a good knowledge and good attitude towards hormonal family planning methods but they don't apply the good knowledge and practice they have to use the appropriate family planning method that is recommended in HIV women which is dual family planning method. This could be due to the fear of side effects that these women have. It is therefore recommended that these women should be given proper counselling regarding side effects of different family planning methods as it is rare that a woman will get undesirable side effects to all available family planning methods.

- HIV–positive women should be encouraged to use dual family planning as it was found that only 16.4% of the study population were using dual family planning which could be an explanation of why these women were getting unintended pregnancies.
- HIV positive women should be trained in the proper and consistent condom use before being provided with condoms given that most of these women prefer to use condoms as their family planning method
- HIV positive women should be encouraged to come to the clinic with their partners so for them to receive counselling on the importance using of proper family planning in order to reduce family planning unmet need that is attributed to lack of approval of a male spouse.
- It is recommended that a research should be done to look at the effect of an HIV positive women parity and occupation on the use of family planning and also on psychological factors that affect the use of family planning in HIV positive women.

5.4 Summary

In this chapter, conclusions, limitations and recommendations were presented. The conclusions are the researcher's evaluation of the status of the outcomes or the results achieved from the study. Ultimately, the researcher states the way forward for the study in terms of the recommendations, which were based on the implications of the study findings.

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ANNEXURE 1

CONSENT FORM

TITLE: A survey on knowledge, attitudes and practices of HIV –positive women of reproductive age (15–49 yrs.) at Katutura health centre towards different family planning methods.

INVESTIGATOR: Dr. Hellen Thomas (Medical Officer)

PURPOSE: There has been an increase in unwanted pregnancies in HIV positive women. These have psychological and medical effects such as increased mother-to-child transmission of HIV to the new-born babies. Family planning is the corner stone in prevention of unwanted pregnancies. However most HIV-positive women do not use family planning services, this can be attributed to poor knowledge of where to get the services, poor accessibility and availability or poor attitudes toward the services. It is the aim of researcher to look at knowledge, attitudes and practices of HIV-positive women relating to family planning services.

POTENTIAL BENEFITS: The results of this study will help us to decide whether to incorporate family planning services into already existing HIV care and treatment programmes as a way to bring the services closer to all HIV-positive women of reproductive age.

RISKS: As far as this study is concerned there will be no risks or discomfort to you in providing me with the information that I require.

TIME: I will need a bit of your time to give me the information as per the attached questionnaire.

ANONYMITY/ CONFIDENTIALITY: The information that you provide will be used for research purposes only and no names will need to be divulged in the questionnaire.

READINESS TO ANSWER ANY QUESTION: If you have any questions about the study or about participating in the study please feel free to ask me (Dr. Hellen Thomas). You may call me on 0813 990264.

VOLUNTARY CONSENT/OPTION TO WITHDRAW: Your participation in this study is totally voluntary. You are under no obligation to participate. You have the right to withdraw at any time if you want to, without any repercussion or penalty, even in the middle of the interview.

BOARD AND COMMITTEE APPROVAL: This study and its procedures have been approved by the appropriate people and the Research Committee of the University of Namibia and the Ministry of Health and Social Services.

I have discussed the above points with the subjects. It is my opinion that the subject understands the risks and benefits and the obligation involved in participating in this study.

Signed:

Dr Hellen Thomas

Date:

I understand that my participation is voluntary and that I may refuse to participate or withdraw my consent and stop taking part at any time without penalty.

I hereby freely consent to take part in this study.

Signature of respondent.....Date:

ANNEXURE 2

QUESTIONNAIRE USED IN DATA COLLECTION

**PRACTICES OF HIV-POSITIVE WOMEN OF REPRODUCTIVE AGE (15–49 YRS)
AT KATUTURA HEALTH CENTRE RELATING TO DIFFERENT FAMILY
PLANNING METHODS
QUESTIONNAIRE FOR A SURVEY ON KNOWLEDGE AND ATTITUDES
RESEARCHER – DR. HELLEN THOMAS**

A: KNOWLEDGE SECTION

1. In your own words, can you tell me what the meaning of family planning is?

.....
.....
.....
.....

2. Do you know any family planning method that is used in preventing pregnancy?

- No
- Yes
- If Yes, go to the next question 2.1
- If No, this is the end of interview

2.1 Where did you hear of the method?

- At the health centre
- From a friend
- At the pharmacy
- Radio broadcast
- Television
- Other (Specify)

2.2. Can you tell me the name of any family planning methods you have heard of?

- Pill
- IUCD
- Injection
- Condom
- Other.....(Specify)
- I don't know

3. What are the approximate costs of family planning methods?

- Free of charge
- It depends with where you buy them
- I don't know
- Other.....(specify)

4. Do you know of any side-effects that can be caused by some of these family planning methods?

- Yes
- No

4.1. If yes, can you tell me any side-effects that you know of?

- Infertility
- Stop of Menstruation
- Too much bleeding
- Vaginal infection
- Other (Specify)
- I don't know
- There is no side-effect

5. In your understanding, is it suitable for an HIV-positive woman to use different available family planning methods?

- Yes
- No

5.1. If Yes, why?

- Because it protects from unintended pregnancy
- Because it protects from sexually transmitted infections
- I don't know
- Other.....(Specify)

5.2. If no, why?

- HIV-positive women have the right to Have children just as HIV-negative women do.

- I don't know
- Other (Specify)

6. Is prevention of unintended pregnancy in HIV-Positive women important?

- Yes
- No

6.1. If Yes, why?

- It minimises the chances of my baby getting HIV
- I don't know
- Other (Specify)

6.2. If no, why?

- I think HIV-positive women should not Have sexual relationships
- I think HIV-positive women should be Sterilised
- I think importance is the same in both HIV-Positive and negative women
- Other (Specify)

7. Is it important for HIV-positive women to use condoms together with other family planning methods (dual protection)?

- Yes
- No

7.1. If yes, why?

- Condom may burst
- I don't know
- Other (Specify)

7.2. If no, why

- Condom is enough
- Other..... (Specify)

B. ATTITUDE SECTION

8. In the past few years have you spoken to anyone about family planning?

- Yes
- No

8.1. If no, why not?

- I feel ashamed
- People will think that I have multiple partners
- Family planning methods cause many side-effects in HIV-positive women
- Other (Specify)

8.2. If yes, who did you speak to?

- Health worker
- Husband
- Partner
- Friend
- Other (Specify)

9. Have you ever encouraged or discouraged anyone from using or not using family planning?

- Encouraged
- Discouraged
- Neither

9.1. If you encouraged, why?

- It is reliable
- Because I use it myself
- Other..... (Specify)

9.2. If you discouraged them, why?

- It has a lot of side-effects in HIV-positive women
- I think it is for people with multiple partners
- Because if one uses family planning people will suspect that you are HIV positive
- I think a condom is enough
- Other (Specify)

9.3. If you discouraged them what did you want them to use/to do?

.....

C: PRACTICE SECTION

10. Are you currently using any method to prevent you from getting pregnant?

- No
- Yes
- I was using, but I stopped

10.1. If no, why?

- I want a baby
- It will interfere with my ART
- I don't have partner
- I am sterilised
- I don't know where to get the services
- I live a long way from the health facility
- I don't have taxi money
- The nurses are very rude
- My partner/spouse doesn't want me to
- My religion doesn't allow me to
- I am afraid of the side-effects
- Other (Specify)

10.2. If yes, what method are you using?

- Pills
- Condom
- Injection
- I am sterilised
- IUC
- Other (Specify)

11. Why did you choose the method that you are using?

Code

- It is easy to use
- My husband/spouse accepted it
- It has no side-effects
- Partner approved
- Most suitable for HIV-positive women
- Other (Specify)

12. If you stopped, why did you stop?

- I wanted a child
- I became pregnant
- The medicines were out of stock
- I had side-effects
- The health workers were too rude
- My husband said that I should stop
- Inconvenient to use
- Other (Specify)

13. Do you plan to use family planning in the future?

- No intention
- Yes

13.1. If yes, what method do you intend to use as an HIV-positive woman?

- Pill
- Condom
- Injection
- Sterilisation
- Other (Specify)

13.2. If no, why not?

- I am too scared after I had side-effects
- My husband doesn't want
- I am sterilized
- I don't have a partner
- Other (Specify)

D: DEMOGRAPHIC INFORMATION.

14. Client age

- 15–19
- 20–29
- 30–39
- 40–49

15. Highest level of education

- Did not attend school
- Lower primary (1–4)
- Upper primary (5–7)
- Junior Secondary (Grades 8–10)
- Senior Secondary (Grades 11–12)
- Tertiary education
- Vocational training

16. Religion

- Roman Catholic
- Lutheran
- Anglican
- Pentecostal
- Muslim
- Other

17. Employment status

- Unemployed
- Formally employed
- Self-employed
- Housewife
- Domestic worker

18. Marital status

- Married
- Cohabiting
- Widowed
- With a boyfriend
- Separated
- Single

ANNEXURE 3

OFFICIAL PERMISSION LETTER FROM THE UNIVERSITY

UNIVERSITY OF NAMIBIA

Private Bag 13301, 340 Mandume Ndemufayo Avenue, Pionierspark, Windhoek, Namibia



**FACULTY OF HEALTH SCIENCES
SCHOOL OF NURSING AND PUBLIC HEALTH
UNIVERSITY OF NAMIBIA**

**Letter of permission:
Post graduate students**

Date: 25 Jan 2011

Dear Student: Dr Thomas

The post graduate studies committee has approved your research proposal.

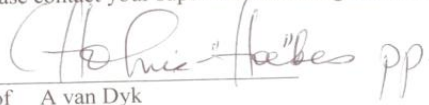
Assessment of knowledge, attitude, and practice of HIV- women of reproductive age (15-49) years at Katutura Health Centre towards different family planning methods

You have passed the section on coursework (RMP 5980) Jan 2011

You may now proceed with your study and data collection and formal registration for the degree.

It may be required that you need to apply for additional permission to utilize your target population. If so, please submit this letter to the relevant organizations involved. It is stressed that you should not proceed with data collection and fieldwork before you have received this letter and got permission from the other institutions to conduct the study. It may also be expected that these organizations may require additional information from you.

Please contact your supervisors on a regular basis


Prof A van Dyk

ANNEXURE 4

OFFICIAL PERMISSION LETTER FROM THE MINISTRY

9 - 0/0001



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198	Ministerial Building	Tel: (061) 2032510
Windhoek	Harvey Street	Fax: (061)272286
Namibia	Windhoek	E-mail: eshaama@mhss.gov.na
Enquiries: Ms. E. Shaama	Ref.: 17/3/3	Date: 28 March 2011

OFFICE OF THE PERMANENT SECRETARY

Dr. H. Thomas Ikerra
P.O. Box 98484
Pelican Square
Hochland Park
Windhoek

Dear Dr. Thomas

Re: Assessment on knowledge, attitude and practice of HIV – positive women of reproductive age (15 – 49) at Katutura Health Centre towards different family planning methods

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for completion of your MPH Degree;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.4 Preliminary findings to be submitted upon completion of study;
 - 3.5 Final report to be submitted upon completion of the study;
 - 3.6 Separate permission should be sought from the Ministry for the publication of the findings.

"Health for All"

Yours sincerely,

N. Kahuure
MR. K. KAHUURE
PERMANENT SECRETARY



Recommended by Dr
W.W. Namburo
PM
26/05/2021