THE PERCEPTIONS OF STUDENTS ABOUT RISKY BEHAVIOUR THAT COULD MAKE THEM VULNERABLE TO HIV INFECTION

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DECLARATION

By submitting this assignment electronically, I declare that the entirely of the work contained therein is my own, original work, that I am a sole author thereof (save to the extent explicit 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 entirely or in part submitted it for obtaining any qualification.

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ABSTRACT

The existing studies have shown that HIV is highly prevalent among the students at the institutions of higher learning. However, none of the studies has established the perceptions of risky behaviour that could lead to HIV infections among students.

The chief aim of this study was is to establish the perceptions of the students at the Polytechnic of Namibia towards the risky behaviour which could make them vulnerable to HIV and ADIS in order to improve the life skill programmes and HIV and AIDS awareness programme.

The objectives of the study were to establish the knowledge of the students about HIV infection, to evaluate what the students perceive as risky behaviour and identify risks that expose students to contracting HIV, to determine the perceptions of the students about risky behaviour that makes them vulnerable to HIV and AIDS, to identify the students' attitudes towards a person living with HIV and AIDS, and to suggest strategies that can be implemented to improve HIV and AIDS awareness among the students and enhance life skills programme, and HIV and AIDS education.

The objectives were met through a quantitative approach conducted to gather data from 500 full time students at PoN, the second largest institution of higher learning in Windhoek, the capital city of Namibia, in July 2013.

The data was collected by using a self-administered questionnaire which exclusively consisted of close-ended questions.

Ethical approval was obtained from the Ethics Committee of Stellenbosch University. The permission to conduct the study was requested and given from the registrar at the PoN. The participants were given a consent form to sign as an indication that they consent to take part in the study.

Data collected was analysed using Epi-Info software and presented by means of pie charts, frequency tables, and bar graphs.

It was found the students have efficient general knowledge on HIV and AIDS. The perceptions of risky behaviour were generally acceptable, however some students lack information on the epidemic.

It was recommended that HIV and AIDS education and awareness programmes be expanded. Elimination of perceptions, and negative beliefs and reduction of alcohol and drug abuse among students are further recommended.

OPSOMMING

Bestaande studies wys dat MIV/VIGS baie algemeen voorkom onder studente van instellings van tersiere opleiding. Geen van hierdie studies het daarop gefokus om die persepsies van studente te bepaal in verband met riskante seksuele gedrag en praktyke wat tot infeksie met MIV sou kon lei nie.

Die hoofdoel van hierdie studie was om die persepsies van studente aan die Polytechnic of Namibia in Windhoek te bepaal in verband met riskante seksuele gedrag wat hulle sou kon blootstel aan MIV-infeksie. Die verdere doel is om die gevolgtrekkinge te kan benut om lewensvaardigheidsprogramme te verbeter, veral aangaande MIV/VIGS bewusmakings programme.

Die doelwit van die studie was om die kennis van studente oor MIV-infeksie te bepaal, om te evalueer wat hulle as riskante seksuele gedrag beskou en om die risiko te identifiseer waardeur hulle deur verkeerde persepsies aan MIV infeksie blootgestel kan word. Verder word daarop gefokus om studente se persepsies van, en verhoudinge met, persone wat met MIV en VIGS lewe te bepaal. Die gevolgtrekkinge wat daaruit spruit is bedoel om MIV en VIGS bewusmakingsprogramme beter te informeer en om in MIV/VIGS opleiding en lewensvaardigheidsprogramme in te vloei.

Die studie is gebaseer op data wat versamel is volgens n kwantitatiewe beginsel, deurdat 500 voltydse studente aan die Polytechnic of Namibia in die hoofstad Windhoek ondervra is. Dit is die tweede grootste tersiere opleidingsinstitusie in Windhoek en in Namibie.

Die data is versamel deurdat studente op n vrywillige basis n self-geadministreerde vraelys voltooi het wat uitsluitlik uit geslote vrae bestaan het.

Goedkeuring vir hierdie studie is bekom van die Etiekkomitee van die Universiteit van Stellenbosch. Die goedkeuring om die sudie uit te voer is ook bekom van die Registrateur van die Polytechnic of Namibia. Alle deelnemers aan die studie het hulle toestemming daartoe verleen deur n vorm in te vul en te teken.

Die data wat so versamel is, is geanaliseer met behulp van Epi-Info sagteware en daargestel deur verskillende kaarte, tabelle en grafieke.

Dit is gevind dat die ondervraagde studente ‘n redelike algemene begrip oor MIV en VIGS het, dat hulle persepsie van riskante gedrag algemeen aanvaarbaar is, maar dat sommige steeds onder wanindrukke verkeer en sou kon doen met meer inligting oor die epidemie.

Dit word dus voorgestel dat MIV en VIGS-opleiding en bewusmaakingsprogramme uitgebrei word om verkeerde persepsies en negatiewe gedrag wat uit die studie afgelei kan word aan te spreek. Dit word ook verder aanbeveel dat alkohol en dwelmmisbruik aangespreek word.

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May the Lord bless all of you abundantly, I wish you well and I thank you…

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ACRONYMS

AIDS – Acquired Immune Deficiency Syndrome

ANC – Antenatal Clinics

ART – Antiretroviral therapy

HIV – Human Immune Virus

MoHSS – Ministry of Health and Social Services

NDHS – Namibia Demographic Health Survey

PCR - Polymerase Chain Reaction

PHC – Primary Health Centre

PMTCT – Prevention of Mother to Child Transmission

PoN – Polytechnic of Namibia

STD – Sexually Transmitted Diseases

STI – Sexually Transmitted Infections

UNAIDS – United Nations Joint Programme on HIV/AIDS

UNAM – University of Namibia

UNICEF – United Nations Children's Fund

VCT – Voluntary Counselling and Testing

WHO – World Health Organisation

CHAPTER ONE: INTRODUCTION

1.1 Introduction

There is no part in the world that has not been affected by Human Immune Virus (HIV) and Acquired Immune Deficiency Syndrome AIDS). Globally, the annual number of people newly infected with HIV continues to decline, although this varies strongly between regions (UNAIDS, 2011, P.13). In 2010 an estimated 2.7 million people were newly infected with HIV that is 15% less than the 3.1 million since 2001 and more than 21% fewer than the estimated 3.4 million in 1997; the year when the number of people newly infected with HIV peaked (UNAIDS, 2011).

Higher Education Institutions provide a special environment for HIV and AIDS because among other things they provide the stage for easy interaction among the active age group of 19-24; thereby facilitating the spread of the disease. HIV and AIDS affect every facet of core business and operations of higher education institutions. It is therefore important for the management of these institutions establish a clear understanding of the challenges HIV and AIDS poses to management, teaching and learning, research and community engagement within their internal and external environments (The HIV and AIDS challenge in African higher education institutions, 2007).

The majority of people living with HIV and AIDS in Africa are between the ages of 15 and 49 these are people in the prime of their educational formation and working lives. The impact of HIV and AIDS on the education sector in Africa has created a major concern considering the people that are involved. This is because, the extent to which schools in general and tertiary institutions in particular are able to continue functioning would influence how well African societies eventually recover from the epidemic (Association of African Universities, 2003).

The AIDS pandemic is a threat that puts survival in balance of the future in most nations. AIDS kills those of whom the society relies on to grow the crops, work in the factories and mines, manage the schools and hospitals and govern the countries. It creates new pockets of poverty when parents and bread winners die and children leave school earlier to support the remaining children themselves affected and infected by HIV (Mandela, as cited in Du Pisano & Otaala 2001:p.iv).

1.2 Background of the study

Namibia, a country in the southern region is facing one of the largest HIV and AIDS epidemic in Africa. Namibia has a population of about 2.2 million inhabitants and is classified as a middle-income country (National census, 2011). The Namibian health system has both a public health service through the Ministry of Health and Social Services (MoHSS) and a relatively well-established private health sector. However, as the country is experiencing a large epidemic, HIV and AIDS places a significant burden on the Namibian health system (UNAIDS 2008, as cited in De Beer, Gaeb, Gelderblom, McNally, Rooy, Schellekens, Tobias & Wit, 2012).

The first four cases of HIV and AIDS were reported in Namibia in 1986. A cumulative number of 136,068 HIV and AIDS cases were recorded by the Ministry of Health and Social Services by the 31st December 2003 (The National Strategic Plan on HIV and AIDS, Third Medium Term Plan 2004 – 2009).

AIDS has been the leading cause of death at 26% in this region since 1996 and in the age group 15-49 in 1999 46% is representative of this fatal group. According to the 2001 Population and Housing Census (PHC), the number of deaths has increased 80% in three preceding years. The MoHSS estimated that in some parts of the country between 50–70% of hospital admissions are HIV and AIDS related (The National Strategic Plan on HIV and AIDS, Third Medium Term Plan 2004 – 2009, p. 4).

Young people aged 20–34 constitute one of the groups at highest risk of HIV infection in Namibia (UNAIDS, 2010). This age group forms about 25% of the Namibian population where the level of education in Namibia is high. According to the last demographic and health survey in 2006/2007, more than half of the 20 to 34 years old group attained the secondary education level and up to 10% reached higher educational level.

University students form an important constituency in interventions against HIV and AIDS. They are also identified as an interesting target group as they represent the future leaders and economic backbone of the country (De Beer., et al., 2012).

In 2010–2011 HIV prevalence in the general population among people aged 15–49 years was estimated at 13.5% resulting in around 4,500 AIDS related deaths in 2010–2011 which amounts to approximately 18% of all deaths in Namibia. MoHSS (2010–2011) has reported

approximately 9,300 people were infected with HIV. This steady stream of new infections over a period of time has resulted in an estimated 189,000 adults and children living with HIV in Namibia in 2010–2011 (MoHSS, 2010–2011).

1.3 Motivation of the research project

This study was motivated by the information on the perceptions of the students about risk behaviour that could make them vulnerable to HIV infection is sketchy. The previous studies in place do not seem to have clearly established the perception of the students at high learning institution towards HIV and AIDS as far as their behaviours are concerned.

According to Kelly (2001) the high education institutions had done little in terms of response to the pandemic. He further emphasised the serious impact of the pandemic in terms of the fiscal situation and in terms of the negative social impacts on university communities.

The Polytechnic of Namibia located in Windhoek, is the second largest tertiary education institution, educating more than 40% of his country's higher institution students. The institution provides primary healthcare and curatives services to the students on campus. They give family planning and health education on sexually transmitted infections, such as HIV and AIDS. However, limited data exist on the HIV prevalence at this institution of higher learning, or on the impact of HIV and access to healthcare of the students. Few studies have focused on students as a group in Sub-Saharan Africa (Ministry of Health and Social Services, 2008 & Keller, McCarthy, Mosendane, Tellie, Venter, Noble, Scott, Stenens, Van Rie, as cited in De Beer et al., 2012).

1.4 Definition of the problem

The morbidity and mortality associated with the HIV and AIDS pandemic has major economic and social implications: poverty and hunger are on the rise, children have become increasingly vulnerable as a result of the epidemic, the education sector is deteriorating, people are suffering from AIDS related isolation and life expectancy is decreasing (Lau & Muula, 2004: p. 404)

The HIV infection rate is alarmingly high in the younger age group (15–24) because of their vulnerability (MoHSS, 2010-2011, UNAIDS, 2010). This group forms a relatively large proportion of the adult population in Namibia, hence a potential factor in the HIV and AIDS

epidemic. Most students at the Polytechnic of Namibia are aged between 19-34 years, the age group in which HIV incidence is high. Despite the HIV and IADS awareness clubs in place, the prevalence of HIV and AIDS among the students is on the rise (De Beer et al., 2012).

According to the Association of African Universities (2003) higher education institutions educate and train the sexually active young adults who are most vulnerable to contracting the HIV due to their risky social and sexual behaviours. Over the past decade, institutions of higher education have become increasingly aware of the impact of the HIV and AIDS epidemic on their core business areas of teaching and learning, research and community engagement, therefore there is a need to respond forcefully and decisively. The problem that has been identified is: What are the perceptions of the students at the Polytechnic of Namibia about risky behaviour that could make them vulnerable to HIV infection?

1.5 Aim of the study

The aim of this study is to establish the perceptions of the Polytechnic of Namibia students towards the risky behaviour which could make them vulnerable to HIV and AIDS in order to improve the life skill programme and HIV and AIDS education.

1.6 Objectives of the study

The identified objectives of the study are:

- To establish the knowledge of the students about HIV infection.
- To evaluate what the students perceive as risky behaviour and identify risk behaviour that expose students to contracting HIV.
- To determine the perceptions of the students about risky behaviour that makes them vulnerable to HIV and AIDS.
- To suggest strategies that can be implemented to improve HIV and AIDS awareness among the students and enhance life skills programmes and HIV and AIDS education.
- To identify the students' attitudes towards a person living with HIV and AIDS

1.7 Knowledge gap

The Polytechnic of Namibia showed HIV is prevalent among the students according to De Beer et al. (2012). It has shown most students were unaware of their HIV status and only a

minority indicated being at risk of HIV infection. Despite the health facilities and HIV and AIDS related centre for information within the campus, the students are at high risk of contracting the disease. The perceptions of risky behaviours which make the students at the PoN vulnerable to HIV infection are not known. The study did not, however, establish the perceptions of risky behaviours among the students.

1.8 Research methodology

The research approach and methods used in this study are briefly described. This is a descriptive type of study and a quantitative method was employed in the form of a self-administered questionnaire to gather data from the research participants.

The full time students at Polytechnic of Namibia were identified as the potential study population in this study. Most of these students were in the range of 19-24 years of age. Simple random sampling was used in order to give equal selection opportunity to everyone in the population to participate in the study. One hundred and twenty-five students from each year of study were recruited to participate in the study, which added up to 500 participants in total.

The data were gathered through a self-administered questionnaire consisting of close-ended questions in line with the objectives of the study. The questionnaire was piloted using 50 part-time students from the Polytechnic of Namibia to determine the aspects such as sensitiveness and clarity of the questions and make amendments were needed. The information collected from the pilot participants are excluded in the analyses in the main study.

The validity and reliability of measuring instruments were assured through the following:

- The self-administered questionnaire was anonymous
- The respondents completed the questionnaire independently without instigation by other respondents or researcher himself
- The researcher explained the objectives of the study clearly to the respondents
- The participants signed a consent form to participate in the study
- Ethical principles to participate in the study were clearly outlined and confidentiality was assured

- An expert in statistic was used for data coding and analyses to enhance the research validity
- Pilot study was done.

Data was collected through a self-administered questionnaire distributed to the participants after they signed a consent form. The questions were constructed in English, the medium of instructions at PoN.

Data from the questionnaire were electronically entered in the Epi-info data entry screen of version 3.3.2 (Centres for Disease Control and Prevention, Atlanta, Georgia, USA). The data was then analysed using the same statistical software (Epi-Info) where graphs and tables of frequencies were generated. A statistical software (Christensen et al., 2011) ensures the process of analysing quantitative data is simpler compared to methods used in the previous years as it does all of the calculations.

1.9 Ethical principles

The approval to conduct this research study was obtained from Stellenbosch University Ethical Committee some months before the study commences. Permission to conduct the study at the Polytechnic of Namibia was granted from the office of the registrar after going through the research proposal and all the study protocols submitted. Consent was obtained from the participants after informing them about all the relevant issues of the study.

1.10 Limitations of the study

The quantitative method employed in this study could not obtain more in-depth information from the participants and thus cannot be generalised for the population. Secondly, only 473 students from the Polytechnic of Namibia were recruited in the study, therefore the findings do not represent the entire student population. Another limitation is a number of students could not be contacted since they are repeating the year of study and most of the fourth year students were off campus for research purposes and job attachment.

1.11 Outline of chapters

This research study report is divided into 5 chapters. The first chapter provides introduction where the background to the study, significance of the study, problem statement and objectives are discussed.

The second chapter presents a literature survey related to an overview of HIV and AIDS, the incidence and intensity of HIV and AIDS in the world, HIV and AIDS in Namibia, the country where the study was conducted, as well as in general, in the sample selected for the study. HIV and AIDS in infected individuals, contribution of health care workers, use of condoms by teenagers and different perceptions on HIV and AIDS are also discussed there.

The third chapter describes the methodology used, study design, population and sampling, measuring tools, data collection and data analysis.

The fourth chapter presents the reporting of results, discussion and analyses of the results.

The fifth chapter outlines the conclusions drawn from the study and recommendation made from the study. Limitations of the study and suggestions to overcome or minimise them are also stated.

1.12 Conclusion

This chapter presents an overall introduction of the study. It outlines the background of the study, motivation of the research project, problem statement and objectives of the study. It extends to describe the research methodologies such as approach, population and samples. Limitations of the study and outlines of chapters are also discussed.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

An overview of the results of the review of available literature on the perception of risky behaviour that makes the students vulnerable to HIV infection provides a background of the investigation.

Risk is defined as the probability or likelihood that a person may become infected with HIV. Certain behaviours displayed by individuals create, increase and perpetuate risk to be infected by the virus. Examples include unprotected sex with a partner whose HIV status is unknown, multiple sexual partnerships involving unprotected sex and injecting drugs with contaminated needles and syringes (UNAIDS 2007).

Vulnerability results from the range of factors outside the control of the individual that reduce the ability of individuals and communities to avoid HIV risk. These factors include a lack of knowledge and skills required to protect individuals and others, factors pertaining to the quality and coverage of services, societal factors such as human rights violations or social and cultural norms (UNAIDS: 2007).

Risky behaviour can be viewed in the context of the number and types of partnerships, sexual acts and orientation (Cohen & Trusses, Dixon-Muller, as cited in Akwaea, Madise & Hinde, 2003: p. 388). Desert Soul (2011, p.7) defines most at risk population as "groups that are often considered to be at an elevated risk HIV infection due to their behaviours and have inadequate access to prevention, treatment care and support services".

2.2 What are HIV and AIDS?

The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (HIV and AIDS) is a medical condition where a virus attacks and slowly destroys the immune system by entering and destroying CD4+ or T4 cells. It is only after a long period of infection, usually 3-7 years or more than enough of the immune cells have been destroyed to lead to immune deficiency. HIV cannot be detected shortly after a person has been infected with the virus. It takes 2-12 weeks for the immune system to develop antibodies that form the basis of the HIV antibody blood test used in diagnosing whether a person is positive. Early detection of HIV can be achieved using sophisticated techniques such as: Cell Culture; PCR-Viral

Load; and P24 Antigen (The HIV and AIDS challenge in African Higher Education Institutions, 2007: 5).

2.2.1 The incidence and intensity of HIV and AIDS in the world

Globally, it is known there is a lack of HIV and AIDS knowledge among youth between the ages of 15 – 24. The World Health Organisation (2004) reported youths are the epicentre for preventing the progression of the HIV and AIDS pandemic. They further estimate youths aged 15 to 24 comprises 50 per cent of all new infections and consequently must be targeted for education in decreasing transmission and reducing the stigmatization of an HIV diagnosis.

UNAIDS (2010) reported fewer adults and children are estimated to have become infected with HIV in 2009 in comparison to 1997, when HIV epidemic is thought to have peaked. The estimated number of AIDS related deaths has declined by 19% from a peak of 2.1 million in 2004 to 1.8 million in 2009, this reduction is thought to be a result of increased access to treatment (UNAIDS, 2010).

According to WHO (2004) young people in the age group of 15–24 in many parts of the world are particularly at high risk of HIV infection from unprotected sex, sex between men and IV drug-use because of the high prevalence rates often bound amongst people who engage in these behaviours. Young people are also often especially vulnerable to exploitation that may increase their susceptibility to infection. This can be a result of anxiety and excitements that leads to eager for exploration.

2.2.2 HIV and AIDS in Sub-Saharan Africa

Sub-Saharan Africa continues to bear a disproportionate share of the global burden. In mid-2010, about 68% of all people living with HIV resided in Sub-Saharan Africa, a region with only 12% of the global population (UNAIDS 2011). They further stated the number of women living with HIV in 2010 was higher than the number of men, which made up to 59% of the total number of people living with HIV in the whole region.

Cited in Lau and Muula (2004) UNAIDS and Barnett et al. reported in 12 out of 44 Sub-Saharan African countries, at least 10% of population is infected with HIV. They further reported the infection rate of over 20% in 6 Sub-Saharan African nations. They estimated in countries with HIV infection rates over 10%, nearly 80% of deaths in young adults (age 25-

45) will be AIDS related. According to these reports infection rates in young African women are much higher than in young African men. Infection rates in teenage girls are five times those of boys of the same age. Among people in their early twenties infection rates are three times higher in women. This difference can be associated with the factors such as gender inequalities, poverty and cultural.

The total number of people living with HIV globally was estimated to be 39.5 million at the end of 2006, of which 24.7 million lived in Sub-Saharan Africa. The number of people infected that year alone was 4.3 million globally of which 2.8 million lived in Sub-Saharan Africa. In 2006 2.9 million people died of AIDS in the world; 2.1 million of these lived in Sub-Saharan Africa (UNAIDS and WHO, 2006).

Lau and Muula (2004) note Sub-Saharan Africa is the region severely most affected by the HIV and AIDS pandemic and stated the reasons for the high infection rate are historical, political, economic and cultural factors. The diversity of populations combined with destitution, political and economic instability and hunger has led to a number of strategies for combating the disease in Sub-Saharan Africa. These include voluntary counselling and testing, community involvement, facilitating behaviour modifications, which include consistent and correct use of condoms, reduction in the number of sexual partners, increasing antiretroviral availability and the involvement of non-governmental organizations in prevention, treatment, care and support of the infected population.

Despite the antiretroviral therapy in place in most of the countries in Sub-Saharan Africa, HIV prevalence is still high. This can be associated with the lives of people living with HIV are prolonged by therapy; hence they live longer (Lau and Muula, 2004). It was estimated globally 40 million people were living with HIV and AIDS, of which 2.5 million were children under the age of 15 in 2003; were 5 million deaths due to the disease reported in the same year (UNAIDS, 2003).

According to the report by WHO (2003) of the 40 million HIV positive individuals, 26 million were living in Sub-Saharan Africa in 2003; approximately 3.2 million new cases of HIV in the region. AIDS claimed over 2.3 million lives of Africans in the same year. UNAIDS (2011) in relation to WHO (2003) also note in Sub-Saharan Africa, women are the most affected group. They represented 58% of all of the infected adults in 2001 while 10% were children under the age of 14. Women were 2.5 times more likely to be infected with

HIV than men in 2003. They further emphasised the population requiring special attention include women of child-bearing age who make 55% of the Sub-Saharan Africa's HIV infected population, children and the elderly.

Why is Sub-Saharan Africa a high risk environment for the spread of HIV and AIDS? Lau and Muula (2004:403) "…….Sub-Saharan Africa vulnerability to the HIV pandemic is multi-factorial". Historically Africa has been in a state of socio-economic flux which is unique in its combination of sustained political disruption, exploitation and bad government. Income inequality and lack of social cohesion have played major roles. They further stated unfair international trade practices continue to contribute to the impoverishment of many southern African countries. They are of the opinion that population relocation, inequality, civil unrest, infrastructure prone to increased mobility and changing beliefs are some of the factors contributing to alarming HIV and AIDS incidents in Sub-Saharan Africa. They outlined the following key factors contributing to HIV and AIDS in Sub-Saharan Africa.

- Early introduction of HIV in Africa
- Rate of spread of HIV
- Sexual practices
- Cultural paradigms
- Food shortages
- Economic conditions
- Political instability
- Violence
- Urbanisation
- Antiretroviral therapy (ART) availability
- Lack of knowledge
- Public health policy
- Historical factors

Lau and Muula (2004:409) "… in most African communities, HIV and AIDS is a taboo subject. People do not want to discuss the disease, let alone determine their serostatus. They believe, often accurately that diagnosis of HIV positivity is associated with negative social stigma. As a result, they would then rather ignore warning signs. Frequently, patients evade the issue even in the face of threatening complications".

Elias as cited in Lau and Muula (2004) note the high frequency of multiple sexual partners further exacerbates the issue. Programs to promote abstinence, monogamy and condom use are receiving mixed responses and ignored in most cases. Also gender roles make it difficult for women to demand safe sexual practices from their partners.

Population council as cited in Lau and Muula (2004) emphasised while the historical factors set the stage for the spreading of disease, the interplay of contemporary behaviour patterns and biological factors facilitate the extensive spreading of HIV-1 infection. They further stated heterosexual (relationships) as the main mode of transmission of HIV in Sub-Saharan Africa while the least number of HIV infections is caused by transmission via mother to child, blood transfusion, infected needles and scarification. "…. Many cultural practices have implications for the spread of HIV. But as they are often carried out in secrecy, the prevalence and consequences of such practices cannot be accurately estimated …" (Lau & Muula, 2004:410).

2.2.3 HIV and AIDS in Namibia

Namibia has the 5th highest prevalence in the world ranging from 25%-43 % in the different regions of Namibia (UNAIDS, 2003). The main mode of HIV and AIDS transmission in Namibia is heterosexual. The epidemic has sustained itself through specific sexual practices, community norms and practices, alcohol abuse that affects decisions on sexual behaviour, and low levels of HIV risk perceptions (Desert Soul, 2001, p.1, MoHSS, 2010 – 2011, P.15). UNAIDS (2006) also note the primary method of HIV transmission in Namibia, as in most developing countries is through heterosexual intercourse. They further note most Namibian youth are aware of this mode of HIV transmission. Ignorance, however, seem to be the main issue as far as prevention is concerned.

Personal experience and familiarity with HIV and AIDS may be associated with more awareness of transmission modes, less stigma towards the disease and higher perceived risk of infection, (Anderson, Beutel & Maughan Brown, 2007). As cited in Anderson, et al. (2007 p.3), Eaton et al. note "individuals who deny the presence of HIV and AIDS in their community have reduced perceived vulnerability to the disease".

According to Harrison and Wood, Maforah & Jewkes, as cited in Hoffman, O'Sullivin, Harrison, Dolezal and Monroe-wise (2005: page 52) " sexual intercourse is an integral

component of romantic relationships and made typically press for intercourse to occur early in the relationship as proof of the woman's love". There is poor communication, Varga, as cited in Hoffman et al. (2005) when it comes to sexual activities within the relationships and men are the ones who define the conditions and timing of intercourse in relationships, who often times use coercive tactics to maintain control.

MoHSS (2006) note the factors outlined are likely contributing to the high levels of HIV in Namibia:

1. Multiple and concurrent partnerships– In 2006 16 per cent of sexually active men and 3 per cent of those women reported more than one partner over the previous twelve months. The widespread practice among men of maintaining multiple relationships is contributing to the high levels of HIV infection among women (NDHS, 2006).
2. Intergenerational sex exposes adolescents and young adults to partners who, by virtue of their age and longer sexually history are more likely to be HIV positive. Among women age 15 to 24, 7 per cent of single and 26 per cent of married women have a partner 10 or more years older (NDHS, 2006). They further noted intergenerational sex in Namibia is associated with higher levels of sexually transmitted infections (STIs) and with a greater likelihood of having multiple partners.
3. Pervasive alcohol abuse and low levels of HIV risk-perception serve to foster multiple and concurrent partnerships and may discourage consistent condom use (NDHS, 2006)
4. Transactional sex – information which could quantify this practice are sketchy, however, Mufune as cited in (Desert Soul, 2011) emphasise widespread poverty and limited employment opportunities have led to sexual intercourse to be a commodity freely traded for goods and services by men and women. They further noted women appear to be particularly vulnerable to transactional sex, possibly because their marital independence has not been matched with new income-generating opportunities and many remain economically depended on men.
5. Population mobility – Namibia serves as a corridor for much traffic to and from Southern Africa, hence receiving the migrants from the highest prevalence countries in the world. Furthermore, Namibia's dependence on the mining and

> fishing industries, as well as on the agricultural production requires regular internal population displacement. Travel away from home is associated with an increase in multiple partnerships in Namibia (NDHS, 2006).

Buve, Bishikwabo-Nsarhaza, Mutangandura as cited in Lau & Muula (2004) emphasised traditional gender roles dictates the female has little control over her sex life and the male ought to be knowledgeable, migratory practices force spouses to be separated for extended period of time, extramarital relationships are common and the risk of HIV is of secondary importance compared to day-to-day survival.

Desert Soul (2011) note the acceleration of infections through a chain of interconnected sexual networks that can be distributed over various sections of the country. They further emphasise with multiple and concurrent partnerships relatively common in both rural and urban areas, the epidemic has spread even more rapidly due to increased mobility across both settings.

According to NDHS as cited in Desert Soul (2011) there has been a steady decline in marital or cohabiting relationships in Namibia and it is estimated in 2006 approximately 1 in 3 Namibians ages 35 to 39 had never married or cohabitated with anyone. It is further noted that for women, being unmarried or not cohabitating is associated with having a greater number of sexual partners over one's lifetime. This is supported by Macro International Inc. as cited in Desert Soul (2011) where the number of lifetime sexual partners is one of the strongest predictors of HIV infection in most African countries.

The first case of HIV infection was reported in Namibia 27 years ago in 1986. The epidemic proceeded to grow rapidly until 2002 and has since show signs it has slowed. The spread is beginning to reverse with the most recent estimation of 13.3 per cent in the general population among people aged 15-49 years (Desert Soul, 2011, p.4).

Namibia is facing one of the largest HIV epidemics in Africa with an overall adult prevalence of 15.3% which is among the highest in the world (WHO, as cited in (De Beers et al., 2012). The HIV prevalence among women has been recorded as being 19.9% (MoHSS, 2007).

According to Desert Soul (2011) the country report on epidemic variables of 2002/3 and 2008/9, sixteen and twenty-two years respectively after the first HIV case discovery is according to table 1.1.

Table 1.1

Epidemic Variable

EPIDEMIC VARIABLE	2002/3	2008/9
HIV Adults + Children	170000	174000
HIV Adults 15+	164000	161000
HIV Adults 15 – 49	155000	148000
Percent Prevalence Adult (15 - 49)	16.4	13.3
HIV 15+ Females	96000	95000
HIV 15+ Males	68000	66000
HIV population – Children	6000	13000
Annual AIDS deaths	10000	6100
AIDS Orphans	38000	69000
Annual AIDS deaths – Adults	7800	5500
Number of new HIV infections	19000	5800
Need for ART – Adult (15+) (High Bound Est.)	40000	69000
Need for ART – Children (High Bound Est.)	5949	8000
Total in need ART (High Bound Est.)	46000	77000
Mothers needing PMTCT (High Bound Est.)	14000	11600

Source: United Nations General Assembly Special Session – Country Report 2008 – 2009

According to WHO as cited in De Beer et al. (2012) HIV prevalence is estimated as 10.3% among 15 to 24-year-old females, and 3.4% among 15-to 24-year-old males. Young people aged 20-34 years constitute one of the groups at highest risk of HIV infection in Namibia (De Beer et al., 2012).

It was estimated in 2008, 204,000 Namibians were living with HIV, with 39 new infections occurring every day, 44% of which are in young people between the ages of 15 and 24 years (MoHSS, 2008).

2.2.4 HIV and AIDS in Khomas region

Namibia's Ministry of Health and Social Services (MoHSS) conducts HIV sentimental surveys every two years using the pregnant women who visit antenatal clinics (ANC); first survey was conducted in 1992. However, no population based survey has been conducted, and the actual level of national HIV prevalence can only be estimated through models (Desert Soul, 2011, p.4). They further note HIV prevalence in Khomas ranges from 9 to 21 per cent among the patients and from 12 to 16 per cent among Voluntary Counselling and Testing (VCT) centre clients and warned it should be noted all surveillance sites in Khomas are located in the capital city of Windhoek and the highest estimates come from the Katutura area. Desert Soul indicated (2011, p.4) "... while knowledge about HIV and AIDS and condom use are highest in Khomas, other factors seem to be counteracting these gains. The main factors driving the epidemic in Khomas appear to be those listed above".

2.2.5 HIV and AIDS among the students at the Polytechnic of Namibia

The literature in general on HIV and AIDS among the students at the Polytechnic of Namibia is limited together with written reports. However, the study that was conducted at the end of 2011 revealed most students at the Polytechnic of Namibia are quite unaware of their HIV status and only a minority realises they are at risk of infection (McClune, 2012).

According to Muheua (2005) unprotected sexual intercourse places a large number of students at risk of sexually transmitted infections of which HIV is not an exemption. There is no compulsory reporting system on HIV incidence at the Polytechnic of Namibia, which makes it difficult to determine the incidence of the infection among these students.

However, the report by the Polytechnic of Namibia as cited in Muheua (2005) indicate in 2004 there were 225 cases of STIs among students at the Polytechnic of Namibia in all age groups. It further established sexually transmitted infections are the second most treated diseases after respiratory diseases at the Polytechnic of Namibia.

According to UNAIDS (2007) it is important for individuals to know their HIV status, in order to protect themselves and to prevent infecting others. Knowledge of one's HIV status serves as a critical factor in the decision to seek treatment.

The rate of HIV prevalence was found to be three folds higher, in comparison to the students at other institutions in Windhoek and it was established through the study that part-time female students suffered the highest rate of HIV infection (McClune, 2012).

Otaala as cited by Muheua (2005) conclude 75 % of the students at the University of Namibia (UNAM) might be infected with HIV, following the rejection of 75% of the blood donated by the students at UNAM who volunteered. It is reasonable according to this background, to conclude the PoN students may also find themselves in this situation since the demographical situations of the two student populations is similar and they are the largest institutions of higher learning in the country.

2.2.6 HIV and AIDS in infected individuals

Voluntary HIV counselling and testing (VCT) Lau & Muula (2004: p. 406) is a pivotal intervention informing individuals of their serostatus and helps them access appropriate services. They further emphasised (VCT) can be a powerful tool for encouraging behavioural change and reducing risks among those tested negative to HIV antibodies and inform clients of their care options as well as promote awareness regarding the reduction of HIV transmission.

2.2.7 Contribution of health care workers

According to the study by Muheua (2005) there are of social services available, HIV and AIDS counselling and coordination services and primary health care to all students at the Polytechnic on Namibia campus and are carried out from the office of the Dean of students. The primary health care (PHC) services include the prevention of diseases, health promotion and referrals to higher levels of care. These services are rendered by a full time nurse and social worker, however, De Beers et al. (2012) note the campus health facilities are under-utilised. They further indicate the quality of medical services is not guaranteed since the operation of campus clinics are now financed as part of the overall running expenses of the institution. It was also established in the same study 41 % of students at the Polytechnic of

Namibia make use of public hospitals, 38 % opt for private doctors and 36 % use state clinics as their primary access points.

2.2.8 Use of condoms by teenagers

Harrison as cited in Hoffman, et al. (2005) identified condom use is eschewed due to a belief of implying infidelity and lack of trust in a relationship, constrain male prerogatives and prevent desired pregnancies. Though some women may express the desire for their partners to use condoms, they view this behaviour as being under men's control, not as one they could request or negotiate, hence they leave it up to the males to make decisions (Harrison, Xaba & Kunene as cited in Hoffman, et al., 2005).

Muheua (2005) identifies the significant possibility of increasing the rate use of condoms in Namibia. They further note the decline in condom use with the increasing age of users in Namibia. The study by National Social Marketing Programme as cited in Muheua (2005) revealed in the group of 19–24 years, 83.9% of the respondents had used condoms compared to 74.7% in the age group 25–29 and 60 % in the 34–39. Relating to the information and based on Namibia population HIV prevalence data, Gustafsson-Wright, Janssens, Van der Gaag as cited in De Beers (2005) 20–24 years age group accounts for 3.7 % while 6.5 % accounts for the group 25-29.

"…. The high frequency of multiple sexual partners further exacerbates the issue. Programs to promote abstinence, monogamy, and condom use are receiving mixed responses. Also, gender roles make it difficult for women to demand safe sexual practices from their partners …." (Elias as cited in Lau & Muula, 2004. P. 409).

As cited in Cogging and Segal, Lau & Muula (2004) note 75%–85 % of HIV infection worldwide occurred through sexual contacts. They further note barrier contraception, especially condoms is the best method to reduce both infectiousness and susceptibility to HIV. Despite the increasing condom use, Lau & Muula (2004) note cultural, gender, economic, and service- delivery limitations hinder its consistent and broad use of in HIV and STIs prevention. They further conclude there has been widespread reluctance to use condoms during sexual intercourse because often times the individuals report lack of sensation or pleasure when using condoms.

Other elements of risky sexual behaviour include first sexual intercourse at a early age, multiple sexual partners, unprotected sexual intercourse and untreated sexually transmitted diseases. The link between perception of risk and sexual behaviour can work both ways. Individuals may perceive their risk of getting HIV to be high or low depending on their previous sexual behaviour or that of their partners. In this case, risky sexual behaviour is the influencing factor on perception of threat. In some cases, the person's perception of risk may be passive and not necessarily based on his or her previous sexual behaviour. A high perception of risk might lead to a modification of sexual behaviour, for example refusal to have intercourse with a partner (Akwara, Mandise & Hinde, 2003: p.388). They added some individual background factors such as gender, current age, ethnicity and religion influence sexual behaviour.

The age of a person is another factor that may influence sexual behaviour and the level of perceived risk of HIV infection. Men and women in their teens are at increased risk of HIV infection because they often engage in unprotected sexual intercourse according to Hulton, et al. as cited in Akwara, et al.(2003: p. 390). Sometimes there is social and cultural pressure for the girls to prove their fertility before marriage and thus have a child out of wedlock. Similarly, boys may face pressure to prove manhood by impregnating a girl or by having many sexual partners (Meekers & Calves, Nzioka, as cited in Akwara, et al. (2003: p. 390).

Ethnicity may influence sexual behaviour through cultural beliefs and practices. The practice of levirate marriage, for example where a dead man's widow is remarried to one of his brothers, is still being practiced in some areas of sub-Saharan Africa, despite the high prevalence of HIV according to Ocholla-Ayayo, Standing & Kisekka, Degrees du Lou, as cited in Akwara (2003: p. 390).

Akwara, et al. (2003) further note religion can influence sexually behaviour through intermediate factors such as the age at first sex, marital status and access to information and services. It can also influence attitudes to HIV and perceptions of risk. Nzioka, as cited in Akwara (2003) notes religious people considered AIDS to be a disease that affect those who transgressed and disobeyed God.

According to Pfau and Barton (2004, p.7) when young people come to University they are often far from the family and from social support. It might be the very first time they leave home and the physical distance from their support network can be up to 1000 kilometres or

more. This is also the time when young people are experiencing biological and hormonal changes which pushes them to sexual relationships. Their peers are pressing them to show they are adults by experimenting with alcohol and sex; combination of these factors is very risky. He further notes students who are sexually active are prone to unplanned pregnancy and contracting STDs and HIV. It is known university students live in a prolonged phase of adolescence where most of them have to postpone marriage while they are sexually curious. Adefuye, Abiona, Balogu and Lukobo-Durell (2009) view college environment as a place that could offer great opportunity for HIV high-risk behaviours, including unsafe sex and multiple partnerships.

Research conducted by Pfau and Barton at the medical faculty of University of Namibia in 2002, indicated up to 53% of 1st year students were already sexually active and the same for 85% of 3rd year students. The freedom on campus and lack of parental control and peer pressure may lead to excessive drinking, experimenting with drugs and risky sex practices.

Students have different ways of coping with university life (Pfau and Barton 2004, p.10):

- Shy students: First year students might feel anxious and fearful. They can either withdraw from peer pressure or be lonely, until friends are found with the same values and norms within themselves, or be influenced into sexual active behaviour to gain acceptance and friendships. It seems senior male students are on the lookout for new comers to lure them into sexual relationships while they are still anxious and uncertain.
- Assertive students: Some students cope by adhering to their upbringing and cultural group. They are able to assert themselves against peer pressure. They are able to say 'I cannot have a serious relationship with someone other than my own religion because I have too much respect for my family'.
- Exploring students: The newly found freedom at the university gives these students the opportunity to engage in sexual exploration. The freedom is challenging and draining and they take total advantage of the situation.
- Confused students: New students may have limited experience and wrong information about sexual relationships. They may get confused because they come from backgrounds where they were not allowed to talk about sexual matters, think about

> sexual matters or let alone acting on them. They might engage in sexual relationships believing that it will last forever with permanent commitments, only to find that is not the case. He further notes that... "Students are maturing adults busy with personality developments and forming their identities. They are searching for who they are and who they want to be. They need guidance based on values and norms that protect them from dangerous explorations where they can risk them to contract HIV/AIDS."

Odu and Akanle (2003) note to eradicate HIV there is a need to educate people especially the youths who are very sexually active with the emphasis on HIV education; knowledge is important and powerful.

However, a study of Diclement et al. as cited in Odu and Akanle (2003) have reported a poor correlation between knowledge and sexual behaviour where there is a lack of being adequately informed the study have shown that people practice unsafe sex despite their awareness of HIV and AIDS. According to Adegboba, et al. as cited in (Odu and Akanle (2003 p. 81) knowledge essentially is the recall recognition of specific and universal elements in a subject area. In the context of HIV and AIDS, having knowledge implies ability to recall facts concerning causes, transmission and prevention concerning the disease.

Odu and Akanle (2003.P.82) emphasised when an individual has the knowledge of HIV/AIDS the accompanying behaviour would be logical and motivate safe sex behaviour. In relation to HIV and AIDS the possibility to have adequate and correct knowledge is highly correlated to preventive efforts, is a strong motivating factor in most educational projects since it is assumed that knowledge will help to overcome fear, denial and also contribute to behaviour modification.

Tan, Pan, Zhou, Wang and Xie (2007) reported university students are more likely to be among the affected target population, because some of them develop more casual attitudes towards premarital sex, due to the rapid development of the economy, the influence of mass media on the perceptions of sex, and the degradation of traditional value, in addition to being sexually mature much earlier than before. They further note lack of adequate information regarding HIV knowledge and behaviour among the individuals will lead to a hard hit by the pandemic. It is therefore essential to assess the knowledge, attitudes and practices of students regarding HIV and AIDS before planning appropriate preventive measures.

Although the influence of 'high risk behaviour' was not specifically studied, the social work researchers referred to the complications of behaviour and lack of human nature and the link between high risk actions and lack of knowledge. High risk behaviour is described by Shoombe (1999:24) " as one of the determinants of HIV/AIDS in a sense that a person is aroused by feelings which affects him or his family members, or his fellow men, or his world on which he depends to make a living. These feelings can influence him to risk own body to save his family or to survive a crisis".

According to the report on the AIDS epidemic (2008), the knowledge about HIV and AIDS among young people was lacking. It indicated a high percentage of young people did not have adequate knowledge about the transmission of HIV and the risk behaviour that leads to infection. It stated the age group of 15-24 was the most at risk and because of their sexual activeness, they become vulnerable. This information correlates with the report on the research contacted in 2000 at various universities in countries such as Zambia, Namibia, Botswana, Kenya and South Africa which reported these institutions in Africa is a high risk environment for the transmission of HIV.

Katjavivi and Otaala (2003) further reported 'sugar-daddy' practices, sexual experimentation, prostitution on campus, unprotected casual sex and gender violence, multiple partners and similar activities are all manifested to a greater or lesser degree. Therefore the report recommends the entire university community –but in particular the university management – needs to face this threat. "In the HIV/AIDS context of university life today the university culture is in danger of affirming risk more than safety. It is in danger of affirming death more than life" Katjavivi & Otaala (2003:6).

According to Akwara, et al. (2003: p. 385) the association between perceptions of risk of HIV infection and sexual behaviour remains poorly understood, although this is considered to be the first stage towards the behavioural change. Akwara, et al. (2003) conducted a study on perceptions of risk of HIV/AIDS and sexual behaviour in Kenya in which they reported a strong positive association between perceived risk of HIV and AIDS and risky sexual behaviour for both men and women. They reported controlling socio demographic, sexual exposure and knowledge factors such as age, marital status, education, work status, residence and ethnicity, source of HIV and AIDS information, specific knowledge and condom use to avoid infection did not change the direction of the association, but altered its strength slightly.

Young and unmarried women and men were more likely than older and married ones to report risky behaviour in this study. Ethnicity was significantly associated with risky sexual behaviour therefore they suggested a need to identify the contextual and social factors that influence behaviour. They further note the meaning and context of sexuality vary across populations and cultures and this has been demonstrated to have a major impact on sexual behaviour.

Bongaart as cited in Akwara, et al. (2003; p. 385) states "sexual behaviour is probably responsible for much of the differences in heterosexual HIV and AIDS epidemics among countries, as well as for the equally large differences among regions and demographic groups within countries".

It has been suggested in sub-Saharan Africa sexual activity appears to be driven largely by socio cultural beliefs and practices (Caldwell, Orubuloye & Cardwell, Cohen & Trussel, Gage & Njogu, Anarfi) as cited in Akwara, et al. (2003: pp. 385-386).

Caldwell, et al. Fapohunda & Rutenberg, Ingham & Van Zessen as cited in Akwara, et al. (2003: p. 387) emphasised risk-taking behaviour may be tolerated in some contexts while in others it may be strongly disapproved of and regarded as irresponsible or immoral. Multiple partnerships for men may be tolerated for example, while women's infidelity is highly penalized; aspects of sexual conduct are beyond women's control.

Risk-taking sexual behaviour in sub-Saharan Africa is associated with a number of factors, including gender inequalities place women in subordinate positions, the belief that men have stronger sexual drives than women and the notion men cannot do without sex (Reid, Kenya, et al., Cohen & Trussels, Ocholla-Ayayo & Schwarz, as cited in Akwara, et al.(2003: p. 386).

Akwara, et al. (2003) note the beliefs of individuals exacerbate the spread of sexually transmitted diseases, including HIV. He further elaborated the lack of power to negotiate safer sex among women may be the central obstacle to HIV prevention in Africa. Sexual behaviour may not be under an individual's volition but may be dependent upon the social and cultural environment in which one lives. The ability of individuals to be aware of, to initiate and to sustain safer sexual behaviours may largely depend upon societal sexual norms

and practices and not just self-perceived susceptibility to HIV infection (Akwara, et al. 2003: p. 386).

Various social factors that influence the spread of HIV:

- Ego relationships: refers to a self- concept which is a collection of beliefs about one's own nature, unique qualities and typical behaviour. According to Mukonda (1998:24) "a person can be stable or unstable, able or unable and therefore, needs to put in more effort or can be controllable or uncontrollable". There is agreement where the ego fights for autonomy and stability people may enlist in all kinds of relationships to get status, self-esteem or love. Research findings in Namibia since 1998-1999 indicated young people are more vulnerable to HIV than adults, as they may often lack the correct preventative information and the skills to put information into action. The average age for first sexual intercourse in Namibia is around sixteen years (Nangolo, 1998).
- Interpersonal relationships: Mukonda (1999: pp.12-13) established people have the need for compatibility and similarity and they form interpersonal relationships to experience complementary. When they are not complemented within existing interpersonal relationships, they may tend to meet these needs in new relationships and also from sexual relationship.
- Social condition: Grobbler (2002: 38) described it "as the present day circumstances, beliefs, norms and issues in the broader society, with influences on individual' sexual behaviour and the choices made concerning HIV/AIDS."
- Environmental conditions: This refers to the social workers' concept of an environment which includes the material environment people stay in. These factors influence people's finance employment, coping mechanisms and their social functioning. (Nangolo, 1998)
- Sexual predispositions: The following predispositions play an important role in the spread of HIV (Grobbler 2002):
    - Gender inequality in controlling sexual intercourse by females.
    - Male sexual norms allow men to have more than one sexual partner and not to use condom regularly.
    - Knowledge about the spread of HIV is lacking and this hampers the preventative programs.

- Ignorance concerning sex and HIV.
- Inconsistent use of condoms.

The students are mostly at the age of adventures whereby they want to try out new experiences and are curious about sex. This leads to non-advanced decisions about sex and in return results into risk consequences. Kelly (2001) pointed out female students are more at risk in comparison to their male counter parts. He further added female students, in most cases are unable to negotiate for either no sex or safer sexual practices. He emphasised on consensual rape whereby, because of her lack of empowerment, the female partner consents under duress to intercourse in order to preserve a relationship, avoid a beating, ensure financial support or repay favours. The prevailing climate on university campuses encourages such violence and thereby facilitates the spread of HIV.

The recent study by De Beers et al. at the University of Namibia and Polytechnic indicated young people aged 20-34 years constitute one of the groups at highest risk of HIV infection in Namibia. The prevalence of HIV at University of Namibia is estimated to be 19% with several AIDS-related deaths reported. This age group forms about 25% of the Namibian population. Overall, there was a high level of knowledge about the difference between HIV/AIDS. However, there were still misconceptions among the students that HIV can be transmitted through the activities such as kissing, shaking hands, sharing a blanket and using the same utensils.

Despite the majority of the students know about someone with HIV/AIDS, they still held very negative attitudes to those with the disease. Some students for instance think those who are infected with HIV virus should be isolated. They would not work with the infected person and those living with HIV/AIDS had led immoral lives. Such negative attitudes are predominant in the general population and massively contribute to the mystification, stigmatization and perpetuation of inappropriate fears regarding HIV/AIDS.

According to UNICEF (2006) premarital sexual abstinence has been advanced as a risk-reduction measure for HIV/AIDS. Corollary, heterosexual intercourse was a major risk determinant for HIV/AIDS among the youths in Namibia. The report indicated 29.2% had coitus within the 12 months preceding the survey. Sexual behaviour among the PON students correlates with the results that were obtained early this year through a survey. The survey

showed there is a high prevalence among the students and most students who tested positive did not know their HIV status (McClune, 2012).

2.2.9 Conclusion

This chapter presents an overview of HIV and AIDS in general, the incidence and intensity of the pandemic in the world, in Sub-Sahara Africa and in Namibia respectively. It further discusses the contributing factors to the infection rate in the world and Namibia itself, as stipulated by various studies carried out previously in the subject of HIV and AIDS.

The general prevalence of the epidemic among the study population is representative of the sample to be studied. According to studies contacted on the subject, students are mostly vulnerable to HIV infection since they are often on their own and they become excited to explore sexual activities. Studies also outlined that beliefs of different traditions lead to wrong perceptions of HIV and AIDS, hence confuse young people.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Research methodology employed for a particular study provides a roadmap for executing the strategy. The study objectives, design, population and sampling methods are outlined. It further describes the data collection procedures as well as the tools used in data collection, and explains the rational for the preference of these methods. The ethical issues for the study provided a framework for executing operations.

3.2 Problem statement

The problem statement is: What are the perceptions of the students at the Polytechnic of Namibia that make them vulnerable to HIV infection and AIDS?

3.3 Objectives of the study

The objectives of the study are:

- To establish the knowledge of the students about HIV infection.
- To evaluate what the students perceive as risky behaviour and identify risk behaviour that expose students to contracting HIV.
- To determine the perceptions of the students about risky behaviour that makes them vulnerable to HIV and AIDS.
- To identify the students' attitudes towards a person living with HIV and AIDS.
- To suggest strategies that can be implemented to improve HIV and AIDS awareness among the students and enhance life skills programmes and HIV and AIDS education.

3.4 Research approach

The study employed a quantitative research approach. This study was a descriptive type that used quantitative methods in the form of self-administered questionnaires to gather data from the research participants. Close-ended questions were utilised throughout the survey.

A quantitative research study according to Christen, Johnson and Turner (2011:29) is one that collects some type of numerical data to answer a given research question. They further note quantitative research is the most popular type of research in psychology. Quantitative

research seeks to answer questions of how much and how many and is concerned with relationship (especially causal relationships) between variables according to Polit & Beck, as cited in Ishola (2012: 14). They further note quantitative research takes the form of experiment, quasi-experiment or non-experimental design. Non-experimental research design includes descriptive research that investigates situations and relationships in variables without manipulating the independent variables. It usually seeks to establish causal relationships between two or more variables, using statistical method to test the variables, using statistical method to test the strength and significance of the relationship.

According to Christen et al. (2011) in contrast qualitative research collects some kind of non-numerical data to answer a research question. Denzin & Lincoln as cited in Christen et al. (2011) describe qualitative research as an interpretive research approach that relies on multiple types of subjective data and investigates people in particular situations in their natural environment. Christen et al. (2011) identifies the three primary components of qualitative research as being interpretive, multi-method and that qualitative research is conducted in the field or in the person's natural setting and surrounding.

The research questions in qualitative research (Christen, et al., (2011) might be amended during the study because it is usually focused on exploring phenomena. They further in contrast, emphasise that quantitative research typically does not allow evolvements because the focus is usually on hypothesis testing. The former tends to be useful for understanding and describing local situations and for theory generation and the latter tends to be more useful for hypothesis testing. Creswell & Patton, as cited in Christen et al. (2011, p. 30) note a number of people feel research that collects only quantitative data often provides an incomplete analysis or picture of the phenomenon, event or situations being investigated. According to De Vouse, as cited in Muheua (2005, p. 23) qualitative method provide rich data about real life people and situations and are more able to make sense of behaviour and to understand behaviour within its wider context than quantitative methods.

Nonetheless, like any other research approach qualitative method has its weaknesses (Christen et al. 2011, p. 54) namely, it is difficult to generalise because the data are based on local, particularistic data, different qualitative researches might provide very different interpretations of the phenomena studied and objective hypothesis procedures are not used.

3.5 Study population

The full time students at the Polytechnic of Namibia were identified as the potential study population. Most of these students are in the range of 19–24 years of age. Considering their age and their life experience, they would be best able to articulate their ideas, feelings and opinions on the topic under the study. The Polytechnic of Namibia is the second largest institution of higher education after the University of Namibia. The institution is situated in the middle of the city of Windhoek, therefore it would be ideal to carry out the study among its students since it will save time for travelling and they are exposed to urban life. The students at this institution came from all the corners of Namibia and there are a few from the neighbouring countries such as Angola, Zimbabwe, Botswana and Zambia.

3.6 Sample size and sampling procedures

It might be ideal to study the entire population, however, usually it is impossible or unfeasible therefore a sample is selected to be representative. According to Black and Champion as cited in Sillignaks (2005) a sample is a portion of elements taken from a population which is considered to be representative of the population. According to Christensen, et al. (2011) sampling refers to drawing elements from a population to obtain a section in order to obtain a representative sample similar to the population on all characteristics. They further emphasised the best way of sampling is to use an equal probability of selection method. An equal probability of selection method is any sampling method in which each individual member of the population has an equal chance of being selected for inclusion in the sample.

Simple random sampling which is defined by Christensen, et al. (2011:153) as the definite case of an equal probability of selection method was used in this study. This method of sampling has been selected in order to have a larger population which will provide adequate information needed for this study. Simple random sampling is also an easy way of assembling the sample and is considered to be a fair way of selecting a sample from given population since every member is given equal opportunities to be selected (Christensen, et al. 2011).

Through the office of the registrar the student numbers of all full time students were obtained. The student numbers were then written on pieces of papers of an equal size and be placed

into boxes according to the year groups. Unsighted of the collection of students written on the pieces of paper 125 individuals were drawn for the study. The names of the students were established whose numbers were picked to participate in the study.

3.7 Data collection

Data collection is the process of gathering and measuring information on variables of interests in an established systematic fashion that enables one to answer stated research questions, test hypothesis and evaluate outcomes (Lind, Wahl, & Whitney, 1998). They further stated accurate data collection is important to maintain the integrity of research.

Both the selection instruments and clearly delineated instructions for the correct use reduce the likelihood of errors occurring. The term method of data collection refers to how the researchers obtain the empirical data to be used to answer the research question Christensen, et al (2011:54). The study was carried out through a self-administered questionnaire to collect the data from the participants. Christensen, et al. (2011) defines a questionnaire as a self-report data collection instrument filled out by research participants. They further noted questionnaire measures participant's opinions and perceptions and provide self-reported demographic information.

Questionnaire has been chosen for this study mainly because it is a recommended method for quantitative research and it saves time. Close-ended questions were formulated to elicit responses, which narrow down the field of enquiry, since the respondents choose among fixed responses. Using a close-ended questionnaire will make it easier for data analysis. Closed-ended questions are versatile and can be answered in a short time. Christensen, et al. (2011) described closed-ended items as adequate to provide exact information needed by the researcher; closed-ended questions could lead to bias since respondents are offered limited alternative replies.

The format of the questions followed a Likert scaling also known as a summated rating scale; most frequently used multi-item approach to scaling. In Likert scaling each participant's rates multiple items designed to measure one construct (Christensen, et al. 2011).

The questionnaire accompanied by a letter of introduction from the Institute of study and a letter for permission from the Polytechnic of Namibia was handed out to the participants after

they had signed a consent form. The participants were given a period of 30 minutes to complete the questionnaire.

3.8 Data analysis

Data from the questionnaire were electronically entered in the Epi-info data entry screen of version 3.3.2 (Centres for Disease Control and Prevention, Atlanta, Georgia, USA). The data was then analysed using the same statistical software (Epi-Info) where graphs and tables of frequencies were generated. A statistical software (Christensen et al. 2011) ensures the process of analysing quantitative data is simpler compared to methods used in the previous years as it does all of the calculations.

3.9 Ethical principles

Christen et al. (2011) state during designing the research study attention must be focussed on ethical issues involved in the research. They further note ethical principles are vital to the research enterprise because they assist the scientist in preventing the abuses that might otherwise occur and delineate the responsibilities of the investigator.

The treatment of research participants is a fundamental issue confronted by scientists, Christen, et al, (2011:p.99) where research ethics is "a set of principles that assist the community of researchers to in deciding how to conduct ethical research".

The approval to conduct this research study was obtained from Stellenbosch University Ethical Committee before the study commences. Permission to conduct the study at the Polytechnic of Namibia was granted from the office of the registrar after going through the research proposal and all the study protocols submitted.

Informed consent was obtained from the participants after informing them about all the relevant issues of the study. The aim and the objectives were explained together with the rationale, implications of participating in the study and incentives if any. The participants were informed they have the right to withdraw their participation at any time during the study and there will be no consequences of any nature after so doing. They were also informed their participation is voluntarily.

After explaining all the necessary information to the participants, the consent form was explained for the participants to sign which served as an indication they understood the nature

of the study. Signing an informed consent form was not regarded as an agreement for participation throughout the study.

The consent form, in English was presented to the participants due to the consideration that all of them have a good command of the language since it is the medium of instructions at PoN; all was treated as anonymous.

There was no discomfort observed during questionnaire completion and the participants were assured of confidentiality. Completed questionnaire were collected and hard copies are kept in a lockable cupboard in an office at work for three years and will then be destroyed.

3.10 Conclusion

This chapter represents research approaches used in this study. This study was a descriptive type that employed quantitative methods in a form of self-administered questionnaire to gather data from the research participants. The study recruited 500 students as participants. Data was collected through a self-administered questionnaire and was analysed using Epi-Info statistical software. The ethical principles were taken into consideration and carried out accordingly.

CHAPTER 4: REPORTING AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents results of data collected from the students at the Polytechnic of Namibia through a self-administered questionnaire. Data collected in this study were exclusively quantitative and are presented in form of bar graphs, pie charts and frequency tables.

4.2 Problem statement

The problem statement was formulated: What are the perceptions of the students at the Polytechnic of Namibia that make them vulnerable to HIV infection?

4.3 Data Management

4.3.1 Data collection

This chapter presents the findings of the research from data that was collected via completed questionnaire of the study. A total of 473 students from the Polytechnic of Namibia were given the questionnaires which were self- administered. The data analysis is based on the 473 questionnaires that were distributed even though some of them were not complete as they had sections left out being unanswered.

4.3.2 Data analysis

All completed questionnaires administered to the students were collected. Data from these questionnaires were electronically entered in the Epi Info data entry screen of version 3.3.2 (Centers for Disease Control and Prevention, Atlanta, Georgia, USA). The data was then analyzed using the same software (Epi-Info) where graphs and tables of frequencies were generated.

4.4 Demographic characteristics of respondents

The demographic information contained in the study form the background and indicate the variation between characteristics.

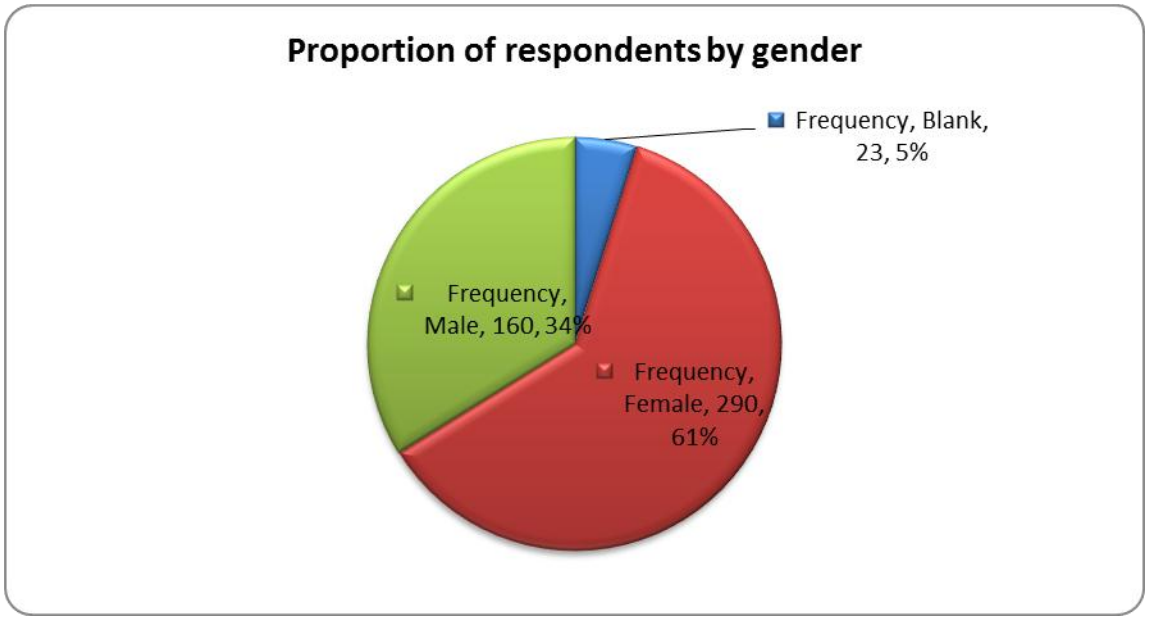
4.4.1 Sample size

Table 4.1 and figure 4.1 shows a total of 473 students from the Polytechnic of Namibia participated in this study. The majority (61%) of these respondents are female while a proportion of 34 percent are male. Five percent of the respondents did not indicate their gender and they are classified as blank responses on the gender variable analysis.

Table 4.1: Proportion of respondents by gender

Gender	Frequency	Proportion (%)
Blank	23	4.86%
Female	290	61.31%
Male	160	33.83%
Total	473	100.00%

Figure 4.1: Proportion of respondents by gender

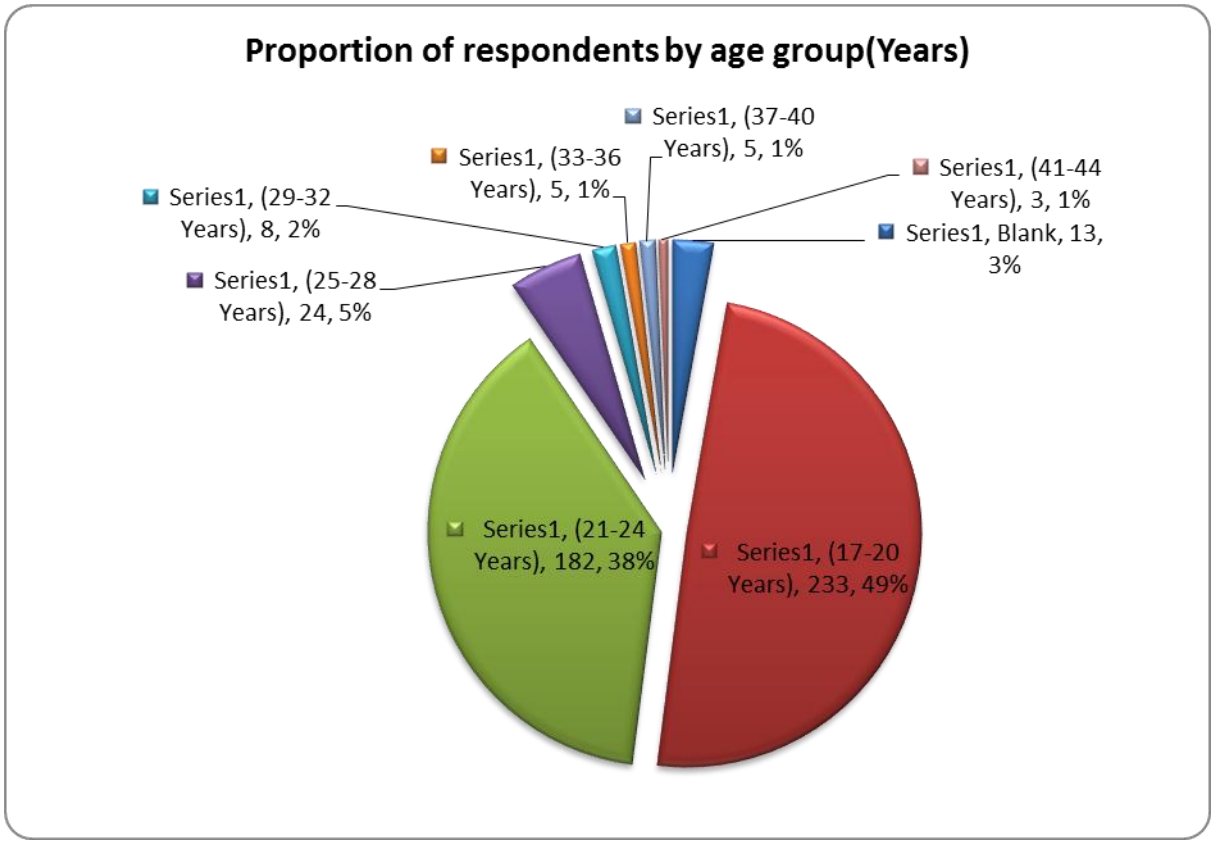


4.4.2 Age of respondents

Figure 4.2 shows 49 percent almost half of the study participants' are aged between 17 and 20 years. This is followed by an age category of 21 to 24 years which saw about 38 percent of respondents falling in that age category. About 5 percent had ages ranging between 25 to 28

years. However, there were less than 5 percent of students in total who indicated they are aged above 28 years old.

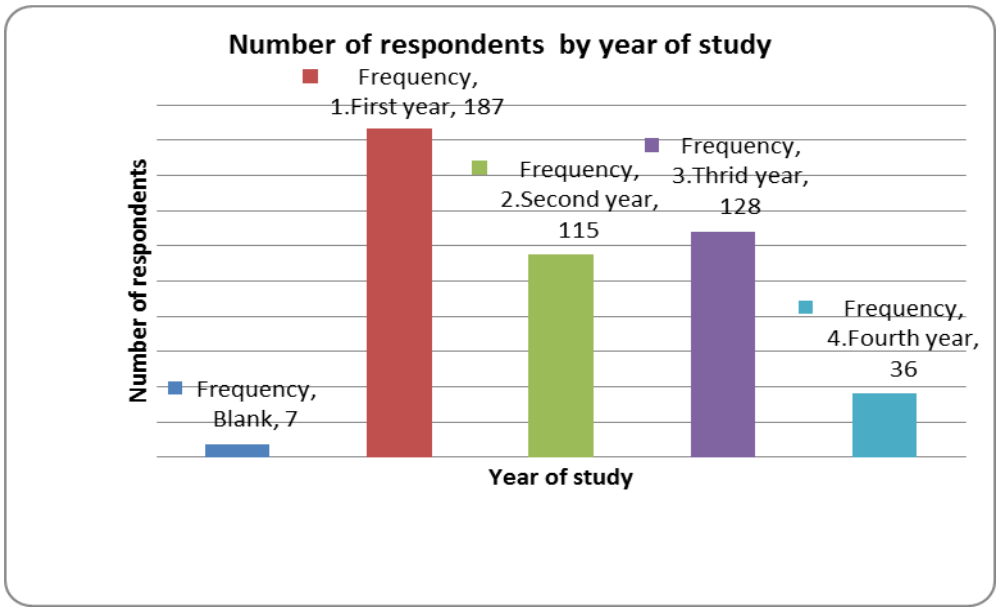
Figure 4.2: Proportion of respondents by age group



4.4.3 Year of study

The majority of respondents were registered for their first year of study at the institution. A total of 187 respondents indicated they were in their first year of study regardless of the programme for which they are registered. This was followed by third and the second year student who constituted 128 and 115 respectively. Only a few fourth year students were available hence only 36 of them were fourth years (figure 4.3).

Figure 4.3: Number of respondents by year of study



4.5 General knowledge of HIV and AIDS

The knowledge of students was elicited concerning their knowledge of the disease.

4.5.1 A person with HIV can look healthy for many years

Only 467 participants out of 473 responded to this question. More than 80 percent feel people with HIV virus can look healthy for many years. However, with more than 50 percent strongly agree with people living longer and health (table 4.2).

Table 4.2: General knowledge of HIV and AIDS

	Question Number									
Response	**Q1.1**	**Q1.2**	**Q1.3**	**Q1.4**	**Q1.5**	**Q1.6**	**Q1.7**	**Q1.8**	**Q1.9**	**Q1.10**
Blank	6	3	3	6	7	5	6	7	3	3
Strongly Disagree	31	401	405	380	40	35	307	225	392	58
Disagree	42	53	43	44	15	21	126	154	59	31
Agree	144	8	12	14	107	180	14	52	3	97
Strongly Agree	250	8	10	29	304	232	20	35	16	284
Total	473	473	473	473	473	473	473	473	473	473

4.5.2 HIV can be transmitted through saliva

According to the respondents, the majority of 85 percent strongly agree the HIV virus can be transmitted through saliva followed by those who just agree constitutes 11.2 percent of the total. Less than 4 percent agree or strongly agree the HIV virus can be transmitted through saliva.

4.5.3 HIV can be transmitted through mosquito bite

Only 467 participants out of 473 responded to this question. A total of 405 respondents (85.62%) strongly disagree that a HIV virus can be transmitted through a mosquito bite when it first bites an infected person. Only 12 and 10 agree and strongly agree the virus can be transmitted through a mosquito bite.

4.5.4 HIV can be transmitted through kissing

There are 380 (80.34%) out of 473 participants in this study who strongly disagree the HIV virus can be transmitted through kissing an infected person. About 14 and 29 respondents agree and strongly agree respectively with the statement that the HIV virus can be transmitted through kissing an infected person.

4.5.5 HIV can be transmitted through shaking hands

The majority of participants 304(64.27%) and 107 (22.62%) strongly agree and agree respectively with the statement that HIV can be transmitted through shaking hands with infected people. Only 40(8.46%) and 15(3.17%) of them strongly disagree and disagree respectively HIV can be transmitted through shaking hands.

4.5.6 HIV is a disease of poor people

A total of 232 respondents strongly agree the HIV/AIDS is for poor people with 180 agree the disease in only for the poor. Those who feels the disease is not for poor people (strongly disagree and disagree) accounted for 8.46% of all (473).

4.5.7 Having a quick bath after unprotected sex can reduce the risk of contracting HIV

A total of 307(64.9%) strongly disagree having a quick bath after unprotected sex can reduce the risk of contracting HIV. About 126 (26.64%) disagree with bathing immediately after having unprotected sex as reducing the risk of contracting HIV. However, 20 (4.23%) and 14 (2.96%) strongly agree and agree respectively to having a quick bath after unprotected sex as a way which reduces the risk of contracting HIV.

4.5.8 HIV can be cured by traditional healers

The question related to whether traditional healers can cure HIV, 225 and 154 of the participants strongly disagree and agree respectively that HIV can be cured by traditional healers. Further 52 agree with the statement this disease can be cured by traditional healers while 35 of them strongly agree that indeed traditional healers can cure HIV.

4.5.9 A person would not contract HIV by having sexual intercourse with a newly infected person with HIV

A total of 392 respondents (82.88%) strongly disagree a person would not contract HIV by having sexual intercourse with a newly infected person with HIV. Those that indicated they agree with the statement were merely 59 (12.47%). A number of 16 (3.38%) and 3 (0.63%) individual respondents strongly agree and agree respectively with the statement that a person would not contract HIV by having sexual intercourse with a newly infected person with HIV.

4.5.10 Sharing needles could increase the chances of contracting HIV

A total of 284 respondents strongly agree that sharing needles could increase the chances of contracting HIV. Those who feels that sharing needles could not increase the chances of contracting HIV (strongly disagree and disagree) accounted for 18.71 percent of all participants.

4.6 Sexual behaviours

The knowledge of the students on risky sexual behaviours was elicited (table 4.4).

Table 4.4: Sexual behaviour

	Question Number									
Response	**Q2.1**	**Q2.2**	**Q2.3**	**Q2.4**	**Q2.5**	**Q2.6**	**Q2.7**	**Q2.8**	**Q2.9**	**Q2.10**
Blank	27	28	32	31	31	28	28	29	27	27
Strongly Disagree	10	163	278	127	358	407	288	379	307	35
Disagree	16	159	126	158	71	29	97	57	114	16
Agree	236	103	28	135	9	5	50	3	19	120
Strongly Agree	184	20	9	22	4	4	10	5	6	275
Total	473	473	473	473	473	473	473	473	473	473

4.6.1 A sexually active person can be at high risk of contracting HIV

A total of 236 respondents agree a sexually active person can be at high risk of contracting HIV with 184 strongly agreeing with such a statement. Those who feel the opposite of only sexually active persons being at risk of contracting HIV (strongly disagree and disagree) accounted for 5.48% of all participants.

4.6.2 It is good to engage in sexual activities for money, gifts or favour

A total of 163 respondents (34.46%) strongly disagree to engage in sexual activities for money, gifts or favour is good. Those disagreeing with the statement were the same as the number that choose they strongly disagree. The respondents disagreeing with a statement engaging in sexual activities for money, gifts or favour is good was 159 (33.62%). Those agreeing and strongly disagree was 103 (21.78%) and 20 (4.23%) respectively.

4.6.3 I prefer giving money to someone in exchange of sex

According to the respondents, 58 percent strongly disagree they prefer giving money to someone in exchange of sex followed by those who agree constitutes 26.64 percent of the

total. Less than 7 percent agree or strongly agree they prefer giving money to someone in exchange of sex.

4.6.4 Sex with multiple partners is not risky

The question related to whether sex with multiple partners is not risky, about 158 and 127 of the participants disagree and strongly disagree respectively meaning a total of 285 of them felt sex with multiple partners is risky in terms of contracting HIV. Further 135 agree with the statement that having sex with multiple partners is not risky while 22 strongly disagree with the same statement.

4.6.5 Sexual relation with more than one sexual partner can put one at risk of HIV infection

More than 90 percent of the respondents feel sexual relation with more than one partner does not put one at risk of HIV infection where 358 and 71 of them strongly disagree and disagree respectively with having sexual relation with more than one sexual partner as able to put one at risk of HIV infection. However, 9 and 4 individuals agree and strongly agree respectively with the statement.

4.6.6 Having sex with a partner whose HIV status in unknown can put you at risk of contracting HIV

A number of 445 participants that answered this question, 407 strongly disagree having sex with a partner whose HIV status in unknown can put you at risk of contracting HIV; 29 indicated they disagree with that statement. However, it is only 5 and 4 individuals who agree and strongly agree respectively.

4.6.7 A person cannot contract HIV the first time he/she has sex

A total of 288 respondents strongly disagree persons cannot contract HIV the first time they have sex with only 97 disagreeing with that statement. However, 50 and 10 individuals agree and strongly agree respectively persons cannot contract HIV the first time they have sex.

4.6.8 Sexual intercourse with same sex is safe

A number of 378 respondents strongly disagree sexual intercourse with same sex is safe and 57 disagree with that statement. However, very few individuals 5 and 3 strongly agree and agree respectively that sexual intercourse with same sex is safe.

4.6.9 A person cannot get HIV by having unprotected sex with a person younger than him/her

A total of 421 feel persons can get HIV by having unprotected sex with a person younger than them as this is represented by 307 and 114 respondents strongly disagree and disagree respectively with a statement. A group of 19 and 6 individuals agree and strongly agree respectively with a statement.

4.6.10 It is risky to engage in sexual activities after taking alcohol

The question related to being risky to engage in sexual activities after taking alcohol, 275 and 120 respondents in this study strongly agree and agree engaging in sexual activities after taking alcohol is risky. As opposed to this 35 and 16 individuals strongly disagree and disagree respectively.

4.7 Knowledge of preventing measures

The knowledge of the students on preventing measures was elicited and the results are as follow (table 4.5):

Table 4.5 Knowledge of prevention measures

	Question Number									
Response	**Q3.1**	**Q3.2**	**Q3.3**	**Q3.4**	**Q3.5**	**Q3.6**	**Q3.7**	**Q3.8**	**Q3.9**	**Q3.10**
Blank	28	30	51	61	31	29	30	34	28	29
Strongly Disagree	10	41	68	159	20	298	357	52	22	35
Disagree	20	119	183	158	24	108	68	26	28	45
Agree	169	83	54	36	301	27	14	220	140	159
Strongly Agree	246	200	117	59	97	11	4	141	255	205
Total	473	473	473	473	473	473	473	473	473	473

4.7.1 Using condom during sex could reduce the risk of contracting HIV

A total of 246 respondents strongly agree that using condom during sex could reduce the risk of contracting HIV with 169 agreeing with that statement. However, 20 and 10 individuals disagree and strongly disagree respectively with the statement.

4.7.2 A condom is not reliable

The question on whether a condom is reliable, received mixed answers from individual respondents. Two hundred strongly agree a condom is not reliable while 83 agree with that statement. A total of 119 individuals shown they disagree meaning they are of the opinion condoms are reliable.

4.7.3 A condom interferes with sexual pleasure

According to 183 and 68 respondents they disagree and strongly disagree respectively that a condom interferes with sexual pleasure. Strongly agree and agree was represented by 117 and 54 respectively with this statement.

4.7.4 My partner opposes using condom

A total of 159 and 158 respondents strongly disagree and agree respectively their partners opposes using condom while only about 59 and 36 individuals strongly agree and agree respectively.

4.7.5 Abstaining is the best measure of protecting oneself

Three hundred and one respondents agree that abstaining is the best measure of protecting oneself with 97 respondents strongly agreeing with that statement. However, 24 and 20 individuals disagree and strongly disagree respectively that abstaining is the best measure of protecting oneself.

4.7.6 You cannot get HIV from a partner that you have known for more than a year

A total of 298 respondents (63%) strongly disagree that one cannot get HIV from a partner you have known for more than a year. Those that disagree with the statement were about 108 (22.83%). Respondents agree (27, 22.83%) and strongly agree (11, 2.33%) respectively with the statement.

4.7.7 You may not use a condom with someone who could give you gifts in return

The question on whether one may not use a condom with someone who could give him/her gifts in return, is represented by 357 who strongly disagree with that statement; 68 disagree. Individual respondents shown they agree 14 (2.96%) meaning they may not use a condom with someone who could give those gift in return.

4.7.8 Drug and alcohol use may reduce the ability to use a condom

Accordingly 228 individuals agree that drug and alcohol use may reduce the ability to use a condom. The strongly agree individuals were represented by 141 while less than 17 percent of disagree or strongly disagree with the statement.

4.7.9 Having only one sexual partner can reduce the risk of contracting HIV

A total of 255 respondents (53.91%) strongly agree that having only one sexual partner can reduce the risk of contracting HIV. Those agreeing with the statement were 140 (29.6%). Respondents disagree (28, 5.92%) and strongly disagree (22, 4.65%) with the statement.

4.7.10 A pregnant woman can transmit the virus to her unborn child

A total of 205 individuals strongly agree a pregnant woman can transmit the virus to her unborn child; 159 agree with the statement; 45 and 35 disagree and strongly disagree respectively.

4.8 Perceptions of risky behaviour

The students' perceptions on risky behaviour that could lead to HIV infection was elicited and the findings are as follow (table 4.6):

Table 4.6: Perceptions of risky behaviour

	Question Number									
Response	**Q4.1**	**Q4.2**	**Q4.3**	**Q4.4**	**Q4.5**	**Q4.6**	**Q4.7**	**Q4.8**	**Q4.9**	**Q4.10**
Blank	33	31	33	38	36	35	35	32	31	36
Strongly Disagree	215	331	221	354	176	297	271	228	260	205
Disagree	172	93	164	72	85	95	104	162	144	149
Agree	43	8	39	5	104	30	41	43	26	65
Strongly Agree	10	10	16	4	72	16	22	8	12	18
Total	473	473	473	473	473	473	473	473	473	473

4.8.1 Having sex once a week can reduce the risk of becoming infected with HIV

A total of 387 feel that having sex once a week cannot reduce the risk of becoming infected with HIV as this is represented by 215 and 172 respondents strongly disagree and disagree respectively. A total of 43 and 10 individuals agree and strongly agree respectively with a statement.

4.8.2 Church goers and Christians would not contract HIV

This study indicated with a total of 331 that they strongly disagree church goers and Christians would not contract HIV with 93 respondents disagree with that statement.

However, only 10 and 8 individuals strongly agree and agree respectively that Church goers and Christians would not contract HIV.

4.8.3 HIV can be cured by medical doctors

According to 221 respondents they strongly disagree HIV can be cured by medical doctors. Disagreeing with the statement was represented by 164 disagree with a statement and less than 12 percent of respondents agree or strongly agree.

4.8.4 People in towns and cities may not have HIV

The question whether people in towns and cities may not have HIV was seen by 354 respondents while 72 disagree with this statement. About 5 and 4 individual respondents agree and strongly agree respectively meaning they are of the opinion people in towns and cities may not have HIV.

4.8.5 HIV is a punishment from God

The strongly disagrees number 176 that HIV is a punishment from God with 85 disagreeing with this statement. However, some individuals were of a different opinion with 104 and 72 individuals indicated they agree and strongly agree respectively.

4.8.6 Pastors and religious leaders can cure HIV

This study indicated 297 respondents strongly disagree that pastors and religious leaders can cure HIV with 95 respondents indicating they disagree. However, few individuals were of a different opinion with this statement where about 30 and 16 individuals indicated they agree and strongly agree respectively.

4.8.7 A person would not die from HIV if he/she believes in God

A total of 387 of the respondents feel that having sex once a week cannot reduce the risk of becoming infected with HIV as represented by 215 and 172 respondents strongly disagree and disagree respectively with a statement. A total of 43 and 10 individuals agree and strongly agree respectively with a statement that having sex once a week can reduce the risk of becoming infected with HIV.

4.8.8 A person infected with HIV can be identified from his / her thin look

A total of 390 students feel persons infected with HIV cannot be identified from their thin look as this is represented by 228 and 162 respondents strongly disagree and disagree respectively with this statement. Forty three and 8 individuals agree and strongly agree respectively with this statement.

4.8.9 A person infected with HIV can die within a month

The statement that a person infected with HIV can die within a month, is reflected by 260 and 144 respondents strongly disagree and disagree respectively.. As opposed to this 26 and 12 individual respondents agree and strongly agree respectively that a person infected with HIV can die within a month.

4.8.10 Individual who have had sex many times in their life becomes immune to HIV infection

A total of 205 strongly disagree that people who have had sex many times in their lives becomes immune to HIV infection and 149 indicated they agree with that statement. Those that supported the statement were 83 whereby 65 agree and 18 strongly agree respectively with this statement.

4.9 Attitudes towards persons living with HIV

The attitudes of students towards a person living with HIV were elicited and the findings are as follow (table 4.7):

Table 4.7 Attitudes towards persons living with HIV

	Question Number									
Response	**Q5.1**	**Q5.2**	**Q5.3**	**Q5.4**	**Q5.5**	**Q5.6**	**Q5.7**	**Q5.8**	**Q5.9**	**Q5.10**
Blank	31	33	34	37	31	33	31	36	34	32
Strongly Disagree	7	8	4	38	6	10	13	75	5	4
Disagree	12	11	9	95	9	31	20	113	16	10
Agree	118	96	114	188	152	190	182	129	147	124
Strongly Agree	305	325	312	115	275	209	227	120	271	303
Total	473	473	473	473	473	473	473	473	473	473

4.9.1 I can still be a friend with a person living with HIV

A total of 423 feel they can still be friends with people living with HIV as represented by 305 and 118 who indicated they strongly agree and agree respectively. Twelve and 7 individuals disagree and strongly disagree respectively with a statement they can still be friends with people living with HIV.

4.9.2 A person with HIV should be treated as equal as a person without HIV

The statement relating to a person with HIV should be treated as equal as a person without HIV, the results of the study indicate 325 and 96 respondents strongly agree and agree. As opposed to this only 11 and 8 respondents disagree and strongly disagree respectively.

4.9.3 I can work with a person living with HIV

A total of 426 feel they can work with a person living with HIV as this is represented by 312 and 114 respondents who strongly agree and agree respectively with this statement. Only 9 and 4 individuals disagree and strongly disagree respectively.

4.9.4 I can kiss a person living with HIV

A total of 188 agree they can kiss a person living with HIV with 115 respondents strongly agreeing with that statement. However, some individuals were of a different opinion with about 95 and 38 individuals indicated they disagree and strongly disagree respectively with the statement.

4.9.5 I can hold and shake hands with a person living with HIV

According to the respondents 275 individuals strongly agree they can hold and shake hands with a person living with HIV. Those agreeing were 152 and 4 percent disagree/strongly disagreeing.

4.9.6 I can swim or bath with a person living with HIV

The respondents in total of 209 strongly agree they can swim or bath with a person living with HIV with 90 respondents agreeing with that statement. However, only 31 and 10 individuals disagree and strongly disagree.

4.9.7 I can sleep in the same bed with a person living with HIV

A total of 418 feel they can sleep in the same bed with a person living with HIV represented by 227 and 182 who indicated they strongly agree and agree. A group of 20 and 13 disagree and strongly disagree respectively with a statement.

4.9.8 I can share utensils with a person living with HIV

A number of 129 agree they can share utensils with a person living with HIV and 120 respondents strongly agree. However, some individuals were of a different opinion with this statement where 113 and 75 individuals disagree and strongly disagree.

4.9.9 I can play with a person living with HIV

There were 271 (57.29%) students that strongly agree they can play with a person living with HIV with 147(27.27%) strongly agreeing. However, only 16 and 5 individuals disagree and strongly disagree respectively they can play with a person living with HIV.

4.9.10 Employee living with HIV should still work as long as he/she is fit for work

A total of 303 (64.06%) respondents strongly agree employees living with HIV should still work as long as they are fit for work and 124 (26.22%) agree with the statement. Those that opposed the statement were only 14 in total whereby 10 disagree and 4 strongly disagree.

4.10 Conclusion

This chapter presented results and findings of the study. Data were presented using bar graphs, pie charts and frequency tables. The general knowledge of HIV and AIDS among the students was good. The majority of students disagree that having a sexual relationship with multiple partners can put them at high risk of being infected in contradicting the students' knowledge on preventive measures was also good. Chapter 5 will present an outline of the objectives according to the findings of the study and recommendations.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study was conducted to the perceptions of risky behaviour that could make students at PoN vulnerable to HIV infection. This chapter discusses the results of data collected through a self-administered questionnaire that were presented in chapter 4.

5.2 Conclusion

The specific objectives set for this study were:

- To establish the knowledge of the students about HIV infection
- To evaluate what the students perceive as risky behaviour and identify risk that could expose students to contracting HIV
- To determine the perceptions of the students about risky behaviour that makes them vulnerable to HIV and AIDS
- To identify the students attitudes towards a person living with HIV and AIDS
- To suggest strategies that can be implemented to improve HIV and AIDS awareness among the students and enhance life skills programmes and HIV and AIDS education

The study has focused its aim and objectives on a very specific community, namely a group of full time students at the PoN. In this study, the respondents were in the age group between 17-24 years; however there were less than 5 per cent of students in total who indicated that they are aged above 28 years old. This means that the majority of the respondents are in the sexually active category.

The subjects of this study are mature and although relatively well educated, are in a risky age group for the contraction of the HIV given the finding of the Ministry of Health and Social Services in Namibia (as cited in Muheua, 2005) that the transmission of HIV in the age group of 18 – 39 is the highest of all age groups (MoH, 2001).

A further significant characteristic of the study sample was the under representation of fourth year students in the self-administered questionnaire, and of made students that counted for 33% of the total students only.

5.2.1 To establish the knowledge of the students about HIV infection

The general knowledge of the students about HIV and AIDS is high but there is still a need for enhancement. The majority of the respondents indicate person can look healthy for many years while with HIV. However, some students think that a person with HIV would not look healthy for many years. Many students believe that HIV can be transmitted through shaking hands, which is an absolute indication that students still need to be educated about HIV itself. It seems that some students do not know the factual difference between HIV and AIDS.

5.2.2 To evaluate what the students perceive as risky behaviour and identify risk behaviour that could expose them to contracting HIV

The perceptions of students on sexual behaviour were generally good. The students have good knowledge of risky sexual behaviour. However, the majority of students indicate having sex with more than one partner and partner whose HIV status is unknown would not put one at risk of contracting HIV.

5.2.3 To determine the perceptions of the students about risky behaviour that could make them vulnerable to HIV and AIDS

The study findings are that students' perceptions on risky behaviour are good. However, the fact that the respondents have an extensive knowledge on HIV and AIDS including condom and their use does not mean necessarily that they would practice safe sex.

In a quantitative study conducted among 1,196 Malian adolescents, it was found that although over 90 per cent of sexually active adolescents reported having heard of HIV, only a few of them use condoms. It was concluded that information alone is not sufficient to ensure safe sexual behaviour (Konate, as cited in Muheua, 2005).

The majority of the participants in this study agree that drug and alcohol use may reduce the ability to use a condom during sex, therefore increasing the chances of contracting the virus. According to Muheua, (2005), the use of alcohol and drugs prevent condom use, as people are more likely to have risky sexual behaviour when under the influence of these substances. He further found out some researchers have shown that when people have used drugs and alcohol, they are much less likely to use condoms.

5.2.4 To identify the students' attitudes towards a person living with HIV and AIDS

The study find students have good attitudes towards persons living with HIV. The majority of the respondents would still be friends to a person living with HIV. They also feel that a person living with HIV and AIDS should be treated equally as a person who is not infected with HIV, that they would work together with a person living with HIV and that they would kiss a person living with HIV. However, some students indicate they would not share utensils with a person infected with HIV, and interestingly, only a few students indicate they would not hold and shake hands with a person living with the virus, in contrast to the majority who indicated that HIV can be transmitted through shaking hands.

5.2.5 To suggest strategies that can be implemented to improve HIV and AIDS awareness among the students, and enhance life skills programmes and HIV and AIDS education

The study suggests improvement of awareness among the students and strengthening the life skills programmes and HIV and AIDS education. According to the findings of the study, the students need adequate information concern HIV and AIDS in general. The students lack sources that could give education o HIV and AIDS. Establishing prevention measures to reduce alcohol and drug abuse is suggested.

5.3 Recommendations

The programmes of HIV and AIDS awareness should be expanded in order to enhance the general knowledge of the students about HIV and AIDS. There should be an inclusion of presentations and discussions by people living with HIV and AIDS in HIV prevention programmes as a strategy to target a range of outcomes, such as perceived risk for HIV infection, knowledge related to HIV transmission and prevention, and empathy for people living with HIV and AIDS.

Muheua, (2005) emphasises that "the goal of this type of invention is to rid students of any stereotypes they may have of the "type" of people who become infected with STDs or HIV by listening to someone with a disease speak about being infected and also to hear the dangers first-hand from someone (just like them) who has contracted the disease.

There should be prevention measures aimed at reducing alcohol and drug abuse in order to minimise incidents whereby people engage into risky sexual activities when under the influence of alcohol and drugs. The following are recommended in order to reduce new HIV infection cases:

- HIV and AIDS must be a compulsory part of the curriculum at all levels so the young people start with it already from an early stage
- HIV and AIDS awareness programmes should be expanded
- Stigma and discrimination related to HIV and AIDS must be eliminated
- Elimination of perceptions and negative beliefs
- Reduction of alcohol and drug abuse among students

5.4 Limitations

This study was conducted through a self-administered questionnaire and did not investigate the aspects in any depth, therefore, an in-depth study is recommended. The study recruited a very small percentage of the students at the PoN, which makes it difficult to make a final assumption. It is therefore recommended that a further study should recruit quite a large number of the students. The study was conducted at only one institution of high learning, therefore the findings do not represent all other institution of higher learning in the country. The findings of the study are based on the students in urban area, and would have been different if it was conducted in rural areas where education level is very low. The findings did not point out the ideas of males and females specifically, therefore, it is difficult to conclude the ideas and views according to gender.

5.5 Conclusion

This study focused on perceptions of risky behaviour among the students at the Polytechnic of Namibia that could make them vulnerable to HIV infections. The study found relatively good knowledge of HIV and AIDS, prevention measure, sexual behaviour, good perceptions and good attitudes towards PLWHA. Some perceptions on HIV transmission were noted. The study outlined some areas which need improvement in order to hinder HIV infection. These include adequate HIV and AIDS awareness programmes, reduction of alcohol and drug abuse and mitigation of negative beliefs and perceptions.

It does not take a rocket scientist to observe that HIV and AIDS continue to be the devastating plaques in the society. Moreover, it should be noted very well that perceptions do not play an enormous role in HIV prevalence. Furthermore, as depicted by the different scholars quoted in this study, the students' of risky behaviour that lead to HIV infection maybe the key to stemming the tide of the epidemic. If students are educated more on HIV perceptions, they could actually enhance their ability of awareness in a different way.

According to Ackerman et al. (1999) the understanding of risk and protective factors and their linkage to perceptions of vulnerability to HIV infection is integral to having HIV and AIDS prevention strategies. Indeed, it is imperative to emphasize the need for more positive HIV and AIDS perceptions among students.

REFERENCES

Ackerman, M.J., Tester, D.J, Porter, C.J, (199*),* Paediatric*: Department of Paediatric and Adolescent Medicine*, Myo clinic. Rochester

Adefuye, A.S., Abiona, T.C., Balogun, J.A., Lukobo-Durell, M. (2009) *HIV sexual risk behaviour and perceptions of risk among college students*: implications for planning interventions. Journal of public health, 4, 9:281

Akwara, P.A., Madise, N.J., & Hinde, A., (2003). Perceptions of risk of HIV/AIDS and sexual behaviour in Kenya. *Journal of Biosocial Science*, 35, 385-411.

Anderson, K.G., Beutel, A.M., Maughan-Brown, B., (2007). HIV/AIDS risk perceptions and first sexual intercourse among youth in Cape Town, South Africa: Aids and Society Research Unit, CSSR Working Paper No. 196

Association of African Universities (2003)

Barton, T., & Pfau, G. (2004). HIV/AIDS at Universities and colleges: *The epidemic emerges from hiding*. Windhoek: Gamsberg Macmillan.

Chinsembu, K.C., Kasanda, C.D., & Shimooshili-Shaimemanya, C.N., (2011) Prevalence, distribution and behaviour determinants of coital activity among High School students in Namibia: A cross-sectional study. *Journal of Public Health and Epidemiology*, Vol. (7), pp. 308-316, July 2011 http://www.academicjournalsorg./jphe retrieved on 5 April 2012

Christensen, L.B., Johnson, R.B., Turner, L.A. (2011). *Research Methods, Design, and Analysis* (11th Ed.). United States of America: Pearson

Davis, B. (2012). Ethics application process. Unpublished class notes. (Department of Industrial Psychology) University of Stellenbosch

De Beer, I.H., GelderbloM, H.C., Schelleskens, O., Gaeb, E., Van Rooy, G., et al. (2012). University students and HIV in Namibia: an HIV prevalence survey and a knowledge and attitude survey. *Journal of International AIDS soc*. http://www.ncbi.nih.gov/pubmed/22353579 retrieved on 26 March 2012

Desert Soul (2011), Windhoek

Du Pisano, A., & Otaala, B., (2001). *University of Namibia HIV/AIDS policy*. Windhoek: Printech

Grobler, M. (2004). *Critical social factors which influence HIV/AIDS campaigns*: A social work front-line research report from Namibia.

Hoffman, S., O'Sollivan, L.F., Harrison, A., Dolezal, C., & Monroe-Wise, A., (2006). HIV Risk Behaviours and the Context of Sexual Coercion in Young Adults' Sexual Interactions: Results from a Diary study in Rural South Africa., vol. 33. No.1, p.52-58

Ishola, A. S., (2007) A study of the relationship between school dropout and AIDS orphans in Oshana region: University of Stellenbosch

Katjavivi, P.H., Otaala B., (2003). African Higher Education Institutions responding to the HIV/AIDS pandemic. *Proceedings of the AAU Conference of Rectors, Vice Chancellors and Presidents of African Universities* (COREVIP) Mauritius, March 17-21, 2003.

Kelly, M.J. (2001) *Challenging the Challenger: Understanding and expanding the response of Universities in Africa to HI/AIDS.* Washington, D.C., ADEA Working Group on Higher Education.

Lau, C., & Muula A.S., (2004). HIV/AIDS in Sub-Saharan Africa: School of Public Health, University of California, Los Angeles, Cali, USA; and Department of Community Health, University of Malawi College of Medicine, Blantyre, Malawi

Lewis, J.E., Malow, R.M., & Ireland, S.J., (1997). HIV/AIDS risk in heterosexual college students. A review of a decade of literature. *Journal of American college healthy students.* January, 45, Issue 4): 147-58. http://www.ncbi.nlm.nih.gov/pubmed/9019001 retrieved on 5 April 2012.

McClune, (2012).University students and HIV in Namibia: *an HIV prevalence survey and a knowledge and attitude survey*, Feb 2012

Ministry of Health and Social Services, (2007). Namibia Demographic Survey. Windhoek

Ministry of Health and Social Services (2008). 2010/2011 Estimates and projections of the Impacts of HIV/AIDS in Namibia, Windhoek

Ministry of Health and Social Services (2012). *Global AIDS response Progress reporting 2012*. Monitoring the 2011 Political Declaration on HIV/AIDS. Reporting period 2010-2011.

Ministry of Health and Social Services, (2010). Report on the 2010 National HIV Sentinel Survey. Windhoek

Ministry of Health and Social Services, (2012). 2011/2012 Estimates and Projections of the Impacts of HIV and AIDS in Namibia, Windhoek

Muheua, A., (2007). A description of the perceptions barriers that influence initial and consistent use of condoms amongst a sample of male and female students of Polytechnic of Namibia, University of Western Cape

Mukonda, R. (1998). *Teenage girls' HIV/AIDS awareness and their sexual predispositions and motives in Caprivi*. Unpublished mini-thesis

Namibian Demographic Health Survey (NDHS), Annual surveys, MoHSS, 2006 - 2007

Namibia National Census, 2011

Nangolo, M. (1998). *The social and economic cost associated with HIV/AIDS*

Nasheya, K. (1999). *HIV/AIDS and the youth: a study on change in sexual. Knowledge, attitudes, behaviours and practices*. Unpublished mini-thesis

Odu, B.K., & Akanle, F.F., (2008). Knowledge of HIV/AIDS and Sexual Behaviour among the youths in South West Nigeria. *Humanity and Social Science Journal*,3(1):81-88.

Otaala, B. (2000). *Impacts of HIV/AIDS on the University of Namibia and the University's Response*, University of Namibia.

Otaala, B. (COMP. Editor) (2000 b): *HIV/AIDS The challenge for tertiary Institutions in Namibia*. Windhoek: Printech.

Shoombe, R.E. (1999). *The effectiveness of HIV/AIDS campaigns in Namibia*. Unpublished mini-thesis.

Sillignakis, K. E., (2005) Sample on research proposal: *"Rural Tourism Development for the Prefecture of Lassithi in Crete."* _ www.sillignakis.com

Tan, X., Pan, J., Zhou, D., Wang, C., & Xie, C., (2007). HIV/AIDS knowledge, Attitudes, and behaviour assessment of Chinese students: A questionnaire study. *International Journal of Environmental Research and Public Health*, 4 (3), 248-253.

The National Strategic Plan on HIV and AIDS, Third Medium Plan, 2004-2009

UN (2007). Political Declaration on HIV/AIDS. No.A/60/262, adopted 2 June2006

UNAIDS (2003) HIV and AIDS estimates and data.

UNAIDS (2010) *Report on the Global AIDS Epidemic. New York: United Nations Publications*

UNAIDS, (2008). *Report on the global AIDS epidemic. New York. United Nations Publications*

UNAIDS, (2000). *Report on the Global HIV/AIDS epidemic. New York. United Nations Publications*

UNAIDS, (2006) Report on the Global AIDS Epidemic. New York: United Nations Publications.

UNAIDS. (2011). Global HIV/AIDS Responses Epidemic update & health sector progress towards universal access progress report

UNAIDS. AIDS Epidemic Update, December 2003. Geneva, Switzerland: UNAIDS/WHO; 2003. Available from: http://www.unaids.org/wad/2003/press/Epiupdate2003_en?Epi03-00-en.htm.Accessed : June 17, 2012

UNICEF, (2006). *HIV/AIDS in Africa*. New York

United Nations General Assembly Special Session, country report, 2008-2009

Whitney, C.N., Lind, B.K., Wahl, P.W. (1998). Quality assurance and quality control in longitudinal studies. *Epidemiological Review*, 20 (1): 71-80

WHO. (2004). (Online) Available: www.globalhealth.orgkeyissuehiv/aids.

WHO/UNICEF/(2006). Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections: Uganda. World Health Organization, Geneva. December

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Approval Notice
New Application

07-Aug-2012
Nghaamwa, Twahafifwa NT
Stellenbosch, WC

Protocol #: HS820/2012
Title: The perception of students about risky behaviour that make them vulnerable to HIV/AIDS infection

Dear Ms Twahafifwa Nghaamwa,

The **New Application** received on **16-Jul-2012**, was reviewed by Research Ethics Committee: Human Research (Humanities) via Committee Review procedures on **26-Jul-2012** and has been approved.
Please note the following information about your approved research protocol:

Protocol Approval Period: **26-Jul-2012 -25-Jul-2013**

Present Committee Members:
Theron, Carl CC
Somhlaba, Ncebazakhe NZ
Viviers, Suzette S
Van Zyl, Gerhard G
Fouche, Magdalena MG
Van Wyk, Berte B
Hansen, Leonard LD
Horn, Lynette LM
De Villiers-Botha, Tanya T
Newmark, Rona R
Prozesky, Heidi HE
Beukes, Winston WA

Standard provisions
1. The researcher will remain within the procedures and protocols indicated in the proposal, particularly in terms of any undertakings made in terms of the confidentiality of the information gathered.
2. The research will again be submitted for ethical clearance if there is any substantial departure from the existing proposal.
3. The researcher will remain within the parameters of any applicable national legislation, institutional guidelines and scientific standards relevant to the specific field of research.
4. The researcher will consider and implement the foregoing suggestions to lower the ethical risk associated with the research.

You may commence with your research with strict adherence to the abovementioned provisions and stipulations.

Please remember to use your **protocol number** (**HS820/2012**) on any documents or correspondence with the REC concerning your research protocol.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:
Please note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required.
The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) number REC-050411-032.

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must be obtained from the relevant authorities (Western Cape Department of

Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant parties. For approvals from the Western Cape Education Department, contact Dr AT Wyngaard (awyngaar@pgwc.gov.za, Tel: 0214769272, Fax: 0865902282, http://wced.wcape.gov.za).

Institutional permission from academic institutions for students, staff & alumni. This institutional permission should be obtained before submitting an application for ethics clearance to the REC.
Please note that informed consent from participants can only be obtained after ethics approval has been granted. It is your responsibility as researcher to keep signed informed consent forms for inspection for the duration of the research.

We wish you the best as you conduct your research.
If you have any questions or need further help, please contact the REC office at .

Included Documents:
REC app
DESC app
REC app
Admin review
Consent of to participate

Sincerely,

Winston Beukes
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the responsibilities investigators have when conducting research involving human participants are listed below:

1.Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2.Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3.Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4.Continuing Review. The REC must review and approve all REC-approved research protocols at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period.** Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur.** If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5.Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6.Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch Universtiy Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7.Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research protocol and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8.Reports to Sponsor. When you submit the required reports to your sponsor, you **must** provide a copy of that report to the REC. You may submit the report at the time of continuing REC review.

9.Provision of Counselling or emergency support. When a dedicated counsellor or phsychologis provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

10.Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

11.On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

AFRICA CENTRE FOR HIV/AIDS MANAGEMENT

5 November 2012

The Registrar
Polytechnic of Namibia
Private Bag 13388
Windhoek

Dear Sir/Madam

RE: Research study by Ms Nghaamwa T.N.T. student number 16367839

This is to confirm that the abovementioned student is enrolled for an MPhil in HIV and AIDS Management at the Africa Centre for HIV and Aids Management at Stellenbosch University. As part of her studies, she is required to complete a research assignment at an institution of her choice. Ms Nghaamwa has identified the students of your institutions as a possible study population for her research. Her study entails the perceptions of HIV and AIDS among students that could make them vulnerable to HIV infection. The student had already received the approval of her research proposal by the Stellenbosch University Ethics Committee (please see attached).

I am therefore, on behalf of our student, requesting that you allow the student to do her research at your institution as has been her interest. Your assistance will benefit her and enable her to successfully meet the requirements as set by the University.

If there is any query please do not hesitate to contact me.

I am looking forward to your positive response.

Kind Regards,

Burt Davis
Lecturer
Africa Centre for HIV/AIDS Management
STELLENBOSCH UNIVERSITY | Private Bag X1 | Matieland 7602 | RSA
T: +27 21 808 3006 | F: +27 21 808 3015
E: burt@sun.ac.za | W: www.aidscentre.sun.ac.za

POLYTECHNIC OF NAMIBIA

OFFICE OF THE REGISTRAR

Private Bag 13388 • 13 Storch Street • Windhoek, NAMIBIA
Tel: (+264-61) 207-2118 / 2008 • Fax: (+264-61) 207-2113
E-mail: registrar@polytechnic.edu.na • Website: http://www.polytechnic.edu.na

22 November 2012

Ms T.N.T. Nghaamwa
Box 26451
WINDHOEK

Dear Ms Nghaamwa

APPROVAL TO CONDUCT RESEARCH

Your letter dated 7 November 2012 has reference.

Approval is hereby granted for you to conduct the research on "**The perception of students about risky behavior that make them vulnerable to HIV/AIDS infection**" in the Polytechnic of Namibia. Any information gathered during the research is to be used for the purpose of the study only and must be treated as confidential. The results of the study should be shared with the Polytechnic. The respondents should remain anonymous. Respondents' information should not be made available, nor should biographical information of students be made available in such a way that individual students can be identified.

I wish you all the best with your research.

Yours sincerely

CORNEELS H. JAFTA
REGISTRAR

POLYTECHNIC OF NAMIBIA
P/BAG 13388
WINDHOEK
2012 -11- 22
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STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

THE PERCEPTIONS OF STUDENTS ABOUT RISKY BEHAVIOUR THAT MAKE THEM VULNERABLE TO HIV INFECTION.

You are asked to participate in a research study conducted by Miss Twahafifwa N.T. Nghaamwa, Postgraduate Diploma in HIV/AIDS Management from the Africa Centre for HIV/AIDS Management at Stellenbosch University. You were selected as a possible participant in this study because the researcher is interested in accessing the perceptions of the students towards risky behavior at the University of Namibia .

1. PURPOSE OF THE STUDY

The study will provide an insight on how students at University of Namibia perceive risk behavior that could make them vulnerable to HIV infection. It will help to establish adequate education on HIV/AIDS among the students at this university and country at large. The study will be of benefit to future researchers who will be interested to study the similar topic further or relevant. It will help to strengthen the contribution of the institution to the national obligation to secrete rates of HIV/AIDS and create knowledge and skills to students on practicing preventive measures and be responsible in their sexual relationships.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:
Fill in the questionnaire that will be given to you. Do not give your identification information such as name or residential address.

You have 1 hour to complete the questionnaire.

3. POTENTIAL RISKS AND DISCOMFORTS

The researcher has not established any potential risk or discomfort that could lead to the withdrawal of the participant.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The study will enhance general knowledge of HIV/AIDS among the students and enable them to distinguish between risky behavior and preventive behavior.

5. PAYMENT FOR PARTICIPATION

The subjects will not receive any payment for their participation.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law.

Confidentiality will be maintained by means of withholding of the names by participants. You are not required to state your name or any potential identifiable information. The data will be kept safe in the researcher's office which has controlled access and lockable cupboard. The researcher is the only person who has access to the place.

The results will made available to the African centre for HIV/AIDS at University of Stellenbosch and to the study leader because the information is needed to as a proof that the study has been conducted. Other than that, if requested, the researcher will provide a copy of the final report to the institution.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact:

Miss Twahafifwa N. T. Nghaamwa, cellphone number: 0813820277 (researcher) or Prof: Elza Thomson, Tel: 0824946920 (study leader).

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me Miss Twahafifwa Nghaamwa in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Subject/Participant

_____

Name of Legal Representative (if applicable)

_____ _____

Signature of Subject/Participant or Legal Representative **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____. *He*/she was encouraged and given ample time to ask me any questions. This conversation was conducted in English and *no translator was used.*

_____ _____

Signature of Investigator **Date**

QUESTIONNAIRE
PLEASE CYCLE THE APPROPRIATE: SEX: Male Female:
PLEASE STATE YOUR AGE: ..... AND YOUR STUDY GROUP: .....
CIRCLE ONE RESPONSE FOR EACH OF THE FOLLOWING ITEMS

1. GENERAL KNOWLEDGE ON HIV/AIDS

	Strongly disagree	**disagree**	**agree**	**Strongly agree**
1.1. A person with HIV can look healthy for many years	1	2	3	4
1.2 HIV can be transmitted through saliva	1	2	3	4
1.3 HIV can be transmitted through mosquito bite	1	2	3	4
1.4. HIV can be transmitted through kissing	1	2	3	4
1.5.HIV can be transmitted through shaking hands	1	2	3	4
1.6 HIV is a disease of poor people	1	2	3	4
1.7 Having a quick bath after unprotected sex can reduce the risk of contracting HIV	1	2	3	4
1.8 HIV can be cured by traditional healers	1	2	3	4
1.9 A person would not contract HIV by having sexual intercourse with a newly infected person with HIV	1	2	3	4
1.10 Sharing needles could increase the chances of contracting HIV	1	2	3	4

2. SEXUAL BEHAVIOURS

	Strongly disagree	disagree	agree	Strongly agree
2.1.A sexually active person can be at high risk of contracting HIV	1	2	3	4
2.2 It is good to engage in sexual activities for money, gifts or favour	1	2	3	4
2.3 I prefer giving money to someone in exchange of sex	1	2	3	4
2.4 Sex with multiple partners is not risky	1	2	3	4
2.5 Sexual relation with more than one sexual partner can put one at risk of HIV infection	1	2	3	4
2.6 Having sex with a partner whose HIV status in unknown can put you at risk of contracting HIV	1	2	3	4
2.7 A person cannot contract HIV the first time he/she has sex	1	2	3	4
2.8 Sexual intercourse with same sex is safe	1	2	3	4
2.9 A person cannot get HIV by having unprotected sex with a person younger than him/her	1	2	3	4

2.10 It is risky to engage in sexual activities after taking alcohol	1	2	3	4

3. KNOWLEDGE OF PREVENTION MEASURES

	Strongly disagree	**disagree**	**agree**	**Strongly agree**
3.1 using condom during sex could reduce the risk of contracting HIV	1	2	3	4
3.2. condom is not reliable	1	2	3	4
3.3 condom interferes with sexual pleasure	1	2	3	4
3.4 My partner opposes using condom	1	2	3	4
3.5 Abstaining is the best measure of protecting oneself	1	2	3	4
3.6 You cannot get HIV from a partner that you have known for more than a year	1	2	3	4
3.7 You may not use a condom with someone who could give you gifts in return	1	2	3	4
3.8. Drug and alcohol use may reduce the ability to use a condom	1	2	3	4
3.9 Having only one sexual partner can reduce the risk of contracting HIV	1	2	3	4
3.10 A pregnant woman can transmit the virus to her unborn child	1	2	3	4

4. PERCEPTIONS OF RISKY BEHAVIOUR

	Strongly disagree	**disagree**	**Agree**	**Strongly agree**
4.1 Having sex once a week can reduce the risk of becoming infected with HIV	1	2	3	4
4.2 Church goers and Christians would not contract HIV	1	2	3	4
4.3 HIV can be cured by medical doctors	1	2	3	4
4.4 People in towns and cities may not have HIV	1	2	3	4
4.5 HIV is a punishment from God	1	2	3	4
4.6 Pastors and religious leaders can cure HIV	1	2	3	4
4.7 A person would not die from HIV if he/she believes in God	1	2	3	4
4.8 A person infected with HIV can be identified from his / her thin look	1	2	3	4
4.9 A person infected with HIV can die within a month	1	2	3	4
4.10 A sex who have had sex for many times in his or her life becomes immune to HIV infection	1	2	3	4

5. ATTITUDES TOWARDS PERSONS LIVING WITH HIV

	Strongly disagree	disagree	Agree	Strongly agree
5.1. I can still be a friend to a person ling with HIV	1	2	3	4
5.2 A person with HIV should be treated as equal as a person without HIV	1	2	3	4
5.3 I can work with a person living with HIV	1	2	3	4
5.4 I can kiss a person living with HIV	1	2	3	4
5.5 I can hold and shake hands with a person living with HIV	1	2	3	4
5.6 I can swim or bath with a person living with HIV	1	2	3	4
5.7 I can sleep in the same bed with a person living with HIV	1	2	3	4
5.8 I can share utensils with a person living with HIV	1	2	3	4
5.9 I can play with a person living with HIV	1	2	3	4
5.10 An employee living with HIV should still work as long as he/she is fit for work	1	2	3	4