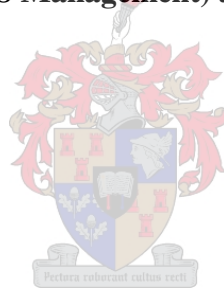


**An assessment of knowledge and factors that expose young female
student nurses to HIV infection at University of Namibia's
Oshakati Campus.**

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**Assignment presented in partial fulfillment of the requirements for the degree of Master
of Philosophy (HIV/AIDS Management) at Stellenbosch University**



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March 2011

Declaration

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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Acknowledgements

In conducting this study I received significant moral and technical support from individuals and groups of people making the process easier than it would have been without such support.

I am grateful to my family, my husband and children who provided homely counsel, understanding and patience as the pressure to conclude this work demanded that I spend long hours of reading and research effectively denying us time to spend together as a family.

I am indebted to my colleagues, fellow lecturers, who stepped in with moral support at a time when it appeared almost impossible to conclude this work. Particularly I am thankful to Ms. David, Ms. Shivute and Ms. Shifiona.

Further I would like to appreciate with thanks my supervisor, Gary Eva for the provision of up-to-the minute support from inception to the completion of this study.

A word of thanks to Dr. A. Ogunmokon of the Department of Mechanical engineering, University of Namibia, for the guidance, advice and proofreading of this work.

My sincere thanks to Dr S. Iiping, Department of Nursing, University of Namibia, for her time spent in translating the abstract into Afrikaans despite her tight schedule.

In addition I thank Mr. Anthony Muganza who helped with the technical expertise to analyze research data and produce usable results that I could interpret.

Finally to the student respondents, whose participation was central in realizing the results presented in this study.

I heartily thank you all.

Dedication

I dedicate this work to all nursing students at the University of Namibia

Abstract

This study presents an assessment of knowledge and an investigation of specific factors that expose young female student nurses to HIV and AIDS at UNAM, Oshakati campus.

A mixed-method approach was employed to collect the necessary data, a combination of quantitative and qualitative methodology. Quantitative data was collected through a self-administered questionnaire whereas qualitative data was gathered by means of focus group discussions and literature review. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) 18, and results from the focus group discussions were grouped into themes and concepts and analysed quantitatively where applicable.

Most respondents indicated to have adequate knowledge about HIV and AIDS and had positive attitudes necessary to effect behavioral change and implementation of prevention and care strategies. Most respondents were aware of their risk factors and aspects that increased individual vulnerability to HIV and AIDS.

While the knowledge and attitudes were identified as adequate, the practices of the respondents did not explicitly indicate an adequate level of responsible behavior among the young female student nurses in the face of HIV and AIDS. Student nurses identified HIV and AIDS as a problem of the “others” and continued to report that infection would be an accidental exposure as a result of their profession or the perceived powerlessness over sexual matters, gender and income inequalities. Other factors of importance that respondents identified as critical in exposing them to HIV and AIDS included alcohol and drug use, peer pressure, lack of sufficient campus accommodation and limited supply of condoms, especially female condoms.

Prevention remains a challenge in planning programs needed to address risky sexual behavior among students due to structural, social, and socio-economic dynamics, individual circumstances, gender and biological vulnerability. To address all these factors, respondents believed that University authorities should collaborate with national service providers and increase their commitment towards reproductive health promotion, development of effective prevention programs, improvement of policies, empowerment of young women through life skills required to advocate for self protection against HIV and AIDS.

Opsomming

Hierdie studie verteenwoordig 'n beraming van kennis en 'n ondersoek na spesifieke faktore wat jong vroulike verpleegstudente aan MIV en VIGS blootstel by UNAM, Oshakatikampus. 'n Gemengde metode benadering was gevolg om die nodige data in te samel, 'n kombinasie van kwalitatiewe en kwantitatiewe metodologieë. Kwantitatiewe data was ingesamel deur middel van 'n selftoegediende vraelys waar die kwalitatiewe data versamel is deur middel van fokusgroepbesprekings en literatuuroorsig. Kwantitatiewe data was ge-analiseer by wyse van die Statistiek Pakket vir Sosiale Wetenskappe 18, en resultate van die fokusgroepbesprekings was groepeer in temas en konsepte en kwantitatief ontleed waar van toepassing.

Die meeste respondente het aangedui dat hulle voldoende kennis het oor MIV en VIGS en het 'n positiewe houding ingeneem teenoor die insluit van gedragsverandering en implementering van voorkomende en versorgingstrategie. Terwyl die kennis en houdings as voldoende identifiseer is, het die praktyke van die respondente nie 'n voldoende vlak van verantwoordelike gedrag tussen jong vroulike student-verpleegsters teenoor die aangesig van MIV en VIGS aangedui nie. Student-verpleegsters het MIV en VIGS as 'n probleem van "ander" identifiseer en het aanhoudend rapporteer dat infeksie 'n toevallige blootstelling is as gevolg van hulle professie of waar geneemde magteloosheid oor seksuele sake, geslags- en inkomste ongelykhede. Ander faktore van belang wat respondente identifiseer het as kritiek in hul blootstelling aan MIV en VIGS sluit in alkohol en dwelm misbruik, groepsdruk, gebrek aan voldoende kampus akkommodasie en nie-beskikbaarheid van kondome, veral vroue kondome.

Voorkoming bly 'n uitdaging in beplanningsprogramme wat nodig is om riskante seksuele gedrag tussen studente aan te spreek as gevolg van strukturele, sosiale en sosio-ekonomiese dinamika, individuele omstandighede, geslags en biologiese kwesbaarheid. Om al hierdie faktore aan te spreek glo respondente dat universiteitsowerhede behoort saam te werk met die nasionale diensverskaffers en dat hulle toegewydheid teen oor reprodktiewe gesondheidsbevordering, ontwikkeling van effektiewe voorkomingsprogramme, verbetering van beleide, bemagtiging van jong vroue deur lewensvaardighede wat nodig is om hul self teen MIV en VIGS te beskerm, moet verskerp.

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List of Acronyms

ABC	Abstinence Be faithful and Condom use
AIDS	Acquired Immuno Deficiency Syndrome
CNA	Canadian Nurses Association
CANAC	Canadian Association of Nurses in AIDS Care
ANAC	Association of nurses in AIDS care
FDGs	Focus Group Discussions
FHI	Family Health International
GRN	Government of the Republic of Namibia
HIV	Human Immuno-deficiency Virus
ICN	International Council of Nurses
MoE	Ministry of Education
MoHSS	Ministry of Health and Social Services
PEP	Post Exposure Prophylaxis
SADC	Southern African Development Community
SPSS	Statistical Package for Social Scientists
UNAIDS	Joint United Nations Program on HIV and AIDS
UNAM	University of Namibia
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WAD	Women's Action for Development
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

The concern over to what extent young female student nurses are able to control various issues of their sexual lives is a critical question for health promotion and the prevention of further HIV infections. The majority of young female student nurses at the University of Namibia (UNAM), Oshakati campus, are from rural areas and their entry to a tertiary institution is a challenge in itself and the pressure of a new environment may add stress to their already pressed situations. The transit period leaves them uncertain and unable to cope with the demands of the new environment. Most of the young students are from poor family backgrounds and it is challenging for them to resist the temptations of cross generational sexual relationships for monetary and other survival gains. Moreover, joining UNAM ushers them to freedom from the possibly restricted lifestyle under the supervision of their parents and guardians. This in effect makes them vulnerable to various risky sexual behaviors. Some of the possible reasons that might expose the young women to risky sexual behaviors include the desire to meet the cost of living and what is considered to be a decent lifestyle. There is equally a danger of alcohol and substance abuse, boredom and peer pressure that contribute to the further spread of HIV.

There is no direct data source which provides the extent or prevalence rate of HIV among female student nurses at UNAM Oshakati campus. The only available means to establish the prevalence rate is by using the 2008 Ministry of Health and Social Services HIV sentinel survey results. HIV prevalence among pregnant women was at 22.4% at Oshakati Intermediate Hospital. Oshakati is the town where the campus is located. A 10.6% prevalence rate was reported among pregnant women aged 15-24 (MoHSS Report of the 2008 national HIV sentinel survey). Using these statistics to estimate the prevalence of HIV infection among female nursing students at UNAM can be an exaggeration although the incidence of unplanned pregnancies among female nursing students is high and a major concern to the authority of the University. This concern was the main motivation for this study.

Between 2007 and 2009 twenty cases of unplanned pregnancies were reported of the 230 female students at the Oshakati campus (University of Namibia, record on maternity leave and absence from theoretical sessions for 2007-2009). Pregnancies at campus highly suggest

that students engage in unprotected sex which increases the possibility of exposure to HIV infection.

1. 2 Problem statement

Student nurses are believed to have adequate information about HIV and AIDS compared to other young people in the communities. The nature of their training exposes them to large sources of information on HIV, both in theory and practice. The rate of unplanned pregnancies among female student nurses who are supposedly equipped with knowledge on contraceptives and skills on how to use barrier methods to prevent unwanted pregnancies points to a knowledge and practice gap. The service for family planning is available and easily accessible to the students but there is reluctance in the uptake of the services. Students are required to access information on HIV and AIDS by the nature of their training. Further they are exposed to practical evidence of HIV and AIDS as they practice in hospitals compared to other youths who only get information from the media and other sources. Students are aware of the national statistics which indicated an increased hospitalization and deaths of people due to HIV and AIDS.

With the rich knowledge gained during training, one would expect the female student nurses to engage in responsible and safer sexual practices to protect themselves from HIV and AIDS and reduce the spread of sexually transmitted infections, and the incidence of unwanted pregnancies. A question should however be asked to ascertain whether the students have adequate understanding of the information availed to them about HIV and AIDS. A thorough analysis of the students' knowledge and attitudes about HIV can provide reliable information in this quest.

Other than adequate knowledge, many other factors are known to influence young women's decisions to practice safer sex (Visser, 2005). These factors could be physical, social, economic, cultural, personal, political and environmental. These factors can contribute to and fuel the incidence of HIV and AIDS through unequal gender relationships, unfavorable economic positions of young women and the inability to make the correct decision on the timing of sex and the lack of negotiation skills to safer sex practices (MacLean, 2006). These factors restrict young women from protecting themselves against sexually transmitted infections including HIV. Equally, these factors need to be tackled adequately. There is also a need to focus on the roots of real life problems and vulnerabilities of young students to HIV

in order to address HIV prevention effectively. This study will therefore investigate the critical factors that make female student nurses vulnerable to HIV infection and how to align these factors with prevention strategies that meet the needs of young female student nurses.

1. 3 Significance of the study

While the researcher appreciates and acknowledges similar studies done in various countries, this particular research is unique as it concentrates on young female student nurses of the University of Namibia, Oshakati campus, the factors that increase their vulnerability to HIV and AIDS and ends in demonstrating practical approaches to improve the safety of female student nurses at UNAM in terms of strategies to reduce vulnerability and prevent further HIV transmission among students.

The studies acknowledged looked at the general population with some stratification done according to either age brackets or gender in general. The study in question sought to focus on young female university students and the level of vulnerability to HIV and AIDS allowing for focused attention and increased depth and breadth into impact analysis and mitigation strategies.

Finally the study follows the students from their unique places of origin, cultures, the educational environment including practical learning at the hospital and gives a more holistic view of individual student nurse experiences with HIV and AIDS. This way usable recommendations to strengthen HIV prevention programs at the university have been generated based on a more focused research process the researcher employed.

1. 4 Aim of the study

The aim of the study was to assess HIV and AIDS knowledge levels and investigate factors that make young female student nurses vulnerable to HIV infection at UNAM Oshakati Campus in order to produce usable recommendations that can contribute to the reduction in the rate of transmission of HIV such as improved reproductive health services, women empowerment and improved living conditions for students.

1. 5 Objectives

The specific objectives of the study were to:

- Assess the level of knowledge about HIV and AIDS among young female student nurses at UNAM Oshakati Campus.
- Identify general factors that make young female student nurses vulnerable to HIV infection.
- Suggest and recommend strategies to improve and strengthen interventions needed to reduce HIV transmission among young student nurses.

1. 6 Research question

Based on the aim and objectives of this study, the central research question was:

What factors make young female student nurses vulnerable to HIV and AIDS at the University of Namibia?

Particular attention was given to students at the Oshakati campus where the respondents in the study are undertaking nursing studies.

1. 7 Research methodology

The purpose of a research methodology is to explain the logic of the research methods and techniques applied in conducting the research in question.

In this study, the researcher developed a questionnaire and administered it to female nursing students to assess knowledge and factors that exposed them to HIV infection. Ninety five (95) female nursing students, aged 16-24 years were requested to respond to the questionnaire on knowledge and factors that exposed them to HIV infection. The instrument comprised of 135 questions on knowledge about HIV infection, transmission and vulnerability. It also had 10 questions on prevention strategies and 32 questions for suggested recommendations.

Focus group discussions were carried out with 20 female nursing students at UNAM Oshakati campus. The nursing students who participated were from first year, second year, third year and fourth year. They were grouped according to their level of training. The first

group was for the 10 students from first and second year level of training and the other 10 were from third and fourth year level of training. The twenty students were to provide information needed to generate an understanding and insight into the knowledge and factors that expose young female nursing students to HIV.

1. 8. Structure of the study

The study is composed of five chapters, and they are as follows:

Chapter one deals with background, problem statement, significance of the study, aim and the specific objectives. It provides a brief explanation of the study.

Chapter two provides a review of relevant literature. There was no information of prior research carried out to assess knowledge and factors that expose young female nursing students to HIV infection at UNAM Oshakati campus, but comparable studies from other countries were available although one that focused on young female students was not found. This chapter highlights crucial factors that make young female nursing students vulnerable to HIV infection.

Chapter three provides the research methods used in the study with reference to specific objectives, research instruments and procedures followed during data collection. The instruments utilized for data gathering are discussed and a detailed explanation of data analysis is provided.

Chapter four presents the findings, discussions and interpretations. The rationale is to answer the objectives and research questions in chapter one.

Chapter five contains conclusions on the findings and suggested recommendations. It also presents the limitations of the study and areas for further research.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

During the study, a literature review was conducted to gain insight, collate and validate information gained from interviews and data analysis. Research covered various source documents, published and unpublished reports, books, journals as well as electronic sources such as the internet and personal communications. Focused attention was to such documents on similar research done in Namibia, Southern African settings and others relevant from other parts of the world. Several studies have been carried out in Namibia that addresses factors that make young women vulnerable to HIV and AIDS. Studies done in the Southern Africa Development Community (SADC), sub-Saharan Africa and other parts of the world which were found relevant to this study were consulted to strengthen and supplement Namibia's studies.

2. 1. Factors that make young people vulnerable to HIV and AIDS

The HIV epidemic has its deepest foundation in 'normal' social and economic life. The rationale of HIV infection growing faster is shaped by structural, social, socio-economic, sexual behavioral, individual contextual factors and biological vulnerability, which create inequalities in relations between groups of human beings (Barnett & Whiteside, 2002). HIV and AIDS is far more than a medical and biological problem around the world (Hasnain, 2005). The indicators of these factors are confirmed by ignorance, the intimidating role of religious leader activists, misinformation, concurrent sexually transmitted infections, poverty, poor education, low employment opportunities for women, low status of women in society, high mobility patterns, lack of perceived personal HIV risk, peer pressure norms, low levels of condom use and unavailability of female condoms, gender inequality power relationships just to mention a few (Oguntibeju et al., 2003,). The existence of these factors creates imbalance and unequal exposure to HIV infection among various age groups and regions (UNAIDS/WHO, 2007). HIV is a very serious threat to young people in Namibia (UNICEF, 2008). It is important to tailor prevention strategies in the light of acknowledging the

presence of factors that make young people vulnerable to HIV infection and to realize that HIV prevention will not be a reality if we fail to address the reality of the daily lives of young women (Ackermann & de Klerk, 2002). The lack of life skills and power imbalances that exist in the lives of young women are some of the heaviest obstacles to HIV prevention. For the purpose of this of this study the researcher divided the factors that make young female student nurses in five groups.

2.1.1 Structural factors

Access to health services is limited. Young people can be reached fairly through HIV information, prevention, care and reproductive health promotion programs. Moreover, many young women are not in position to go for treatment of sexually transmitted infections and HIV testing due to the high cost involved in accessing health facilities. The facilities are expensive in terms of service provision and transport fees (Namibia demographic and health survey, 2003).

Unequal access to health services, education, and the low status of women in society exacerbates vulnerability. Women may have limited access to health care services and denied many basic legal rights accorded to men. Young women are also stigmatized if they seek treatment for sexually transmitted infections and reproductive health services (Mba, 2003). Gender inequality and power relations limit girls' protection from HIV infection, and to seek care and support after being infected. Women have limited access to resources they need to earn income and ensure their own and families well being (Otaala, 2003).

The other reason why access to health services is found to be difficult are time and long distances to government health facilities, aggravated by bad attitudes of health workers who appear rude towards young women. Women are shy to seek treatment on time and long queues make it difficult to access services in a timely manner. Access to health care is important to improve quality of life. The ability to easily avail oneself to high quality care is likely to increase use of preventive services (Namibia demographic and health survey, 2003).

With regard to the accessibility to government hospitals, data available reflects the relative scarcity of hospitals compared to health facilities in general. For example, while 70% of households are within a 20 kilometer radius to a government health facility, only 41% are

within a 20 kilometers radius to a government hospital (Namibia demographic and health survey, 2003). It is vital to integrate peer education with reproductive health and HIV services to improve on the distribution of opportunities to access health services among young women (USAID & FHI, 2006).

The overall mean time to the nearest health facility is 64 minutes and it takes 76 minutes as mean time to reach a government hospital. Because health facilities tend to be concentrated in cities and towns, urban households live closer to health facilities than rural households. It is indicated that town dwellers travel 20 minutes to reach a government facility compared with 90 minutes for rural households (MoHSS Namibia demographic and health survey 2000, 2003).

Voluntary counseling and testing has been adopted in Namibia as an important prevention and control strategy, but unfortunately, access to such services remains limited due to various barriers. It has been suggested that women are often times blamed for bringing the HIV infection into the home because the most common sites for HIV testing is a prenatal clinic (Otaala, 2003). The barrier to access and take up of voluntary counseling and testing services is the negative attitude of health providers toward youths, lack of affordability of services and equity as well as stigma. Stigma has emerged as a major barrier to HIV and AIDS care, primary and secondary prevention (Andrewin & Chien, 2008). Stigma undoubtedly poses several challenges, but the mechanism by which it is at the heart of the AIDS pandemic needs to be explored. Stigma and discrimination are part of complex system of beliefs about illness and disease that are often grounded in social inequalities (Castro & Farmer, 2005). Stigma hinders voluntary counseling and testing (Holzemer et al., 2007). There is belief among some youth that nothing can be done for them once they became infected because there is no cure (Van Niekerk & Kopelman, 2006). This belief prevents young people from going for HIV testing. Because many infected adolescents and youth have not been tested for HIV, their HIV status is not known and also because of the typically long latency period before development of clinical AIDS, many cases of HIV that are identified among young people in their 20s may have been acquired during their teen years or in their early 20s (FHI, 2002). Knowing one's HIV status empowers individuals to make informed decisions about sexual lifestyles that would otherwise predispose youth to HIV infection. Overall voluntary counseling and testing services can help decrease the anxiety, stigma and sense of hopelessness associated with fearing that one is infected with HIV (MoHSS Guidelines for

voluntary counseling and testing, 2006). Clients who learn their sero-status and receive specific counseling based on their test result report an increased sense of hope in facing their situation openly because they receive adequate information (Rabkin, El-Sadr & Abrams, 2005).

In reality, individuals make decisions about risky behavior not only in response to information provided, but also in response to a variety of other factors. Many of these external factors are part of the local environment in which risky behaviors occur or the context in which risky behavior is undertaken (Jackson, 2002).

According to the 2008 Namibia HIV sentinel survey report, the national HIV prevalence rate was reported at 17.8%. Prevalence among women aged 15-19 and 20-24 years varies considerably with the 20-24 age group reported at 14% and 15-19 at 5.1%. Though the national prevalence rate has reduced, HIV prevalence among young women is high (MoHSS Report of the 2008 National HIV sentinel survey, 2008b). The report from other sources indicates further that the UNAIDS estimation of people living with HIV globally is 33.2 million, with 15.4 million estimated to be women. It is also highlighted in the report that many more women than men are at risk of HIV infection, and 50% of all daily infections occur in sub-Saharan Africa (MoHSS guidelines for the prevention of mother-to-child transmission of HIV, 2008a).

HIV is not only a health challenge; it is also a social problem that is rooted and shaped by the cultural and social characteristics of the society in which we live. HIV is seen as an infection of attitude and behaviors, as it is closely associated with risky sexual behavior (Oguntibeju et al., 2003). Many youths engage in high-risk sexual behavior including early sexual onset, infrequent condom use and multiple sexual partners (Visser, 2005). Observational studies point out that limited or lack of recreational facilities results in an early age of onset of sexual activity posing a risk to HIV transmission (Iipinge et al., 2004).

According to CNA, ICN, and CANAC (2006) trends and issues that affect HIV and AIDS prevention, care and treatment are directly influenced by the availability of an HIV policy. It was found that many governments have not met their promised commitments to health care support which shows a lack of willingness to invest in HIV Prevention (Nawafleh, Francis & Chapman, 2005; UNAIDS / WHO, 2007). The average risk of HIV infection after a single percutaneous exposure is 0.3% among the health workers (Mantillas, 2008; McDonald &

Ruiters, 2005). Health workers have low but measurable risk of HIV infection after a single percutaneous exposure to infected blood or body fluids (MoHSS National guidelines for antiretroviral therapy, 2007b). The gap in HIV prevention remains a challenge (Anderson & Beutel, 2007). Denial hampers HIV prevention efforts and gives false hopes to those who already have HIV (Jackson, 2002).

It is important to reduce stigma and discrimination against youth affected and infected with HIV in order to improve on the prevention interventions and promote an enabling environment for prevention programs. Young people have limited capacity to influence policies and resource priorities. This limitation impairs their capacity to develop a feeling of ownership of HIV programs and sustainability of these programs is therefore contingent on the external environment and institutional committees (MoHSS A guide to HIV and AIDS workplace programmes, 2007a; Simbayi et al., 2006). The key to achieving efficient HIV prevention is to improve on the involvement of youths in policy design and formulation (Henwood, 2005; McDonald & Ruiters, 2005,). It is also important to develop programs relevant to youth in relation to service and information provision in order to help empower them (MacLean, 2006).

Religious prohibitions against sex education, seeing it as immoral and its focus on condom use as unethical may actually facilitate increased spread of HIV (Berkhof, 2003). Religious leaders have mixed views on sex education for children and young people ranging from the view of ignorance to the view of sex education as a source of encouraging sexual activity. Many religious leaders argue that condom use provides a false sense of security and encourages further commitment of adultery. The problem of faith leaders' opposition to condom use can have serious consequences on their acceptance by political leadership. For example, Kenya's President calls HIV a national disaster and yet still refuses to promote condom use in the prevention of HIV infection (Jackson, 2002).

2.1.2 Social factors

Poverty can be regarded as a threat to the wellbeing of women as it encourages behavior that increases the risk of HIV infection (Ackermann & de Klerk, 2002). Poverty is the major cause of HIV infection (Jackson, 2002). External environmental factors such as poverty and

gender inequality are two significant factors in enhancing vulnerability to HIV infection (Msiska, 2003). Poverty and income inequality have accompanying side-effects that are major contributing factors to the current spread of HIV. This includes poor living conditions, lack of education, poor health and limited access to health care services (van Niekerk & Kopelman, 2005). In some poor families young females may have to be sold to ensure survival of the family. This is yet another example of a link between violence, poverty, social inequality and vulnerability to HIV infection. HIV pushes people into poverty and makes it harder for them to escape from it. Poverty is more than financial deprivation (Iiping et al., 2004). Achieving financial sustainability is a challenge among youth. Young people often do not have their own resources and many are dependents (MacLean, 2006). It is difficult for the youths to discuss their reproductive health with their parents/ guardians. For many poor and vulnerable youths any cost would be a barrier to accessing services. Lack of economic empowerment increases youths' vulnerability to HIV infection (MacLean, 2006).

Gender inequality determines whether a person contracts HIV depending on the economic position, social class, or gender equality and equity. All these combine to create particular ways of making a living. Together these are the major influence on sexual networks (Barnett & Whiteside, 2002). HIV affects women and men differently in terms of vulnerability and risk impacts. Structural inequalities in the gender status of women make it harder for women to gain self protection. The women are kept in a subordinate position irrespective of age (Ackermann & de Klerk, 2002). Issues such as lack of respect, low status of women, sexual autonomy and gender autonomy prevent women from negotiating safer sexual practices (Iiping et al., 2004). HIV infected men bribed young girls for sex or raped them (Mba, 2003). These practices increase vulnerability of young women to sexually transmitted infections including HIV.

Sexual relations have the capacity to both enhance and disrupt social bonds and all societies have norms, rules and regulations surrounding sexuality. Taboos and social sanctions against prohibited sexual behavior have changed markedly, thereby loosening community control over sexuality and sexual behaviors that may predispose them to HIV related risk (Mufune, 2003). The youths who are separated from family members experience low social cohesion and perceived self worth increases the likelihood of freedom to engage in risky sexual activities. The change in social environment may result in a sense of anonymity, which may lead to risky behavior. This may also be compounded by shifting social norms and sanctions

for errant individual behavior. Social norms tend to condone men having multiple partners (Iipinge et al., 2004). However, urbanization and modernization have changed the organization of sexual partnerships, and what has emerged is a sexual structure allowing men and mistresses to have love affairs. This configuration of the relationships has led to the rampant spread of STIs including the HIV (Ackermann & de Klerk, 2002).

It is the low status of women which makes them very vulnerable to HIV infection. Many young women are not in position to negotiate sex or to ask their partners to use condoms and it appears that girls lack the autonomy to make informed decisions within sexual relationships (Iipinge et al., 2004; Mba, 2003,). The majority of Namibian young girls have sex only to get accepted (Otaala, 2003). This tendency puts them at risk of getting pregnant or catching sexually transmitted infections including HIV. HIV is mainly transmitted through sexual intercourse and in the Namibian context, sex is mostly heterosexual (Talavera, 2002) as it the case with sub-Saharan Africa and other developing countries (Jackson, 2002; Anderson & Beutel, 2007).

Education attainment and school enrollment status may serve as proxies for socio-economic status. Educational background increases knowledge on HIV and AIDS and literature promotes more access to HIV and AIDS information, via the internet, pamphlets, journals, books, newspapers and the general media (Namibia demographic and health survey, 2003). Youth who have completed more grades in school may have received more information about HIV and AIDS (Anderson & Beutel, 2007). Youth who are in school may have more current exposure to HIV education and prevention methods than youths who are not. It is noted that integration of HIV programs in school curricula may increase HIV knowledge among youth, however, sexual health education at school starts relatively late in Namibia (Otaala, 2003). It is important that structural HIV awareness programs should start early in primary schools so that learners are exposed to lessons and activities that deal with HIV, sexuality, relationships and related issues. The early exposure to HIV and reproductive health information is essential that learners receive the right information and guidance before they become sexually active (Berkhof, 2003). A significant number of young people have superficial knowledge about sexually transmitted diseases and infections including HIV (Mba, 2003).

Some studies have indicated that school environments are not conducive for female students, because they contribute to the increasing susceptibility of women to HIV and AIDS

(Shapumba et al., 2004; Sabone et al., 2007). A study done in Kavango region of Namibia in 2001 on an assessment of educational opportunities for girls found that girls obtained inferior education due to unsafe school environments, including unsafe hostels, sexual advances from sponsors and teachers and pregnancy. In South Africa, teachers account for one-third of the rape cases among school children (Iipinga et al., 2004). Several African University situations make students vulnerable to HIV due to the presence of sugar daddies at campus, sexual experimentation, and prostitution on campuses, unprotected casual sex, gender violence and many more high risk activities (Iipinga et al., 2004). Peer pressure, the stress of academia and poverty may drive students into risky behavior and expose them to HIV infection (Sabone et al., 2007).

Depending on which member of the family is infected with HIV, the roles of other members likely to change, especially if it concerns a caretaker and financial provider. The pressure will be pressure on women and girl children to look after the sick. This is likely to have implications in terms of their ability to work or their schooling prospect and sometimes it goes to the extent to substitute for lost income (Msiska, 2003).

Girls often spend significant time caring for affected and infected family members, thus compromising their ability to receive an education and put them at risk of being raped by relatives. It was found that relatives were responsible for 21 percent of rape among children in South Africa (Iipinga et al., 2004). Women and girls are particularly vulnerable. If HIV infection is not prevented among youth, there will be a massive loss of life and investment in education with negative effects on development (Ministry of basic education, sport and culture and the Ministry of Higher Education, training and employment creation National Policy on HIV and AIDS for the education sector, 2003).

Youth tend to be well informed about HIV and AIDS (Huba et al., 2003), and show general knowledge on HIV and AIDS and have positive attitudes towards HIV prevention. However the knowledge is not translated into practice, which would assist to control HIV transmission (Simbayi et al., 2005). Knowledge alone is not enough to assure 'safe' sexual behavior (Visser, 2005).

Knowledge deficit is aggravated by wrong beliefs among men who believe that HIV can be cured by having sexual intercourse with a virgin (Simbayi et al., 2005; Talavera, 2002).

These make young people vulnerable and create a barrier to behavioral change among young people, despite effective training and intervention for youth.

In a country like Namibia, where there are many unemployed young people especially females, many young women do not have alternative means of economic support. Women have limited access to resources they need to earn an income and ensure their own and families well being. (Otaala, 2003). Therefore, the young women are forced to use various economic coping mechanisms which most of the time involve the option for economic dependency on older men to support them (Pettifor et al., 2005 and Campbell et al., 2005). Females opt for multiple partners to ensure economic stability whereas none of the males mentioned economic stability as a reason for multiple partners. Many young women are at the lower end of the socioeconomic spectrum, and more women are living in poverty than men (Weissman et al., 2006). Poverty and gender inequality are core factors mediating vulnerability to HIV infection among women (Msiska, 2003).

Generally women have less income and property than men, less access to information and education and fewer rights. Women's lack of economic security can force them into high risk situations. The desire for cash, cars, cell phones and clothes is a major contributing factor to the spread of HIV that motivates risky sexual practices. Some young women stated that they cannot risk the loss of their financial support by suggesting that their partners wear condoms (Ipinge et al., 2004). Many young women are only interested in financial gains and do not adhere to any moral values. Poverty and unemployment are identified as the primary factors behind unsafe sex. HIV and AIDS have the potential to aggravate poverty and inequality. The interconnectedness between poverty, gender inequality and HIV infection warrants an integrated response to these development challenges (Msiska, 2003). In Namibia, for example 50-60 percent of young adults under 30 years are unemployed (Jackson, 2002).

Many young women experienced forced sex, (Salazar, 2005) which is unsafe and causes injuries inside the vagina. Any small injury provides an open door to the virus (GRN & UNICEF, 2004). It was found that females lack skills to negotiate for safer sexual practices which risk them to HIV infection. The source states further that in some regions in Namibia, nearly 37% of young women have had sex against their will.

Some studies found that some young women are not in position to insist on condom use as they stand a chance to lose economic benefits (James et al., 2006). Based on the evidence

from the reports on HIV and AIDS generated at some sub-Saharan Universities include discussion on gender and decision making, it was pointed out that the University of Namibia's HIV and AIDS orientation program is beneficial for females who are faced with the sexual advances of older male students and some staff members (Otaala, 2003).

2.1.3. Cultural factors

Culturally women are assigned the responsibility to care for household members. The additional responsibilities for girls and adult women, who primarily care for those with HIV and AIDS, directly affected their attention, availability, capability and willingness to participate in HIV education and intervention programs (Otaala, 2003).

It is a taboo in Namibia to discuss sex and sexuality openly even between partners (Otaala, 2003). It is also a taboo to discuss sex in public with children (Van Niekerk & Kopelman, 2005). Male students tend to advocate for multiple sexual partners, which is regarded as a status symbol (Iipinge et al., 2004). The cultural norms that define men as superior to women make it difficult for women to protect themselves from HIV infection (Jackson, 2002). The disappearance of traditional values such as fidelity and abstinence are also contributing to the spread of HIV epidemic (Oguntibeju et al., 2003). There is also some notable cultural continuity. For instance, it remains a taboo to discuss sex in public, especially for people of different ages. This also applies to people of the opposite sex also may not discuss sexual issues even in marriage and cohabiting relationships (Mufune, 2003). This makes it difficult for parents to teach their children about HIV. Where culture expects women to be passive and subservient to men, young women have little or no control over decision-making relating to sexuality, nor the sexual behavior of their male partners or the use of condoms for prevention of sexually transmitted diseases, HIV and pregnancy (Pettifor et al., 2005).

Violence against women can be divided into domestic and sexual violence. Violence against women is a complex and multidimensional problem. Violence against women is a widespread social, human rights, and public health problem. Some of the factors that contribute to violent crime in Namibia against young women in general involve alcohol consumption, low level of education of the partner, cultural, socio-economic marginalization, and poor socializations (WAD, UNAM & NPS, 2006).

The violence is embedded within social and cultural norms that perpetuate inequality between men and women, and condone or even encourage discrimination against women. The unequal power relations between women and men are gender-based violence (Ackermann & de Klerk, 2002). Gender-based violence can be domestic violence by intimate partners, forced sex and trafficking of women. Data on sexual abuse is even more difficult to come by, yet evidence suggests that forced sex, including rape, is a common occurrence for women (Salazar et al., 2005). Many girls in Namibia experience forced sex during their life time (Ipinge et al., 2004) although rape is a criminal offence in the country. Rape is the most obvious refutation of the assumption that sexual behavior is a matter of individual choice and is fundamentally about exerting individual responsibility, but in many other instances we find that freedom of choice regarding sexual behavior is circumscribed by external factors such as social norms and values and one's socio economic position in society (Msiska, 2003).

Violence affects all aspects of a woman's life: health, productivity and ability for self care. It undermines women's sense of self-worth, their sense of autonomy and ability to feel and act responsibly and it increases their risk to sexually transmitted infections including HIV and unwanted pregnancy (Ipinge et al., 2004). One main problem in society is the danger of men perceiving that young girls are safe and such a perception and belief attracts men to look for younger women, preferably virgins with a belief that they are not infected and can cure the HIV (Talavera, 2002).

2.1.4 Personal behavioral and sexual networking factors

Multiple and concurrent partnerships contribute to the spread of HIV. A study conducted in Nigeria among college students revealed that a poor economy resulted in youth becoming involved in sexual networks, opting for multiple partners to earn a living (Chwee, Eke-Huber, Eaddy & Collins, 2007). Several studies found that young females are at risk of sexual behavior that leads to increased opportunities for HIV infection. Multiple partners influence the presence of sexually transmitted infections and genital sores (Simbayi et al, 2005). The most efficient means for reducing the epidemic spread is to reduce HIV transmission among people with high rates of multiple partners (Brown et al. 2001).

Cross-generational relationships increase the spread of HIV (Weissman et al., 2006). Women who enter in cross generational relationships have limited power over sexual activities

(Pettifor et al. 2005). Due to limited condom use, young women are more likely to contract HIV through such relationships. There is a rapid increase in 'sugar daddy' relationships in which older men seek out younger sexual partners because of the men's perception that young girls might not be infected with HIV (van Niekerk & Kopelman, 2005). Older male partners have been theorized to place young women at greater risk of HIV infection. A study done in South Africa (Pettifor et al., 2005) found that 15-19 year old women with a partner of 5 or more years older and 20-24 years with a partner 1-4 years older were significantly more likely to be infected with HIV in comparison with women with a partner of the same age or younger (Mufune, 2003).

Cross-generational relationships are not the only factor contributing to high HIV infection rates among young women, transactional and other social factors also play a role in the spread of HIV (Weissman et al. 2006). Exchanging sex for survival needs also confer a high risk to HIV infection (Simbayi et al., 2005). Some of the economic coping mechanisms used by young women include having a boyfriend to pay for basic necessities, but at the same time share sex with several partners in exchange for gifts (Ipinge et al. 2004).

The use of condoms is complex. Therefore, even if an individual decides to use a condom as a protective measure, a number of barriers may stand in the way (Varga, 2000). The youth have superficial knowledge on condom related issues (Anderson & Beutel, 2006), which impairs their ability to consistently use condoms. The decision to use condoms is also determined by the individual's past experience, risk perception and type of partner as well as personal concerns and motivation (Brown et al., 2001). Several studies reporting on condom use among youth indicate that initially the use was low but increased substantially in the past five years. Moreover, condom use consistency remains low among regular steady relationships (Pettifor et al, 2005).

The study done by James et al. (2004), found that active sexual practice is common in adolescents and youths. The results revealed that 81.5% of respondents between 15-19 years of age were involved in active sex for the past six months, both males and females. The source further indicated that of those reporting having been sexually active in the past six months, 33.3% reported not having used a condom at all, while 42.6 percent stated that they used condoms sometimes (James et al., 2004). The decision to use condoms is based on access, skills and partner's will to use condoms. The access to condoms is impaired by legal,

social economical and time of the day. There are also barriers on skills to condom use such as education, training and religious prohibitions. Other barriers like gender roles, social pressure, norms and level of education are connected to partner willingness to use condoms (Brown et al., 2001). All these barriers increase vulnerability to HIV transmission among the youths.

HIV and AIDS awareness programs among young people who focus on condom use, delay of sexual activity and behavioral change towards safer sexual practices are priorities and remain the only means of primary prevention (Visser 2005). Many behavior changes are gradually including correct and consistent condom use in sexual risk reduction. Behavior change often requires knowledge, skills, motivation, resources and support (Rabkin, et al. 2005).

Youth generally perceive HIV infection as a disease of other people; they do not personalize and internalize the threat. The youths do not perceive themselves to be at risk for, or vulnerable to HIV infection. This makes it difficult for youth to translate their HIV and AIDS knowledge into sexual practice. The youths' attitudes are difficult to change due to their negative attitude and perception of HIV infection as a problem of other people. This implies that knowledge does not always correlate with change in behavior, especially if the individual has not perceived personal risk to HIV infection. Therefore factors that expose young people to HIV infection are complex and make it difficult to control the epidemic among youths (Oguntibeju et al., 2003).

Namibia has a relatively youthful population, with 43% of the population under 15 years of age (MoHSS Namibia demographic and health survey, 2003). This provides an enormous number of people beginning sex or entering the sexual activities at various age ranges. The median age at first birth is 21 years for Namibian women. However Namibia demographic and health survey 2003 indicates that child bearing begins early in Namibia, with approximately 20 percent of women having their first child before age of 18. The 2008 National HIV sentinel survey report indicates that one out of five women aged 15-24, reported having at least one child already. It is roughly indicated that one fifth of the women has their first birth at the following age groups: 18–19, 20–21 and 22–24.

Young women are more vulnerable than men to sexually transmitted diseases and its complications. The young women with sexually transmitted infections are asymptomatic and are less likely to seek treatment. This results in chronic infections with more long-term

complications. It is clearly indicated that youths become sexually active at an early age. Early sexual initiation has direct correlation with reproductive health problems and sexually transmitted infections, including HIV (MoHSS Namibia demographic and health survey 2003; Mba, 2003). A study done in South-Africa (James, 2004) revealed that 47.8% of adolescents agreed that the right age bracket to start having sex is 15-19 years and more male respondents were in favor towards the age range. It is possible that the male respondents harbored several undisclosed factors leading to this finding which may include legalizing a lower age of consent as a means to avoid jail terms for sex committed with minors.

The overall HIV prevalence among Namibian youth, especially the age group 15-24 is 10.6% (MoHSS report on the 2008 national sentinel survey, 2008b). Several studies done in various parts of the world, like Visser (2005); Campbell et al. (2005); Mason (2003); Brown et al. (2001) found that the largest percentage of new HIV infected people is among the age group 15-24 years. The majority of people who become infected with HIV are young people at potentially economically productive ages (Berkhof, 2003). In many regions of the world more women than men are at risk of HIV infection with 50% of all new daily infections in sub Saharan Africa being in women (MoHSS guidelines for the prevention of mother-to-child transmission of HIV, 2008a).

HIV infection accounts for 60% among the 15-24 age group (Otaala, 2003; Mason, 2005). Over 50% of women in sub-Saharan Africa have their first child before 20 years and half of the women with the HIV infection, contracted the virus before they reached the age of 25. South African antenatal survey in 2003 found HIV prevalence among 15-19 year old women at 15 percent and in the 20-24 year old women, the HIV prevalence was at 30% (Pettifor et al 2005).

Alcohol increases risk and makes youth not to control their risky behavior. The influence of alcohol impairs the youths' ability to remember that condoms can save a life (GRN & UNICEF, 2004). An excessive use of alcohol suppresses the function of the superego which is responsible for conscience. Drunken men act irresponsibly and may force young girls to have sex or rape small children (Talavera 2002). Since many young people are sexually active, increasing numbers of youths are at risk of being infected with HIV. Moreover, there is a risk of HIV transmission as result of sexual abuse of children in Namibia (Ministry of

basic education, sport and culture and the Ministry of Higher Education, training and employment creation, 2003).

Alcohol and drug use increases unsafe sexual behaviors and potential HIV risk among youths (Chwee et al. 2005). High alcohol consumption and frequent use of drug substances impedes young women's ability to make correct decisions and enforce condom use with their partners (Huba et al. 2003).

HIV testing is the key to care, treatment and moral support. The only way to know whether or not one is infected with HIV is to take an HIV test. Knowing one's HIV status may prepare one to make an informed decision about safer sex and pregnancy (MoHSS report of the national HIV sentinel survey, 2008b). The HIV test goes together with disclosure and the decision about whether or not to disclose one's HIV status to others is a personal moral issue. Discussing one's status requires one to confront the diagnosis of HIV and the distress of stigma associated with HIV infection. Stigma has emerged as a major barrier to HIV testing, care, treatment, primary and secondary prevention. It also hinders voluntary counseling and testing and increases morbidity and mortality (Holzemer et al., 2007).

People living with HIV in Namibia face stigma and discrimination on a daily basis. They face daily violations of their fundamental right to freedom from discrimination and equality before the law. This violation increases the negative effects of the epidemic on the individual, because people have to worry about stigma and discrimination in addition to their health and HIV status (Ministry of basic education, sport and culture and the Ministry of Higher Education, training and employment creation, 2003). Stigma and discrimination is one of the biggest deterrents to disclosure, it makes it difficult; yet sharing of information can help a person to seek and or receive medical and emotional support. It can also decrease secrecy and shame and may facilitate efforts to reduce the spread of HIV infections (Rabkin et al., 2005).

2.1.5 Biological vulnerability

Women are biologically more vulnerable to HIV infection (Ipinge et al., 2004; Oguntibeju et al., 2003). Physiologically, women appear to be at great risk of contracting HIV than men. Women are more susceptible to most sexually transmitted infections' including HIV infection because of the greater mucosal surface exposed to pathogens during sexual intercourse

(Iipinge et al., 2004). Young girls whose genital tracts are not fully mature are in particular more prone to contracting HIV and STIs. Men pass on HIV more efficiently than women (MacPhail, Williams & Campbell, 2002,) making a woman twice as likely to be infected by an HIV positive man as a man is to be infected by an HIV positive woman.

HIV infection affects primarily the productive age range in the population with 55% of the new infections being among women (Shapumba et al., 2004; Oguntibeju et al., 2003). Young people are, to a differing degree, governed by external structures that determine the choices they have available to them and influence their preferred outcomes (Gregson, Nyamukapa, Garnett, Wambe, Lewis, C. Mason, Chandiwana & Anderson, 2005). Age often limits the youths' ability to seek formal employment, to own land, to receive financial credit and access other livelihood assets, yet expectation and the need for the youth to contribute to family livelihood make them more vulnerable to poverty and exploitation (Mba, 2003).

The median age at first intercourse for women is 19 years, but one third of women reported to have had sexual intercourse by the age of 18 (Namibia demographic and health survey, 2003). National health statistics reported that 60% of the age group 16-19 are sexually active and 6% of girls reported to have had sex before age 15. It is noted that teenage pregnancy is very high in Namibia with girls at 39% either pregnant or have a child by the time they are 19 (GRN & UNICEF, 2004).

Prevention and control of sexually transmitted diseases among the youth was a low priority for most countries and development agencies. The lack of awareness about sexually transmitted infections and their complications, the competition for resources to control other important health problems and reluctance of public policy makers to deal with the diseases associated with sexual behaviors have all played a role in the increased cases of sexually transmitted infections among sexually active reproductive age population (Mba, 2003).

Other problems lie with the designed programs for prevention. The effectiveness of HIV prevention strategies is difficult to reach for various reasons and it depends on rationale for sexual activity. For instance if the reasons for sexual activity is one of the following among the others, reproduction, pleasure or mutual consent, rape or power, experimentation, acceptance in case of peer pressure, ritual purposes and /or inheritance and sex as a commodity for exchange, then the abstain, be faithful and condom use prevention efforts are less likely to work. We believe that education and communication work the best, but

voluntary counseling and testing may or may not yield good result due to stigma (Msiska, 2003). The reasons why the ABC approach fails to be effective are twofold. The approach does not take adequate consideration of the variety of reasons why people engage in sexual behavior and the prevention effort of ABC tends to be based on an assumption that sexual behavior is a matter of individual choice and about exerting individual responsibility.

Until the recent past, focus was on the prevention of complications through treatment. The primary prevention of sexually transmitted infections is at present receiving increased attention because of the world epidemic of HIV. Since the inception of HIV, people have become aware that the presence of sexually transmitted infections makes them vulnerable to HIV infection. The presence of sexually transmitted infections and chronic sexually transmitted diseases complicated with genital ulcers increase the likelihood to HIV infection (Simbayi et al., 2005).

Risky sex is that which leads to increased opportunity of exposure to HIV. The risk factors are such as unprotected sex, presence of sexually transmitted infections and a history of genital sores.

The sexually transmitted infections, especially HIV have always involved suffering. The suffering might be physical and emotional pain. The problem of shunning and stigmatization often afflict young people with sexually transmitted infections including HIV (Gregson et al., 2005).

The number of sexually transmitted infections continues to grow and modern drugs can cure most of the bacterial sexually transmitted infections and help palliate the pain and discomfort caused by viral infection including HIV. However, it is a pity that even simple drugs are unavailable in many sub-Saharan African communities (Mba, 2003). People need proper care as it stipulated in the national strategic plan, to increase access to treatment, care, and support (MoHSS, 2004).

Several factors are important in determining if HIV can be passed on from an infected person to another. One of these factors include biological vulnerability, which is related to the exposed and 'the infector' individual. Exposure alone is not enough to predict the risk of infection – the viral load matters. Although there is no direct correlation between viral load

and infectiousness, a high viral load has been associated with high infectiousness. However, a low viral load may not be underrated if exposure is direct through blood (Jackson, 2002).

The major source of infection for HIV in Africa is through heterosexual relationship experiences involving unprotected sex (UNAIDS/WHO, 2007; Mba, 2003). A study done in Cape Town, South Africa (Simbayi, 2005) revealed that youth demonstrated high rates of risky sexual practices. These risky sexual practices place them at risk for contracting HIV, despite adequate knowledge and risk sensitization on HIV infection. The risky sexual practices include forced and dry vaginal sex, anal, and oral sex. When it comes to sex with an HIV infected person or person of unknown status, different levels of risk have been attributed to different sexual practices. But this does not mean that the risk is always the same for the same practices. One expects oral sex to be much safer if oral surface is intact than unprotected anal sex (Jackson, 2002).

Poor diet leads to chronic under nutrition with serious deficiency in certain vitamins and minerals. The deficit of vitamins and minerals makes the body immunity low and prone to infections resulting in low resistance and immuno-suppression. The immuno-suppressed body, re-infection with sexually transmitted infection and the potential for untreated sexually transmitted infections increase the risk of repeated HIV infection with different strains that are difficult to control with antiretroviral drugs (Jackson, 2002:335). Reduction of HIV infection among young females is demanding the enabling environment with proper prevention (MoHSS, 2004).

HIV and malnutrition create a vicious cycle in which HIV compromises a person's nutritional status. Malnutrition worsens the effects of HIV. HIV and opportunistic infections may impair absorption of food and increase energy needs (Rabkin et al., 2005). It is estimated that 39.3% of youth in sub-Saharan Africa are classified as undernourished (Weissman et al., 2006).

CHAPTER THREE

RESEARCH METHODOLOGY

3. Introduction

The study used a duo methodology at various stages of the research process which included the qualitative and quantitative approaches. This was a deliberate choice by the researcher to guarantee the applicability of research results by means of ensuring that the weaknesses of either method are compensated by the strengths of the other approach.

The qualitative methodology was applied through literature review and random sampling of opinions by holding focus group discussions (FDGs) with female student nurses at the UNAM Oshakati campus.

The quantitative methodology was applied through a structured questionnaire administered to 95 student nurse respondents culminating into data analysis presented in graphs, charts and frequency tables.

3. 1. Research Design and Method

Research is a diligent, systematic inquiry to validate and refine existing knowledge and generate new knowledge. A research design is a blueprint for conducting a study that maximizes control over factors that could interfere with the study's desired outcome (Burns & Groves 2005).

The research was conducted systematically in order to generate new knowledge and also to refine existing knowledge and to align it with the knowledge needed to pursue appropriate preventive measures of HIV and AIDS among female nursing students. The researcher used mixed method approaches, qualitative and quantitative designs with the reason of obtaining adequate information. Mixed-method studies are those that combine the qualitative and quantitative approaches into the research methodology of a single study. Each data source has its strengths and weaknesses, and by using triangulation the strength of one procedure can compensate for the weakness of another approach (de Vos et al 2004). The research utilized two selected designs and this integration of two different research designs assisted to

supplement each other by retaining the benefits acquired from each design while the disadvantages are eliminated (de Vos et al, 2005).

The research tools used for data collection were a questionnaire and focus groups. This study was conducted with the purpose to give descriptive information pertaining to knowledge of factors that expose young female nursing students to HIV and AIDS at UNAM Oshakati campus.

The research involved focus group discussions as a qualitative methodology. Qualitative research is a systematic subjective research methodology used to describe life experiences and give them meaning (Creswell, 2003; Ritchie & Lewis 2003).

3. 1. 1. Target Population and Sampling Method

A population is the entire group of persons or objects that is of interest to the researcher (Brink 2006). The target population was all full-time female student nurses under 25 years at the University of Namibia, Oshakati Campus. The rationale for focusing on this age group was because youth are generally believed to be a high risk group for contracting HIV and AIDS in Namibia. The research included all young female students, aged between 16-24 years, unmarried, and who were accommodated in hospital nurses homes, living with parents/guardians and/or renting private accommodation facilities.

The Oshakati campus has a total of 372 full-time nursing students out of which 51 students are males and 91 females aged 25 years and above, excluded from the study. There are 230 young female student nurses are below 25 years. The researcher selected 115 female student nurses (50 percent of the total) to participate in the study and 95 student nurses were selected to complete the questionnaire. The researcher carried out two focus group discussions with 20 students for one hour each. The participants in focus group discussions did not participate in completing the questionnaires.

The researcher used random sampling with a replacement technique namely, the fishbowl technique. The researcher wrote names from the sampling frame on a separate paper, and placed them into a container, then drew a name, noted and placed the name back into the container. The researcher selected more than the required number of names from the sample

population in case any selected participant declined to take part in the study. Replacing each name after each selection ensured that each participant had an equal and independent chance of being selected each time.

3. 1. 2. Procedure

The researcher conducted the survey (using questionnaires) and the focus group discussions on the same day. This offered equal opportunity for the use of both quantitative and qualitative methods and facilitated the integration of data collection and clarification in a timely manner.

The participants included are those who agreed to meet in the class-rooms for one hour, between 13h00 and 14h00 on normal work days, except Wednesdays due to limited time spent on classroom activities, as students are on a day release shift system. The permission to conduct the survey during lunch time was obtained from the Head of Department of Nursing Science. The researcher also sought consent of the lecturers who were accountable for last class sessions before lunch to assist in the administration of the questionnaires to participants.

3. 2. Data Collection

3. 2. 1. Pilot study

A pilot study is small version of a proposed study conducted to develop and or refine the methodology such as the treatment, instrument or data collection process to be used in the large study (Burns & Grove 2005). A researcher should never start the main inquiry unless they are confident that the chosen procedures are suitable, valid, reliable, effective and free from problems and errors or at least that they have taken all possible precautions to avoid any problems that might arise during the study (de Vos et al 2005).

A pilot study was conducted in August 2010 at Onandjokwe Health Training Centre with pupil enrolled nurses. With permission from the head and the consent of pupil nurses, draft data collection tools were administered to 20 pupils for the pilot. A pilot study is a prerequisite for the successful execution and implementation of a research project (de Vos et al 2005). It forms an integral part of the research process and it serves various functions. The rationale of the pilot study was to determine the clarity of statements, language bias and

effectiveness of instructions, sequences of statements, time required for completing the tool and procedure of recording responses. The pilot study assisted in improving the sequence of questions and some of the statements that were not clear to the participants were rephrased.

3. 2. Data Collection method

For data collection the researcher used two data collection methods namely a questionnaire and focus group discussions. The two methods were used to collect data from female nursing students. The two data collection methods are further discussed in detail and how they were applied during the process of data collection.

3. 2. 1. Questionnaires

A questionnaire is a set of questions on a form which is completed by the respondent in respect of a research project (de Vos et al, 2005).

Data for the survey was collected by means of questionnaires, developed by the researcher. The researcher used structured questions so as to capture relevant data for the purpose of the study. The participants used a paper-pencil format but some participants completed with a black ink pen and marked with “X” their desired responses (Fink, 2003). The first part of the questionnaire consisted of closed ended questions, with categories such as “true” or “false”; “yes” or “no”, The second part of questions used a Lickert scale rating, with statements and summated declarative statements on which the respondents were required to provide their opinions using a 5 level scale system from strongly agree to strongly disagree. The rationale and objective the questionnaire was to measure and or test the feelings, attitudes and to obtain rich in depth information, facts and opinions about HIV knowledge and identify factors which are critical to HIV vulnerability among young female students who are informed and familiar with the subject matter. The questionnaire was prepared in the English language and there was no need to translate since the respondents were familiar with the language in use. The questionnaire was physically distributed to the respondents by the researcher.

3. 2. 2. Focus group discussion

Focus group is a research technique that collects data through a group interaction (Puchta & Potter, 2004).

Focus group discussions were carried out with twenty (20) female student nurses who did not participate in the completion of the questionnaire. The participants were divided into two

groups, ten participants each, one with students from the first and second year and the other ten participants from the third and fourth year. The aim for having 10 participants per group was to allow everyone to participate and for the researcher to elicit a range of responses. Further the researcher was able to keep the participants focused and obtained quality information and adequate responses. The focus group discussions were held for at least one hour per group. It was cost effective for the researcher in terms of time and funds. Although this was an open discussion, the researcher had prepared some questions that were used to lead the discussion without limiting the amount of information obtained from the participants. All questions for focus group discussions were in an open-ended format, which enabled participants to provide and motivate their opinions. The open ended questions assisted participants to respond and answer freely in their own words and styles. It was noticed that the participants were confident, comfortable and secure to express their views in groups.

3. 2. 3. Data Analysis

Data captured from the questionnaire was analyzed using the statistical package for social sciences (SPSS). Results were presented in frequency tables, bar charts and pie charts.

Data collected from focus group discussions was analyzed using thematic analysis. By this the researcher tape recorded and transcribed conversations with participants quoted and paraphrased what the participants said and analyzed identifiable themes.

3. 2. 4. Validity and reliability

Validity refers to the extent to which an empirical measure accurately reflects the concept it is intended to measure (de Vos et al, 2005). The use of mixed methods in this research is partially to ensure validity and reliability of the study. Reliability refers to the extent to which independent administration of the same instrument consistently yields the same results under comparable conditions (de Vos et al, 2005). The researcher developed a draft questionnaire and piloted it among the pupil enrolled nurses and midwives in order to maximize stability and consistency of measurements.

The researcher recognizes the limitations of quantitative and qualitative methods and felt that the biases inherent in any single method could neutralize the biases of the other method. One method can be nested within another method to provide insight into various levels of analysis. The consistency and accuracy of the study is inherent in the combined use of quantitative and qualitative research methods to determine how far they arrive at convergent findings. The mixed methods approach built a stronger research design and more valid and reliable findings were realized while minimizing inadequacy of individual methods, and the threat to internal validity realized and addressed. The use of mixed methods reduces bias and increases understanding looking at the experience of participants and interpreting participants' views to provide meaningful data.

3. 2. 5. Ethical Consideration

Ethical clearance for the study was granted by the University of Stellenbosch Ethical Research Committee, South Africa. The permission for conducting the study was obtained from the Ministry of Health and Social Services and the Director of UNAM, Oshakati campus. Anonymity was ensured and participants did not provide their names and any other personal particulars. The study results were linked to questionnaire information by way of code-numbers. The participants' rights were respected and their informed consent was obtained before they participated in the research. Their privacy was maintained and confidentiality was ensured. Participation in the study was voluntary, and participants were allowed if they so wished to withdraw from the study at any time. The researcher explained the purpose of the study to promote better understanding of the nature of the research, its impact on the participants and the procedure to be followed in the study for participants to have clear view on what to anticipate in the research. The participants were allowed and encouraged to ask questions.

CHAPTER 4
DATA ANALYSIS AND FINDINGS

4. Introduction

This chapter shows the research findings and how they relate to the objectives of the study. Ninety five questionnaires were administered to female nursing students at UNAM Oshakati Campus. The questionnaire return rate was 100%. All the participants were female full time nursing students at the University of Namibia, Oshakati Campus. The questionnaire had 10 sections (see appendix A) that sought out for demographic data, knowledge about HIV and AIDS, risk perceptions, possible barriers to access for health care services, HIV prevention and factors that expose young female students to HIV.

4.1 Findings

4.1.1 Age profile

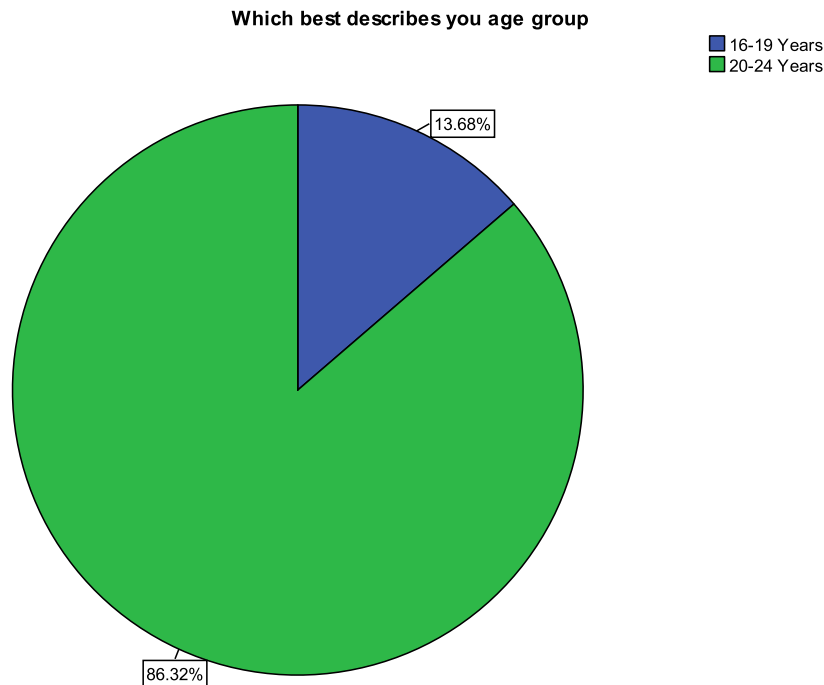


Figure 1: Age distribution of respondents

The majority of the respondents in this study (86%) were adult students aged 20-24. In Namibia the HIV and AIDS epidemic is felt hardest among the 15-49 age with over (20%)

prevalence rate among this age group. The smallest age group (16-19) of respondents (14%) is also among the high risk age bracket. Overall therefore, the respondents are from the age bracket considered to be at high risk of HIV infection in Namibia. Over 90% of the respondents indicated to have originally come from village homes with approximately 10% stating to be originally from town settings. However, at the University, the respondents indicated to be staying in different settings with the majority (57%) staying at the nurses home, 22% in rented houses or flats and 20% still staying with parents at home, from where they travel to the university for lectures. Places of origin and residence were later identified in this study as very influential in determining the level of vulnerability reported by the respondents.

4.2 Knowledge about HIV and AIDS

Respondents were tested on various aspects that determine knowledge about HIV and AIDS including transmission, prevention, care, and access to HIV and AIDS services. Overall respondents indicated to be adequately knowledgeable about HIV and AIDS rating between 63%-89% of the respondents being aware about the transmission, prevention, care and access to services. However, in some aspects results of significance were recorded. In sub-Saharan Africa heterosexual contact accounts for over 70% of all HIV infections that occur in the region, a figure that is higher in the SADC sub-region and for Namibia in particular heterosexual contact accounts for approximately 89% of all new infections. In this study, 20% of the respondents indicated that heterosexual contact did not transmit HIV at over 70% in sub-Saharan Africa as shown in figure 2 below.

Heterosexual contact account for more than 70 percent of HIV transmission in sub-Saharan Africa.

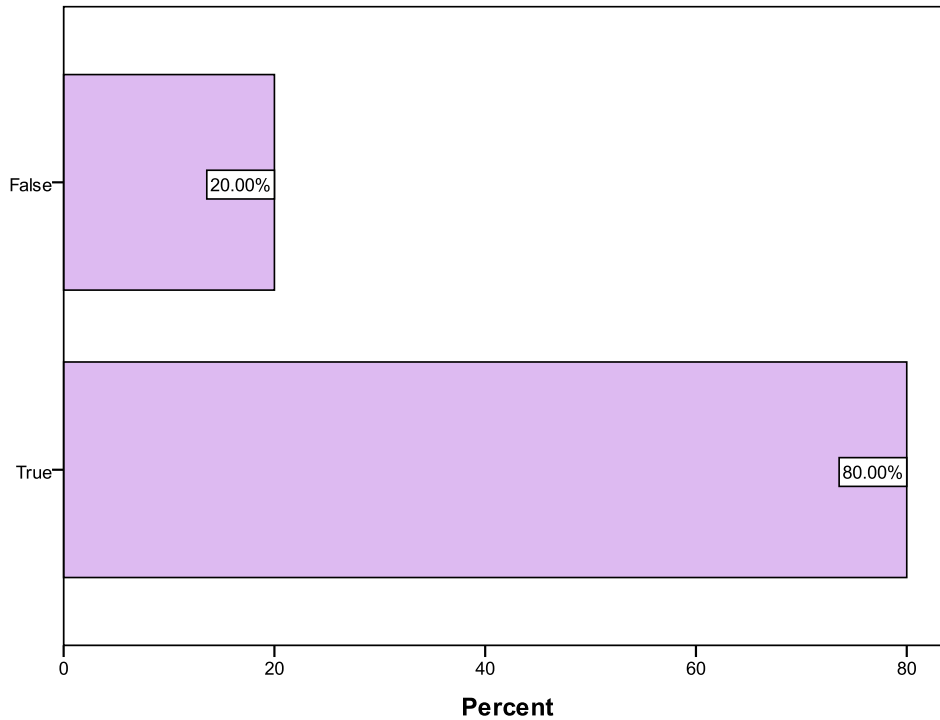


Figure 2: Heterosexual contact transmits HIV at more than 70% in sub-Saharan Africa

On prevention, over 95% indicated that abstinence from sexual intercourse was one effective method of preventing HIV transmission. However during the focus group discussion, participants challenged abstinence indicating that while it was effective it lacked boundaries and especially that the abstinence does not indicate particularly until when one should abstain.

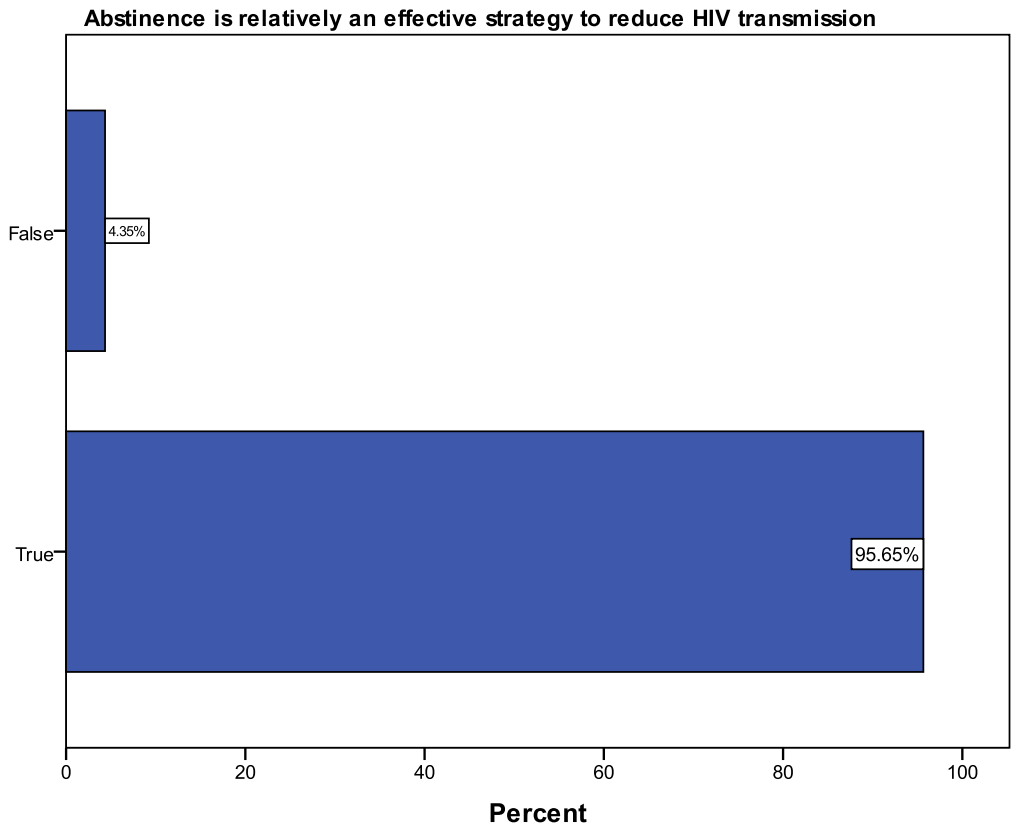


Figure 3: Abstinence effective in preventing HIV transmission

Further, respondents indicated that significantly that it is impossible to abstain once a person has been sexually active. Figure 4 below indicates that over 48% of the respondents believed they could not abstain from sex once they were active even when they considered abstinence as an effective method of HIV prevention. *See figure 3 above.*

It is impossible for the youth to refrain from sexual activities once one becomes sexually active

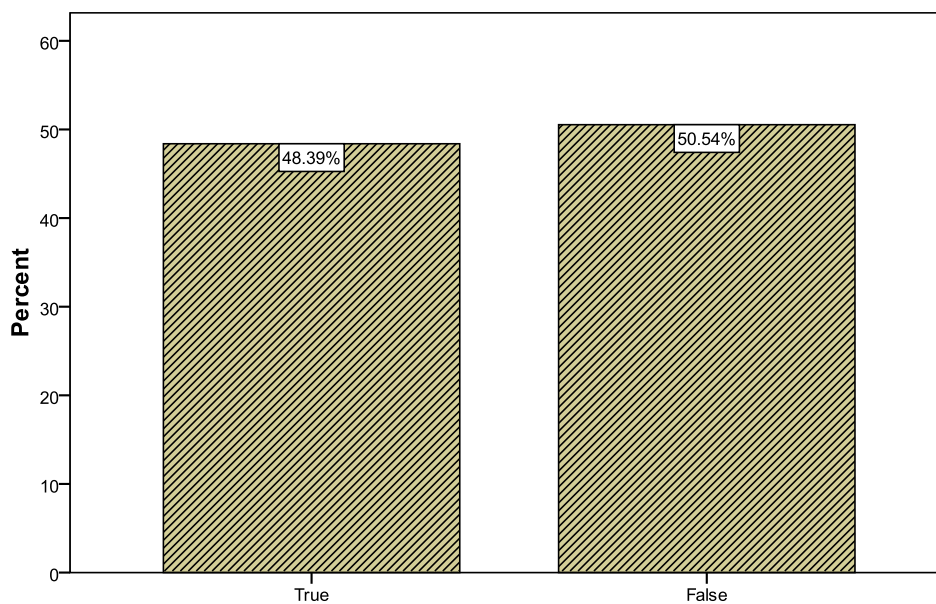


Figure 4: It is possible to abstain if someone has been sexually active before

Youths perceive HIV as a problem of other people

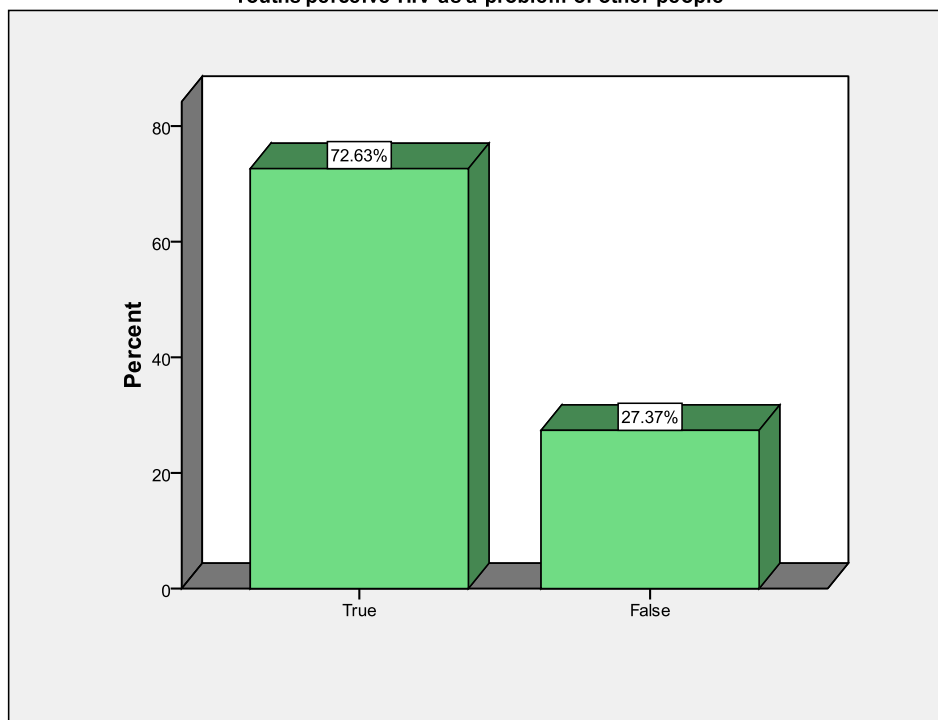


Figure 5: HIV is a aproblem of other people

Despite the high level of HIV and AIDS knowledge and awareness, the majority of respondents perceived HIV and AIDS as a problem of others. The student nurses generally viewed their profession as exposing them to greater risk effectively linking the blame to the patients who could be HIV infected and under their care. Accidents with needles and other workplace equipments do occur, but no cases of infection have been officially reported or confirmed in training facilities for nurses, and practice areas such as wards in Oshakati hospital.

4.3 Risky behaviors

Respondents were asked to determine what they considered to be risky behavior in the face of HIV and AIDS. Overall, respondents indicated a high degree of awareness of risky behavior ranging from accepting gifts in exchange for sex to multiple sexual partners. Over 94% of the respondents perceived sex in exchange for gifts as risky. Generally young girls in Namibia accept various favors including gifts from men usually older than them and accept to have sex with them as a means to appreciate the gifts they receive. Further over 86% of the respondents agreed that transactional sex constituted risky behavior. As opposed to sex in exchange for gifts, transactional sex involves a deliberate choice to offer sexual pleasures in exchange for money or monetary equivalents.

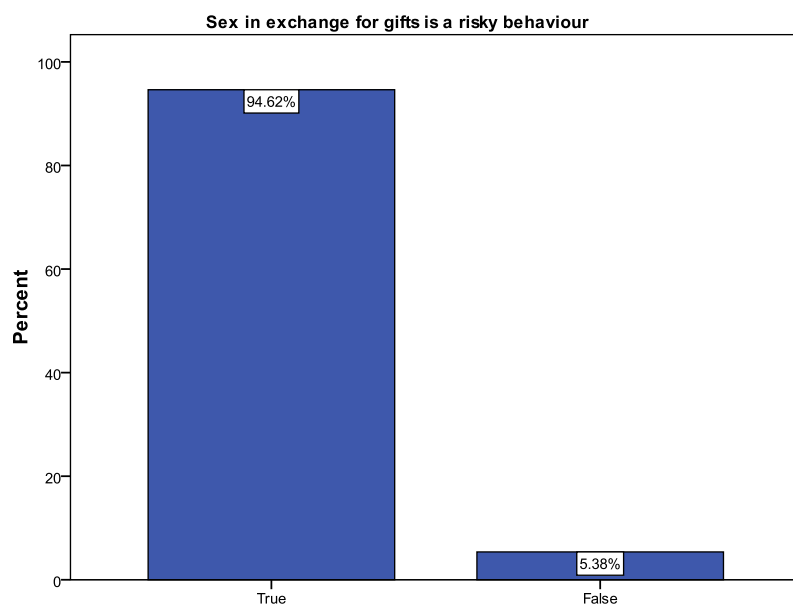


Figure 6: Sex in exchange for gifts is risky

Similarly, findings reveal that over 96% perceived that multiple sexual partners constituted risky behavior. This finding is in agreement with the general view that increase in sexual partners is associated with HIV infection. The risk is believed to be greater with especially multiple concurrent sexual partners mainly because it is difficult to ensure faithfulness among the different partners and safer practices can be jeopardized by other factors and should one of the many partners be infected, the rest of the people sexually connected are at risk. The current prevention campaign initiated by USAID in Namibia dubbed “who are you connected to?” is essentially as a result of the recognition that the phenomenon of multiple concurrent sexual partners is potentially a high risk factor among the sexually active population in Namibia.

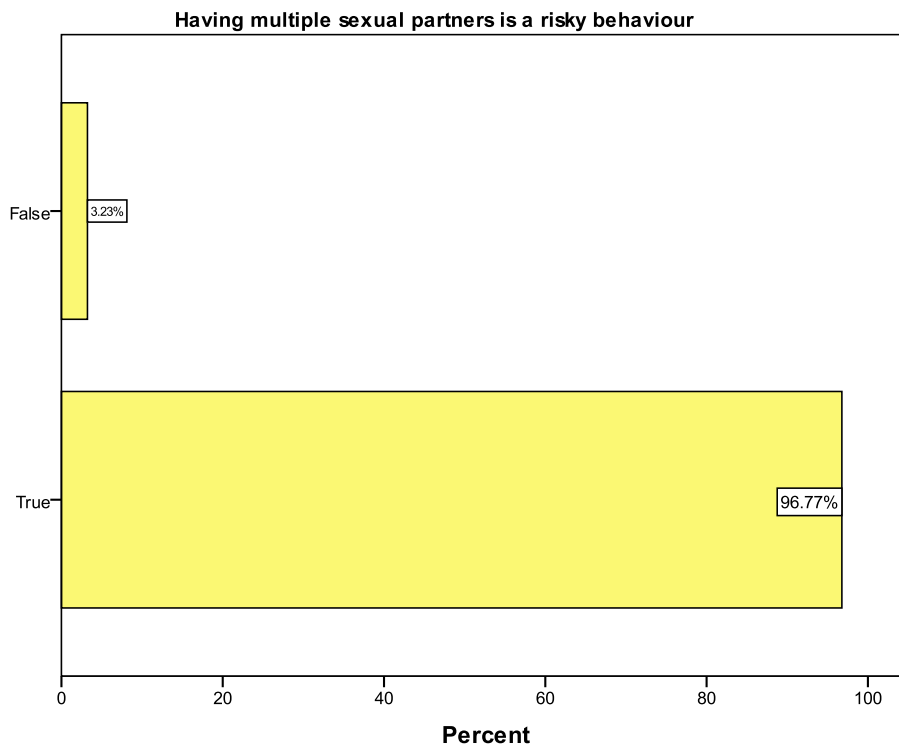


Figure 7: Multiple sexual partners are a risky behaviour

Other risky behavior identified included engaging in sexual intercourse during the menstruation period with an HIV positive woman with 88.2% of the respondents considering it risky. Excessive use of alcohol and substances, dry sex, rape and coerced sex, were viewed as risky behavior with each receiving over 90% of the responses in the affirmative.

Overall therefore, it can safely be stated that essentially most respondents had adequate knowledge of risky behavior and are able to discern effectively acts that can increase individual exposure to HIV and AIDS which in turn can be used to influence actions that may lead to the reduction in the spread of HIV.

4.4 Barriers to access of health care

Effective management of HIV and AIDS requires availability and open access to health care services for both infected and affected. To access testing services is important as a means to initiate prevention and care services for tested persons whatever the result of the test may be. Respondents were in this study asked if they considered some barriers that could prevent them from accessing health care services in the face of HIV and AIDS. The barriers identified included bad attitudes of health workers, stigma, women being shy and a lack of supplies especially the condom.

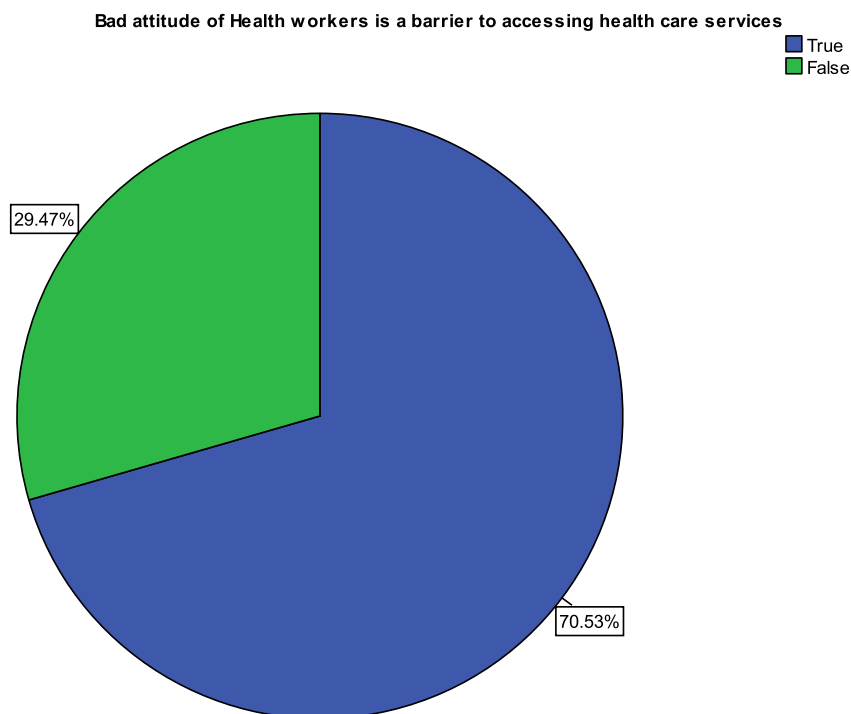


Figure 8: Bad attitude of health care providers as a barrier to access of HIV and AIDS services

70.5% of the respondents asserted that bad attitudes of health care workers are a major barrier to the access of HIV and AIDS health care services. This finding is of particular significance since the respondents are themselves nurses in the making and yet reveal strongly that bad attitudes of care providers prevent them from using available health care services.

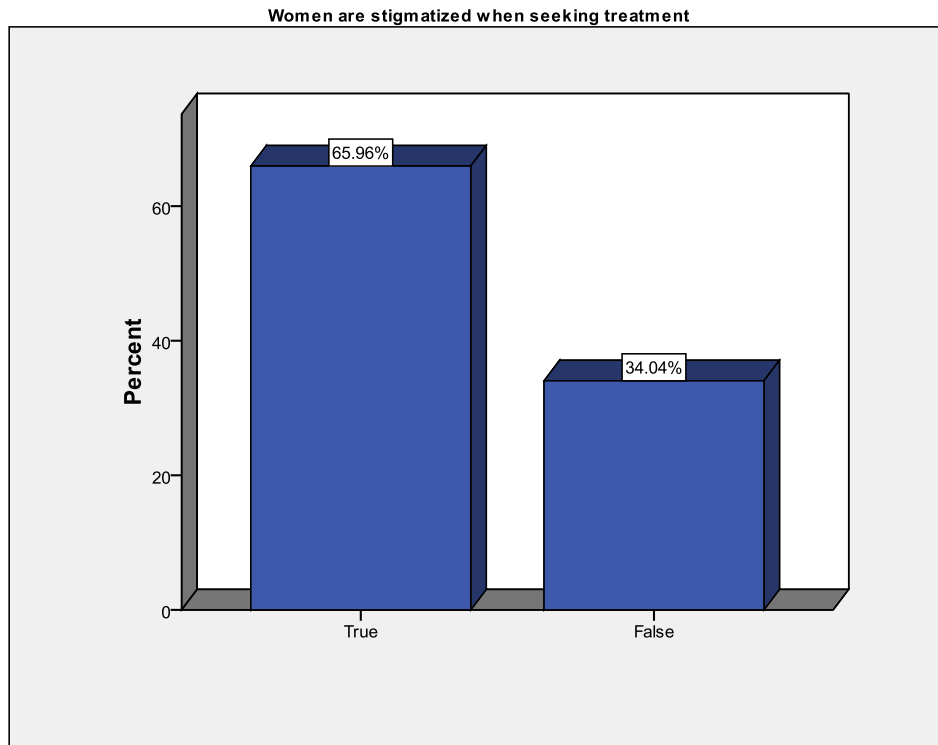


Figure 9: Women stigmatization as a barrier

Over 65% of the respondents revealed that the stigmatization of women barred them from seeking health care services. However 34% believed that stigmatization was not a barrier to access health care services for HIV and AIDS.

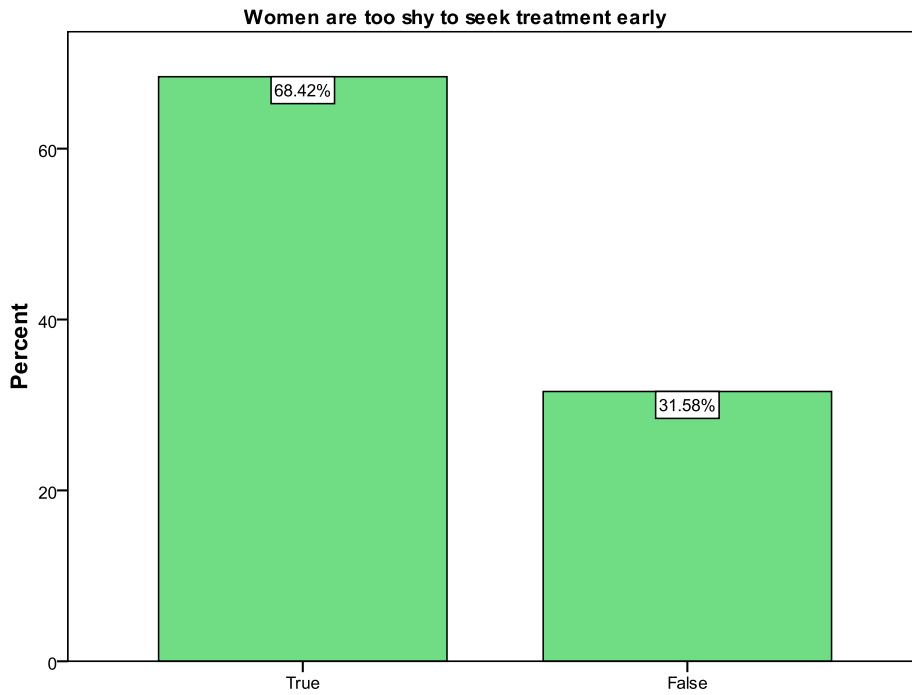


Figure 10 women are shy in seeking health care services

In addition, 68% of the respondents indicated that women are shy in seeking health care services and that is a major barrier. This finding is again of greater significance considering that the respondents are women and particularly university students who constitute the elite of the communities they live in.

Lack of supplies for condoms and other commodities is a barrier in seeking health care services

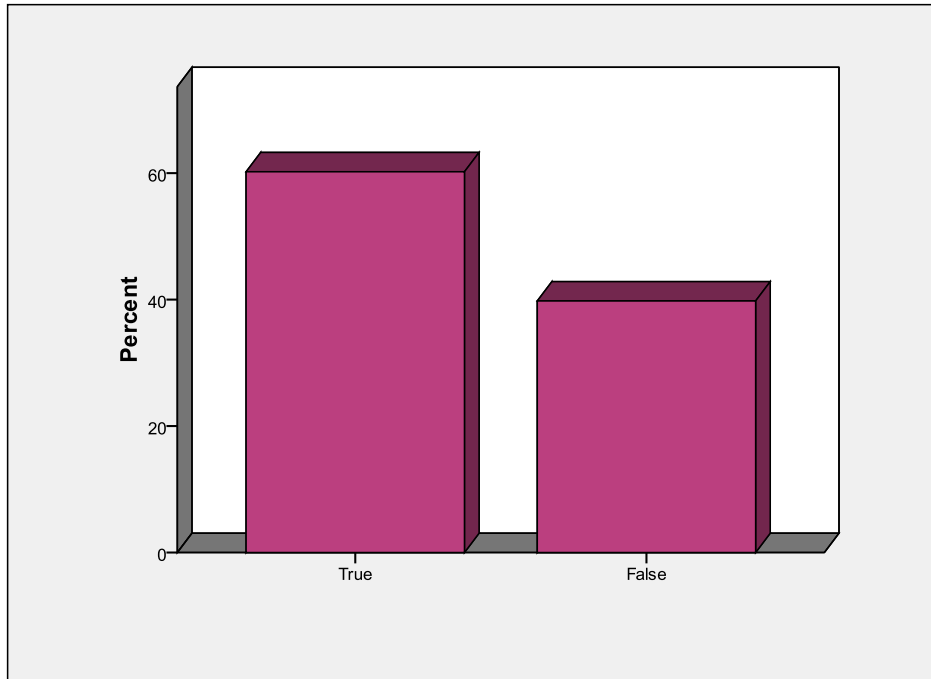


Figure 11 Lack of supplies as a barrier

Over 60% of the respondents indicated that a lack of supplies at health facilities such as condoms and other commodities prevented them from accessing health care services.

4.5 Gender inequality and violence.

The researcher intended to assess knowledge and perceptions of the respondents on the subject of gender inequality and violence as causative factors in heightening the levels of vulnerability of young female students to HIV and AIDS. Assessment was done on the perception of HIV and AIDS as a universal problem, decision making on the timing and conditions under which sex occurs by young women, income inequalities, sexual harassment, early child bearing and cross-generational sex.

As earlier revealed, over 72% of the respondents perceived HIV and AIDS as a problem of other people not the youth. Looking at the variables in this section reveals further that respondents understood to be at risk as a result of several other factors. Over 90% (*See figure 12 below*) of the respondents indicated that young women lacked the power to decide on the timing of sex. This finding is in agreement with the previous revelation as young women

continue to believe that their vulnerability is circumstantial and controlled by other factors, in this case, the men who are perceived to have control over the timing of sex.

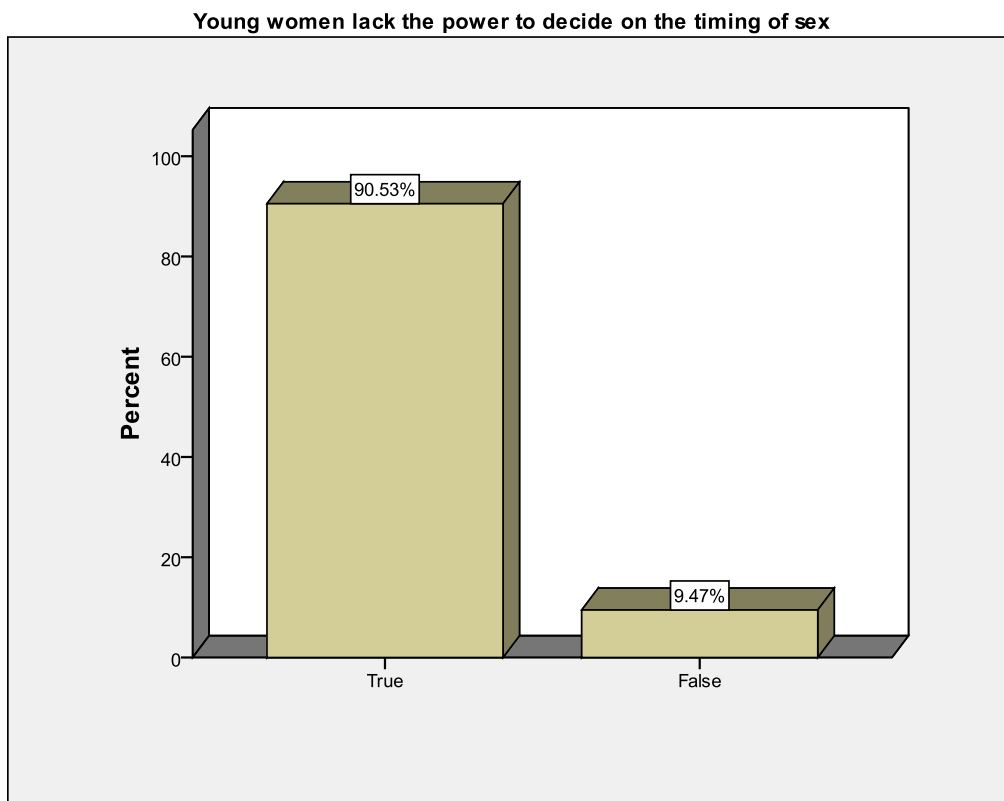


Figure 12 Young women lack the power to decide on the timing of sex

Further, approximately 70% of the respondents believed that young women have no ability to make correct decisions on the conditions under which sex should occur. Again, a perception that someone else particularly connoting the man controls even the conditions under which sex occurs and that the female counterpart is on the receiving end which compromises the safety of young women in the face of HIV and AIDS.

Findings from the study reveal that young women up to 91.6% exchange sex for economic stability (*See figure 13 below*). Female students revealed that economic needs which included housing, transport, tuition fees and food exposed many young students to the risk of exposure to HIV as they sought able men who meet the costs of these needs and reward them with sex.

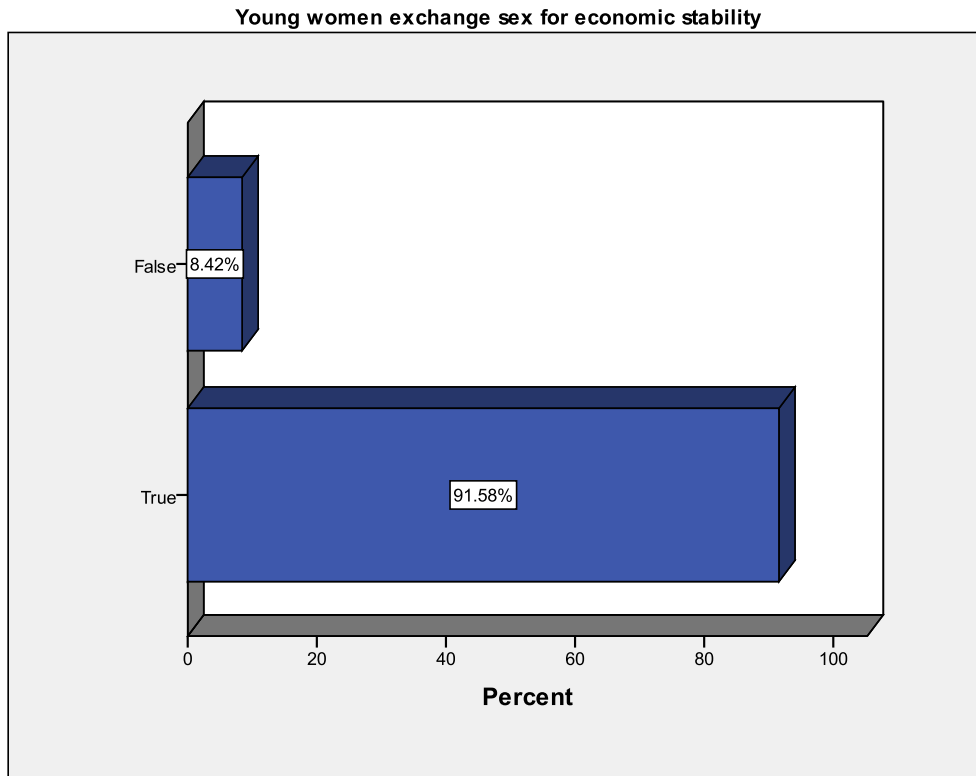


Figure 13 Young women exchange sex for economic stability

The most common relationship where women exchange sex for economic stability involves usually older men who could be married with families. Eighty-three percent (83%) of the respondents indicated that women involved in cross-generational sexual relationships have little to no bargaining power over the functioning, safety and negotiation of sexual matters as the men are not only older but hold the economic lifeline of the young women.

The above often results in increased vulnerability to sexual abuse and harassment for many young women. Results from this study (*see figure 14 below*) reveal that almost all respondents are aware that sexual harassment increases their risk to HIV infection. The fear of and exposure to harassment is exacerbated by identified powerlessness in decision making by young women over sexual matters and income inequalities that result in women using sex as a tool to please men and sustain relationships even if they are risky for the purpose of accessing and meeting their basic needs.

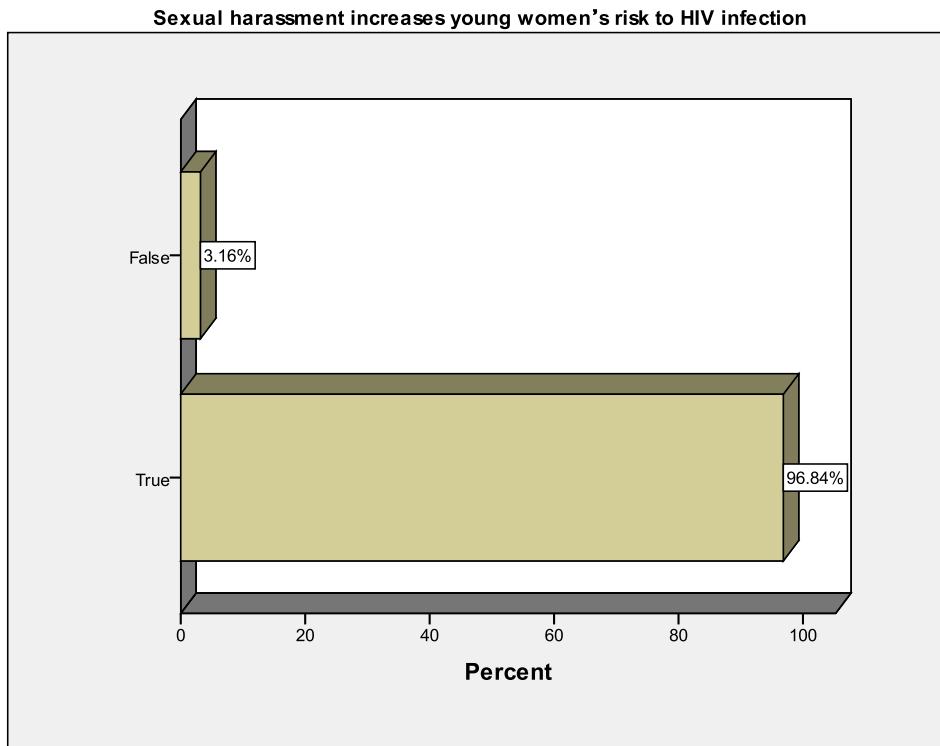


Figure 14 Sexual harassment increases young women's risk to HIV infection

Increased vulnerability and compromised or lost control over young women's life easily results in early child bearing. Over 75% of the respondents indicated that early child bearing restricts young women from studying further. It is possible therefore that a cycle of marginalization becomes difficult to break as unqualified women who are made mothers at an early age cannot access gainful employment yet they can't study further to gain employable skills.

4. 6. Negotiation skills

Negotiation skills are important in achieving consensus on the means of protection such as the discussion of safety measures in a sexual relationship. Condom use is generally marketed as the most effective means of protection from HIV infection for sexually active couples. Young women need to possess the necessary conversational and especially negotiation skills to engage their partners in discussing effective means of protection from HIV infection. The respondents in this study were asked to give their personal skills assessment in as far as negotiation is concerned. Figure 15 below shows that over 92% of the respondents perceived

themselves as having adequate negotiation skills. The question did not require the respondents to demonstrate whether they applied these skills in their relationships. As such, a high percentage of respondents having adequate skills to negotiate safety and protection with their sexual partners does not necessarily support the earlier finding that most women believed to be particularly vulnerable.

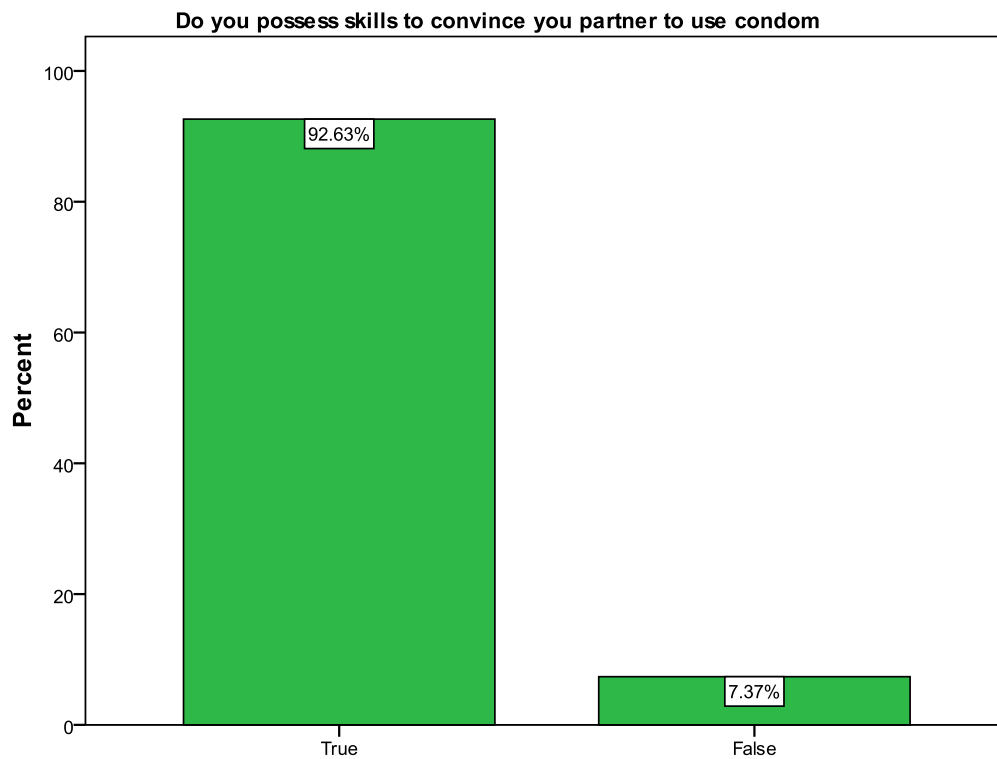


Figure 15 I have the skills to negotiate condom use

Further over 90% of the respondents indicated that their partners were comfortable to use condoms. However, given the earlier findings and revelations by the respondents about their vulnerability, it is possible that this reported comfort does not result in actual condom use.

4. 7. Condom use

From the responses to most variables in this study it is particularly evident that most respondents were sexually active and in different kinds of relationships. For this reason the researcher inquired of their use of condoms as a means of protection. The respondents were

to respond on whether they used condoms correctly and consistently. Over 84% (See figure 16 below) of the respondents indicated that they used condoms consistently. 89% reported correct condom use. These findings clearly indicate that the possibility that the respondents are cautious of self protection and therefore practicing it is significantly high.

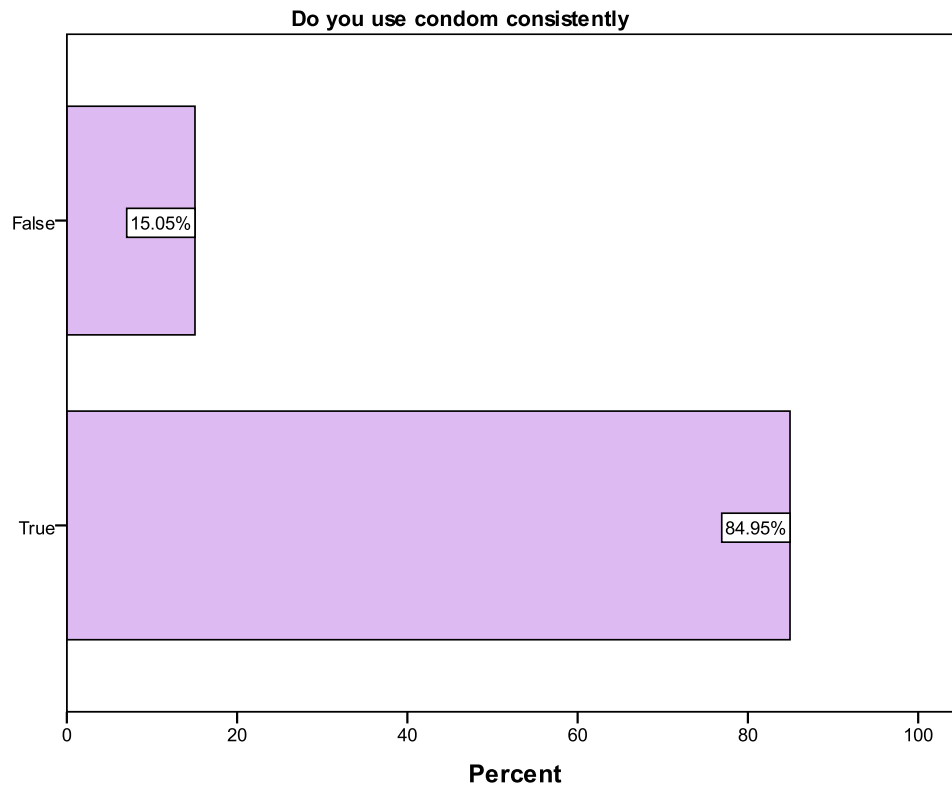


Figure 16 Indicating level of consistent condom use among respondents

While that is true, over 51% of the respondents indicated that condom use in cross-generational sexual relationships was rare. This confirms the finding that young women involved in cross-generational relationships had their bargaining powers compromised as the men controlled the affairs of the relationship as a factor of their age and financial abilities used to manipulate young women.

4. 8. Attitudes towards condom use

Correct and consistent condom use as a means of prevention of HIV transmission is inextricably linked to individual attitudes, perceptions and attributes towards the condom.

The researcher intended through this section to investigate individual attitudes of the respondents towards condoms and condom use. Five different variables were used to assess respondent attitudes, which included the idea that condom use increased promiscuity, that condoms are for prostitutes, condoms are a sign of unfaithfulness and a lack of love, and that condoms caused frustration in relationships. To gain a deeper insight on attitudes of individual respondents, data in this section was analyzed by age group to gauge how the different age groups perceived condoms and condom use.

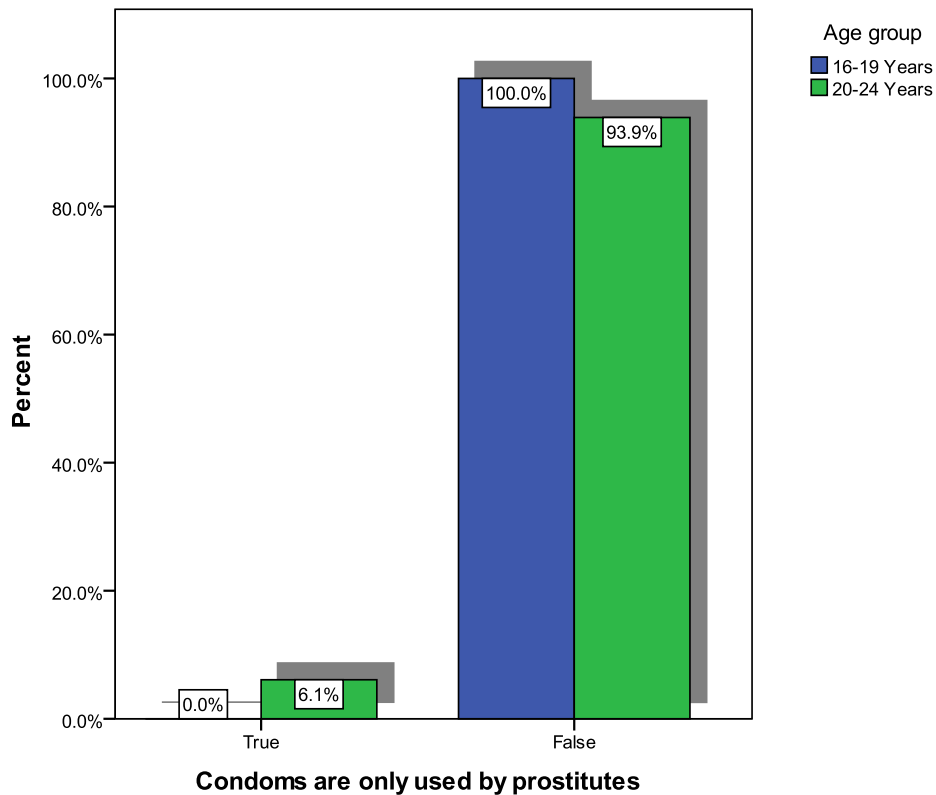


Figure 17: Condoms are only used by prostitutes

100% of the teenage respondents stated that it was false to believe that condoms were for prostitutes alone while over 6% of the 20-24 age group respondents believed condoms were only for prostitutes.

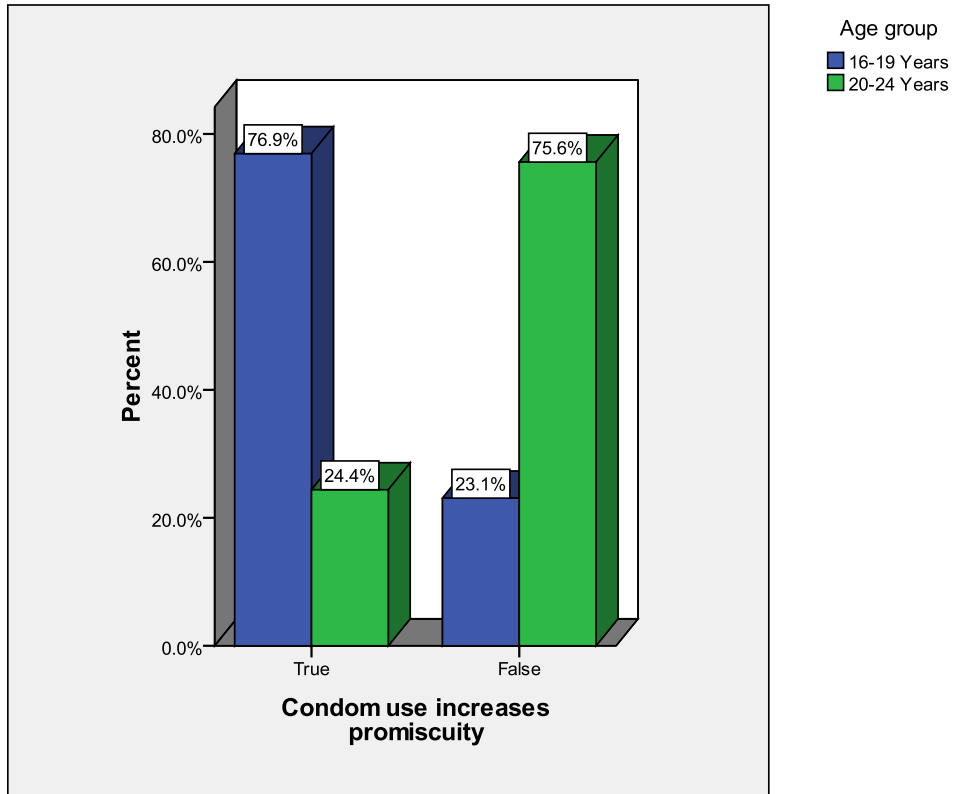


Figure 18: Condom use increases promiscuity

On the contrary however, figure 18 above reveals that over 76% of the teenage respondents believed that condoms increased promiscuity as an almost equal proportion of the 20-24 age group respondents indicated it was false.

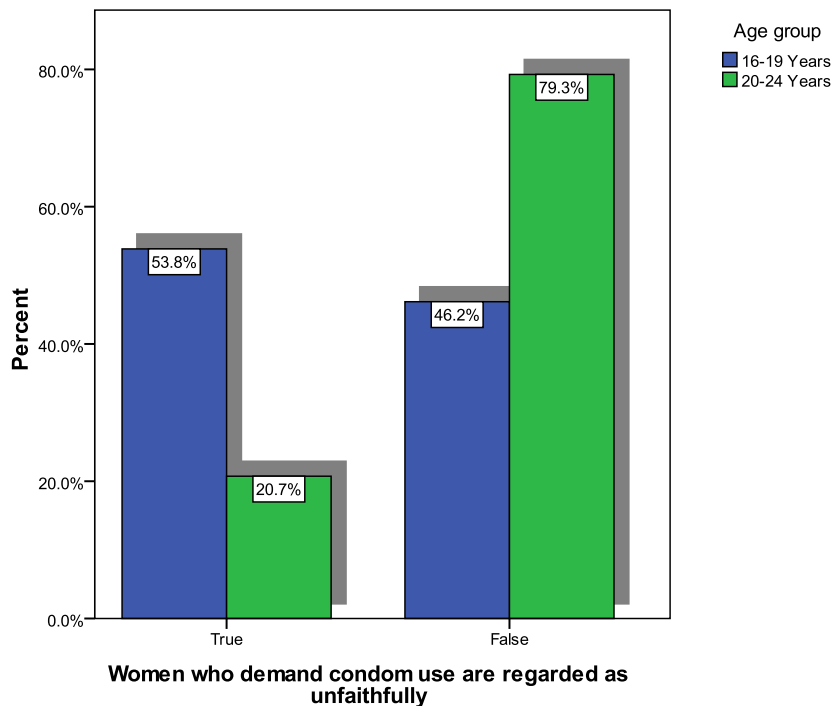


Figure 19: Women who demand condoms are considered unfaithful

Over half of the teenage respondents (*Figure 19 above*) indicated that women who demanded condom use in a sexual relationship were considered unfaithful. Over 79% of the 20-24 age group indicated that it was false. The fact that most teenagers consider women demanding condoms as unfaithful might be a major hindrance in negotiating condom use by this age group with their sexual partners, a factor that may increase their vulnerability and exposure to HIV infection. In addition, younger women are sought after by older men who consider them “safe” and are ultimately easy to lure into sexual activity especially through the use of money and other gifts.

Over 90% of all the respondents indicated that the use of condoms did not indicate a lack of love. Similarly, most respondents did not consider condoms as a source of frustration in sexual relationships.

4. 9. Reasons for not using the condom

Individual respondents held varied views on the use of condoms. In Namibia condoms are marketed and distributed both by government for free and the private sector at a nominal fee

as a mode of HIV prevention especially against sexual transmission. As earlier indicated respondents had adequate knowledge on the prevention of HIV transmission and named the condom as a one of the measures. Respondents identified several factors that hindered condom use including a lack of adequate supplies, trust in their sexual partners and the desire to prove faithfulness as a means to secure financial security and avoid violent attacks from male sexual partners.

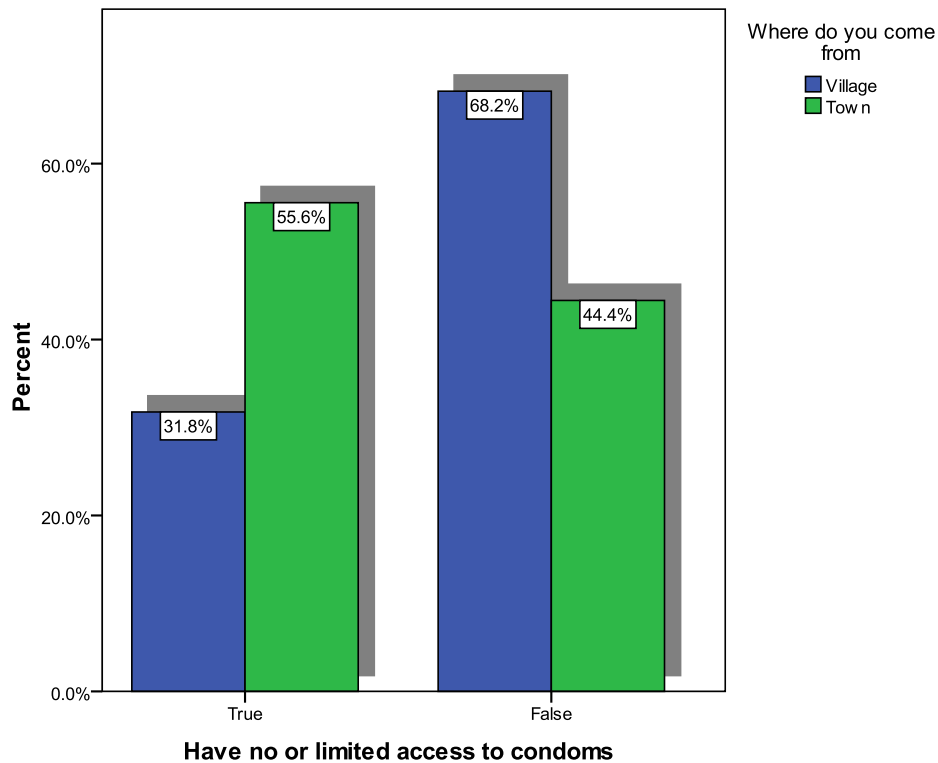


Figure 20: Availability of condoms in towns and villages

Findings reveal that respondents from towns have limited access to condoms and this hinders the use of condoms as a preventive measure (See figure 20 above). Respondents were asked to indicate if they had limited or no access to condoms and over 56% of respondents from towns indicated that it was true they had no or limited access to condoms compared to 31% of respondents from villages. It is possible that because towns are mostly overpopulated, the supplies are quickly depleted also as a result of constant marketing and awareness about the values of condom use usually more concentrated in urban areas. Villages could report more availability of condoms due to lower population and a possible lower uptake of condoms as a direct effect of limited marketing and a higher concentration of cultural values and beliefs some of which detest condom use.

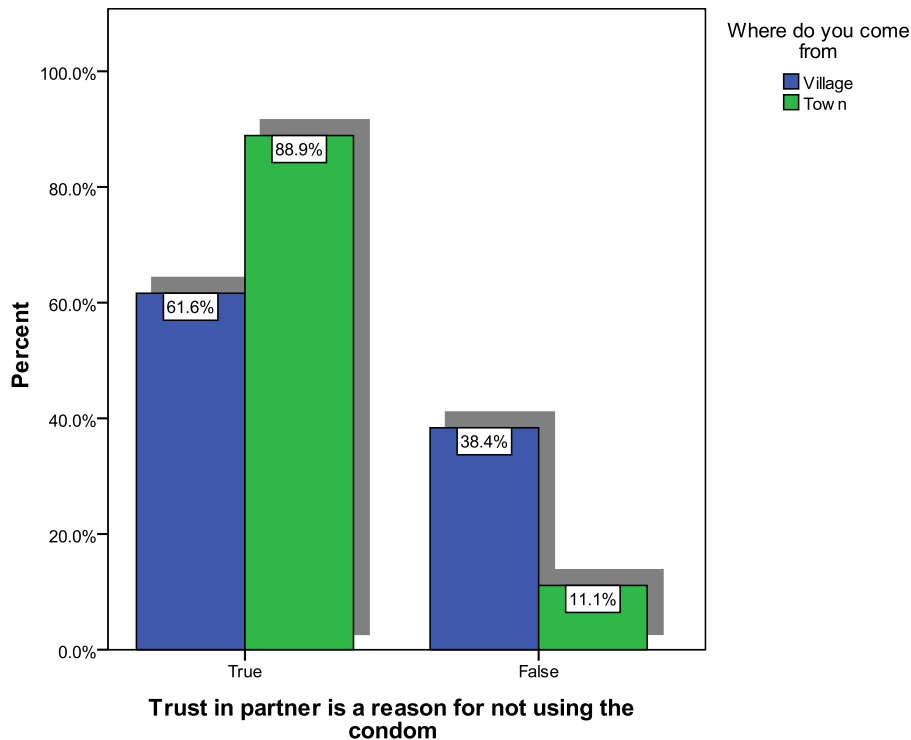


Figure 21: Trust in partner hinders condom use

Further analysis however indicates that more respondents from towns, over 88%, reported trust in their sexual partners as a reason for not using condoms as those from villages reported trust at 61% as a hindrance to condom use (*See figure 21 above*). In this research it is generally debatable whether this trust is an honest achieved milestone in a relationship or a shortfall that female partners choose so as to attract and sustain relationships with their male partners who in turn are holders of their financial livelihood. Further since only female respondents were interviewed, it is difficult to ascertain whether the male counterparts are equally trusting. Forty percent (40%) of the respondents indicated that they agreed to sex without a condom for fear of violence from their male partners which could constitute a degree of coerced trust on the part of the female partners.

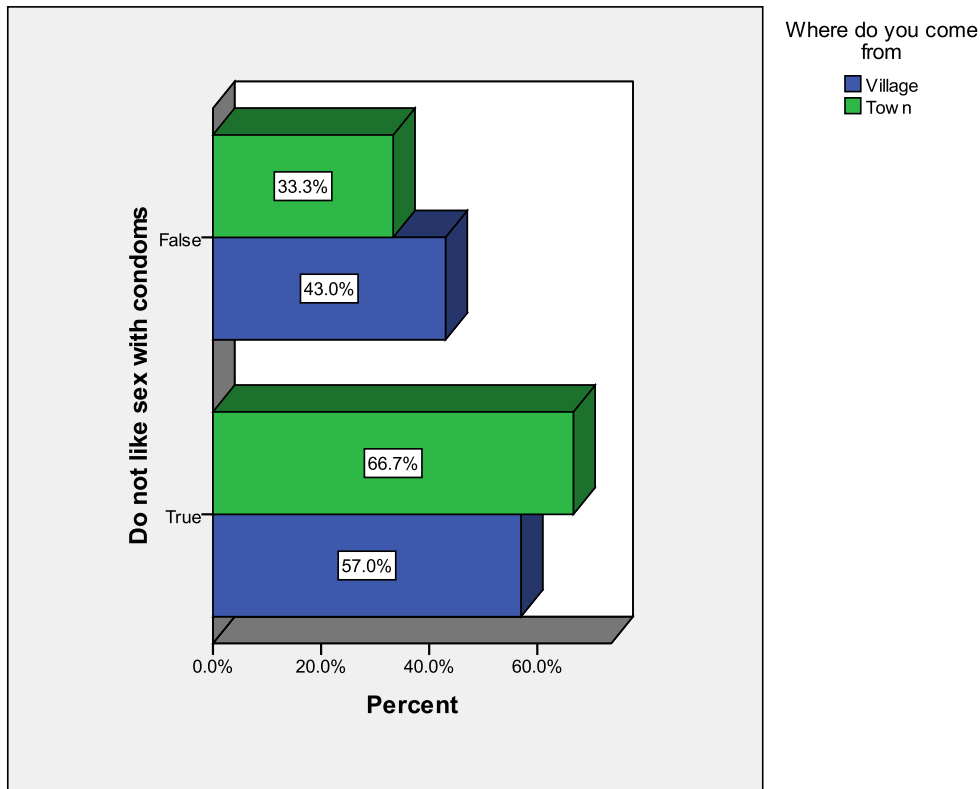


Figure 22: Preference of sex without condoms

While the findings above are true, figure 22 above indicates that the majority of the respondents preferred sex without condoms. Over 66% of the respondents from towns indicated to prefer sex without condoms as 57% of the respondents from villages would opt for sex without condoms. It is generally believable therefore that the respondents could not have taken it upon themselves to negotiate condom use with their partners as a result of this reported personal preference. Forty percent (40%) of the respondents indicated not to acknowledge the benefits of condom use and that they did not know how to use condoms adequately.

Embarrassed to ask partner to use condoms

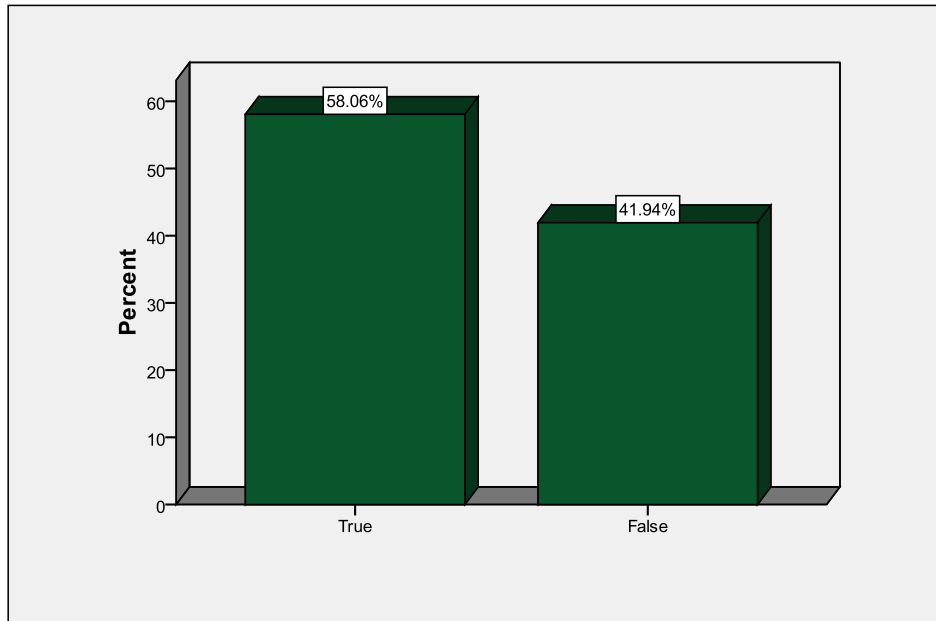


Figure 23: Level of embarrassment to ask a partner to use a condom

Figure 23 above indicates that approximately 60% of the respondents are embarrassed to ask a partner to use condoms. This embarrassment could be due to various factors such as gender, and other inter-linked causes described earlier including the perceived powerlessness about sex and sex matters by females and financial inequalities. What is definite is that with a 60% embarrassment level, condoms would largely be regarded a lesser prevention measure among female students.

4. 10. Perceived susceptibility to HIV and AIDS and STIs

The majority of the respondents believed that HIV was a serious problem at UNAM Oshakati campus. Over 65% of the respondents believed they were at risk of HIV infection. Further, approximately 80% of the respondents indicated that having a long time relationship did not guarantee safety from HIV infection. Respondents contended at over 90% that exchanging sex to meet survival needs conferred a high risk to HIV infection for young female students. In addition, respondents adequately knew at over 96% that direct exposure to blood during sexual intercourse posed a great risk of infection and that the possibility of HIV transmission is greatest if a person has sexually transmitted infections and genital ulcers.

On the contrary however, while the knowledge to susceptibility to HIV and AIDS can be asserted as adequate, respondents believed at 48% that it was impossible for someone to refrain from sexual activities once one becomes sexually active (*See figure 24 below*). This is indicative therefore that adequate knowledge of the facts did not necessarily result in commensurate behavior and attitude change aimed at HIV prevention.

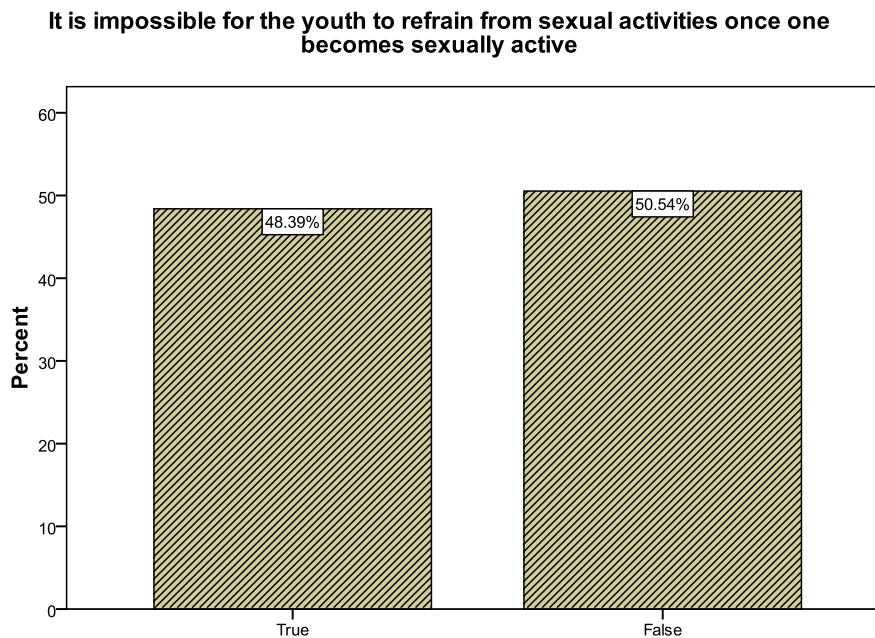


Figure 24 It is impossible to for the youth to refrain from sexual activities once sexually active

4. 11. Assessment on youths’ perception on HIV vulnerability associated with other socio-economic factors

Respondents indicated that women and girls are more vulnerable to infection than young men of their age. This finding is in agreement with earlier results where respondents reported a low level of decision making powers over sexual matters, gender and financial inequalities. Overall, even younger men appear to be more influential over women in making decisions related to sexual matters.

Women and girls are more vulnerable to HIV infection than young men of their own age

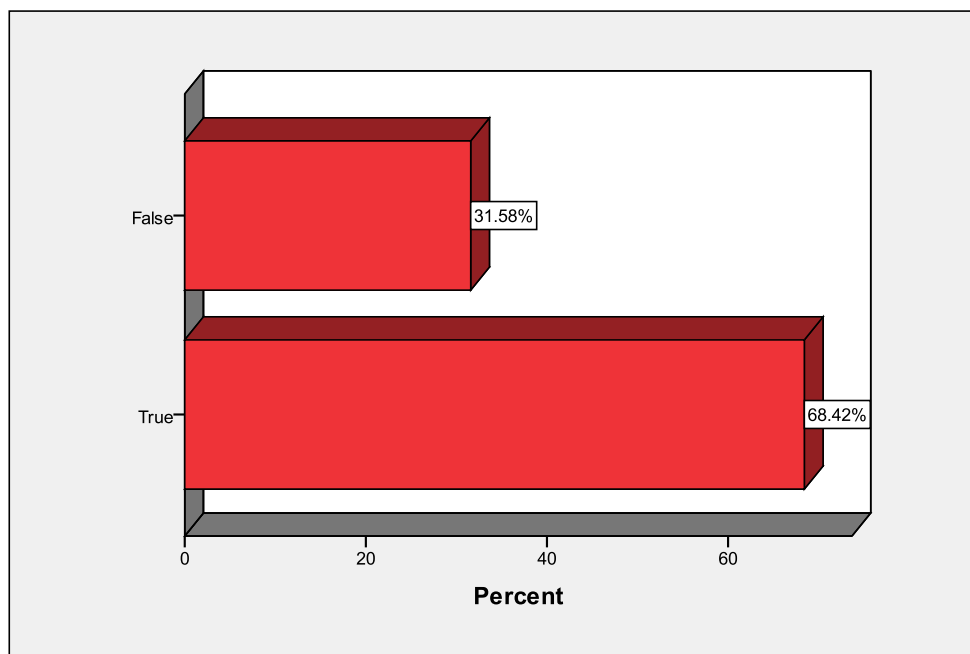


Figure 25 women and girls are more vulnerable to infection than men of their own age

Further, figure 26 below indicates that this vulnerability is believed to be heightened by low levels of education among women which in turn increases their level of vulnerability to HIV and AIDS.

Low levels of education among women limit their opportunities for formal employment which in turn increases their vulnerability to HIV

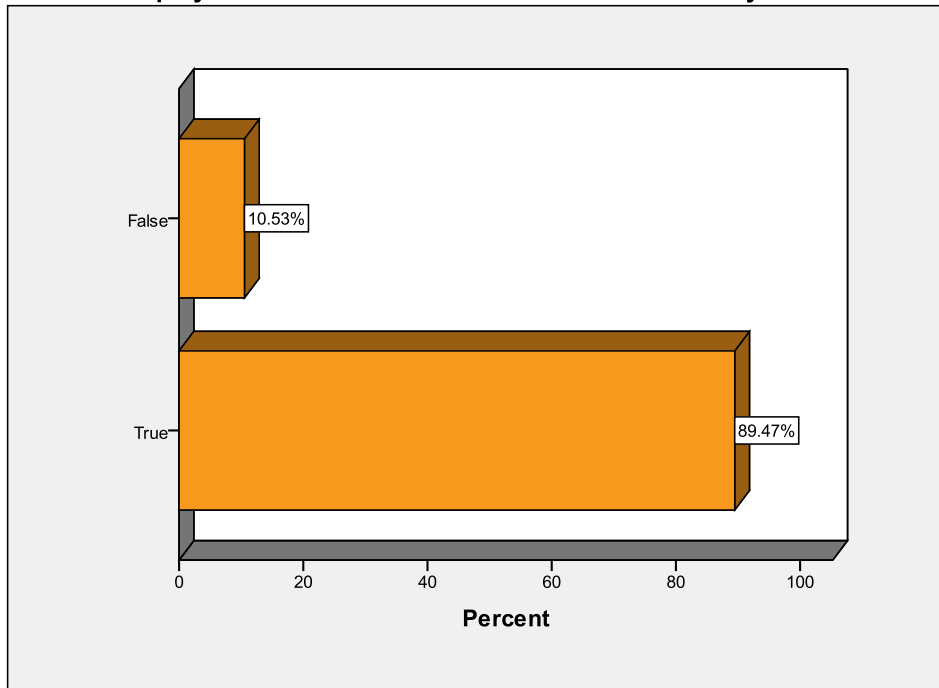


Figure 26: Low levels of education among women increases their vulnerability

Approximately 90% of the respondents indicated that the low levels of education among women limit their opportunities to access formal employment and as a result increase the level of vulnerability to HIV and AIDS. Similarly over 90% of the respondents indicated that young women who complete more education grades in school, receive more information about HIV and AIDS and other related issues. Education therefore can, through contributing to increased awareness, positively influence sexual behavior and choices that may result in increased protection and prevention of the further spread of HIV and AIDS among women.

Unemployment as a result of low education among women increases the impact of poverty and more women remain unable to access or afford their basic needs. This study reveals that women opt for multiple partners to ensure their economic stability, livelihood and sustainability. Figure 27 below shows that nearly 100% of the respondents believed women seek multiple partners as a result of poverty to ensure economic stability. Limited income among women is indicated to force women into commercial sex work and prostitution.

Poverty makes females to opt for multiple partners to ensure economic stability

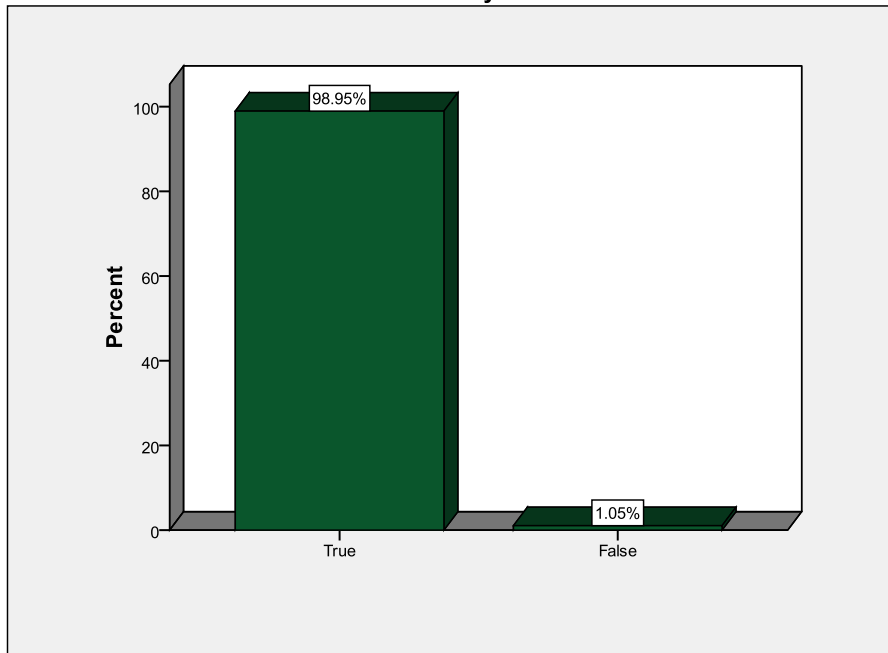


Figure 27: Poverty makes women to seek multiple partners for economic stability

Further, women may change their social environments regularly as they continue to search for survival. Change in social environments, it was revealed, may result in a sense of anonymity which in effect may lead to reckless sexual decisions thereby increasing the risk of infection. Migration may offer sexual freedom which may facilitate the spread of HIV and AIDS.

Over 70% of the respondents (*See figure 28 below*) believed that cultural norms that make women subservient to men complicate prevention strategies among women. In addition, the disappearance of useful cultural values such as fidelity and abstinence results in increased vulnerability to HIV infection, respondents indicated.

Cultural norms that makes women subservient to men complicates the prevention of HIV among women

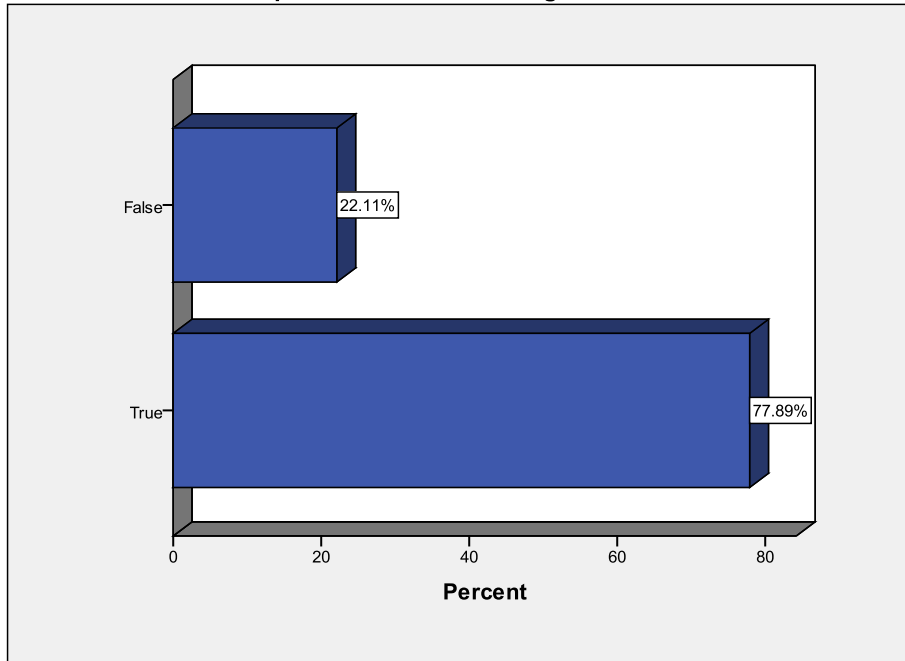


Figure 28: Cultural norms complicate prevention among women

Other than cultural norms that make women vulnerable, over 90% of the respondents indicated that there is a lack of access to health care services which left women susceptible to high levels of untreated sexually transmitted infections which in turn facilitate the spread of HIV and AIDS.

Excessive use of alcohol among men and women ultimately results in vulnerability for the women it was reported. Figure 29 below shows over 70% of the respondents indicating that alcohol impairs the ability to decide on sexual matters effectively.

Excessive use of alcohol impairs the youths' ability to decide on safer sexual behaviors

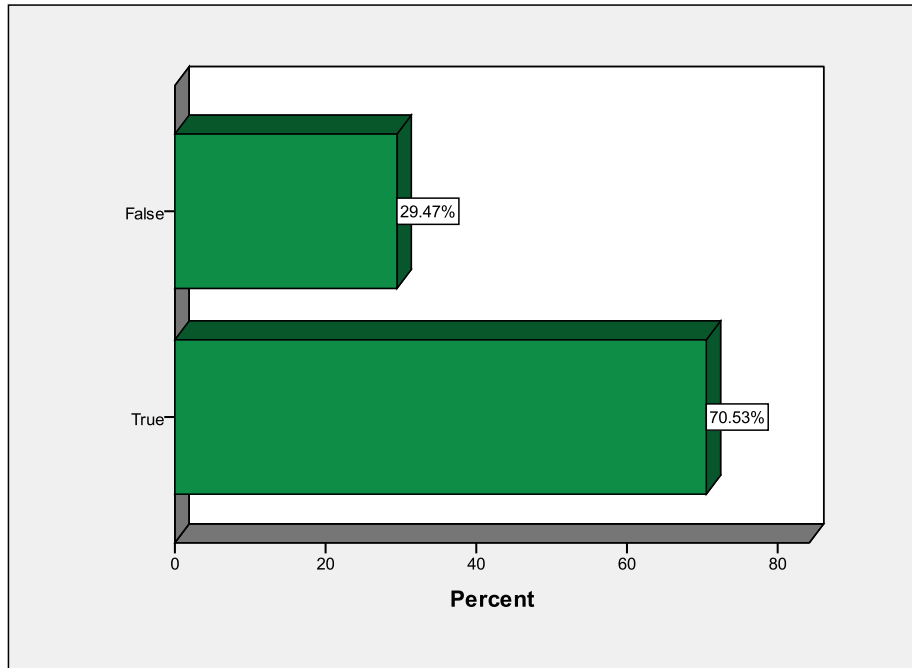


Figure 29: Excessive use of alcohol impairs the ability to decide on safer sexual behaviors

Reduced ability to make decisions or control behavior results in increased risk taking thereby exacerbating the level of vulnerability to HIV infection.

4. 12. HIV testing and disclosure

The researcher intended to assess whether respondents had access to and indeed took up HIV counseling and testing. Further it was assessed in this section if respondents ever disclosed their HIV status. A nominal item response was used and respondents indicated whether it was “always”, “sometimes” or “never” when asked about a particular variable.

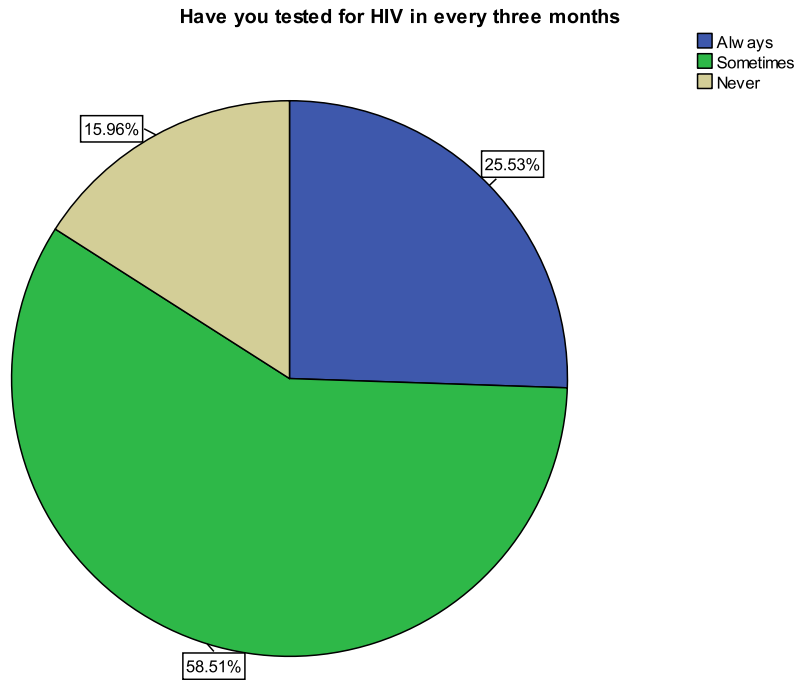


Figure 30: Level of testing in every three months

Figure 30 above indicates that over 15% of the respondents did not undertake HIV testing at all while over 58% sometimes undertook testing and over 25% took HIV test every three months.

Figure 31 below shows that the majority of those who had an HIV test (71%) received their results. It is however notable that over 15% of those undertaking the test did not receive their results. Generally many people still have fears associated with receiving or disclosing an HIV test result. As such over 12% of the respondents who regularly tested for HIV only reported to be receiving their results sometimes. The fear associated with the test result stems from various factors the stigma attached to HIV could be the most contributing factor for persons who take the test to avoid their results.

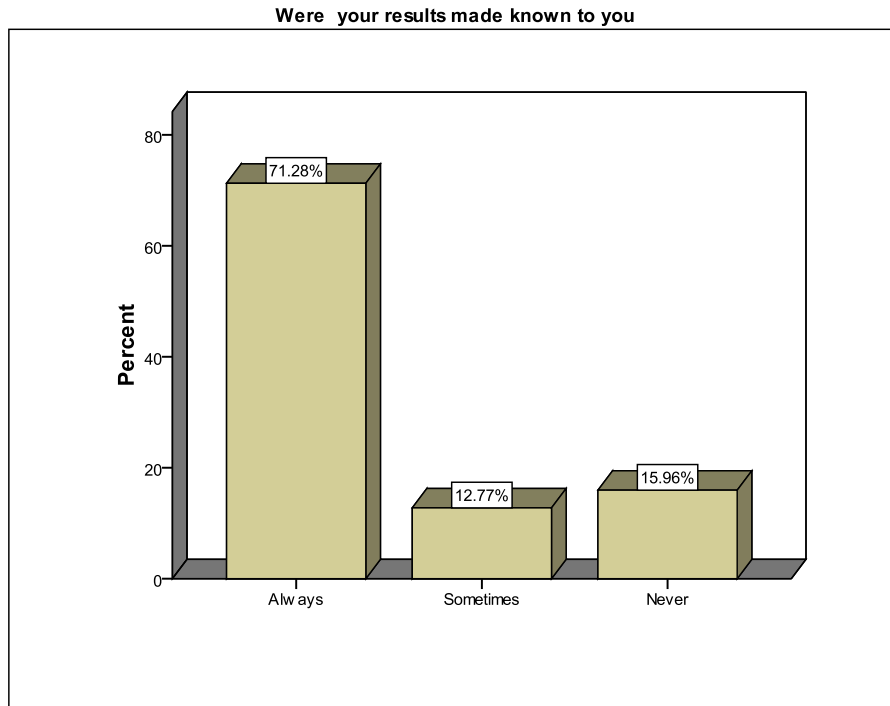


Figure 31 Percentage of individuals receiving their HIV test results

Figure 32 below reveals that overall pretest counseling was low among the respondents who undertook HIV testing. Only 44% of the respondents reported to have always received pre-test counseling before undergoing the test. However, 20% reported to have received no counseling at all as over 35% received counseling only sometimes.

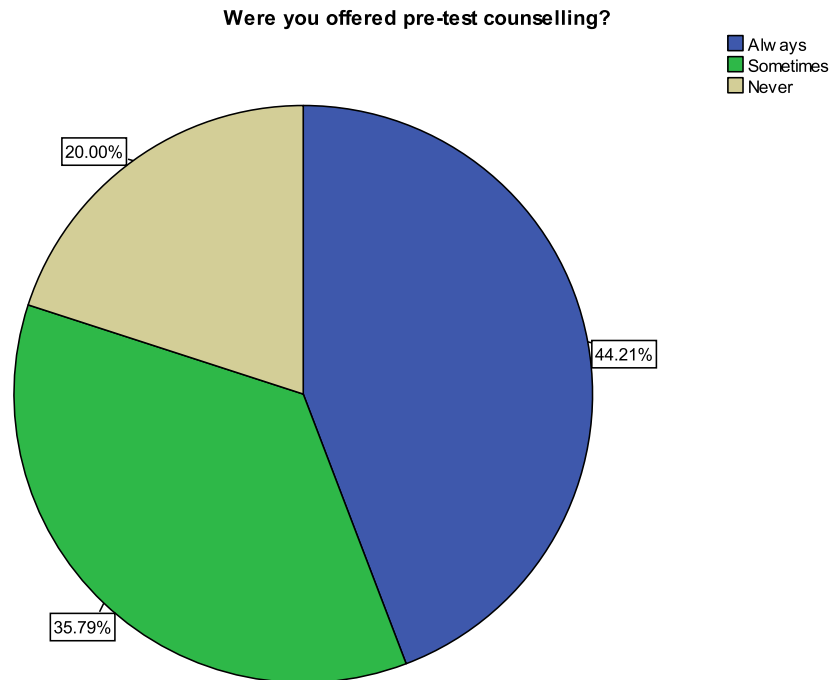


Figure 32: Percentage of people receiving counselling before an HIV test

In Namibia counseling and testing services are accessible at all government health facilities, clinics and hospitals, stand alone New Start VCT centers and medical practices of private doctors. At New Start VCT centers, specialized counselors and testers are available and normally trained to adhere to a strict practice that starts with pre-test counseling and ends with post-test counseling where clients get to know their test result. At hospitals and clinics, trained counselors are available however; it is possible that due to the large numbers of patients seeking services at these facilities, counseling is omitted. At practices of private doctors, no formal arrangement is available to have counselors on duty and some patients who prefer not to be counseled opt to have their HIV tests done at private clinics. All these could be factors that are contributory to the reported high levels of no pre-test counseling.

Disclosure of HIV results increases access to social support, care and treatment

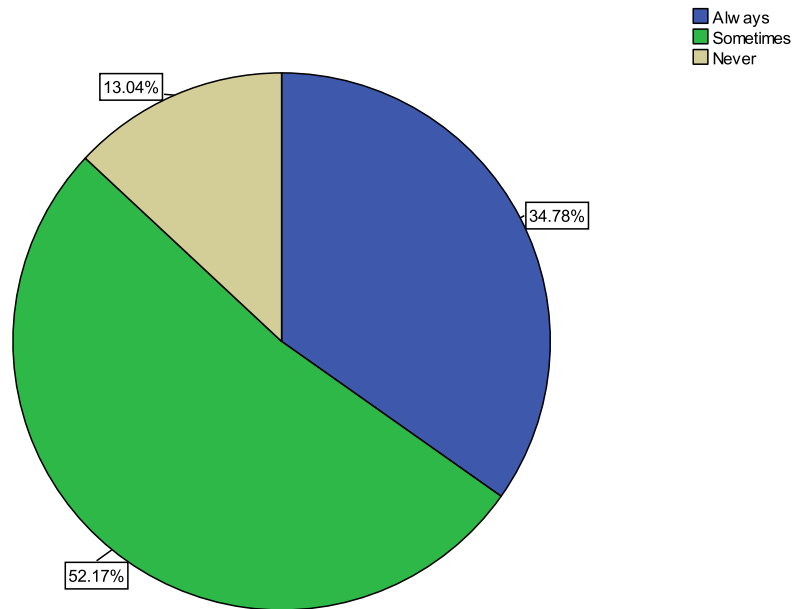


Figure 33: Disclosure of results increases access to services, care and treatment

In the face of HIV and AIDS, disclosure of individual status should increase access to social support, care and treatment. However figure 33 above reveals that only 34% of the respondents considered disclosure as a tool that could enhance this access. Over half of the respondents (52%) believed that disclosure only helped increase access to support sometimes as 13% indicated that disclosure never contributed to increased access to services, support, care and treatment.

These revelations could be attributed to the stigma and discrimination attached to HIV and AIDS which in the end are major barriers to not only disclosure but increase the risk of HIV infection among general communities.

4. 13. Perception of vulnerability, structural and social factors.

In this section the researcher intended to find out respondent's perceptions on whether structural and social factors increased their vulnerability to HIV. A five level likert scale system was used ranging from "strongly agree" to "strongly disagree". Factors assessed included poverty, age, education, life skills, and policy frameworks.

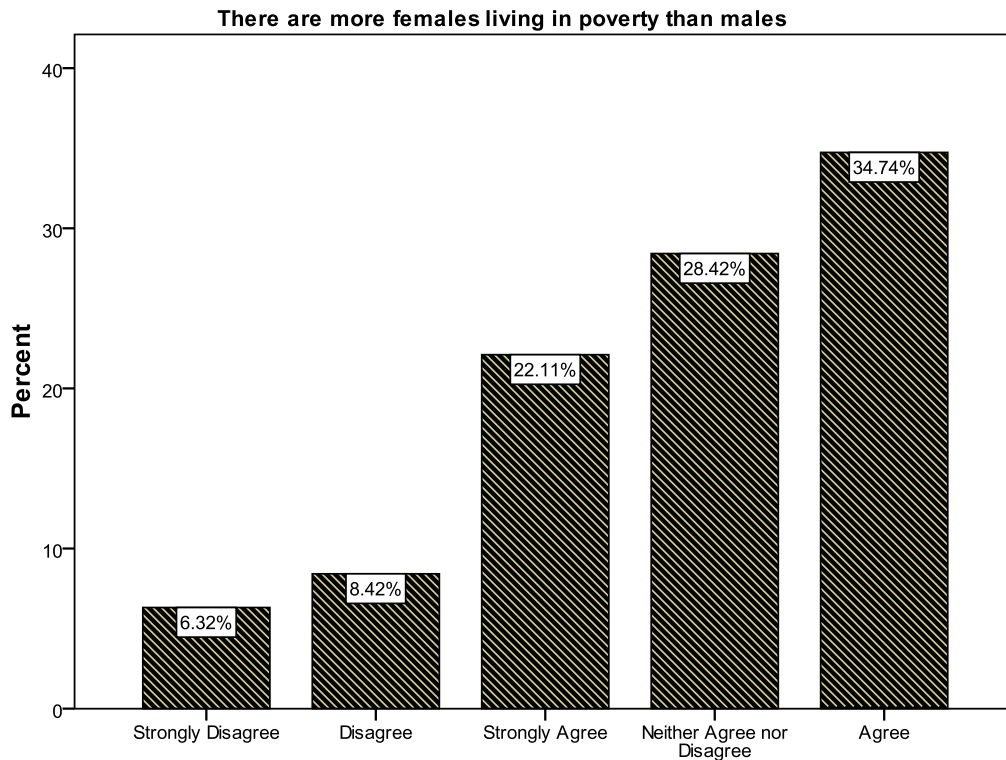


Figure 34: There are more females living in poverty than males

Figure 34 above indicates that over 56% of the respondents agreed that more females lived in poverty than males. It has been discussed in this study earlier that poverty increased women's vulnerability to HIV and AIDS, forced women into commercial sex work and prostitution including attempts to have multiple sexual partners for economic survival.

Age and a perpetual lack of collateral guarantees often limit young women's ability to access financial credit which could have been used to advance into usable businesses that contribute to economic emancipation. Further, more women than men as a result remain at the lower end of the socio-economic spectrum. Similarly, limited ability to pay for education among women results in large numbers of women without sufficient life skills which aggravates the risk to HIV.

Generally, there is a lack of policies that are tailored to address problems affecting young women which undermine the effectiveness of prevention strategies among this group.

4. 14. Perception of vulnerability: behavioral factors

Using a five level likert scaling system, respondents were assessed on some behavioral factors that could increase their vulnerability to HIV and AIDS. These factors included peer pressure, cross-generational relationships and multiple partners.

Respondents pointed out that peer pressure increased the risk of HIV infection among young female student nurses. Figure 35 below shows that over 86% (a combination of agree and strongly agree) of the respondents believed that peer pressure greatly increased their vulnerability and risk of exposure to infection.

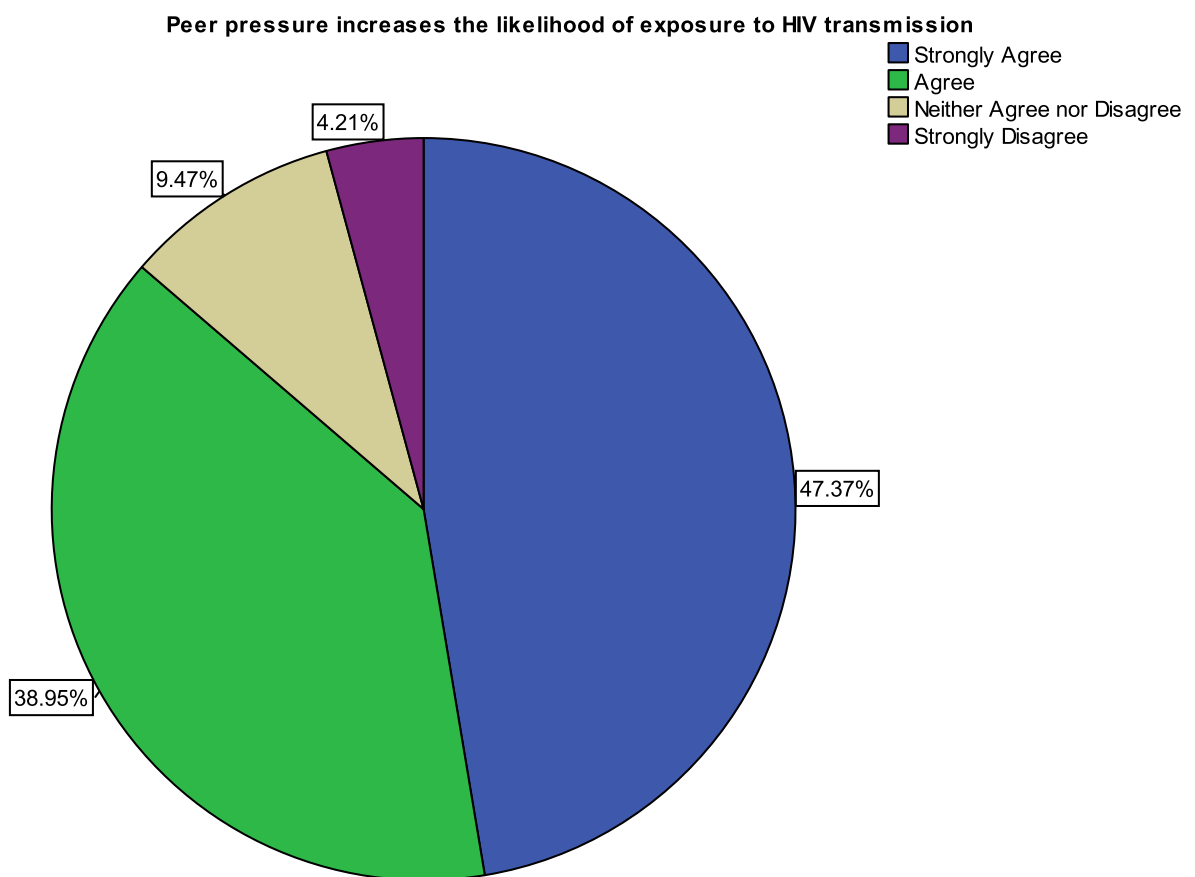


Figure 35: Peer pressure increases the likelihood of exposure to HIV

In addition respondents generally indicated that a lack of information regarding HIV from the media results in an elevated influence among young women to engage in risky sexual practices. The media was seen as a safer and freer source of information since many young women are constrained by several cultural provisions that hinder open discussions with parents and other elders on matters concerning sex.

Respondents revealed that men believed that young women are most likely not infected and as a result looked at them as a class of “safe prey” who were severally targeted for sexual exploitation. For this reason, cross-generational sexual relationships were a common phenomenon which is reportedly sustained by the belief that young women can be financially secure if in a relationship with older men. Figure 36 below indicates that respondents are aware that young women involved in cross-generational relationships are vulnerable to HIV infection.

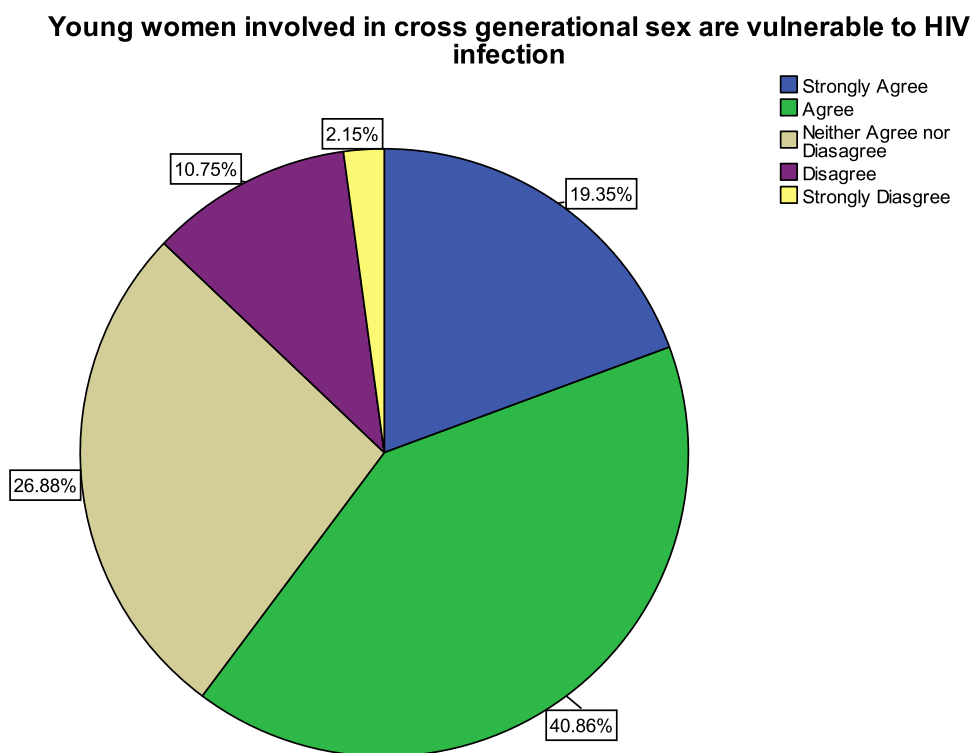


Figure 36: Young women involved in cross generational sex are vulnerable to HIV infection

Over 59% agreed that cross-generational sex posed a risk of exposure to HIV infection among young women involved in such relationships. In this kind of relationship, respondents

revealed that it was inevitable to have unplanned pregnancies. Further, relationships entered into for reasons of financial security can easily become a form of transactional relationship and invites added risks and increased levels of vulnerability. It has been earlier revealed by this study that income inequalities lead to heightened levels of exposure to HIV and vulnerability of especially young women. In addition, protection is a challenge to achieve in relationships bent on securing financial stability as one partner with the “right gender”, resources and age easily manipulates the affairs of the relationship.

On the other hand, figure 37 below reveals that respondents acknowledge that exposure to HIV increases with the number of partners.

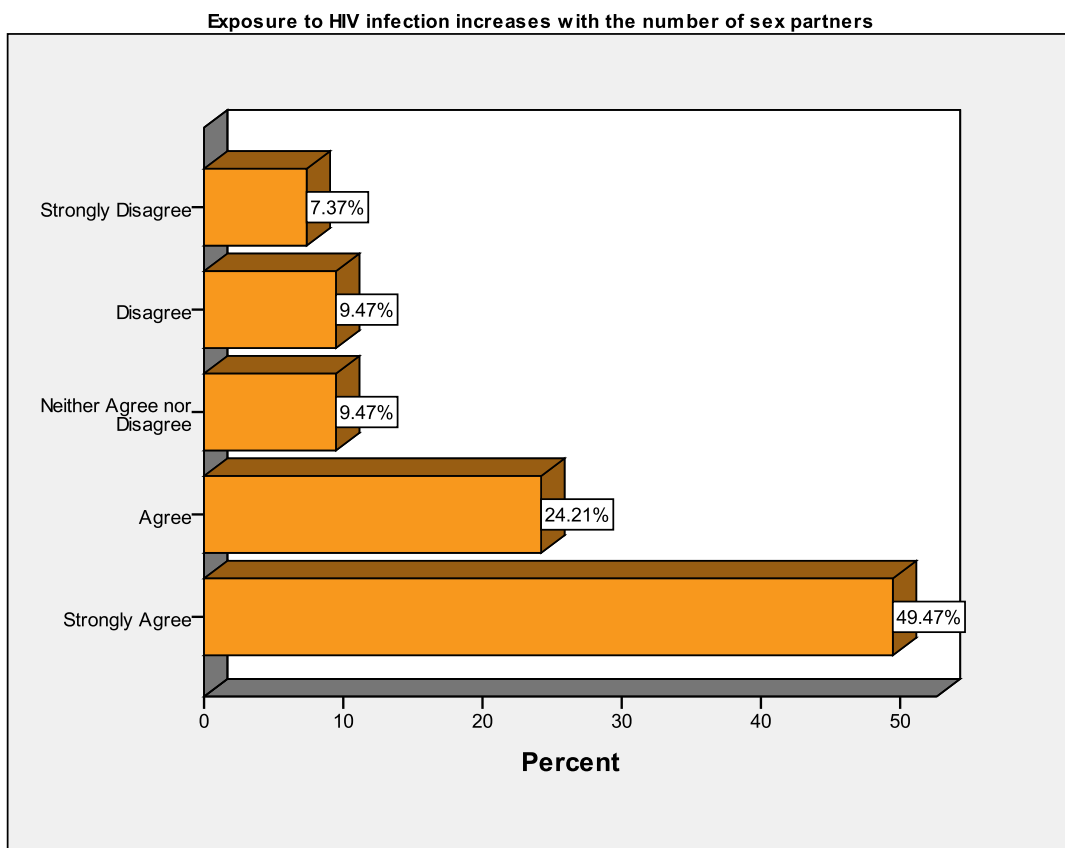


Figure 37: Exposure to HIV infection increases with number of partners

Approximately 74% indicated that increase in the number of partners increased the risk of getting infected. Generally therefore, respondents appreciate the risk and risk levels involved in having more than one sexual partner.

4. 15. Prevention strategies

The researcher intended through this section to assess what respondents considered as prevention strategies for HIV and AIDS. The results obtained are presented in chronological order with what received the highest percentage rating appearing first and that with the least last. Where a strategy received greater percentage as neither agree or disagree, disagree and strongly disagree, such strategy has been omitted.

Overall, respondents believed that the following are appropriate prevention measures for HIV and AIDS.

- Educate and train youth on condom use.
- Improve on condom promotion and distribution.
- Involve women in life skills training on income generating activities, negotiation skills, assertiveness, decision making and personal control to reduce risky sexual behavior.
- Implement programs that promote a healthy lifestyle for women and men.
- Improve access to health care services among women.
- Implement policies at national and community level to reduce violation of human rights and to reduce vulnerability to HIV among women.
- Improve women's opportunities for education, employment and economic advancement.
- Use peer education as a strategy to modify risky sexual behavior among youth.
- Promote essential attitude change on support and responsible safer practices.

4. 16. Focus group discussions

4.16.1. Proceedings from focus group discussions

A focus group presents the researcher the opportunity to study the ways in which individuals jointly make sense of the phenomenon and create meaning around it (Bryman, 2004).

Twenty female student nurses aged 16-24 participated in two focus group discussions of ten members each. One group was composed of students from year 1 and 2 while the second group consisted of students from year 3 and 4. All focus group discussions were held at the University of Namibia, Oshakati Campus – faculty of Health Sciences.

The researcher moderated the proceedings of the focus group discussions, presented questions, made clarifications where necessary and recorded responses from respondents. All participants were familiar with the researcher who works as a lecturer at the university. Although this commonness existed, group discussions were benchmarked by standard group rules including confidentiality, respect for each other, listening and openness.

Each focus group discussion took well over one hour as respondents needed time to elaborate their responses and generate follow-up clarifications for most responses. All participants had an opportunity to share their views on their knowledge about HIV and AIDS and the factors that could expose young female student nurses to HIV infection at the University of Namibia, Oshakati Campus.

Respondents were asked to describe what they viewed as the most common modes of HIV transmission. Overall, respondents identified sexual intercourse as a major mode of HIV transmission. In both groups, respondents were open about the fact that they were sexually active and had sexual partners such as boyfriends. However, it was revealed that sexual intercourse may not be “protected” referring to the use of condoms and in cases where condoms are used; correct application of the prevention method was doubted by most respondents.

The nursing profession by nature involves the care for patients some of whom maybe infected with HIV. Student nurses revealed that a risk of transmission existed when accidentally in the execution of the nursing job a nurse encounters a needle prick in the care of HIV positive patients. Further, accidental needle or sharp instrument cuts may occur in the labor ward

while conducting deliveries all of which are potential modes of HIV transmission and risk factors to the student nurses.

University students live a relatively free life away from parental watch and in enjoying this freedom, the respondents revealed, student nurses may adopt behavior such as the use of alcohol and drugs. The use of drug substances, especially intravenous drugs which involves sharing of syringes and needles poses a risk to HIV infection and was seen by the participants as one of the major modes of HIV transmission at the University.

Respondents also revealed that HIV can be transmitted from an HIV positive mother to her unborn child.

Blood transfusion was reported as another mode of HIV transmission. However this was challenged by one of the respondents saying that the Namibia government through the blood transfusion service has a meticulous screening system for donated blood which has resulted in safe blood at all blood banks and hospitals in the country. The respondent believed that blood transfusion no longer posed a risk of HIV infection and was no longer a mode of transmission in Namibia.

After the discussion on the modes of transmission, focus group participants were asked to describe how HIV could be prevented. A respondent submitted that the only 100% method of HIV prevention was abstinence from sex. Generally, most members of the group supported this as a means of prevention especially because they viewed sexual intercourse as posing the greatest risk of them all to HIV infection for the young female student nurses.

Participants also revealed that the consistent and correct use of condoms is another effective method of HIV prevention. This was qualified further by respondents charging that *femidoms* (female condoms) were stronger and more effective and should be made available. Most respondents expressed concern that only male condoms were widely available placing their male counterparts at a greater advantage in discussing and practicing safer sex, the use of condoms.

From the professional point of view, respondents submitted that avoiding the re-use and or sharing of needles and other sharp instruments can help prevent HIV transmission. Student nurses encouraged each other to always work with and close to dispose containers where used needles and other sharp instruments can immediately be disposed off.

To prevent infection through direct contact with infected blood, the respondents expressed that dressing in protective clothing in laboratories, the labor ward and theatre could avert the risk of infection. Further, accidental contact with blood such as needle pricking or accidental occupational cuts should be immediately reported to so as to receive immediate care especially the administration of the Post Exposure Prophylaxis (PEP) and counseling which is available at the hospital.

Participants were further challenged to discuss potential factors that make young female students vulnerable to HIV at the University. A participant who was variously supported indicated that enrolling at the university initiates a student to a whole new cosmopolitan place that brings together individuals and groups of people from different backgrounds, culture, and behavior and belief systems. The first step for every student is to devise means to belong, adapt and change. This process of integration comes with the creation of new friendships which may also be sexual relationships. These relationships without known history and background pose a potential risk factor to HIV infection for university students.

The University does not have an on campus hostel. This compromises the security of students who have to travel to the university in the early morning and late evening hours to and from campus. Female students may become easy targets at such hours for perpetrators of rape and therefore the risk of HIV infection.

A further risk factor was identified as the fact that the available hostel does not have the capacity to accommodate all students. For students who do not have accommodation provided at the hostel, they have to find private accommodation. Usually, private accommodation is expensive and parents cannot readily afford its cost. Female students therefore resort to finding especially male partnerships and friendships geared towards relieving this cost. These partnerships and relationships eventually result in girls offering sexual pleasure in exchange for meeting accommodation costs. In addition, most families do not afford luxuries for their children such as jewelry, transport, cell-phones, laptop computers etc. Female students therefore seek out male partners who can afford these luxuries for them. Equally, sex is offered as a befitting reward for the men. This was believed during the focus group discussion as a common practice and that it posed a huge risk to HIV infection as it reduces negotiation powers for safe sexual practices on the side of the female students.

Respondents revealed that the location of the campus itself is a risk factor. The northern campus is surrounded by *sheebens*, (local liquor outlets) bars and mainly other alcohol outlets “a potentially dangerous neighborhood”. Students are regular revelers at these places. Students are involved in excessive alcohol use, smoking and probably the use of drugs. Substance abuse especially the abuse of alcohol is a major risk factor in HIV transmission and consequently, students may be infected as a result of this.

The university like any other training institution, it was revealed has great potential for peer pressure and its bad effects. Most students become victims of decisions and actions that are a result of group influence. This risk is enhanced by the desire to belong and be an accepted part of the conventional norms of a particular group of students. Included in the risky decisions and practices students may engage in include alcohol abuse, multiple sexual partners, smoking and general irresponsible behavior.

Participants were asked to identify cultural practices that posed a risk to female student nurses in terms of HIV infection. The different cultural practices were discussed and it was revealed that in the *Oshiwambo* culture, sick people are still taken to traditional healers (*Onganga*) for treatment. Generally, traditional healers demand that they have sexual intercourse with female patients in the process of prescribing and administering treatment. Such sexual intercourse is variously risky as no protection is used and the fact that such healers have sexual intercourse with several people is of great risk.

Most traditions of the participants of the focus group discussions do not accept the use of condoms in marriages. Participants identified men as having various extra marital relationships and that this posed a risk of infection to most married women. In Namibia growing numbers of new infections are occurring in marriages it was revealed.

In the *Herero* tradition, it is believed and practiced that the uncle of the bride engages in sexual intercourse with her before marriage as a means to confirm that the girl was actually a virgin before marriage. Since the uncle is usually an older person it is possible that they could infect with HIV and therefore pass it on to the young bride.

It was revealed also that most cultures in Namibia still practice wife inheritance. Should a husband die, one of the deceased’s brothers is selected as the husband of the widow. This

does not only pose a risk to woman should the man be infected but to the man should the widow be infected with HIV.

Generally, young female student nurses believed that relationships were for sex. Participants argued that on face value, a relationship without sex did not befit the “current” definition. As such every relationship that was initiated between a boy and girl was predetermined to eventually end up in sexual intercourse it was revealed. Therefore each relationship poses a risk to HIV infection for everyone involved.

The researcher challenged participants to focus a little more on themselves as individuals and identify personal risk factors that could expose them to HIV infection. Individual responses were assessed against consensus within the general group and those that gained general agreement are recorded. A respondent expressed that most female students had low self esteem which inhibits them from making responsible informed decisions including negotiation for safer sexual practices. The participants generally agreed that low self esteem was further exacerbated by the inability to afford basic needs which in turn increased risk levels to vulnerability as men very easily take advantage of women in such circumstances.

Participants revealed that many students had developed resistance to change and ignored HIV messages. It was revealed that students understood HIV infection to be like any other disease and that they didn’t need to take any precautions for its prevention. Female students for example preferred to attend family planning clinics and prevent themselves from getting pregnant as opposed to HIV. They would reach out for anti-pregnancy pills a lot easily than to condoms. This increased every student’s vulnerability to HIV infection.

Respondents generally believed that women were easily manipulated by their male counterparts for various reasons. Such reasons range from gender inequalities, to the construction of culture and cultural norms, economic disparities and societal pressures. For these reasons, women find themselves at the receiving end in terms of HIV infection.

A greater number of respondents felt that they were vulnerable due to excessive peer pressure at the University.

Further, a respondent argued that by nature, a female membrane (referring to the lining of the female sexual organ) is easily bruised and therefore women can get HIV more easily that way than men.

The researcher inquired of how the respondents perceived risk to HIV as individuals. Obviously, every participant perceived the nursing job as the primary risk factor to each one of them. Every student nurse perceives their job as risky and that they needed to exercise extra care in their interaction with patients to minimize accident needle pricks, and direct contact with blood.

As female student nurses, the respondents expressed fear over the safety of their relationships since they reported to have boyfriends. Every respondent agreed that multiple sexual partners increased the risk to HIV infection and this could be a factor of fear that their boyfriends (or sexual partners) were not necessarily faithful.

It was repeated in this question that the location of the campus increases individual student's vulnerability because it is in one surrounded by a risky neighborhood and that hostels off campus compromised girl's safety and could easily expose them to HIV infection.

To conclude the discussion, participants were asked to give any recommendations that could help reduce potential exposure or risk to HIV infection at the UNAM northern campus. The following were recommended.

- Encourage each other, educate ourselves, be content with what we have not from our parents than seeking sugar daddies;
- Stop ignoring, AIDS is real, we are not here to cut our lives short but become a useful helping persons for the future;
- Use condoms always when having sex. No one can tell for sure about the sexual behavior of the other (boyfriend);
- Abstain from sex;
- Make female condoms available everywhere;
- Reduce on the habit of having multiple partners;
- Girls should be the initiators of condom use in a sexual encounter;
- Always carry a condom. In case of rape, offer the perpetrator that condom;
- Have a club where we share about HIV to improve learning and share experiences;
- Stop the sharing of sharp instruments;
- Be careful in dealing with patients.

CHAPTER FIVE

CONCLUSION

5.1 Conclusions

The findings indicated clearly that young female student nurses have adequate levels of knowledge about HIV and AIDS. They articulated the various risk factors, modes of transmission, prevention and care including knowledge about support systems available.

Results further indicate that the available knowledge and positive attitudes among the respondents did not result in positive lifestyles and responsible behavior that could have helped prevent further HIV spread.

Young female student nurses continue to be largely at risk of HIV infection due to gender inequalities, income inequalities and generally poverty, environmental circumstances, reduced risk perception, poor attitudes towards condom use, culture and a general dominance of men over women.

It is further concluded that access to services is limited not only by distribution but also attitudes of health service providers and stigma still attached to HIV and AIDS.

Findings indicate a significant level of life skills including negotiation skills available among respondents. However, there was no indication of an effective application of such skills in influencing the sexual behavior and attitudes of respondents against HIV and AIDS

Effectively addressing HIV and AIDS requires multiple approaches that combine social, economic and political factors. Issues such as poverty, migration patterns, alcohol consumption, compromised assertiveness, transactional relationships, cross generational relationships, gender-based violence, policy formulation and implementation, adequate supplies of prevention and care facilities are some of the most critical issues revealed as requiring concerted attention from this study.

5.2 Recommendations

During data collection and the focus group discussions, the researcher challenged respondents to put up recommendations that could help in achieving the objectives of prevention

programs including suggestions for new alternatives that could help achieve a safer young generation of student nurses at UNAM Oshakati campus. The following was recommended and is here presented as the recommendations the study has generated.

- Enforce law to strictly protect young females from domestic violence, rape and other sexual harassment.
- Encourage youths to access and voluntary counseling and testing services and get tested know their HIV status and protect themselves and others against infection.
- Train young men to respect and accept 'no' to sex from their female counterparts.
- Encourage parents to engage in open discussions about sex and sexuality with youths.
- Encourage young women who are not yet sexually active to delay sex until they are in the right sexual relationships.
- Educate youths on safer sex practices to improve their biological resistance to HIV infection.
- Develop appropriate programs to support young women with various skills training in assertiveness, negotiation, decision making, interpersonal and personal control to help young women reduce risk to HIV infection.
- Train and create awareness on correct and consistent use of condoms among youths
- Encourage youths to avoid risky settings where alcohol and substance is abused.
- Promote young women access to high education and training to improve their knowledge on HIV, risk reduction, and improved access to employment opportunities.
- Establish a strong referral link between voluntary counseling and testing and other support services in the community to assist young people to learn and cope with their HIV.
- Educate youths about risks involved in cultural practices and avoid dry and forced sex which increases the likelihood of severe genital rubbing.
- Promote gender equality in education, employment and in relationships.

- Encourage peer support to reduce stigma against youth infected with HIV.
- Establish a wellness centre at the University to improve and intensify the services for psychosocial support counseling and access to youth-friendly services and reproductive health.
- Treat sexually transmitted infection promptly to reduce HIV infection.
- Create strategies that promote good practices on income-generating activities tailored to meet economic needs of young women including short courses on alternative income generating skills to empower young women who use their bodies as capital (source of income).
- Involve youths in the discussion about policy formulation and implementation regarding HIV and AIDS.
- Develop active approaches among youths to address stigma and discrimination.
- Use back up strategies by encouraging spiritual and church leaders to endorse condom use when abstinence fails.
- Teach youths the basics of practicing non-penetrating sex.

5.3 Limitations of the study

Due lack of resources, time and financial constraints the researcher found it difficult to conduct the study at all the four University campuses in the North West sub-region of Namibia. The researcher wished also to include student nurses who registered with the centre for external studies and foundation program students but time and other resources would not allow.

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Appendix A – Questionnaire for individual respondents

I am Selma Ingandipewa Uushona a student with the University, of Stellenbosch, South Africa, conducting a research for my thesis entitled “An assessment of knowledge and factors that expose young female student nurse to HIV infection at University of Namibia’s Oshakati Campus.

I would like to conduct a survey with you as a fulltime female nursing students at Oshakati Campus in Northern Namibia by taking time to complete attached questionnaire. Your name will not be linked to the study response; the questionnaire format will be anonymous. Please feel free and be ensured that all the information given to me will be kept confidential and will be used only for the aim of this study. Therefore, I humbly request you to respond to all questions honestly.

Thank you in advance for participating and taking your time to answer this questionnaire.

Demographic data

Tick / choose one appropriate answer.

1. How long have you been in training as a nursing student?

1 year	
1–2 years	
2–3 years	
4 years	

2. Which best describes your age group

16-19 years	
20-24 years	
Others specify	

3. Where do you come from?

village	
town	
Other specify	

4. Where do you stay?

Home with parents	
Nurses home	
Hired flat/ house	
Others	

Knowledge on HIV and factors that expose young female student nurses to HIV infection and AIDS disease vulnerability.

State whether the following statements are true or false. Choose one correct answer.

Please tick in appropriate box

1	Knowledge about HIV transmission and prevention	True	False
1.1	HIV-1 is found worldwide, regarded as the major cause of the global pandemic.		
1.2.	An individual can be infected with more than one type of HIV.		
1.3.	Once the person is infected with HIV, it will take 2-12 weeks for the body to develop HIV antibodies.		
1.4.	HIV replication takes place within lymph nodes		
1.5.	Heterosexual contact account for more than 70 percent of HIV		

transmission in sub-Saharan Africa.		
1.6. HIV infection rates differ by gender, with women account more than 50 percent of HIV infection in Southern Africa.		
1.7. According to the National Sentinel survey, the HIV infection rates among the pregnant women in Namibia increased from approximately 4.2 percent in 1992 to 17.8 percent in 2008.		
1.8. The presence of other sexually transmitted infections in one or both partners increases the likelihood risk of HIV transmission.		
1.9. An HIV infected woman may pass the virus to her partner if involved in sexual contact during menstruation.		
1.10. HIV infection is acquired through exposure to saliva, tear, urine and sweat		
1.11. Rapid migration to urban areas increase the spread of HIV		
1.12. HIV transmissions can be avoided by looking for clean young women.		
1.13. Delay sex among the youths is the best method to minimize HIV transmission		
1.14. Abstinence is relative effective strategy to reduce HIV transmission		
1.15. Adherence to universal precautions reduces occupational HIV infection.		
2. Indicate whether the following are risk sexual behavior factors by using TRUE OR FALSE, tick with cross(X)		
	TRUE	FALSE
2.1. Exchange sex for gift		
2.2. Use of multiple partner		

2.3.	Involved in transactional sexual relationship		
2.4.	Engage in sexual intercourse during menstruation with the HIV positive women		
2.5.	The excessive use of alcohol and substances		
2.6.	Sleeping around		
2.7.	protect sexual contact		
2.8.	Dry sex , rape and coerced sex		
3	Barrier to access health care services		
3.1.	Bad attitudes of health workers.		
3.2.	Women are stigmatized when seek treatment.		
3.3.	Women are too shy to seek treatment earlier.		
3.4.	Lack of supply condoms and other commodities		
4	Knowledge assessment on gender inequality and violence		
4.1.	Youths perceive HIV as a problem of other people.		
4.2.	Young women lack power to decide on timing of sex		
4.3.	Young women have no ability to make correct decision on the condition under which sex should occurs.		
4.4.	Young women exchange sex for economic stability.		
4.5.	Sexual harassment increases young women's risk to HIV infection.		
4.6.	Early childbearing restricts the young women from further study.		
4.7.	Lack of decision over sexual matters put young women at risk of HIV infection		

4.8. Young females involved in cross-generational relationship have little bargaining power to negotiate safe sex with older men.		
Choose one correct answer Tick by indicate in YES or NO column, use cross mark, (X).		
5. Negotiation skills and condom use		
5.1.1.. Do you possess skills to convince you partner to use condom		
5.1.2. Does your partner feel comfortable with condom use?		
5.2 condom use		
5.2.1 Do you use condom consistently?		
5.2.2. Do you wear condom correctly every time you engage in sexual intercourse?		
5.2.3. Is condom use rare in cross-generation?		
5.3 Attitudes toward condom use		
5.3.1. Condoms are only used by prostitutes		
5.3.2. Condom use increase promiscuity		
5.3.3. Women who demand condom use are regarded as unfaithfully.		
5.3.4. Use of condom indicates a lack of love.		
5.3.5. Condoms cause frustration		
5.4 Reasons for not using condoms		
5.4.1. Have no or limited access to condoms		
5.4.2. Condoms are not always available		
5.4.3. Poor quality condoms from government health facilities		
5.4.4. Trust in partner		

5.4.5. Do not want to lose financial security		
5.4.6. Do not like sex with condoms		
5.4.7. Do not have knowledge on the benefits of condom use		
5.4.8. Do not have adequate knowledge on use of condoms		
5.4.9. Fear of violence		
5.4.10. Embarrass to buy condom		
5.4.11. Embarrass to carry condom		
5.4.12. Embarrass to ask partner to use condom		
5.5 Perceived HIV/STIs susceptibility		
5.5.1. Do you perceive HIV infection as serious problem at the campus		
5.5.2. Do you perceive yourself as at risk of contract HIV infection		
5.5.3. An individual cannot contract HIV virus if one has known partner for a time		
5.5.4. Exchanging sex to meet survival needs confers high risk for HIV infection		
5.5.5. Direct exposure to blood during sexual activities increase high risk for HIV transmission		
5.5.6 The chance of HIV infection is greatest in person with STIs and genital ulcers.		
5.5.7. It is impossible for the youth to refrain from sexual activities once one becomes sexually active.		
6 Assessment on youths' perception on HIV vulnerability associated with level of education, poverty, gender inequality, employment status, environment, socio-economic, culture, migration, alcohol, policy and condom use		
	True	False

6.1.	Young women who completed more grades in school may have received more information about HIV related issues		
6.2.	Women and girls are more vulnerable to infection than young men of their own age.		
6.3.	Low level of education among women limit their opportunities for formal employment which in turn increase their vulnerability to HIV		
6.4,	Change in social environment may results in a sense of anonymity, which leads to risk of HIV infection		
6.5.	Poverty make females to opt for multiple partners to ensure economic stability		
6.6.	Cultural norms that makes women subservient to men complicates the prevention of HIV among women		
6.7.	Lack of access to health care services makes women vulnerable to high levels of untreated sexually transmitted infections.		
6.8.	Migration offer more sexual freedom which facilitates the spread of HIV.		
6.9.	Excessive use of alcohol impair the youths ability to involve in sexual risk behaviors		
6.10.	Less income among women can force them into commercial sex		
6.11.	Disappearance of traditional values such as fidelity and abstinence increase vulnerability to HIV infections.		
6.12.	Having sex with healthy people who look fat reduce HIV transmission		
6.13.	HIV infection can be avoided by washing genitals thoroughly after having sex		
6.14.	Use of condoms has dual protection against pregnancy and sexual transmitted infection.		

6.15. Condom offers maximum protection if used correctly during penetrating sex		
6.16. If female condom is use condom consistently guaranteed 100 percent protection against HIV transmission.		
6.17. Young women have limited in power over condom negotiation during sexual activity		
6.18. There is an urgent need to develop effective programs to reduce the spread of HIV among young women.		
6.19. If effective programs are implemented it would protect young women from HIV infection		
6.20. Law enforcement on violence reduces HIV transmission among women.		

7. Knowledge assessment on HIV testing and disclosure

Please tick in appropriate box of your choice by using keys below

- 1. Always**
- 2. Sometimes**
- 3. Never**

	1	2	3
7.1 Have you tested for HIV in every three months?			
7.2 Have you offered Pre Counseling?			
7.3 Have you result made known to you			

7.4	Have you offered post counseling before receiving you HIV result?			
7.5	Disclosure of HIV result increase access to social support, care, and treatment			
7.6	Stigma and discrimination are major barriers to disclosure and increase the risk of HIV infection among youths.			

8. Perceptions of vulnerability on risk behavior and factors that expose young female student nurses to HIV infections. Please tick in appropriate box of your choice by using keys below

1. Strongly agreed
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

8.1 Perceptions of HIV vulnerability on structural and social factors					
	1	2	3	4	5
8.1.1. There are more females living in poverty than males.					
8.1.2. Age often limits the young female's ability to qualify for financial credit					
8.1.3. Many young women are at the lower end of the socio-economic spectrum.					
8.1. 4. Lack of life skills among youths aggravates HIV transmission					
8.1.5. Female condoms are easy, convenient and readily available for use.					
8.1.6. HIV virus is curable by antiretroviral drugs					
8.1.7. HIV infection is easily transmitted from infected woman to man.					

8.1.8. If an individual tested HIV positive it means an individual has AIDS					
8.1.9. Lack of policies that tailoring the problems affecting young women reduce effective HIV prevention					
8.1. Perceptions on behavioral factors that influence the spread of HIV infection					
8.1.10. Peer pressure increase the likelihood of expose to HIV transmission					
8.1.11. Lack of access to HIV information from media influence young women to engage in risky sexual behavior.					
8.1.12. Youth cannot discuss matters of sexual nature with parents or elders					
8.1.13. Men believe that young females are not likely to be infected with HIV virus					
8.1.14. Cross generational relationship is sustained by financial and survival security amongst others.					
8.1.15. Young women involved in cross generational are vulnerable to HIV infections.					
8.1.16. Unplanned pregnancy is inevitable in transactional relationship					
8.1.17. Income inequality contributes to the spread of HIV among young women					
8.1.18. The exposure to HIV infection increases with number of sex partners					
8.1.19. Young women who engage in unprotect premarital sex are vulnerable to HIV infection.					
8.2 Prevention strategies					
8.2.1. Effective prevention includes information dissemination and awareness creation on HIV.					
8.2.2. Improve on condom promotion and distribution.					

8.2.3. Educate and train youths on condom use and skills to improve their knowledge					
8.2.4. Implement programs that promoting healthy lifestyle for women and men.					
8.2.5. Improve women's opportunities for education, employment and economic advancement.					
8.2.6. Use peer education as a strategy to modify risky sexual behavior among youths.					
8.2.7. Improve access to health care services among women					
8.2.8. Implement policies at national and community level to reduce violence of human rights to reduce vulnerability to HIV risk among women.					
8.2.9. Promote essential attitude change on support and responsible safer practices.					
8.2.10. Involve women in life skill training on income generating activities, negotiation skills, assertiveness, decision making and personal control to reduce risky sexual behavior.					

9. From this list, which of the factors that are critical to expose young female student nurses to HIV vulnerability at Oshakati Campus? Tick by indicate in YES or NO column, use cross mark, (X).

9.1. Structural factors		
	YES	NO
9.1.1 Poverty and income inequality		
9.1.2 Gender inequality		

9.1.3	Geographical and environmental		
9.1.4	Policy environment		
9.1.5	Religion		
9.1.6	Cultural		
Social factors			
9.1.7	Norms regarding sexual behaviors		
9.1.8	Status of the woman		
9.1.9	Migration pattern		
9.1.10	Community effects and local prevalence of HIV		
9.1.11	Access to HIV prevent and treatment services		
9.1.12	Education		
9.1.13	Employment status		
9.1.14	Access to health care services		
Personal, sexual behavior and networking factors			
9.1.15	Multiple and concurrent partnership		
9.1.16	Cross-generational relationship		
9.1.17	Transactional sex		
9.1.18	Condom use		
9.1.19	Age		
Gender and decision making ability over sex			
9.1.20	Gender-based violence		
9.1.21	Knowledge on HIV		

9.1.22 Perception on HIV risks		
9.1.23 Alcohol consumption		
9.1.24 HIV testing		
Biological factors		
9.1.25 Gender		
9.1.26 Young age for women		
9.1.27 Presence of other sexually transmitted infection		
9.1.28 Viral load		
9.1.29 Characteristic of sexual intercourse		
9.1.30 Malnutrition and ill health		

10. Choose among these recommendations the one do you suggest for promoting health sexual behaviors and prevention interventions needed to reduce HIV transmission among young student nurses. Choose as many items as you wish.

RECOMMENDATIONS ARE AS FOLLOW		
	YES	NO
10.1 Promote protective practices such delay of sex among youths.		
10.2 Educate youths on safer sex practices to improve their biological resistance to HIV infection		
10.3 Encourage youths to use voluntary counseling services and get tested to know their HIV status		
10.4 Establish a strong referral link between voluntary counseling and testing and		

other support services in the community to assist young people to learn and cope with their HIV status, whether positive or negative		
10.5 Treat sexually transmitted infection promptly to reduce HIV infection.		
10.6 Educate youths about risk in cultural practices and avoid dry and forced sex which increases the likelihood of severe genital rubbing.		
10.7 Use back up strategies by encouraging spiritual and church leaders to endorse condom use when abstinence fails.		
10.8 Promote young women access to high education and training to improve their knowledge on HIV risk reduction.		
10.9 Promote gender equality in education, employment and in relationship		
10.10 Provide equal opportunities for employment for both males and males.		
10.11 Develop appropriate programs to support young women with various skill training in assertiveness, negotiation, decision making, interpersonal and personal control to help young women to reduce risk to HIV transmission.		
10.12 Train and create awareness on correct and consistent of condoms among youths.		
10.13 Encourage young females who are not yet sexually active to delay until they are in the right sexual relationships		
10.14 Teach youths the basics of practicing non-penetrating sex.		
10.15 Promote individual behavior change among young people.		
10.16 Teach young female how to make good informed decision		
10.17 Train young male to respect and accept 'no' to sex from their female counterpart		
10.18 Create a supportive social environment in which young women can make informed sexual decision.		
10.19 Encourage parents to improve on open discussion about sex and sexuality with youths		
10.20 Minimize judgmental attitudes of parents towards sexual active youths.		
10.21 Encourage respect for the experience of youth on HIV vulnerability and provide		

opportunities for meaningful input.		
10.22 Involve youths in the discussion about policy formulation and implementation.		
10.23 Enforce law strictly to protect young females from domestic violence, rape and other sexual harassment		
10.24 Create strategies that facilitate safe sexual relationship.		
10.25 Improves on best practices such as non-judgmental support at campus, health facilities and local voluntary counseling and testing sites		
10.26 Establish a wellness centre to improve and intensify the services for psychosocial support counseling and access to youth- friendly services and reproductive health		
10.27 Develop active approaches among youths to address stigma and discrimination.		
10.28 Encourage peer support to reduce stigma against youth infected with HIV.		
10.29 Create strategies that promote good practices of income-generating activities tailored to meet economic needs of youth females		
10.30 Create short course on alternative income generating skills to empower young females who use their body as capital (source of income).		
10.31 Identify local beliefs which help to respond to economic drivers for sexual activities among youths.		
10.32 Encourage youths to avoid risky setting where alcohol is readily available and action related to substance use, to reduce sexual inhibitions		

Others

Appendix B – Structural guide for focus group discussions

I am Selma Ingandipewa Uushona a student with the University, of Stellenbosch, South Africa, conducting a research for my thesis entitled “An assessment of knowledge and factors that expose young female student nurse to HIV infection and AIDS disease at University of Namibia’s Oshakati Campus.

I would like to conduct a focus group with fulltime female nursing students at Oshakati Campus in Northern Namibia. No participants name will be needed or linked to the study, and responses will be anonymous. Please feel free and be ensured that all the information given to me will kept confidential and will be used only for the aim of this study. Therefore, I humbly request you to respond to all questions honestly.

Thank you in advance for your time and participation in the focus group discussion.

Focus Group discussion with female nursing student

Assessment of knowledge and factors that make young female nurses vulnerable to HIV infection and AIDS.

1. What are the common transmission modes of HIV virus?
2. How to prevent HIV transmission?
3. What factors make young female student nurses vulnerable to HIV infection at Oshakati Campus?
 - Structural factors
 - Social factors
 - Cultural factors
 - Personal behavior factors
 - Biological factors
4. What is your perception on personal risky to HIV infection and transmission?
5. What are the recommendations you suggest as prevention strategies that are needed to be in place to reduce HIV infections among young females?

Appendix C – Letter of authorization to conduct research from the university

**UNIVERSITY OF NAMIBIA
OSHAKATI CAMPUS**

P.O. Box 2654, Oshakati, ElianderMwatale Street, Oshakati, Namibia



18th August 2010

TO WHOM IT MAY CONCERN

Please take note that permission is granted to Ms. Selma IngandipewaUushona to conduct the research for the completion of MPHIL HIV/AIDS required by University of Stellenbosch at Oshakati Campus.

Thanking you.

A handwritten signature in black ink, appearing to read 'Paulina Uugwanga', is written over a dotted line.

.....
Ms. Paulina Uugwanga
Director – Oshakati Campus

Appendix D – Letter of Authorization to conduct research from the Ministry of Education.

9 - 0/0001



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198	Ministerial Building	Tel: (061) 2032125
Windhoek	Harvey Street	Fax: (061) 272286
Namibia	Windhoek	E-mail: amuheua@mhss.gov.na
Enquiries: Mr. A. Muheua	Ref.: 17/3/3/AP	Date: 29 September 2010

OFFICE OF THE PERMANENT SECRETARY

Mrs. S.I. Uushona
P. O. Box 2149
Oshakati

Dear Mrs. Uushona

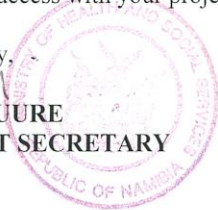
Re: Study - An assessment of knowledge and factors that expose young female students nurses to HIV infection at University of Namibia's Oshakati campus

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 approval has been granted under the following conditions:
 - 3.1 The data collected is only to be used for your academic purpose (MPhil, HIV/AIDS Management);
 - 3.2 A quarterly progress report is to be submitted to the Ministry's Research Unit;
 - 3.3 Preliminary findings are to be submitted to the Ministry before the final report;
 - 3.4 Final report to be submitted upon completion of the study;
 - 3.5 Separate permission to be sought from the Ministry for the publication of the findings.

Wishing you success with your project.

Yours sincerely,

MR. K. KAHUURE
PERMANENT SECRETARY



"Health for All"