

KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS HIV AND AIDS
PREVENTION MEASURES AMONG MALE LEARNERS IN SECONDARY
SCHOOLS IN OSHANA REGION, NAMIBIA.

A THESIS

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P.I. SHIKULO

STUDENT NUMBER: 9419985

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Main Supervisor: Dr Louise Pretorius

Co – Supervisor: Dr Ndapeua N Shifiona

ABSTRACT

Despite mass media campaigns to provide information on how to promote healthy lifestyle and sexual behaviour among the population, especially among the youth, there is evidence that risky sexual behaviour are more prevalent among males than females (UNAIDS, 2013c), putting them at the risk of acquiring Human Immunodeficiency Virus (HIV). Not much is known about the knowledge, attitude and practices of male learners in secondary schools in Namibia on HIV prevention and their practices thereof.

The aim of the study was to assess the knowledge, attitudes and practices on HIV and AIDS prevention measures among male learners in secondary schools in Oshana Region. A quantitative approach using a cross sectional study design was employed. Quantitative approach was considered appropriate to determine the level of knowledge, attitudes and practices toward HIV and AIDS preventive measures among male learners in the above region. A total population of five hundred and ninety two (592) male learners, aged 14-21 years from four (4) Secondary Schools in Oshana region was included in the study.

Data was collected by utilizing an anonymous structured questionnaire with mostly close-ended questions. Data analysis was done using Epi-Info version 7 (CDC) and SPSS version 17 (IBM). Descriptive analysis of knowledge was presented using proportions and frequencies. The score of attitudes was categorized as positive or negative and practices were categorized as safe or risky practices. The responses were listed and similar responses were grouped together to understand the

suggestions from the respondents on effective HIV preventive measures among youth.

Based on the study results, there was a high level of awareness among the respondents on HIV/AIDS routes of transmission, control and preventive measures. However, misconceptions about HIV and AIDS transmission exist among some of the respondents. The study findings revealed that negative attitudes towards people with HIV and AIDS are relatively low from 1.4% to 2.9%. However, some risky sexual practices have also been observed among the respondents. The study revealed that among all respondents in all the schools surveyed, over 25% had engaged in unprotected sexual intercourse.

The majority of the learners who participated in the study believe that condom use and being faithful to a partner were the most effective HIV preventive measures among the youth.

Recommendations are made to strengthen health education among youth, and reproductive health consequences of pre-marital sex should be explained to learners to prevent complications of reproductive tract infection. It is also essential to involve youth from the initial process of planning or designing HIV and AIDS prevention programmes. Their engagement in the development of HIV-prevention programmes is critical to programme success. The study was strictly voluntary and confidentiality ensured. Future studies should similarly address knowledge, attitude and practices on HIV prevention among female learners as well as look into factors that influence the utilization of existing HIV/AIDS prevention programmes among the youth.

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Abbreviation and acronyms

AFHS.....	Adolescence friendly health services
AIDS.....	Acquired immune deficiency syndrome
ART.....	Anti-retroviral Therapy
CDC.....	Communicable Disease Clinic
CSE.....	Comprehensive Sexuality Education
DAPP.....	Development Aid People to People
DASH.....	Division of Adolescent and School Health
FHD.....	Family Health Division
ESA.....	Eastern and Southern Africa
HIV.....	Human Immunodeficiency virus
PEP.....	Post Exposure Prophylaxis
PEPFAR.....	Presidents Emergency Plan for AIDS relief
PLHIV.....	People living with HIV
PLWHA.....	People Living with HIV AIDS
PMTCT.....	Prevention Mother to Child Transmission
MFMC.....	My Future is My Choice
MoE.....	Ministry of Education
MOH.....	Ministry of Health (Kenya)
MoHSS.....	Ministry of Health and Social Services
MTCT.....	Mother to Child Transmission of HIV
NDHS.....	National Demography Health Survey
SPSS.....	Statistical Package for the Social Services
STI.....	Sexual Transmitted Infections

TADA.....	Teenagers against Drugs and Alcohol
TCE.....	Total Control of Epidemic
UNAM.....	University of Namibia
UNAIDS.....	United Nations Programme on AIDS
UNESCO.....	United Nations Educational Scientific and Cultural Organization
UNICEF.....	United Nations Children's Fund
UNFPA.....	United Nations Population Fund
VCT	Voluntary HIV Counseling and Testing
VMMC.....	Voluntary Medical Male Circumcision
WHO.....	World Health Organization
WoH.....	Window of Hope

DEDICATION

This work is dedicated to the memory of my beloved late father, Efraim Nghidipohamba Mwafongwe who laid the foundation of my education.

I would also like to dedicate my work to my loving husband, Moses Shikulo for his continuous encouragement, support and unconditional love and to my beautiful daughters, Teopolina Natangwe and Ndati-Tangi Toini as well as my lovely son Elvin Meduletu. Let my accomplishment be a source of inspiration.

DECLARATION

I, Peneyambeko Ipawa Shikulo declare hereby that this study is a true reflection of my own research, and that this, or part thereof has not been submitted for a degree in any other institution of higher education.

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Peneyambeko Ipawa Shikulo

Date

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

Since its entry into the global public health arena in the eighties, Human Immunodeficiency virus (HIV) and Acquired immune deficiency syndrome (AIDS) have continued to pose significant social, economic and developmental challenges worldwide. Globally, an estimated 35.3 million people were living with HIV in 2012 (UNAIDS, 2013a) while the number of new HIV infections in eastern and southern Africa in 2011 were 1.1–1.3 million (UNAIDS, 2013b). Heterosexual activities remain the commonest mode of transmission especially in sub-Saharan Africa (Kalawoye, 2010).

Therefore, sexual behaviour change appears to be the most effective way of curbing further spread of the disease. Sub-Saharan Africa remains the region that is most affected by the HIV epidemic, despite positive signs that HIV prevalence is declining overall among young people in the region (UNAIDS, 2011). The high numbers of new infections among young people in Eastern and Southern Africa (ESA) remain a serious concern, as is the fact that the majority of adolescents and young people living with HIV are growing up in the same region. Africa remains the most affected region in the world (UNESCO, 2013).

HIV prevalence in Namibia is among the highest in the world. The first case of HIV in Namibia was recorded in 1986 and since then the prevalence of the disease has

been on the increase with occasional decrease in numbers. The Ministry of Health and Social Services (MoHSS) conducts a sentinel sero-survey every two years to monitor the progression of the epidemic in the country. According to MoHSS (2014a), HIV prevalence has risen from 17,8% in 2008 to 18,2% in 2012. The HIV prevalence for 2014 was 16.9%, which indicates a slight decline, while there is still a high rate of infection among the youth (MoHSS, 2012a). The trend in HIV prevalence among young people is a better indication of recent trends in HIV incidence and risk behaviour (UNAIDS, 2013 b).

The National Demographic and Health Survey (NDHS) conducted in the year 2006/2007 in Namibia indicated that the age at which young people first have sex is from thirteen years, implying that young people have sex before the age of 15. This is considered premarital sexual activity and it increases young people's potential exposure to HIV (UNAIDS, 2013 c).

Adolescents and young people represent the future of every society. Bankole and Mabekoje (2008) documented that secondary school learners are in the adolescent age, which is the time that they begin to take interest in sexual relationships. Ruma (2009) concluded that youths are at a stage when they may want to experiment with sex without giving much consideration on the implication of their present behaviour. Therefore, better education and public health measures can be hugely beneficial to their health and development (UNESCO, 2013). The main goal of the aforementioned is to delay the age at which young people first have sex and discourage premarital sexual activity as this will reduce their potential exposure to HIV.

MoHSS (2012) National HIV Sentinel survey reported that there was an increase in HIV prevalence among the youth (15-24 years) in Oshana Region from 8.3% in 2008 to 14.8 % in 2010. The 2014 HIV Sentinel survey indicated an increase in HIV prevalence in the same age group from 7.8% in 2012 to 9.4% in 2014 (MoHSS, 2014a). This age group comprises those who are in secondary schools and at the post-secondary levels. They constitute part of the active and vibrant members of the community and generally it is known that men play a key role as gate-keepers in the community. The high prevalence of HIV infection among this active and vibrant members of the population may in part be attributed to lack of adequate information that would engender behaviour change.

This study was therefore undertaken to fill the knowledge gap on the subject matter and further arm health educators, peer counselors, and other stakeholders with the necessary information to address the information needs on HIV/AIDS. Increasing knowledge of HIV/AIDS can be a powerful means of fostering positive attitudes and building safe practices among youth. Hence, a clear understanding about knowledge, attitudes and practices (KAPs) among any population is very important for planning to control or prevent the spread of HIV (Thanavanh, Rashid, Kasuya & Sakamoto (2013).

Although HIV/AIDS-related KAPs are reported in studies from other countries, there was no such information for male learners in secondary school in Oshana region. Therefore, this study was conducted among male learners in Secondary School in

Oshana region to determine their level of knowledge, attitudes and practices toward HIV and AIDS preventive measures.

1.2 BACKGROUND TO THE STUDY

Namibia is among the five countries with the highest prevalence of HIV in the world. For the period 2008-2009, the estimated prevalence among pregnant women was 17.8 %. HIV is also considered the primary reason for the dramatic drop in life expectancy, now standing at 48.6 years (UNAIDS, 2013a).

Of the new infections in Namibia, an estimated 44 % were among young people aged 15- 24 years, of which 77 % are females (MoHSS, 2007).

According to these data, Namibian women are becoming infected at younger ages, with approximately 14 % of pregnant adolescents aged 20 to 24 already infected (MoHSS, 2008a). The latter has been reported by UNAIDS (2013a) that Namibia is one of the Southern African countries heavily affected by the HIV/AIDS epidemic, with HIV primarily being transmitted through heterosexual transmission (MOHSS, 2009). The Annual HIV Sentinel-Survey among pregnant women in 2014 in Namibia, gave a National HIV prevalence rate of 16.9%, showing a decrease in HIV prevalence from 18.2 % in 2012 to 16.9% for 2014 (MOHSS, 2014a). This is still a high prevalence rate for Namibia. Therefore, HIV continues to be a public health concern throughout Namibia, affecting both younger and older women of child bearing age in all geographical areas of the country.

Furthermore, the *Estimates and Projections of the Impact of HIV/AIDS in Namibia* estimates that there are on average 39 new HIV infections in Namibia per day (MOHSS, 2008b). Of these, 9% occur among children under the age of 15, while the remainder occurs among adults (15-49 years) and mostly through heterosexual intercourse.

Acquired Immune Deficiency Syndrome (AIDS) is still an incurable disease and is very costly to control. Since the first case of AIDS in Namibia was reported in 1986, the Human Immune Deficiency Virus (HIV) infection has attained epidemic proportion. In an effort to control this rapid spread, certain preventive measures have been developed. In spite of these and the campaigns to control it, the knowledge and attitudes of youths towards HIV/AIDS leave much to be desired (MoHSS, 2007).

Young people remain at the centre of the HIV/AIDS epidemic in terms of rates of infection, vulnerability, impact, and potential for change. They face the economic and social impact of HIV/AIDS on families, communities, and nations, and young people must be at the centre of prevention actions (WHO, 2009). Young people grow up in a world changed by AIDS but many still lack comprehensive and correct knowledge about how to prevent HIV infection.

This situation persists even though the world has agreed that young people have the human right to education, information and services that could protect them from harm. Where young people are well informed of HIV risks and prevention strategies, they are changing their behaviour in ways that reduce their vulnerability (WHO, 2009). The World Health Organization (WHO) further revealed that the efforts to increase HIV knowledge among young people remain inadequate.

According to MoHSS (2015), Namibia has a predominantly young population, with a median age of 21 years. Girls and young women have elevated biological and physiological vulnerabilities to HIV infection. Unplanned teenage pregnancy, having older partners (who are more likely to be HIV-positive), having transactional relationships, and having multiple sexual partnerships are common scenarios that elevate the risk of HIV infection among the youth in Namibia.

HIV/AIDS prevention programs have seldom focused on the risk-taking behaviors and holistic needs of young people at high risk. Youth-focused HIV/AIDS prevention programs often emphasize disease prevention rather than sexual health promotion. When prevention programs mimic those designed for adults or focus on disease, youth may not receive needed life skills and resources to support healthy sexual attitudes and behaviours.

Various preventive strategies have been implemented to counter the HIV pandemic in Africa; these include the use of anti-retroviral drugs, Voluntary HIV Counseling and Testing (VCT), condom use promotion, promotion of abstinence, treatment programme for Sexually Transmitted Infections (STIs) and male circumcision (UNAIDS, 2013a). However, only slow progress has been made so far in reducing the rate of new infections and decreasing the overall HIV prevalence.

In the year 1998, the Government of Namibia through the Ministry of Education developed youth-centered programme to raise awareness about STI and HIV

prevention. *Window of Hope* (WoH) and *My Future is My Choice* (MFMC) are among the most important AIDS Prevention and Care Programmes that target young people in Namibia. According to the Training manual for WoH and MFMC (UNAM, 2007) *Window of Hope* reaches children at an early age (9 to 14 years) and thus provides an opportunity to form behaviour (including sexual behaviour) before children reach puberty, based on the assumption that many children become sexually active during or after puberty. It is a long-term programme, using a holistic approach and is based on both African traditional and Western values (UNAM, 2007).

My Future is My Choice is a national life skills-based HIV-prevention training programme for young Namibians aged 15 to 24 in the secondary and combined schools. Both programmes aim to empower young people to protect themselves against HIV and AIDS infection, changing risky sexual behaviour and to face the many challenges of our rapidly changing Namibian society and to improve their ability to make healthy choices. For these programmes to be implemented successfully, motivated and enthusiastic teachers are an absolute need. Teachers have to be convinced that *Window of Hope* and *My Future is My Choice* will make a decisive difference in the lives of our children and youth, communities and country. Teachers need to be infused with a spirit of hope that these programmes will work successfully because the children and youth in their care are indeed a 'window of hope' and can learn indeed to choose a healthier future. However, these programmes are offered as extra curricular activity and voluntary in school (UNAM, 2007).

The National Demographic and Health Survey (NDHS) 2006-07 data show alarming dissonance between knowledge and practice of HIV prevention behaviour both in the areas of condom use and multiple sexual partners. Overall, 83 % of young women and 86 % of young men between 15-24 years old reported knowing that risk of HIV can be reduced by using condoms, yet only 64 % of women and 81 % of men reported using condoms when they last engaged in high-risk sex. Based on this information, HIV prevention among young people remains a priority for the country. To conclude, young people need special and urgent attention. Despite the large numbers of young people infected with HIV, their needs are often overlooked during the development of national HIV strategies and policies and the allocation of budgets. This exclusion is compounded by the fact that young people are over-represented among the worlds poor and unemployed. They may also lack a “voice” by which to express their concerns and they often are not included in the planning and design of interventions targeted to them (UNAIDS, 2007). Therefore, young people engagement in the development of HIV-prevention programmes is critical to programme success.

1.3. STATEMENT OF THE PROBLEM

Despite mass media campaigns to provide information on how to promote healthy life style and sexual behaviour, risky sexual behaviour among male learners at secondary schools exist. Secondary school age is a period in learner’s life that is characterized by curiosity and experimentation with sexual activities and drug use especially young men (Kayode & Ogu, 2011).

According to MoHSS (2009), young men in particular, do not perceive themselves to be at risk of acquiring HIV and this in particular put themselves at the risk of acquiring HIV. It is evidenced, according to MoHSS (2009) that men had higher levels of risk to be infected and were also more likely to have multiple partners.

In addition MoHSS further stated that men are less likely to access services namely Voluntary Counseling and Testing (VCT) and Antiretroviral Therapy (ART), and their risk behavior is higher than women.

Therefore, in this study, the researcher focused only on male learners because the researcher believes that HIV-related risky behaviours are more prevalent among males than females. This is due to men dominance over women during sexual activities, as highlighted above. In Oshana Region, the trend indicates an increase in HIV prevalence among the youth aged 15-24 years from 8.3% in 2008 to 14.8 % in 2010. Again, the HIV Sentinel survey for 2014 indicates an increase in HIV prevalence from 7.8% in 2012 to 9.4% in 2014 among the same age group in Oshana Region (MoHSS, 2014a).

Also worrisome is the fact that the disease mostly affects the productive segments of the society (adolescents and young adults) and more importantly, it decimates the lives of the future of the country. In the light of the above, it is evident that a gap likely exists in knowledge of HIV preventive measures among the male youth. It is on this basis that the researcher formulated the main research question for this study,

that is, “What is the level of knowledge of prevention measures on HIV and AIDS among male learners that likely contributes to the risky sexual behaviours?”

Therefore to answer the question, it is essential to determine knowledge, attitudes and practices on HIV and AIDS preventive measures among male learners in secondary schools to fill the knowledge gap on the subject matter and further arm health educators, peer counselors, and other stakeholders with the necessary information.

In this study the researcher focused only on male learners because culturally, males are sexually dominant and HIV related risky behaviours are more prevalent among males than females. Despite the risky behaviour, young men are not perceiving themselves as at risk of being infected by HIV virus (MoHSS, 2009).

1.4 PURPOSE

The purpose of the study was to assess the knowledge, attitudes and practices on HIV and AIDS prevention among male learners in secondary schools in Oshana Region.

1.5 OBJECTIVES OF THE STUDY

The objectives of this study were to:

- Assess the knowledge about HIV and AIDS preventive measures among male learners in Secondary Schools in Oshana Region.
- Assess the attitudes toward HIV and AIDS preventive measures among male learners in Secondary Schools in Oshana Region.

- Describe the HIV and AIDS preventive practices among male learners in Secondary School in Oshana Region.

1.6. SIGNIFICANCE OF THE STUDY

The study results could support and advance comprehensive sexuality education (CSE) and contribute to strengthening comprehensive sexuality education as part of the life skills curriculum among youth in the country. Hence, a clear understanding about knowledge, attitudes and practices (KAPs) among any population is very important for planning of HIV preventive programme to control or prevent the spread of HIV. The benefits of the study will be that it will open up opportunities for men to be involved in the prevention and caring for those who are affected and infected by HIV and AIDS. The results will provide formative information that will assist in program planning for behavior change communication as well as identification of implementation gaps and development of training manuals, policies and guidelines for the school health programme.

1.7. DEFINITION OF TERMS

Knowledge, attitude and practices (KAP): A KAP survey is a representative study of a specific population to collect information on what is known, believed and done in relation to a particular topic (Abedin, 2011).

Knowledge in this study refers to the general awareness and information among male learners in Oshana region on how HIV can be transmitted so that learners can be able

to protect themselves. Lack of knowledge is one of the factors that reduce the ability of an individual to avoid HIV infection (UNAIDS, 2007).

Attitude refers to an opinion and general feeling toward people living with HIV/AIDS in this cases, it can be the learner or a teacher.

A practice in this study refers to what is being done by those learners to protect themselves against HIV/AIDS, for example, learners who are sexually active are they using HIV precaution measures like condoms or not?

The Human Immunodeficiency Virus (HIV) is a retrovirus that infects cells of the immune system, destroying or impairing their function. As the infection progresses, the immune system becomes weaker, and the person becomes more susceptible to infections. The most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS) (UNESCO, 2013: MoHSS, 2007).

AIDS is a disease that is caused by HIV, which affects the immune system as a body's defence mechanism against diseases (MoHSS, 2007).

HIV/AIDS in this study refers to the disease which can infect the learners through unprotected sexual intercourse as well as through using contaminated needle with blood, especially if they do not comply with HIV prevention measures.

Preventive measures: refers to practices done to prevent the spread of diseases, and in this context, HIV/AIDS. HIV prevention practices may be done by individuals to

protect their own health and the health of those in their community, or may be instituted by governments or other organizations as public health policies (WHO, 2006). Prevention measures in this study refer to precautions to prevent the transmissions of HIV/AIDS. Learners who are sexually active or involved in other risky practices like sharing sharp objects need to be clear on prevention measures to be able to protect themselves against HIV/AIDS.

Risky sexual behaviours are defined by the increased risk of a negative outcome, which can take two pathways: risky sexual behaviours are those which increase the chance of contracting or transmitting disease, or increase the chance of the occurrence of an unwanted pregnancy (WHO, 2006; UNAIDS, 2007).

For this study risky sexual behaviour refers to a behaviour that puts the learner at greater risk of HIV infection, for example, sexual intercourse while under the influence of alcohol.

According to Longman English Dictionary, a learner is defined as someone who is learning to do something. Learners in this study refer to male learners between the age of 14-21years who are in secondary schools for learning purposes. Being in boarding school with different learners from different backgrounds, learners may influence each other with positive and negative behaviours since they are learning.

1.8 RESEARCH PARADIGM

A paradigm is defined as a “worldview” or a set of assumptions about how things work (Morgan, 2007). Quantitative and qualitative research methods involve very different assumptions about how research should be conducted and the role of the researcher. A paradigm helps the researcher to be organized in his or her thinking, observing and interpreting processes (Brink, Van der Walt & Van Rensburg, 2008). The philosophical basis of the study is realism, whereby the researcher would like to know the fact. Realism is the ontology within the quantitative paradigm. The researcher believes that there is the truth about a reality waiting to be discovered (Gallagher, 2008). Most, if not all studies, have underlying assumptions.

This study is based on the following assumptions:

Ontology: An ontological assumption relates to the nature of reality and its characteristics such as:

- What is the nature and form of reality?
- Is it objective/subjective and single/multiple?
- Objective reality or relativistic and constructivist reality

Researchers have an underlying assumption that there is a reality that can be comprehended. The researcher can determine the way things are and, often, discover the cause effect relations behind social reality. Then, researchers can find meaningful indicators of what is really happening.

In this world, researchers have to assume that the world they researched is a world populated by human beings who have their own thoughts, interpretations and meanings (Ahmed, 2008; Gallagher, 2008).

This study is anchored on a quantitative design and the researcher embraces the idea of a single reality which is objective. Therefore, it is part of the researcher's duty to discover this reality which, in this case, is the knowledge, attitude and practice toward HIV and AIDS prevention measures among male learners.

Epistemology

Epistemology is the study of how researchers go about to know things, how researchers know whether things are true or false and what steps needs to be taken to gain knowledge of the world (Gallagher, 2008).

This assumption concerns the extent of proximity the researcher establishes with the respondents in the enquiry. The researcher and the object of investigation are independent from each other and the object can be researched without being influenced by the researcher. Any possible researcher influence can be anticipated, detected, and accounted for (controlled) (Gallagher, 2008).

In this study, the quantitative design posits that the researcher is independent from what is being researched. Ideally, research should be done in an objective way so that the researcher does not influence the data that is gathered. The instrument that was used to collect the data was pre-tested and the research participants responded in an atmosphere of confidentiality to the self-administered questionnaire to ensure that the results being collected produce truth (Wagner, Kawulich, & Garmer, 2012).

Methodology

Methodology is the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of the methods to the desired outcomes. Methodology means how knowledge is discovered and analyzed in a systematic approach (Ahmed, 2008; Wellman, Kruger, & Mitchell, 2007). The term methodology referred to philosophies that guide on how knowledge should be gathered.

In this study, methodology is deductive in nature with a fixed design in tight control over constructs; where the emphasis is placed on measuring quantitative statistical information that may seek generalization. Data was statistically analyzed and the respondents' responses were transcribed and analyzed using EPI-info version 7 and IBM SPSS statistics version 23.

A quantitative approach was used to conduct the study, because through quantitative research questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena, are answered (Wellman et al., 2007). This will be discussed in more detail in chapter 3.

1.9 SUMMARY

It has become evident that young people remain at the centre of the HIV/AIDS epidemic in terms of rates of infection, vulnerability and potential for change. They face the economic and social impact of HIV/AIDS on families, communities, and nations, and young people must be at the centre of prevention actions. Therefore, where young people are well informed of HIV risks and prevention strategies, they are changing their behaviour in ways that reduce their vulnerability. The study was

therefore designed to assess the knowledge, attitudes and practices of young people in secondary schools in Oshana Region on HIV prevention.

This chapter provided an orientation to the study as well as definitions of the key terms that this research covered as well as the research paradigms underpinning of the study. The next chapter will review the literature on what other researchers have done on this topic, including other publications related to the topic.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

Burns & Grove (2011) define literature review as a summary of theoretical and empirical sources to generate a picture of what is known and not known about a particular problem. The purpose of a literature review is to familiarise the reader with practical or theoretical issues relating to the problem and helps the researcher to lay a foundation for the study. Therefore, a literature review indicates what is known about an area of inquiry and suggests ways of conducting the study on the topic of interest. In this study the literature review was conducted under the following headings: global situation of HIV/AIDS and the education sector, cultural support, targeted programs for HIV prevention among the youths (in Namibia and globally), how HIV/STD prevention programs can reduce risk behaviors and be cost-effective, barriers to accessing sexual and reproductive health services among adolescents and the impact of HIV/AIDS on the education sector.

2.2 HIV/AIDS GLOBALLY

UNAIDS (2013a) has reported that globally in 2012, an estimated 35.3 million people were living with HIV. This indicated an increase from previous years as more people are receiving the life-saving antiretroviral therapy. There were 2.3 million new HIV infections globally, showing a 33% decline in the number of new infections from 3.4 million in 2001. At the same time the number of AIDS deaths is also declining with 1.6 million AIDS deaths in 2012, down from 2.3 million in 2005

(UNAIDS, 2013a). It is further indicated that the persistent challenges to effective HIV prevention for adolescents and young people include inadequate access to high-quality, youth-friendly HIV and sexual and reproductive health services, and sexual violence against young women and girls. Accordingly, UNAIDS (2013c) documented that the estimated number of new infections among young people was still high at 450 000 [370 000–550 000] in 2011.

Namibia is one of the countries with the highest HIV prevalence in 2012 with a national prevalence of 18.2% while for Oshana region it was 22.3% (MoHSS, 2012). The national sentinel surveillance report on HIV for 2014 has however indicated a significant decline in HIV prevalence to 16.9% for Namibia and 18.2% for Oshana region. However, HIV/AIDS still remains a challenge to the public health sector and socio- economic development in Namibia.

2.3 HIV/AIDS AND THE EDUCATION SECTOR

The International Planned Parenthood Federation (IPPF) reported in 2011 that Comprehensive Sexuality Education (CSE) emphasizes a holistic approach to human development and sexuality. The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009) identifies the primary goal of sexuality education as follows: “children and young people become equipped with the knowledge, skills and values to make responsible choices about their sexual and social relationships in a world affected by HIV”.

Research further points to the fact that CSE can effectively delay sex among young people, as well as increasing condom and overall contraceptive use among sexually

active youth. Therefore, the United Nations Population Fund (UNFPA) (2010) concluded that a programme that explicitly addresses gender norms, especially those around masculinity, had a positive impact on male sexual behaviours and sexual health outcomes related to HIV risk, including improvements in condom use and a reduction in reported STI symptoms.

Namibia has introduced Life Skills subject in the secondary school curriculum to equip learners with knowledge and skills to protect themselves against HIV/AIDS and to care for others infected or affected by the disease. Life skill subject is extremely important in view of the threat of HIV/AIDS and sexually transmitted diseases, especially for groups at risk and persons in particularly vulnerable situations, such as youth exposed to gender-based violence. This may help youth make responsible decisions before they reach adulthood. It is expected that the findings from this research will contribute to strengthening comprehensive sexuality education as part of life skills among the youth in the country which is left vulnerable by the disease.

Thanavanh et al., (2013) documented that young people face greater challenges and more exposure to risks, including economic exploitation, changing lifestyles, lack of correct health information, and lack of access to adequate reproductive health services, global, regional and national conflicts, and the spread of sexually transmitted infections and HIV/AIDS. In addition to that, Kayode and Ogu (2011) found that as a result of hormonal influence, adolescents are physiologically vulnerable to HIV, most of them not only experiment with sex but also uncontrollably engage in unprotected sex. The researchers further explained that, to

them, engaging in sexual activities is a sign of “arrival” or “initiation” into adulthood and getting infected with sexually transmitted diseases (STD) is a mark of popularity. Many of them are naïve, probably without sound knowledge of the implications of their actions.

Edith and Hadiza (2013) concluded that although people of any age and gender are susceptible to HIV, adolescents and young adults run a greater risk because they engage in risky sexual behaviors that may expose them to risk of contracting sexual transmitted diseases. Therefore, any intervention targeted at young men before they are sexually active could prevent new HIV infections (Thanavanh et al., 2013).

HIV/AIDS is affecting all the sectors but the impact of HIV/AIDS on the education sector has been immense. As a result, the unprecedented rate of HIV/AIDS infection and the proportionately high number of educated persons that have fallen victim to the pandemic, has magnified the problem for the education planners (Asemota, 2007). HIV/AIDS infection has increased absenteeism among teacher and learners. When a teacher falls ill, the class may either join another teacher with her/his class, or be left untaught.

Some learners may be infected with HIV/AIDS or suffer from AIDS-related illnesses. Such illnesses may cause them to be absent from school frequently, and they may interfere with their ability to learn and their academic performance (Asemota, 2007; Chinsebu , Kasanda & Shaimemanya, 2011). Absenteeism cannot be denied because every now and then, learners may miss some school activities and lessons which could be due to hospitalisation for HIV related illness.

Children of infected parents sometimes drop out of school to take care of sick parents or siblings after the death of their parents. The number of children entering the school system will diminish if AIDS orphans do not enrol, or enrolling is delayed or learners leave school in large numbers. Some school-aged children may be infected with HIV/AIDS or suffer from AIDS related illnesses. Such illnesses may cause them to be absent from school frequently and the illness may interfere with their ability to learn, consequently affecting their academic performance negatively (Asemota, 2007). The problem is that few teachers have been trained to cope with the educational, social and psychological consequences of HIV and AIDS, which leave the learner who faces challenges in terms of the disease, unattended.

2.4 KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS HIV/AIDS PREVENTION AMONG YOUNG MALES IN NAMIBIA AND GLOBALLY

According to UNAIDS (2013b) 50% of persons living with HIV were infected during adolescence and young adulthood. The lives of millions of young people are at risk because of lack of information and life skills to delay sex until they are physically and socially mature (UNESCO, 2013). This shows that knowledge about HIV/AIDS and life skills are crucial before one gets to adolescence.

Several studies have been conducted to determine the knowledge, attitude and practices of HIV preventive measures among youth. However, less is known about knowledge, attitude and practices of HIV preventive measures specific among male learners.

In Malawi, a study was conducted to examine young male's awareness, knowledge and attitudes about HIV/AIDS and other sexually transmitted infections. Knowledge levels were very high with 99% for adolescent men.

Uganda had 16.8% of young adolescent male counterparts who demonstrated indepth knowledge about HIV transmission and prevention. (Bankole, Biddlecom, Guiella, Singh & Zulu, 2007).

Another study conducted in Zimbabwe showed that male adolescents were sexually active by the age of 15 and therefore at risk of HIV infection (Mlingo, 2008). The researcher further reported that alcohol use among secondary school learners was high with rates of 70% for males and that they engaged in high risk behaviours while intoxicated. In Zimbabwe, the Demographic and Health Survey (2010-11) revealed that human behaviour is influenced by different factors which include knowledge, risk perception, and attitudes towards condoms, persons living with HIV and gender roles. However, knowledge of HIV was reported as an important influential factor on sexual behaviours.

In South Africa, a survey on junior high school students found that there were gaps in adolescents' knowledge of HIV especially on the mode of transmission and prevention. The learners had a high prevalence of behaviours that put them at risk of HIV infection which include early sexual onset, infrequent condom use and multiple sexual partners. In a review of unsafe sexual behaviour among South African youth, it was found that at least 50% of young male became sexually active by age 16 years (Peltzer, 2007).

In Namibia, HIV is transmitted among adults primarily through heterosexual contact between an infected partner and a non-infected partner (MoHSS, 2012c). Consequently, HIV prevention programmes focus their messages and efforts on promoting the following specific behaviours: use of condoms, voluntary male circumcision, limiting the number of sexual partners or staying faithful to one uninfected sexual partner, preventing mother-to-child transmission, and, for young people, delaying their first sexual intercourse (sexual debut) (NDHS, 2013).

According to the National Demographic and Health Survey (NDHS) (2013) HIV prevalence among men aged 15-19 years was reported at 2.0% and among those 20-24 years it was 3.4%. Although HIV knowledge in the general population is relatively high, risky behaviours, including lack of condom use, are common and therefore remain a significant public health concern (NDHS, 2013). The Knowledge, Attitude and Practices (KAP) surveys indicate that there has been no significant change in sexual behaviour. New HIV prevention strategies are needed to effectively address the factors driving the epidemic (Nawa Life Trust, 2007).

However, the researcher did not find any previous studies that specifically focused on knowledge, attitude and practices of HIV prevention measures among male learners in Namibia.

In response to the HIV/AIDS pandemic, HIV/AIDS policies and HIV prevention programmes have been put in place in all institutions of higher learning and most have implemented interventions aimed at preventing HIV/AIDS.

Various studies by Mberia and Mukulu (2011) and Reddy and Frantz (2011), have reported that secondary school learners, who are mostly young people, rarely use

existing HIV/AIDS preventive methods, for example, condoms. Although studies have shown that young secondary school learners have a high degree of knowledge about HIV/AIDS and HIV modes of transmission, they are not utilizing the existing HIV prevention methods and still engage in risky sexual practices favourable to HIV. Some variables, such as awareness of existing HIV/AIDS prevention methods, have been associated with utilization of such methods (Ndaborora & Mchunu, 2014).

Prevention methods including male circumcision have been reported as successful. Over the past decade, numerous epidemiological studies have reported a significant association between lack of male circumcision and risk for HIV infection, leading to recommendations for male circumcision to be added to the armamentarium of effective HIV prevention strategies (WHO, 2008). This is one of the HIV prevention strategies also implemented in Namibia. An individual's choice to undergo male circumcision or a community's decision to promote the practice should be made in the light of the best available scientific evidence. Namibia has set an ambitious target of scaling Voluntary Medical Male Circumcision (VMMC) programs to reach 80% of HIV-negative uncircumcised men between the ages of 15 to 49 years of age by 2017. The data currently show that 26 % of men aged 15-49 are circumcised (NDHS, 2013).

Although people of any age and gender are susceptible to HIV, young males aged 15 to 25 years are more at risk of contracting it. According to the World Health Organization and the Joint United Nations Program on HIV/AIDS, youths are much more prone to HIV infection as a result of a lack of correct health information,

indulgence in risky behaviours, and lack of access to adequate reproductive health services (Thanavanh et al., 2013).

It is clear that only knowledge about the roles of abstinence, condoms and limiting the number of sexual partners, is far from being sufficient, and that effectively preventing HIV requires a comprehensive, multi-faceted program framework.

2.5 GENDER ROLES AND HIV INFECTION

Throughout history, women faced intense discrimination from a lack of legal rights and very little independence from their husbands, to being thought to have inferior brains. In many societies, women have long been viewed as less than fully human which lead to gender inequality (Kitch, 2012).

Gender inequalities prevent girls from refusing high-risk sex and put them at high risk of rape and sexual exploitation. The prevailing taboos and sensitivities about sex-related matters need to be overcome, so that information is shared more widely and effectively. Men and boys must be involved in ending gender inequities and changing the patterns of male behaviour that put girls and women at risk.

A review of several studies by the Population Council also found strong evidence that more equitable power between partners in heterosexual relationships is associated with more consistent condom use, lower pregnancy rates, and lower risk of HIV infection (UNFPA, 2010).

In contemporary times, the issue of sexuality is an aspect of reproductive rights, which is internationally recognized as critical to the advancement and promotion of adolescent human rights. However, under the African culture, open discussions on certain issues on sexuality are regarded as taboo (Bamgbose, 2011). MoHSS (2015)

showed that the ways to address HIV prevention in relationships with a focus on values had not been adequately communicated.

Male dominance is a factor in the spread of HIV and AIDS in South Africa. In African culture, sexual relationships are dominated by men, meaning that women cannot always practice safe sex even when they know the risks involved. Many men believe they are the custodians of African culture and regard women as inferior, and believe that women should obey men (Ngubane, 2010). African culture continues to promote patriarchy in many ways and this perpetuates the subordination of women. Abuse against women is still extremely common and encourages the tradition of male dominance. This has a substantial impact on the continuing spread of HIV and AIDS. Throughout history, men have been given the right to control women and have exercised whatever means they felt necessary to achieve this domination.

Within a dynamic notion of culture, the issue of the protection of the sexuality of the adolescent girl is essential to cultural survival and continuity. The preservation of cultural identity and promotion of social and political cohesion are legitimate objectives (Ugwu, 2015).

In order to stop the spread of the HIV and AIDS pandemic, women need to be given power and control over themselves and their sexual lives. If women are given the authority that they deserve, men will not be able to make decisions for women regarding sexual practices (Ngubane, 2010). To a great extent, African sexual ethics is relevant in controlling the spread of HIV and AIDS. That is why gender inequality has to be addressed in HIV prevention programming. Young men need to reflect

about how traditional and negative male behaviours affect their own lives and how they can construct alternative ways of interacting in their intimate relationships.

2.6 HIV PREVENTION PROGRAMMES AMONG THE YOUTH (GLOBALLY AND IN NAMIBIA)

Condoms remain one of the most efficient technologies available to prevent sexual transmission of HIV when it is used correctly and consistently (MoHSS, 2007; UNAIDS, 2013a). It is also regarded as dual protection since it protects against pregnancy as well as sexually transmitted infections, including HIV and AIDS. However, abstinence from sex is the most effective preventive measure to educate the youth.

Outreach strategies are essential when working with out-of-school adolescents and youth who engage in HIV-risk behaviours, as they are not likely to seek help on their own and may not be covered by existing health or information services. Outreach programmes aim to take information, commodities, education and services to them in their own milieu, rather than waiting for them to consult static services (WHO, 2009). Currently in Namibia door to door HIV counseling and testing is being implemented in Oshana and Kavango regions by Development Aid from People to People /Total Control of Epidemic (DAPP/TCE).

Many of the projects referred to the blend of awareness building and skills development, required to prevent HIV and AIDS, as Life Skills-Based Education. This describes a set of personal and interpersonal skills, which help people make informed decisions, solve problems, and communicate effectively (UNESCO, 2013). Life Skills-Based Education has been incorporated in Namibia education curriculum from grades 5 to 12. Therefore, in Oshana region the division of Family Health -

Primary Health Care Directorate, MoHSS, has trained the life skills teachers in four schools on adolescents living with HIV as part of Adolescent Friendly Health Services (AFHS) to be able to spearhead the youth club, for example HIV/AIDS Awareness Club in the schools.

If young people are to avoid HIV and AIDS, awareness and skills about HIV prevention measures are not enough. They must also consistently practice safer behaviours. For those who are sexually active, there is a need for youth-friendly health services, including access to condoms, voluntary and confidential counseling and testing (VCT), and care for sexually transmitted infections (STI) (WHO, 2009; WHO, 2013).

In Namibia, University of Namibia (UNAM, 2007) has designed the behavior change communication programmes for the Ministry of Education to equip youth with the self-esteem, knowledge and skills to protect themselves against HIV and AIDS and to care for others infected or affected by the disease. The programmes look at each individual being assertive and saying "No" to early sex, making good decisions, developing self-esteem, creating positive attitudes towards people who are infected with HIV and caring for people who are sick. Therefore, *Window of Hope* (WOH) and *My Future is My Choice* (MFMC) are among the most important AIDS Prevention and Care Programmes in Namibia. However, research conducted by the University of Namibia (UNAM, 2007) revealed that continued discomfort by teachers to speak about sexuality and HIV and AIDS with children is one of the challenges affecting effective implementation of the programmes.

Other HIV prevention programmes are *True Love Waits*, and *Teenagers against Drug and Alcohol* (TADA). Peer education has been shown to be an effective mechanism for increasing most at-risk young people's knowledge and skills about HIV and STIs and contributes to enabling them to be responsible and protect themselves and others from HIV (WHO, 2009).

HIV prevention programmes provided by MoHSS are Voluntary Counselling and HIV testing (VCT), Voluntary medical male circumcision (VMMC), Prevention of Mother to Child Transmission of HIV (PMTCT) and Post-exposure prophylaxis (PEP). The aims of PMTCT is to prevent the transmission of the HIV virus from the mother to the unborn baby, while PEP is a short-term ART to reduce the likelihood of acquiring HIV infection after potential exposure either occupationally or through sexual intercourse, for example, in case of condom burst (MoHSS, 2007; MoHSS, 2008; UNAIDS, 2013a; WHO, 2013). However, UNFPA (2010) indicated that young people's needs are not limited to prevention alone. Those who are HIV positive, some of whom do not know they are infected, need care, treatment and support, including sexual and reproductive health services.

The *Window of Hope* aims to equip children with the self-esteem, knowledge and skills to protect themselves against HIV/AIDS and to care for others infected or affected by the disease (UNAM, 2007). The programme activities include singing, storytelling, role-playing and art with the overall theme being about developing children's strengths, values and skills to become responsible adults.

HIV and other sexually transmitted diseases (STD) prevention programmes can reduce risk behaviors and be cost-effective. According to the Centre for Disease Control's (CDC) Division of Adolescent and School Health (DASH) a well-designed, well-implemented school-based HIV/STD prevention programmes can significantly reduce sexual risk behaviours among learners. A review of 48 studies found that sexual health education programmes resulted in a delay in first sexual intercourse, a decrease in the number of sex partners, and an increase in condom or contraceptive use. Those studies revealed that among learners who attached themselves to school based HIV/STD prevention programmes none of them have increased the likelihood of having sex (WHO, 2009).

Effective HIV/STD prevention programmes tend to be those that are delivered by trained instructors; are age-appropriate; and include such components as skill-building lessons, support of healthy behaviours in school environments, and the involvement of parents, youth-serving organizations, and health organizations.

Youth asset-development programs, which teach youth how to solve problems, communicate with others, and engage in healthy behaviours, have also been linked to long-term reductions in sexual risk behaviours. School-based HIV prevention programs are also cost-effective. A study conducted by CDC found that for every dollar invested in an effective school-based HIV, STD, and pregnancy prevention program, N\$ 37.80 in medical costs and lost productivity were saved (Senn & Carey, 2008).

The United Nations Fund for Population (2010) revealed the barriers to accessing sexual and reproductive health services as follows: young people often face policies or attitudes that prevent or discourage them from seeking sexual and reproductive health services. These gaps in information and barriers to accessing adolescent friendly health services (AFHS), as well as for the prevention of STIs, including HIV, reduce use of protective measures.

The review by WHO (2009b) ascertained that the sexual and reproductive health needs of adolescents are severely underserved and the provision of youth-friendly services alone is not sufficient to meet them. Supply side intervention needs to be combined with demand side activities to create a more supportive environment for adolescent care seeking and increased uptake of services, and governments need to work in partnership with civil society and community organizations to reach young people more effectively.

2.7 HEALTH BELIEF MODEL

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors, this is done by focusing on the attitudes and beliefs of individuals (Glanz & Bishop, 2012).

The Health Belief Model is explained by the following four perceptions which serve as the main constructs of the model: perceived susceptibility, perceived severity, perceived benefits and perceived barriers. Each of these perceptions, individually or in combination, can be used to explain health behaviour.

Perceived susceptibility refers to one's opinion of chances of getting a condition (Glanz & Bishop, 2010). For example if sexually active learners believe that they may be exposed to HIV if they do not comply with HIV preventive measures then they will take action to protect themselves, like by consistent and correct use of condoms. However, if the learner did not perceive susceptibility then he will never use HIV preventive measures because he did not perceive his sexual behaviour as risky sexual practice. Therefore, learners who perceive susceptibility to the disease, can perceive the threats of the disease and the likelihood of behavioural change will be high.

Perceived severity is defined as one's opinion of how serious a condition and its consequences are (Glanz & Bishop, 2012). In the context of the present study if the learners perceives HIV and AIDS to be a serious disease then this can influence the learner's decision to take every precaution to avoid contracting the disease by utilizing every available preventive measures to protect themselves.

Perceived benefits is defined as one's belief in the efficacy of the advised action to reduce risk or seriousness of impact (Glanz & Bishop, 2012). If learners believe that the recommended precaution of using condoms would protect them from getting HIV, then they will practice the consistent and correct use of condom. People tend to adopt healthier behaviour when they believe the new behaviour will decrease their chances of developing a disease. Therefore, perceived benefits play an important role in the adoption of secondary prevention behaviour.

A perceived barrier is defined as one's opinion of the tangible and psychological costs of the advised action (Glanz & Bishop, 2010). In the context of this study

perceived barriers can refer to the learner's perceived difficulty to access condoms and the dislike of having sex using condoms. Some men have misconception that condoms limit the feeling. Since they perceive the specific barrier, this can prevent them to access and use condoms. Perceived barrier is an individual's own evaluation of the obstacle in the way of him adopting a new behaviour. Of all the constructs, perceived barriers are the most significant in determining behaviour change. It is incumbent on programme managers to identify perceived barriers by clients and address them effectively to make the programme more accessible and effective.

In summary, an individual's perceived susceptibility as well as the severity of the disease is based on the knowledge of the disease. Again, in order for a new behaviour to be adopted, a person needs to believe the benefits of the new behaviour outweigh the consequences of continuing the old behaviour. This enables barriers to be overcome and new behaviour to be adopted. This could only be possible if learners are equipped with comprehensive information on HIV/AIDS routes of transmission, consequences of risky sexual behaviour as well as on HIV preventive measures.

2.8 SUMMARY

It is believed that HIV and AIDS have major implications for countries in sub-Saharan Africa in terms of the country's ability to reach the Millennium Development Goal Six that refers to combating HIV/AIDS, malaria and other diseases. It has become evident that Namibia has introduced Life Skills in the secondary school curriculum, and it is aimed at equipping learners with skills to deal

with issues pertaining to HIV and AIDS and other life-coping mechanisms. It is also clear that adolescence is the period whereby adolescents become curious and want to experiment with sex without sound knowledge of the implications of their action. Therefore, HIV /AIDS prevention programs are essential to equip youth with the self-esteem, knowledge and skills to protect themselves against HIV and AIDS and to care for others infected or affected by the disease. Adolescent Friendly Health Services has been shown to increase the uptake of HIV preventive measures among the youth although research as revealed in the reviewed literature has pointed out that it is underutilised.

This chapter has presented a review of the literature related to the present research study. The literature reviewed covered the global and Namibian situation on HIV and AIDS, the impact of HIV and AIDS on the education sector, knowledge, attitudes and practices of HIV preventive measures among young males, gender roles and its impact on HIV and AIDS infections and the programmes and policies that address HIV and AIDS among young people. The next chapter will present the methodology that the researcher followed in carrying out this research.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In the previous chapter the researcher attempted to discuss relevant literature to the focus of this research. In this chapter the methodology deemed appropriate for this research is described. Research methodology refers to the way the researcher went about to achieve objectives and also to answer the questions asked. The chapter will cover the research design, study population and sampling, piloting of the questionnaire, data collection and handling, data analysis and the ethical issues involved in the research.

3.2. RESEARCH DESIGN

Burns & Grove (2011) describe the research design as “a blueprint, or outline, for conducting the study in such a way that maximum control will be exercised over factors that could interfere with the validity of the research results”. The control provided by the design increases the probability that the quantitative or outcomes of the study will accurately reflect reality. A research design thus explains how the research was conducted to accomplish objectives. The research design for this study was anchored on a quantitative, cross sectional design based on the self-report of the participants.

3.2.1 Quantitative Research design

Burns & Grove (2011) state that quantitative research is conducted to describe a new situation, events, or concepts and to examine relationship among variables. A research design helps a researcher to plan and implement the study in a logical way that will help them obtain the intended results, thus increasing the chances of obtaining information that could be associated with the real situation. The researcher therefore decided on a quantitative design for this study to enable the researcher quantity the magnitude of the learners' knowledge on HIV preventive measures and well as their attitude and practices related to the preventive measures. Also examining the relationship between the variables becomes possible and could easily facilitate planning of any intervention measures to remedy any identified outcome of the research.

3.2.2 Cross sectional design

A cross-sectional study is a study that produces a 'snapshot' of a population at a particular point in time (Cohen, Manion & Morrison, 2007). This study utilized a cross sectional design that enabled the researcher to collect information from the study participants at a point in time to assess their knowledge, attitudes and practices related to HIV prevention measures. It enabled the estimation of the current level of knowledge, attitude and practices of the learners regarding HIV prevention measures based on their self-report through the instrument of the questionnaire. A self-report study is a type of survey, questionnaire, or poll in which respondents read the question and select a response by themselves without researcher interference. The questionnaires in this study were handed out to the study participants to complete

without much interference from the researcher except on issues where clarity was requested by any of the respondents.

In this study, a cross-sectional study was used to estimate prevalence of an outcome of interest (knowledge, attitude and practices related to HIV prevention measures) because the sample of learners taken represented the whole population of learners in the schools surveyed. The study utilized survey techniques used to gather data, and these are relatively inexpensive and take up little time to conduct. Therefore, a quantitative cross sectional research approach was employed for this study because it emphasizes objectivity and uses systematic procedures to measure human behaviour by using formal structured instruments when collecting data from respondents (Brink, 2006). The study was descriptive in nature as it described the characteristics of the learners and their knowledge, attitudes and practices regarding HIV preventive measures.

3.3 RESEARCH SETTING

Burns & Grove (2011) defined a research setting as the environment in which the research study takes place and can be a natural or controlled environment. This study utilised real-life study environment without any changes made for the purpose of the study. Moreover, the researcher did not manipulate or change the environment for the study. The study was conducted among male learners within the school environment in Oshana Region.

Oshana is the smallest region (5, 290km²) of Namibia with a population of 183 120 people. Oshana Directorate of Education has five circuits which are Eheke, Oshakati, Onamutayi, Ompundja and Oluno circuits. Oshana region has only one district which is Oshakati district and the region comprises of three main towns, namely, Oshakati, Ongwediva and Ondangwa, governed by municipal councils. The region is situated at the centre of northwest Namibia and shares borders with Oshikoto region to the east, Omusati region to the northwest, Ohangwena region to the north and Kunene region to the south. Information provided by the regional Directorate of Education indicated that there are fourteen secondary schools in the region.

3.4 STUDY POPULATION

Burns & Grove (2011) define study a population as a particular group of individuals who are the focus of a study, while the target population is the entire set of individuals who meet the sampling criteria of a study. The target population for this study comprised of all male learners in four senior secondary schools in Oshana region. The participants were drawn from four schools which were selected randomly. Only male learners aged 14-21 years were included in the study. In this study the researcher focused only on male learners because culturally male are sexual dominant and HIV related risky behaviours are more prevalent among males than females (MoHSS, 2009; UNESCO, 2013). The total number of the target population was 1429 male learners.

3.5 SAMPLING

A sample is a small portion of the total set of the population. A sample is obtained by sampling, the most feasible way of studying large populations, given resource, time and financial limitations (De vos, Strydom, Founche, & Delport, 2011).

Oshana Region has fourteen secondary schools whereby four schools were selected through a simple random process. The names of Secondary schools in Oshana region were written on piece of papers and folded the papers and placed them in a small box. Then the researcher requested a volunteer to pick up five (5) papers with the name of the schools randomly from the small box. Andimba Toivo ya Toivo, Ekwatho, Iipumbu and Mweshipandeka Secondary Schools were selected and included in the study while Oshakati Secondary School was selected for pilot test. The number of male learners' aged 14-21 years per selected school was requested from the Regional Director of Education for sampling purposes for the main study. In total they were 1429 learners that met the criteria for inclusion in the study. A sample size of 731 was estimated using Israel's formula $n = \frac{N}{1 + Ne^2}$, where N = population size (1429); e = level of precision which was kept at 0.05 (5%). A sample proportional to size was used to determine the number of participants to be selected from each school after listing the number of male learners from each school.

3.6 PILOT TESTING

A pilot testing is a small scale trial run of a particular component, and researchers frequently conduct these to refine the methodology (Burns & Grove, 2011). The respondents in the pilot run were similar to those in the study and it was done in

similar settings. Conducting a pilot testing assisted the researcher to identify problems with the questionnaire and indicated the time needed to complete the questionnaire, which was important in obtaining consent to participate. In this study a pilot test was done prior to the actual data collection on respondents with similar characteristics to the sample. The sample was drawn from the same ethnic group who are believed to have similar culture to limit the impact of differences in cultures.

Twenty (20) male learners aged 14-21 years old from Oshakati Secondary School were selected to participate in the pilot test. To obtain the required number for pilot test, the researcher discussed with the school principal to have four learners from each grade (Grades 8-12) with age range of 14-21 years to participate in the pilot test. Therefore, the questionnaire was pre-tested among 20 learners who volunteered to participate in the pilot test. Oshakati Secondary School was not part of the schools selected to participate in the main study.

In preparation for the pilot test, the questionnaires were prepared and an arrangement was made with the school Principal of Oshakati Secondary School. The researcher explained the aim and objectives as well as the ethical considerations of the study to the Principal and subsequently to the volunteer learners. Therefore, the researcher explained to the participants that they could withdraw at any stage if they feel so and participation was entirely voluntary.

After the clarification, the researcher distributed the questionnaires and consent forms to the 20 male learners, four from each grade (Grade 8 to 12) on the 5th June 2015. The learners nominated one (1) learner who was responsible for receiving the

completed questionnaires. On the 30 June 2015, the researcher went back to collect the questionnaire and sixteen (16) out of the twenty (20) questionnaires (80%) were completed and collected back.

The completed questionnaires were reviewed by the researcher and enabled some changes to be made for the final questionnaire:

Section B2: question 15: The question required the respondents to indicate if PEP is only effective if it is given within 72 hours. The meaning of PEP (Post Exposed Prophylaxis) is a medical term and difficult to be understood by the learners.

Therefore, during pilot test none of the respondents seemed to understand the meaning of PEP. This guided the researcher to explain more about PEP in lay language in the revision for the final questionnaire.

Question 29, required the respondents to indicate whether he has contributed to help HIV affected person. The meaning of the word affected was not clear to the respondents. It gave the researcher a picture that some of the respondents confused affected with infected, and then clarification was given. This guided the researcher to give a clarification on the word affected during data collection.

Section C:

The heading of section C was attitudes toward PLHIV. The abbreviation PLHIV was not known to the respondents. Therefore, there was a need to interpret it in full since there was only an abbreviation and this was a medical abbreviation.

Data collection instrument and process

Data-collection instruments refer to devices used to collect data such as questionnaires, tests, structured interview schedules and checklists (Brink, 2006). Burns and Grove (2011) define a questionnaire as “a printed self report form designed to elicit information that can be obtained through written or verbal responses of the subject”.

A questionnaire (Annexure 1) was developed to collect data for this research.

Through literature review, the researcher came across different questionnaire in similar studies which helped the researcher to develop this study questionnaire. An anonymous structured questionnaire with close-ended questions was used to gather information about male learners’ knowledge, attitudes and practices regarding HIV/AIDS preventive measures. The questionnaire was in English.

The questionnaire was divided into four parts:

Section A focused on the socio-demographic characteristics of the respondents, including age, level of education and religion.

Section B contained knowledge-related items, which was subdivided into two sections, with questions relating to transmission, prevention and control of HIV and AIDS. The researcher included both positively and negatively framed questions to assess the participants’ knowledge, as well as their misperceptions, about HIV and AIDS.

Section C comprised of seven questions on attitudes towards utilization of preventive measures for example abstinence (abstain from sex), being faithful and consistent in condom use approach.

Section D comprised of eight questions about practices related to HIV and AIDS, including sexual behaviour and daily activities.

Question thirty which formed the last item in the questionnaire, sought to understand the suggestions from the respondents on effective HIV preventive measures among youth.

The questionnaire was designed to be self-administered by the respondents during the period of the data collection in the selected schools during a visit by the researcher between June and August 2015.

3.7. DATA COLLECTION

According to Saunders, Lewis, and Thornhill (2009), the two most commonly used primary data collection methods are the questionnaire and the interview. Questionnaires are considered to be the most reliable and essential tools for gathering information effectively (De Vos et al., 2011). Moreover, they are generally much less costly than interviews and require less time and energy to administer.

Therefore, in this study quantitative approach using a questionnaire was employed to obtain the data needed.

The researcher visited the offices of the school principals of the selected schools to introduce herself and the impending study while waiting for the permission letter from the Regional Director for the Ministry of Education, Oshana region. An

arrangement was made with the school principals of the selected schools to choose an appropriate date and time for the administration of the questionnaire. Respondents were given enough time (07- 27 July 2015) to complete the questionnaires as well as for the respondents who were less than 18 years to be able to obtain consent from their parents. The researcher confirmed from the office of the Regional Director of Education that according to the out weekend schedule, the weekend of 24 July 2015 was an out of school - weekend for all secondary schools. Learners who were under 18 years were given the forms to obtain consent from their parents/guardians during this period. However, learners under 18 years without signed informed consent asked permission from their parents/guardians to participate in the study were not allowed to submit their completed questionnaires.

Distribution of final data collection instruments

Based on the calculated sample size per school questionnaires were distributed in each of the schools for the selected study participants. The distribution of questionnaires is explained in Table 3.1 below:

Table 3.1: Number of questionnaires distributed per school

Schools Name	Questionnaires sent out	Questionnaires received back (n)	Percentages of returned questionnaires Response rate
Ipumbu Senior Secondary	217	154	70.9%
Ekwafo Junior Secondary	150	114	76%
Mweshipandeka Senior Secondary	182	138	75.8%
Andimba Toivo ya Toivo Senior Secondary	186	186	100%
Total (n)	731	592	80.9%

All the questionnaires 186 (100%) sent to Andimba Toivo ya Toivo Senior Secondary School were completed and returned. One hundred thirty eight of a possible 182 questionnaires (75.8%) of the selected respondents at Mweshipandeka Secondary School were completed and returned while 76% and 70.9% of the selected respondents completed and returned the questionnaires at Ekwatho Junior Secondary School and Ipumbu Senior Secondary School respectively. Altogether a total of 592 learners completed and returned the questionnaires, giving a response rate of 80.9%. At enrollment in each school, a stratified random sampling process was followed to enroll the participants from each grade into the study. Based on the total number of participants estimated for each school, the number for each grade was estimated and

a simple random process followed in each grade using the class register to select the study participants.

Validity

According to Brink (2006) validity refers to “the degree to which the instrument measures what it is supposed to measure”. The researcher focused on content validity which is the degree to which the items in an instrument adequately represent the universe of the content.

In this study, content validity was achieved through adapting questions from similar studies previously as outlined above. The questionnaire was reviewed by experienced researchers as well as by the two study supervisors to ensure content validity.

Reliability

According to Burns and Grove (2011) reliability testing is focusing on the following three aspects of reliability which are stability, equivalence and homogeneity. Stability is concerned with the consistency of repeated measures of the same attribute with the use of the same scale or instrument.

To address reliability in this study, the same questionnaire was used to collect data from all respondents. The questionnaire was simplified and the researcher was at hand to answer any queries during the completion of the questionnaire by the respondents. The act of piloting the questionnaire helped to simplify the questionnaire as any unclear items were rectified after the pilot study.

Reliability improves automatically when a researcher is familiar with the research environment as well. Subsequently, items that were unclear during the pilot study were rephrased. This is why it is important to have an expert review of the questionnaire, and to discuss the reliability of the questionnaire before using it.

3.8 DATA ANALYSIS

Data analysis was done in two stages – descriptive analysis and comparative analysis.

Descriptive analysis

Questionnaires were assessed for completeness by the researcher and an assistant data before being coded (unique identifier) and then entered into excel spreadsheet for each variable. The data was exported to CDC Epi-Info version 7 for analysis and Statistical Package for the Social Services (SPSS) for additional analysis. Descriptive statistics of the demographic characteristics, knowledge, attitudes and practices were presented using absolute numbers, simple percentage, range and measure of central tendency (mean, median and mode) where appropriate.

Comparative analysis

The Chi square test was used to test the association between categorical variables at the 5% level of significance.

Variables were categorized and defined as follows:

Socio-demographic information:

- Age was collected categorized as: 14-16 years, 17-19 years and 20-21 years

- Level of education was collected in complete grade as: Grade 8, Grade 9, Grade 10, Grade 11 and Grade 12
- Religion was also collected in complete and categorized as: Roman Catholic, Anglican, Lutheran, none and other (specify)

Knowledge, attitude and practices toward HIV and AIDS preventive measures were categorized as follows:

Descriptive summaries of knowledge were presented using proportions and frequencies. Respondents were regarded as “knowledgeable” when they gave $\geq 74\%$ correct responses, “moderate ” when they give 51-73% of correct responses and “low knowledge” when $\leq 50\%$ of correct responses is obtained.

The score of attitudes was based on the proportion of the respondents who responded positively or negatively to the variable assessed. The score of above 50% was considered as positive attitude of the respondent to the variables under consideration.

Those scoring less than median scores for practice were classified as “risky” practices, and those scoring equal and more than median scores were classified as “safe” practices.

The responses on HIV preventive measures among youth were listed and similar responses were grouped together to understand the suggestions from the respondents.

The results of the data analysis are presented in detail in chapter four.

3.9 ETHICAL MEASURES

According to De Vos et al. (2011) ethics in research refers to moral principles that call for respect of the right of the research respondents by researchers. Human ethics rest on four basic principles that are considered the foundation of all regulations or guidelines governing research ethics which are principle of respect for people, principle of beneficence, principle of justice and principle of non-maleficence.

Therefore, information collected is to be handled with confidentiality and ensure privacy. The study was strictly voluntary, the participants were assured that they were free to ask questions and can withdraw from the study at any time.

Permission

Permission to conduct the study was obtained from the University of Namibia Post Graduate Studies Committee as well as from the Permanent Secretary of the Ministry of Education in Windhoek. In the region, permission to visit the schools was obtained from the Regional Director of Education. At the schools, the researcher made an appointment with respective school principals for the introduction of the study. Thereafter, learners were informed that participation is voluntary.

Participant protection

The right of protection from discomfort and harm from a study is based on the ethical principle of beneficence and non-maleficence, which states that one should do good and, above all, do no harm (Burns & Grove, 2011).

The researcher explained the nature and purpose of the study and the type of information required to the respondents. They all clearly understood and gave written informed consent or assent for the study. It is the obligation of the researcher to inform a potential respondent about the research study beforehand, and to protect respondents conscientiously and completely. In this study all the respondents were fairly selected and treated, the researcher selected the respondents according to the research problem.

Informed consent

Burns and Grove (2011) define informing as the transmission of essential ideas and content from the investigator to the prospective participant, while consent is the prospective subject's agreement to participate in a study as a subject.

All respondents were required to give written consent either personally (learners over 18 years old) or through their parents/guardians especially for those aged less than 18 year (**Annexure 2**). The researcher provided adequate information about the purpose and procedures of the study, as well as about the rights of the participants. Participation in the study was voluntary and participants were informed that they could withdraw at any stage.

Deception of participants

According to Cohen et al. (2007) deception is defined as a lie in not telling people that they are being researched, not telling the truth, or compromising the truth. De Vos et al. (2011) explained that the difference between deliberate and unintentional deception should be clarified, as it is possible for a researcher to be unaware of the

falsity of a piece of information imparted. To ensure the respondents in this study would not be deceived, the researcher provided all the information about the research as reflected in the research proposal as well as an official letter from the University of Namibia outlining the title for this research.

Anonymity

Anonymity is preserved when a person's acts or statements are revealed without a disclosure of his or her identity (De Vos et al., 2011). This is also revealed by Cohen, Manion & Morrison (2007) that the essence of anonymity is that information provided by participants should in no way reveal their identity.

Therefore, no identification of the source of information was required on questionnaires to ensure respondents' confidentiality. Respondents were assured that data collected from the study would only be used for research purposes and that only the researcher would have access to the data. No findings or results are associated with the respondents' names, but all information will be generalised to the school and the region (Oshana region).

Confidentiality

Burns and Grove (2011) defined confidentiality as a researcher's management of private information shared by a subject or participant. Therefore, the researcher must refrain from sharing that information without the authorization of the subject.

In this study the respondents were assured that data from the study will be used for research purposes only and that data will be kept in a database in a computer that only the researcher and the supervisor will have access to the data. This condition is

reflected by De Vos et al. (2011), who stated that confidentiality entails that information shared by someone is not divulged to others.

Benefits

The respondents were informed that they would receive no monetary benefit from participating in the study. Although the study will not benefit the respondents directly, the findings could provide information that might benefit the country and the Ministry of Education in formulating HIV/AIDS prevention strategies that will strengthen the preventive measures among youth.

3.10 SUMMARY

A quantitative and descriptive cross sectional design was followed in order to assess the knowledge, attitudes and practices on HIV prevention among male learners in Secondary Schools in Oshana Region. The findings could ultimately assist to strengthen HIV prevention and control measures among the youth in Namibia. Altogether 592 respondents out of 731 (80.9%) estimated participants returned questionnaires. The questionnaires were self-administered after consent to participate in the study was obtained. This chapter also presented the validity and reliability of the research process as well as the ethical considerations that were adhered to. This included permission to conduct the study, participant protection, informed consent, non-deception of respondents, anonymity, confidentiality as well as possible benefits. The next chapter will present the findings from the research.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATIONS OF THE RESULTS

4.1 INTRODUCTION

The previous chapter described the methodology followed by the researcher in conducting the study including the data collection process. Data analysis was briefly explained. This chapter presents the findings from the research based on the data analysis. The findings are presented in line with the research objectives which were to:

- Assess the knowledge about HIV and AIDS preventive measures among male learners in secondary schools in Oshana Region.
- Assess the attitudes toward HIV and AIDS preventive measures among male learners in secondary schools in Oshana Region.
- Describe the HIV and AIDS preventive practices among male learners in secondary schools in Oshana Region.

The univariate statistics are presented in tables and graphs showing the frequencies and proportions. Relationships between the main identified variables were examined using the chi-squared test of significance at the 5% level of significance (p-value = 0.05). The findings are therefore presented according to the following sections:

- *Section A:* Demographic information
- *Section B:* Knowledge regarding transmission and prevention of HIV and AIDS
- *Section C:* Attitudes toward people living with HIV
- *Section D:* Preventive practices related to HIV and AIDS

In addition, various suggestions that the respondents made on improving HIV prevention services for the youths and learners were captured and presented in this report.

The schools at which the study was conducted were: Andimba ya Toivo Senior Secondary School (Ondangwa), Ekwatho Junior Secondary School (Ongwediva), Lipumbu Senior Secondary School (Oshakati) and the Mweshipandeka High School, (Ongwediva). A total of 592 respondents participated in the study.

4.2 PRESENTATION OF FINDINGS

The research findings are presented in line with the research objectives, according to the participating schools.

The findings on knowledge, attitudes and practices in HIV preventive measures is an important strategy in determining the gap in knowledge and its relationship with attitudes and practices among the participants.

SECTION A: DEMOGRAPHIC INFORMATION

Demographic information included school names, age of the respondents, level of education and religious affiliation. This information helped the researcher to determine understand the background of the respondents.

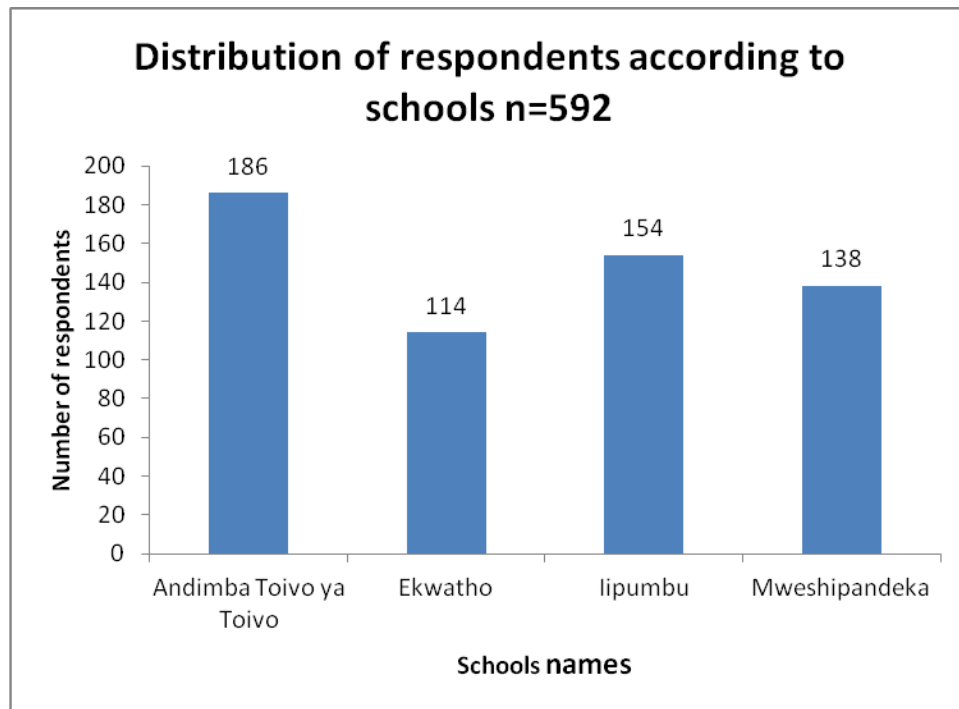


Figure 4.1: Distribution of respondents

A total of 592 respondents participated in the study from all four schools. The sample comprised of 114 (19.3%) respondents from Ekwatho Secondary School, 154 (26.0%) from Iipumbu Senior Secondary School and 138 (23.3%) from Mweshipandeka High School. The largest numbers of respondents of 186 (31.4%) were from Andimba Toivo ya Toivo Senior Secondary School.

From the figure 4.1, it is clear that the research included a representative sample from the four schools.

4.2.1 Age of respondents

Item number one under demographic information required the participants to indicate their age, as reflected in figure 4.2

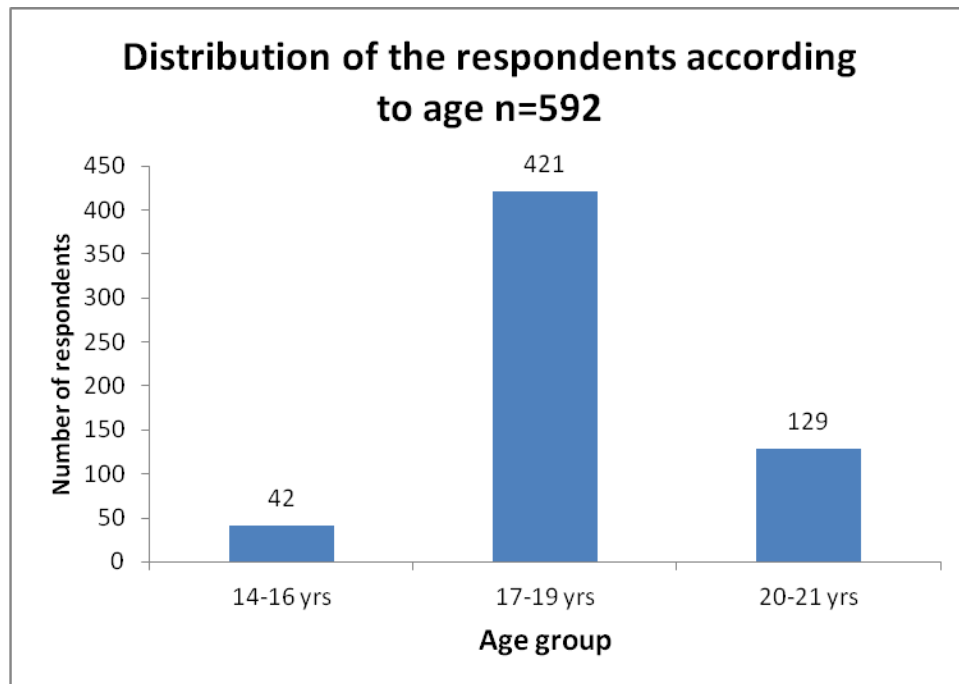


Figure 4.2: Distribution of respondents according to age (n=592)

The age of the respondents was categorized in three groups. The majority of 421 (71.1%) were 17-19 years old, followed by age group 20-21 years that were 129 (21.8%). The learners who were 14-16 years old were 42 (7.1%), and based on figure 4.2, it shows that respondents of age 14-16 years were very few. This could be because learners of mentioned age had to obtain written consent from their parents or guardians. Therefore, some learners did not manage to meet their parents on time which delayed the submission of the questionnaire.

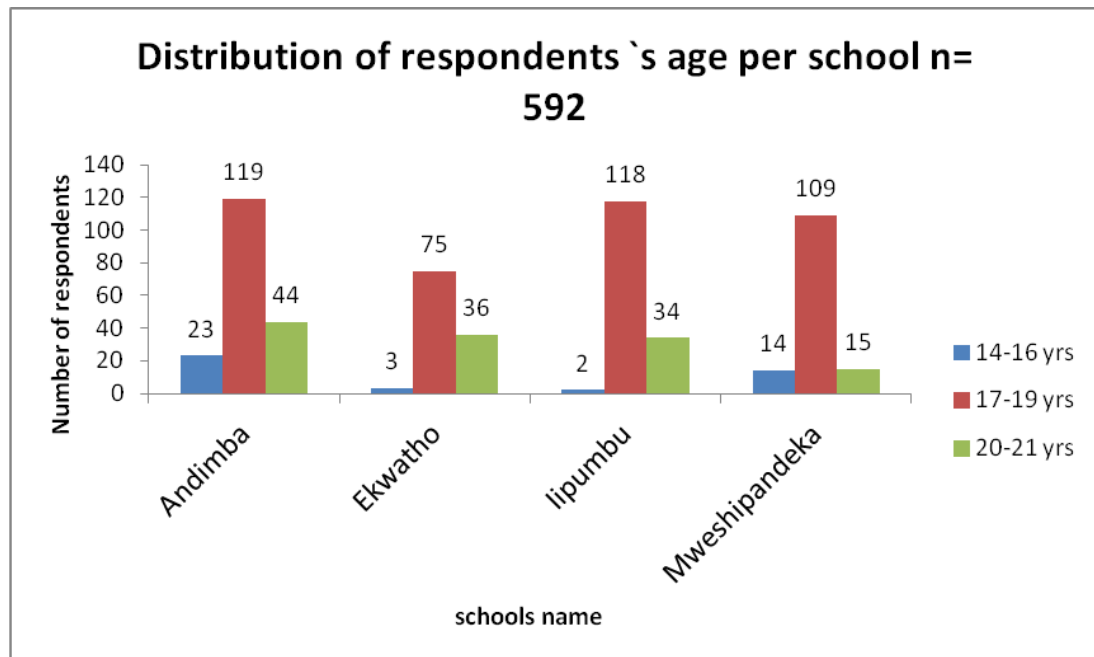


Figure 4.3: Distribution of respondents' age per school

Figure 4.3 indicates the age group of the respondents per school. Among 592, majority were of the age 17-19 in each of the schools, followed by age group 20-21 years old and few were of age group 14-16.

4.2.2 Respondents level of education

Items number two under demographic information required the respondents to indicate their grades, to make sure that all grades from grade 8 - 12 were represented in the study.

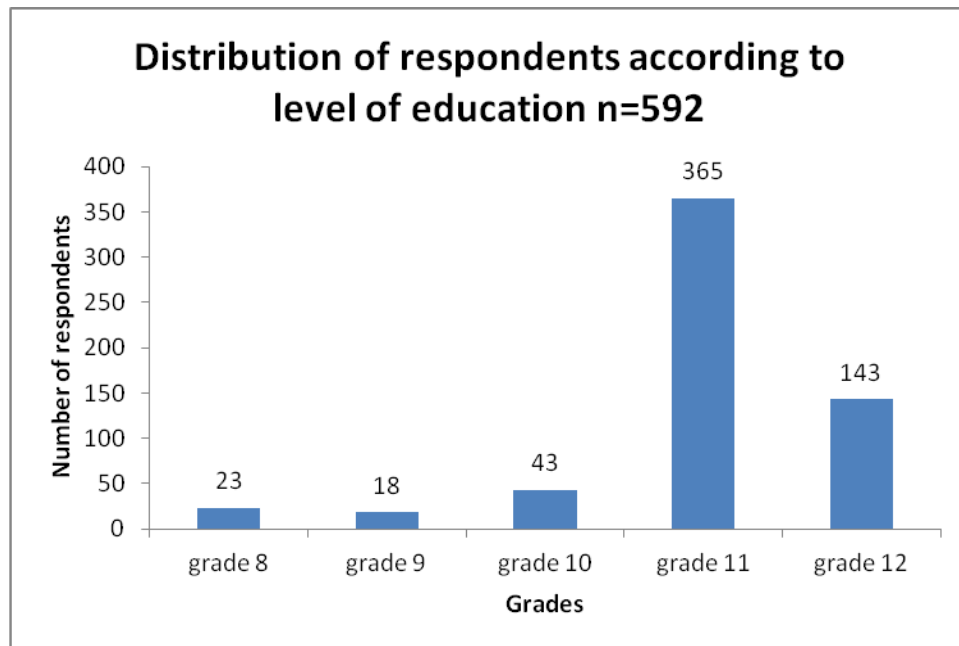


Figure 4.4: Distribution of respondents according to level of education

Figure 4.4 indicates the educational level of the respondents. The study revealed that majority 365 (61.7%) were in grade 11, followed by grade 12, 143 (24.2 %) 43 (7.3%) were in grade 10, while 23 (3.9%) were in grade 8 and 18 (3%) of respondents were in grade 9.

The study findings show also the distributions of the respondents according to grades per school; all grades were represented in each school. In Andimba Toivo ya Toivo Senior Secondary School, grade 9 were 6 (3.2%) as minority, while majority were in grade 11, 89 (47.8%). In Ekwatho Secondary Schol, grade 8 were 2 (1.8%) and grade 11 were 81 (71.1%). At Iipumbu Secondary School, grade 9 were only 1(0.6%), while grade 11 were 115 (74.7%). At Mweshipandeka Secondary School, grade 10 were minority represented by 4 (2.9%) respondents and grade 11 were majority represented by 80 (58.0%).

4.2.3 Representation of respondents' religious affiliation

Item number three required the respondents to indicate their religion. This was important for the research because the researcher believes that religion helps to shape the cultural perception of sexuality.

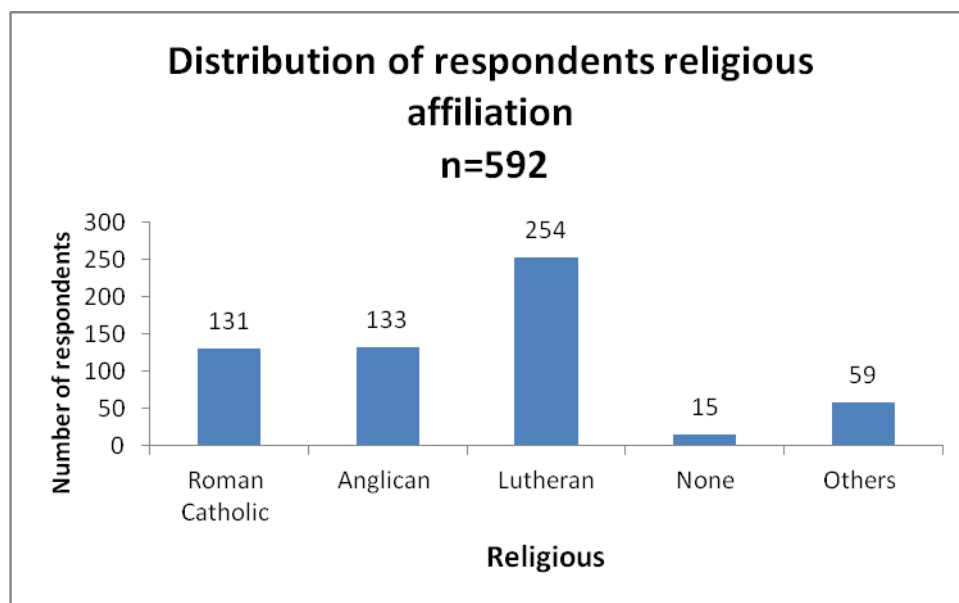


Figure 4.5: Distribution of respondents' religious affiliation

Figure 4.5 shows the religious affiliation of the respondents; it indicates that the respondents belong to the four religious groups, whereby majority 43.0% (254) out of 592 are Lutherans, 22.3% (132) are Anglicans, 10 % (59) belong to other religious affiliations, namely Four Square, Jehovah Witness, Potters House, Seventh Day Adventist and 2.5% (15) of the respondents indicated that they did not belong to any religious affiliation.

SECTION B: KNOWLEDGE ABOUT ROUTE OF HIV TRANSMISSION

Respondents were asked to indicate if HIV can be transmitted by sexual intercourse, or from mother to child, by sharing needle or syringes, by shaking hand, by blood transfusion and by eating and drinking from the same plate or glass with an HIV positive person. Table 4.1 below summarizes the findings related to knowledge of route of HIV transmission.

Table 4.1 Knowledge of routes of HIV transmission

Item number 1:	School	Yes	No	Total
HIV can be transmitted by sexual intercourse (n=592)	Andimba Toivo ya Toivo	177 (95.2%)	9 (4.8%)	186
	Ekwatho	113 (99.1%)	1 (0.9%)	114
	Iipumbu	154 (100%)	0	154
	Mweshipandeka	136 (98.6%)	2(1.4%)	138
	Total	580 (97.9%)	12 (2%)	592
Item number 2: HIV can be transmitted from mother to child (n=592)	Andimba Toivo ya Toivo	178 (95.7%)	8 (4.3%)	186
	Ekwatho	112 (98.2%)	2 (1.8%)	114
	Iipumbu	148 (96.1%)	6 (3.9%)	154
	Mweshipandeka	137 (99.3%)	1 (0.7%)	138
	Total	575 (97.1%)	17 (2.8%)	592
Item number 3: HIV can be transmitted by sharing needle or syringe (n=592)	Andimba Toivo ya Toivo	177 (95.7%)	9 (4.8%)	186
	Ekwatho	113 (99.1%)	1 (0.9%)	114
	Iipumbu	145 (94.2%)	9 (5.8%)	154
	Mweshipandeka	134 (97.1%)	4 (2.9%)	138
	Total	569 (96.1%)	23 (3.8%)	592
Item number 4: HIV can be transmitted by blood transfusion (n=592)	Andimba Toivo ya Toivo	164 (88.2 %)	22 (11.85%)	186
	Ekwatho	92 (80.7%)	22 (19.3%)	114
	Iipumbu	125 (81.2%)	29 (18.8%)	154
	Mweshipandeka	114 (82.6%)	24 (17.4%)	138
	Total	495 (83.6%)	97 (16.3%)	592

Item number 5: HIV can be transmitted by shaking hand (n=592)	School	yes	No	Total
	Andimba Toivo ya Toivo	3 (1.6%)	183 (98.4%)	186
	Ekwatho	4 (3.5%)	110 (96.5%)	114
	Iipumbu	1 (0.6%)	153 (99.4%)	154
	Mweshipandeka	3 (2.2%)	135 (97.8%)	138
	Total	11 (1.8%)	581 (98.1%)	592
Item number 6: HIV can be transmitted by eating and drinking from the same plates or glass of an HIV positive person (n=592)	Andimba Toivo ya Toivo	7 (3.8%)	179 (96.2%)	186
	Ekwatho	1 (0.9%)	113 (99.1%)	114
	Iipumbu	5 (3.2%)	149 (96.8%)	154
	Mweshipandeka	3 (2.2%)	135 (97.8%)	138
	Total	16 (2.7%)	576 (97.2%)	592
Item number 7: HIV can be transmitted by sharing a toilet with an HIV positive person (n=592)	Andimba Toivo ya Toivo	3 (1.6%)	183 (98.4%)	186
	Ekwatho	0	114 (100%)	114
	Iipumbu	3 (1.9%)	156 (98.1%)	154
	Mweshipandeka	2 (1.4%)	136 (98.6%)	138
	Total	8 (1.3%)	584 (98.6%)	592
Item number 8: HIV can be transmitted through mosquito bite (n=592)	Andimba Toivo ya Toivo	12 (6.5%)	174 (93.5%)	186
	Ekwatho	4 (3.5%)	110 (96.5%)	114
	Iipumbu	8 (5.2%)	146 (94.8%)	154
	Mweshipandeka	7 (5.1%)	131 (94.9%)	138
	Total	31 (5.2%)	561 (94.7%)	592

As shown in Table 4.1 item number one, under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate whether HIV can be transmitted through sexual intercourse. This item tested the respondents' knowledge about sexual intercourse as HIV mode of transmission. Among 592, 580 (97.9%) respondents were aware that HIV can be transmitted through sexual intercourse. All respondents (100%) from Iipumbu Secondary School knew that HIV can be transmitted through sexual intercourse. However, 12% from other schools combined replied "No" that HIV is not transmitted through sexual intercourse. Each school scored more than 90%.

Item number two under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted from mother to child.

The item indicates the respondents' knowledge about mother to child transmission as one of the modes of HIV transmission. The study revealed that majority, 97.1% (575) out of 592 respondents knew that HIV can be transmitted from mother to child. Among 592, only 2.8% (17) of the respondents incorrectly replied that HIV cannot be transmitted from mother to child.

Item number three under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by sharing needle or syringe. The responses are also reflected in Table 4.1.

This item assessed the respondents' knowledge about sharing needle or syringe as mode of HIV transmission. The study found that 96.1% (569) out of 592 respondents

were aware that HIV can be transmitted by sharing needle or syringe while 23 (3.8%) were not aware that HIV can be transmitted by sharing needle or syringe. All schools scored more than 90% on this variable.

The item number four under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by blood transfusion.

The item illustrates the respondents' knowledge whether HIV can be transmitted by blood transfusion. A total of 83.6% (495) out of 592 respondents were aware that HIV can be transmitted by blood transfusion. Among 592, 16.3% (97) were not aware that HIV can be transmitted by blood transfusion.

Item number five under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by shaking hands.

The item indicates the respondents' knowledge of whether HIV can be transmitted by shaking hand or casual contact. The study revealed that 98.1% (581) out of 592 respondents knew that HIV cannot be transmitted by shaking hands. The majority of respondents (99.4 %) (153) out of 154 were from Iipumbu Secondary School. However, 1.8% (11) out of 592 of the respondents stated that HIV can be transmitted by shaking hands.

Item number six under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by eating and drinking from the same plate or glass of an HIV positive person.

The item illustrates the respondents' knowledge if HIV can be transmitted by eating and drinking from the same plates or glass of an HIV positive person. The study indicated that 97.2% (576) out of 592 of the respondents were aware that HIV cannot be transmitted by eating and drinking from the same plates or glass of an HIV positive person. The study also revealed that 2.7% (16) out of 592 were not aware that HIV cannot be transmitted by eating and drinking from the same plates or glass of an HIV positive person. All schools scored 90% and above.

Item number seven under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by sharing a toilet with an HIV positive person.

This item shows the respondents' knowledge whether HIV can be transmitted by sharing a toilet with an HIV positive person. The study shows that 98.6% (584) out of 592 respondents were aware that HIV cannot be transmitted by sharing a toilet with of an HIV positive person. All respondents 100 % (114) from Ekwatho Secondary School were aware that HIV cannot be transmitted by sharing a toilet with an HIV positive person. Few respondents 1.3% (8) out of 592 were not aware that HIV cannot be transmitted by sharing a toilet with of an HIV positive person.

Item number eight under knowledge regarding transmission and prevention of HIV /AIDS required the respondents to indicate if HIV can be transmitted by a mosquito bite.

The item assessed the respondents' knowledge if mosquito bites can transmit HIV. The study findings revealed that 94.7% (561) out of 592 respondents were aware that HIV cannot be transmitted through mosquito bite. Majority 96.5% (110) of the respondents were from Ekwatho Secondary School. All schools scored more than 90%. However, few respondents, 5.2% (31) out of 592 were not aware that HIV cannot be transmitted through mosquito bite.

4.3 ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND HIV KNOWLEDGE, ATTITUDES AND PRACTICES

The researcher sought to find out if there is an association between demographic variables and knowledge, attitudes and practices of the learners regarding HIV prevention.

The relationship was tested using chi-squared test of significance and p-value. The level of significance was set at $p = 0.05$. The findings below point to which of the variables were found to have any significant association with selected elements of knowledge, attitude and practices of the learners regarding HIV prevention.

Association between educational level of the learners and knowledge of HIV transmission

The researcher tested if there is relationship between educational level of the learners and being knowledgeable that HIV can be transmitted by blood transfusion.

The study revealed that there was no statistically significant association found between educational levels of learners and being knowledgeable about HIV to be transmitted by blood transfusion with p – value of 0.764.

Association between age group of the learners and knowledge of HIV transmission

The researcher sought to know if there is relationship between the age group of the learners and being knowledgeable that HIV can be transmitted by blood transfusion.

The study shows that there is no relationship between age group of the learners and being knowledgeable that HIV can be transmitted by blood transfusion, with the chi squared p-value being 0.101.

SECTION B2: KNOWLEDGE ABOUT PREVENTION AND CONTROL OF HIV/AIDS

Item number nine under knowledge about prevention and control of HIV /AIDS required the respondents to indicate if HIV can be prevented by not sharing needle or syringe.

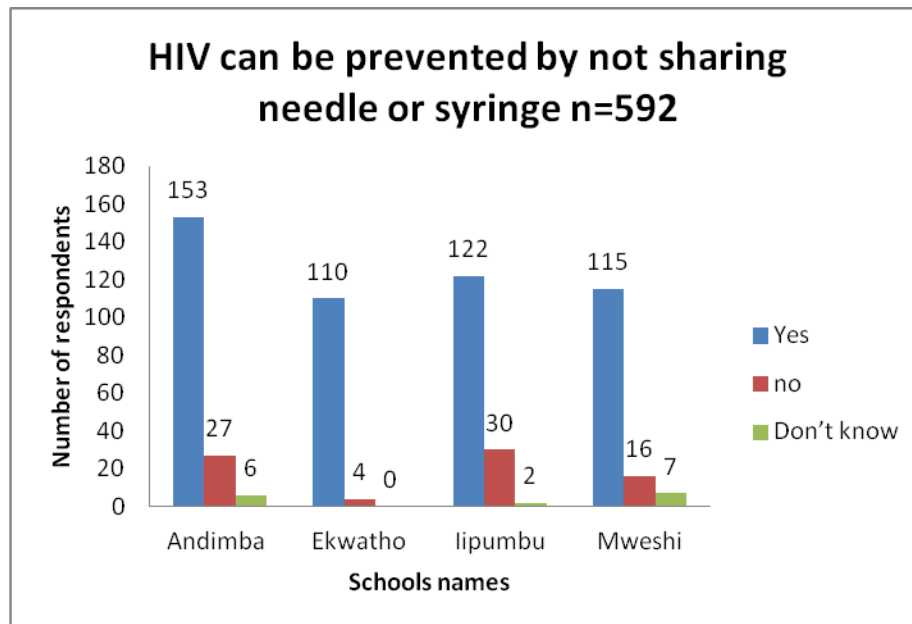


Figure 4.6: Distribution of respondent's knowledge if HIV can be prevented by not sharing needle or syringe.

Majority 82.3% (153) out of 186 respondents from Andimba Toivo ya Toivo Senior Secondary School were aware that HIV transmission can be prevented by not sharing a needle or syringe, while the lowest, 96.5% (110) out of 114 were from Ekwatho. The finding shows that majority from all schools were aware that HIV transmission can be prevented by not sharing a needle or syringe. However, few learners have indicated that they were not aware of this fact.

Table 4.2 Knowledge about actions to prevent and control HIV/AIDS

Item number	School	Yes	No	Don't know	Total
Item number 10: HIV can be prevented by consistent and correct use of condom during sexual intercourse (n=592)	Andimba Toivo ya Toivo	177 (95.2%)	5 (2.7%)	4 (2.2%)	186
	Ekwatho	110 (96.5%)	1 (0.9%)	3 (2.6%)	114
	Iipumbu	148 (96.1%)	4 (2.6%)	2 (1.3%)	154
	Mweshipandeka	130 (94.2%)	6 (4.3%)	2 (1.4%)	138
	Total	565 (95.4%)	16 (2.7%)	11 (1.8%)	592
Item number 11: HIV transmission can be avoided by remaining faithful to a single partner (n=592)	Andimba Toivo ya Toivo	159 (85.5%)	18 (9.7%)	9 (4.8%)	186
	Ekwatho	105 (92.1%)	5 (4.4%)	4 (3.5%)	114
	Iipumbu	125 (81.2%)	15 (9.7%)	14 (9.1%)	154
	Mweshipandeka	112 (81.2%)	14 (10.1%)	12 (8.7%)	138
	Total	501 (84.6%)	52 (8.7%)	39 (6.5%)	592
Item number 12: HIV transmission can be avoided by a blood test before marriage (n=592)	Andimba Toivo ya Toivo	88 (47.3%)	68 (36.6%)	30 (16.1%)	186
	Ekwatho	67 (58.8%)	24 (21.1%)	23 (20.25%)	114
	Iipumbu	90 (58.4%)	29 (18.8%)	35 (22.7%)	154
	Mweshipandeka	88 (63.8%)	26 (18.8%)	24 (17.4%)	138
	Total	333 (56.2%)	147 (24.8%)	112 (18.9%)	592

Table 4.2 shows the respondents' knowledge about prevention and control of HIV/AIDS. Item number ten, indicates a total number of 565 (95.4%) out of 592 respondents had knowledge that HIV can be prevented by consistent and correct use of a condom during sexual intercourse, while 16 (2.7%) out of 592 indicated that that HIV cannot be prevented by consistent and correct use of a condom during sexual intercourse and 11 (1.8%) respondents stated that they did not know if HIV can be prevented by consistent and correct use of a condom during sexual intercourse.

Item number eleven under knowledge about prevention and control of HIV /AIDS required the respondents to indicate whether HIV transmission can be avoided by remaining faithful to a single partner.

This item shows the respondents' knowledge about whether HIV transmission can be avoided by remaining faithful to a single partner. Majority of 501(84.6%) out of 592 respondents were aware HIV transmission can be avoided by remaining faithful to a single partner, 52 (8.7%) out of 592 respondents indicated that HIV transmission cannot be avoided by remaining faithful to a single partner and 39 (6.5%) respondents indicated that they do not know that HIV transmission can be avoided by remaining faithful to a single partner. The findings indicate that few learners have no knowledge about HIV prevention and control.

Item number twelve under knowledge about prevention and control of HIV /AIDS required the respondents to indicate whether HIV transmission can be avoided by a blood test before marriage. The study findings indicate the respondents' knowledge

about prevention and control of HIV/AIDS, that HIV infection can be avoided by a blood test before marriage. The study revealed that only 333 (56.2%) out of 592 affirmed that HIV transmission can be avoided by a blood test before marriage, while 112 (18.9%) and 147 (24.8%) of them indicated that they do not know whether it can be avoided or not respectively.

Table 4.3 Knowledge about HIV/AIDS prevention and control services

Item number 13:	School	yes	No	Don't know	Total
Male circumcision can reduce the risk of HIV infection (n=592)	Andimba Toivo ya Toivo	159 (85.5%)	19 (10.2%)	8 (4.3%)	186
	Ekwatho	98 (86.0%)	3 (2.6%)	13 (11.4%)	114
	Iipumbu	141 (91.6%)	8 (5.2%)	5 (3.2%)	154
	Mweshipandeka	125 (90.6%)	4 (2.9%)	9 (6.5%)	138
	Total	523 (88.3%)	34 (5.7%)	35 (5.9%)	592
Item number 14: Are you aware of the availability of HIV prevention and programme in the region e.g. true love wait (n=592)	Andimba Toivo ya Toivo	123 (66.1%)	35 (18.8%)	28 (15.1%)	186
	Ekwatho	82 (71.9%)	17 (14.9%)	15 (13.2%)	114
	Iipumbu	94 (61.0%)	29 (18.8%)	31 (20.1%)	154
	Mweshipandeka	94 (68.1%)	18 (13.0%)	26 (18.8%)	138
	Total	393 (66.3%)	99 (16.7%)	100 (16.8%)	592

	School	Yes	No	Don't Know	Total
Item number 15: Post exposure Prophylaxis is only effective if the medicine is started within 72 hours of possible exposure to the virus e.g. treatment that is given in case of condom burst to prevent HIV transmission (n=592)	Andimba Toivo ya Toivo	66 (35.5%)	44 (23.7%)	76 (40.9)	186
	Ekwatho	23 (20.2%)	16 (14.0%)	75 (65.8%)	114
	Iipumbu	36 (23.4%)	32 (20.8%)	86 (55.8%)	154
	Mweshipandeka	42 (30.4%)	18 (13.0%)	78 (56.5%)	138
	Total	167 (28.2%)	110 (18.5%)	315 (53.2 %)	592

Table 4.3, item number thirteen indicates the respondents' knowledge about whether male circumcision can reduce the risk of HIV infection. The study findings show that majority of 523 (88.3%) out of 592 of the respondents were aware that male circumcision can reduce the risk of HIV infection, while 35 (5.9%) were not aware thereof. Thirty four (5.7%) of them think that male circumcision cannot reduce the risk of HIV infection at all.

Item number fourteen, required the respondents to indicate whether they are aware of the availability of HIV prevention and care programmes in the region.

The study indicates that majority of 393 (66.3%) out of 592 of the respondents were aware of the availability of HIV prevention and care programmes in the region. One hundred respondents (16.8%) of them do not know whether HIV prevention and care programmes are available in the region or not, respectively and 99 (16.7%) of them were not aware at all.

Item number fifteen, indicates the respondents' knowledge about whether Post Exposure Prophylaxis is only effective if the medicine is started within 72 hours of possible exposure to the virus, for example, treatment that is given in case of accidental condom burst to prevent HIV transmission. Only few of the respondents 167 (28.2%) out of 592 were aware that Post Exposure Prophylaxis (PEP) is only effective if the medicine is started within 72 hours of possible exposure to the virus, while more than a half (315) (53.2%) of the respondents were not aware whether PEP can be effective if it is given within 72 hours or not. Hundred and ten (18.5%) of them replied "No", indicating that PEP is not effective if it is given within 72 hours of possible exposure to the virus.

SECTION C: ATTITUDES TOWARD PEOPLE LIVING WITH HIV (PLHIV)

Table 4.4 Attitudes toward people living with HIV (PLHIV)

Item number	School	yes	No	Don't know	Total
Item number 16: Willing to care of a relative who is HI positive and become ill in your house or community (n=592)	Andimba Toivo ya Toivo	182 (97.8%)	3 (1.6%)	1 (0.5%)	186
	Ekwatho	112 (98.2%)	1 (0.9%)	1 (0.9%)	114
	Iipumbu	150 (97.4%)	4 (2.6%)	0	154
	Mweshipandeka	134 (97.1%)	1 (0.7%)	3 (2.2%)	138
	Total	578 (97.6%)	9 (1.5%)	5 (0.8%)	592
Item number 17: Willingness to continue friendship with the friend who is HIV positive (n=592)	Andimba Toivo ya Toivo	177 (95.2%)	6 (3.2%)	3 (1.6%)	186
	Ekwatho	108 (94.7%)	3 (2.6%)	3 (2.6%)	114
	Iipumbu	143 (92.9%)	9 (5.8%)	2 (1.3%)	154
	Mweshipandeka	132 (95.7%)	3 (2.2%)	3 (2.2 %)	138
	Total	560 (94, 5%)	21(3.5%)	11(1.8%)	592
Item number 18 (a): Buying an item from a shopkeeper who is HIV positive (n=592)	Andimba Toivo ya Toivo	173 (93.0%)	6 (3.2%)	7 (3.8%)	186
	Ekwatho	101 (88.6%)	7 (6.1%)	6 (5.3%)	114
	Iipumbu	143 (92.9%)	8 (5.2%)	3 (1.9%)	154
	Mweshipandeka	128 (92.8%)	8 (5.8%)	2 (1.4%)	138
	Total	545(92%)	29 (4.8%)	18 (3 %)	592

Item number 18 (b) If you know your friend or relative is HIV positive would you be willing to eat from the same plate with him	School	yes	No	Don't know	Total
	Andimba Toivo ya Toivo	172 (92.5%)	7 (3.8%)	7 (3.8%)	186
	Ekwatho	106 (93.0%)	6 (5.3%)	2 (1.8%)	114
	Iipumbu	143 (92.9%)	8 (5.2%)	3 (1.9%)	154
	Mweshipandeka	127 (92.0%)	6 (4.3%)	5 (3.6%)	138
	Total	548 (92.5%)	27(4.5%)	17(2.8%)	592
Item number 19: If a learner is HIV positive , she /he should be allowed to continue his/her studying in school (n=592)	Andimba Toivo ya Toivo	183 (98.4%)	2 (1.1%)	1 (0.5%)	186
	Ekwatho	113 (99.1%)	1 (0.9%)	0	114
	Iipumbu	151 (98.1%)	2 (1.3%)	1 (0.6%)	154
	Mweshipandeka	133 (96.4%)	3 (2.2%)	2 (1.4%)	138
	Total	580 (97.9%)	8 (1.3%)	4 (0.6%)	592
Item number 20 (n=592) If a teacher is HIV positive ,she /he should be allowed to continue his/her teaching in school	School	yes	No	Don't know	Total
	Andimba Toivo ya Toivo	179 (94.6%)	5 (2.7%)	5 (2.7%)	186
	Ekwatho	112 (98.2%)	1 (0.9%)	1 (0.9%)	114
	Iipumbu	149 (96.8%)	2 (1.3%)	3 (1.9%)	154
	Mweshipandeka	133 (96.4%)	2 (1.4%)	3 (2.2%)	138
	Total	570 (96.2%)	10 (1.6%)	12 (2%)	592
Item number 21: Are you willing to attach yourself to the HIV prevention and care	Andimba Toivo ya Toivo	147 (79.0%)	16 (8.6%)	23 (12.4%)	186
	Ekwatho	94 (82.5%)	8 (7.0%)	12 (10.5%)	114

programme e.g. True Love wait, Window of Hope, Teenager Against Drug and Alcohol (TADA) (n=592)	Iipumbu	123 (79.9%)	10 (6.5%)	21 (13.6%)	154
	Mweshipandeka	109 (79.0%)	4 (2.9%)	25 (18.1%)	138
	Total	473 (79.8%)	38(6.4%)	81(13.6%)	592

As shown in table 4.4, item number sixteen under attitudes toward people living with HIV (PLWHA) required the respondents to indicate if they are willing to take care of their relative who tested HIV positive and become ill, in their houses or community.

The item shows the respondents' attitudes about a possible situation in which their relative, who is HIV positive being ill and if the learners would be willing to care for them in their house or community. The majority of 578 (97.6%) of the respondents exhibited positive attitudes to take care of their HIV positive relatives if they were ill, and only few respondents, 9 (1.5%) replied "No". The study findings also show that 5 (0.8%) out of 592 respondents have indicated that they do not know whether they are willing or not willing to care for a relative who is HIV positive in their house or community.

Item number seventeen under attitudes toward people living with HIV (PLHIV) required the respondents to indicate if one would continue to have a friendship with a friend who is HIV positive.

The item assessed the respondents' attitudes toward HIV positive friend. The researcher wanted to find out whether respondents would like to continue friendship with HIV positive friends. The study revealed that 560 (94.5%) respondents, showed positive attitudes that they would continue friendship with HIV positive friend. However, 21 (3.5%) out of 592 respondents indicated that they would not want to continue friendship with a friend who is HIV positive, while few of them (11) (1.8%) were not sure whether they will continue friendship or not.

Item number eighteen (a) under attitudes toward people living with HIV (PLHIV) required the respondents to indicate if one would be willing to buy an item from a shopkeeper who is HIV positive.

The item illustrates the respondent's attitudes toward buying items from an HIV positive shopkeeper or food seller. A total of 545 (92%) out of 592 respondents showed positive attitudes toward buying items from a HIV positive shopkeeper or food seller. Among 592 respondents, 29 (4.8%) believed that they would not like to buy an item from a shopkeeper who is HIV positive, while 18 (3%) have indicated that they do not know whether to buy an item from a shopkeeper who is HIV positive or not.

The item number eighteen (b) under attitudes toward people living with HIV (PLHIV) required the respondents to indicate if one is willing to eat from the same plate with a friend or relatives who is HIV positive.

The majority, 548 (92.5%) out of 592 of the respondents showed positive attitudes that they are willing to eat from the same plate with a friend or relative who is HIV

positive. On the contrary, 27 (4.5%) have indicated negative attitudes toward eating from the same plate with a friend or relative who is HIV positive, while 17 (2.8%) of them were not sure whether willing to eat from the same plate with friend or relative who is HIV positive or not.

Item number nineteen under attitudes toward people living with HIV (PLHIV) required the respondents to indicate if HIV positive learners should be allowed to continue with her/his study.

The study findings demonstrate that 580 (97.9%) out of 592 respondents showed positive attitudes that HIV positive learners should be allowed to continue with studies in the school. Only few respondents (8) (1.3%) out of 592 have negative attitudes towards learners who are HIV positive to be allowed to continue with her/his study and 4 (0.6%) were not sure at all.

Item number twenty on attitudes toward people living with HIV (PLHIV) required respondents to indicate if HIV positive teacher should be allowed to continue with teaching in school.

The study revealed that the majority, 570 (96.2%) out of 592, of the respondents showed positive attitudes that a HIV positive teacher should be allowed to continue his/her teaching in school. Only few of them (10) (1.6%) did not want a HIV positive teacher to continue teaching. However, 12 (2%) of them were not sure whether the HIV positive teacher should be allowed to continue with teaching or not.

Item number twenty - one under attitudes toward people living with HIV (PLHIV) required the respondents to indicate if one is willing to be attached to the HIV prevention and care programmes. The item number twenty one summarizes the respondent's attitudes toward attaching themselves to the HIV prevention and care programmes. The study showed that a total of 473 (79.8%) of the respondents were willing to be attached to an HIV prevention programmes. The study has also revealed 38 (6.45%) and 81 (13.6%) of respondents who respectively were not willing and do not know whether to be attached to an HIV prevention programmes or not. Majority of the learners from all schools showed willingness to attach themselves to a HIV prevention programmes.

SECTION D: PREVENTIVE PRACTICES RELATED TO HIV/AIDS

This section investigated the practices that the learners adopt as their preventive actions towards protecting themselves from being infected with HIV. The researcher wanted to know if the respondents ever had sexual intercourse, ever had sex with men, ever had unprotected sexual intercourse, used condom regularly during sexual intercourse with casual partner, ever had sexual intercourse while under the influence of alcohol and been circumcised or will accept circumcised. Respondents were also asked to indicate if they participated in HIV prevention activities as well as contributed to help HIV affected persons.

Table 4.5 Preventive practice related to HIV/AIDS

Item number	School	Yes	No	Total
22:	Andimba Toivo ya Toivo	117 (62.9%)	69 (37.1%)	186
Ever had sexual intercourse (n=592)	Ekwatho	78 (68.4%)	36 (31.6%)	114
	Iipumbu	102 (66.2%)	52 (33.8%)	154
	Mweshipandeka	79 (57.2%)	59 (42.8%)	138
	Total	376 (63.5%)	216 (36.4%)	592
23:	Andimba Toivo ya Toivo	6 (3.2%)	180 (96.8%)	186
Ever had sex with men (n=592)	Ekwatho	3 (2.6%)	111 (97.4%)	114
	Iipumbu	7 (4.5%)	147 (95.5%)	154
	Mweshipandeka	5 (3.6%)	133 (96.4%)	138
	Total	21(3.5%)	571(96.4%)	592
24:	Andimba Toivo ya Toivo	48 (25.8%)	138 (74.2%)	186
Ever had unprotected sexual intercourse (n=592)	Ekwatho	29 (25.4%)	85 (74.6%)	114
	Iipumbu	42 (27, 2%)	112 (73.2%)	154
	Mweshipandeka	35 (25.4%)	103 (74.6%)	138
	Total	154 (26%)	438 (73.9%)	592
25:	Andimba Toivo ya Toivo	112 (60.2%)	74 (39.8%)	186
Used condom regularly during sexual intercourse with casual partner (n=592)	Ekwatho	78 (68.4%)	36 (31.6%)	114
	Iipumbu	115 (74.7%)	39 (25.3%)	154
	Mweshipandeka	85 (61.5%)	53 (38.4%)	138
	Total	390 (65.8%)	202(34.1%)6	592

	School	Yes	No	Total
Item number 26: Ever had sexual intercourse while you are under the influence of alcohol n=592	Andimba Toivo ya Toivo	23 (12.4%)	163 (87.6%)	186
	Ekwatho	17 (14.9%)	97 (85.1%)	114
	Iipumbu	31 (20.1%)	123 (79.9%)	154
	Mweshipandeka	21 (15.2%)	117 (84.8%)	138
	Total	92 (15.5%)	500 (84.4%)	592

As shown in table 4.5 above, item number twenty two demonstrates the learners' response on their history of sexual intercourse. The responses revealed that 376 (63.5%) out of 592 respondents had a history of sexual intercourse and 216 (36.4%) had no history of sexual intercourse. From the findings more than 50 % of the respondents have already had sexual intercourse.

The study also investigated the respondents who had sexual intercourse according to the grades they were in. The study found that 3.3% (12) in grade 8 had a history of sexual intercourse, 1.1% (4) were in grade 9, 5.3% in grade 10. The majority of 67.3% (253) were in grade 11, while 23.1% (87) were in grade 12. The study shows that learners from all grades are sexually active with the majority being in grade 11.

The study also examined the respondents who had sexual intercourse according to the age. Findings revealed that 4.5% (17) with the age range of 14 to 16 years had a history of sexual intercourse. The majority of 71.5% (269) ranged from 17 to 19

years, while 23.9% (90) ranged from 20 to 21 years. The study has revealed that some learners start to be sexually active at an early age.

Association between learner's age group and sexual intercourse experiences

The researcher also sought to find out if there is a relationship between the age group of the learners and experience of having sexual intercourse.

The study found there is significant association between age group of the learners and experience of having sexual intercourse with a chi squared p-value 0.015.

Association between level of education and experience of sexual intercourse

The researcher tested if there is relationship between educational level of the learners and their experience of sexual intercourse. The study has found that there was a significant association between educational level of the learners and having an experience in sexual intercourse with a chi-squared p-value 0.003.

Association between religion of the learners and having experience of sexual intercourse

The researcher also sought to find out if there is relationship between religious affiliation of the learners and their experience of having had sexual intercourse. The findings show that there was no relationship between religious affiliation of the learners and their experience of having sexual intercourse, with a p –value 0.785.

Item number twenty - three under practices related to HIV/AIDS required the respondents to indicate whether he ever had sex with men. The item indicates the respondents who had sex with men per school. Among the respondents, 3.5% (21) had experience of sex with men. However, majority of them 96.4% (571) did not have sex with men. Based on the finding, it is evident that there are risky sexual practices among learners.

The study also looked at the number of respondents who have had sex with men according to educational level. Among the learners majority of 76.2% (16) who had sex with men were in grade 11, followed by learners in grade 12, 14.3% (3) and those who were in grade 8 were 9.5% (2).

The number of respondents who engaged in sexual intercourse with men according to age was also examined. Majority of the respondents 61.9% (13) were between 17-19 years, while 28.6% (6) of respondents between 20-21 years also had sex with men. The study revealed that among learners who engaged in sex, 9.5% were within the age range 14-16 years.

Association between educational level of the learners and having experience of sex with men

A chi-squared test was done to find out if there is relationship between educational level of the learners and having experience of sex with men. The study revealed that there was no relationship between the educational level of the learners and having experienced sex with men, with a chi squared test giving a p-value of 0.47.

Association between religion of the learners and having experience of sex with men

The researcher sought to find out if there was any relationship between the religious affiliation of the learners and having experience of sex with men. The study found that there was no a significant relationship between their religion and having experience of sex with men, with the p-value being 0.334.

Item number twenty - four under practices related to HIV/AIDS required the respondents to indicate whether he had unprotected sexual intercourse. The item indicates respondents' experience of unprotected sexual intercourse. A total of 26% (154) of the respondents have practised unprotected sexual intercourse. Each school had more than 25% of learners who have had unprotected sexual intercourse.

Association between age groups and having experience of unprotected sexual intercourse

The relationship between age group and their experience of having had unprotected sexual intercourse was tested using a chi-squared test and p-value. The study found no relationship between age group of the learners and the experience of having unprotected sexual intercourse, with the p-value being 0.130.

Association between education level of the learners and having experience of unprotected sexual intercourse

The researcher also tested if there was a relationship between educational level of the learners and having experience of unprotected sexual intercourse. The analysis

showed that there was no relationship between the educational level of the learners and the practice of unprotected sexual intercourse and the p value was 0.159.

Association between religious affiliation of the learners and having experience of unprotected sexual intercourse

The researcher sought to find out again if there is relationship between religious affiliation of the learner and their experience of unprotected sexual intercourse. The study found no significant relationship between the religious affiliation of the learners and their experience of unprotected sexual intercourse, with a chi squared p-value of 0.766.

Item number twenty - five under practices related to HIV/AIDS required the respondents to indicate whether he have used condom regularly during sexual intercourse with a casual partner. The item demonstrates the respondents' experience of using a condom regularly during sexual intercourse with a casual partner. Among 592, more than a quarter, namely 202 (34.1%) of the respondents indicated that they do not use condoms regularly with casual partners. A total of 65.8% (390) reported that they use a condom regularly during sexual intercourse with casual partner.

Association between age group of the learners and the practice of using condom regularly during sexual intercourse with casual partner

The researcher tested if there is relationship between the age group of the learners and the practice of using condom regularly during sexual intercourse with a casual partner. The study found no relationship between age group and the practice of using

condom regularly during sexual intercourse with casual partner, with the p-value being 0.377.

Association between educational level of the learners and the practice of using condom regularly during sexual intercourse with casual partner

Concerning the relationship between the educational level of the learners and the practice of using a condom regularly during sexual intercourse with casual partner. A significant relationship between the education level of the learners and the practice of using condom regularly during sexual intercourse with casual partner, the chi squared p - value being 0.008 was found.

Association between religion of the learners and the practice of using condom regularly during sexual intercourse with casual partner

The researcher also tested if there was a relationship between religion of the learners and practicing the use of condom regularly during sexual intercourse with casual partner. A significant relationship between the religion of the learners and the practice of using condom regularly during sexual intercourse with casual partner, p-value being 0.006 was determined.

Item number twenty-six under practices related to HIV/AIDS required the respondents to indicate whether he ever had sexual intercourse while under the influence of alcohol

The item indicates the respondents' experience per school, of having sexual intercourse while under the influence of alcohol. A total of 84.4% (500) reported not

having sexual intercourse while under the influence of alcohol, but among the 592 respondents, 15.5% (92) reported having had sexual intercourse while under the influence of alcohol.

Association between age group and practice of having sexual intercourse while under influence of alcohol

An analysis was done to find out if there is a relationship between the age group of the learners and the practice of having sexual intercourse while under influence of alcohol. The study found no relationship between the age group and the practice of having sexual intercourse while under influence of alcohol, the p-value was 0.095.

Association between educational level of the learners and practice of having sexual intercourse while under influence of alcohol

The researcher tested if there was a relationship between the educational level of the learners and practice of having sexual intercourse while under influence of alcohol. The study found no relationship between education levels of the learners and practice of having sexual intercourse while under influence of alcohol, the p-value being 0.439.

Association between religion of the learners and practice of having sexual intercourse while under influence of alcohol

The researcher sought to find out if there is relationship between the religion of the learners and the practice of having sexual intercourse while under influence of alcohol. The analysis showed that there is no relationship between religion of the

learners and the practice of having sexual intercourse while under influence of alcohol, the p-value was 0.193.

Table 4.6 Preventive practices related to HIV/AIDS

Item number	School	Yes	No	Total
27: Have you been circumcised or will accept circumcision (n=592)	Andimba Toivo ya Toivo	148 (79.6%)	38 (20.4%)	186
	Ekwatho	80 (70.2%)	34 (29.8%)	114
	Iipumbu	125 (81.2%)	29 (18.8%)	154
	Mweshipandeka	105 (76.1%)	33 (23.9%)	138
	Total	458 (77.3%)	134 (22.6%)	592
28: Have you participated in HIV prevention activities (n=592)	Andimba Toivo ya Toivo	137 (73.7%)	49 (26.3%)	186
	Ekwatho	74 (64.9%)	40 (35.1%)	114
	Iipumbu	110 (71.4%)	44 (28.6%)	154
	Mweshipandeka	98 (71%)	40 (29%)	138
	Total	419 (70.7%)	173(29.2%)	592
29: Have you contributed to help HIV affected person (n=592)	Andimba Toivo ya Toivo	143 (76.9%)	43 (23.1%)	186
	Ekwatho	79 (69.3%)	35 (30.7%)	114
	Iipumbu	117 (76.0%)	37 (24.0%)	154
	Mweshipandeka	99 (71.7%)	39 (28.3%)	138
	Total	438 (73.9%)	154 (26%)	592

Item number twenty - seven under practices related to HIV/AIDS required the respondents to indicate whether he have been circumcised or will accept circumcision.

The item indicates the respondents who are circumcised or willing to accept circumcision. The majority, namely 77.3% (458) of the respondents, indicated they have been circumcised or willing to accept circumcision. The study findings revealed that 22.6% (134) out of 592 have not been circumcised or were willing to accept circumcision.

Association between age groups of the learners and being circumcised or willing to accept circumcision

An analysis was also conducted to determine the relationship between age group of the learners and being circumcised or willing to accept circumcision. The study shows that there is no relationship between age group and the learners being circumcised or willing to accept circumcision, with the p –value being 0.170.

Association between educational level of the learners and being circumcised or willing to accept circumcision

The researcher also tested if there was any association between educational level of the learners and them being circumcised or willing to accept circumcision. The analysis showed that there is no relationship between education levels of the learners and being circumcised or willing to accept circumcision, the p-value being 0.997.

Association between religious affiliation of the learners and being circumcised or willing to accept circumcision

The researcher tested if there is relationship between religion of the learners and the learners being circumcised or the willingness to accept circumcision. The study found no relationship between the religion of the learner and their being circumcised or willing to accept circumcision, p-value being 0.375.

Item number twenty - eight under practices related to HIV/AIDS required the respondents to indicate whether he participated in HIV prevention activities.

The item shows the respondents experience in participating in HIV prevention activities. Among 592 respondents, 29.2% (173) have indicated that they did not participate in any HIV prevention activities, while 70.7% (419) participated in HIV prevention activities.

Association between age groups and having participated in HIV prevention activities

The researcher also tested if there was a relationship between the age group of the learners and having participated in HIV prevention activities. The study found no relationship between age groups and the learners having participated in HIV prevention activities, p-value was 0.388.

Association between educational level of the learners and having participated in HIV prevention activities

The researcher sought to find out if there is relationship between educational level of the learners and having participated in HIV prevention activities.

The analysis showed no relationship between educational level of the learners and having participated in HIV prevention activities, the p-value being 0.412.

Association between religion of the learners and having participated in HIV prevention activities

The researcher tested if there is relationship between religion of the learners and having participated in HIV prevention activities. The study shows no relationship between the religion of the learners and participation in HIV prevention activities, p-value was 0.196.

Item number twenty - nine under practices related to HIV/AIDS required the respondents to indicate whether he had or would be willing to make a contribution to help HIV affected person.

The item shows the respondents who reported making contributions to help HIV affected person. A total of 73.9% (438) respondents contributed to help HIV affected person. On the contrary 26% (154) did not contribute to help HIV affected person.

Association between age group and having contributed to help HIV affected person

The researcher also tested if there is relationship between age group of the learners and their contribution to help HIV affected person. The study found the p value of 0.007 which indicates a significant relationship between age group and the learner having contributed to help HIV affected person.

Association between educational level of the learners and having contributed to help HIV affected person

The researcher tested if there is relationship between educational levels of the learners and having contributed to help HIV affected person. The study found a p - value of 0.024 which indicates a significant relationship between educational level of the learners and their contribution to help HIV affected person.

Association between religion of the learners and having contributed to help HIV affected person

The researcher also tested if there is a relationship between religion of the learners and their contribution to help HIV affected persons. The study found a highly significant relationship between religion of the learners and their contribution to help the HIV affected person, with a p-value of 0.01.

Item number thirty, was added to allow participants an opportunity to give suggestions on what could be done to make HIV prevention more effective among the youth. The respondents' inputs were analyzed and summarized as shown below.

The responses were listed and similar responses were grouped together to understand the suggestion from the respondents. Among the respondents, 31 learners did not answer question 30. Therefore, only 561 learners responded to the item.

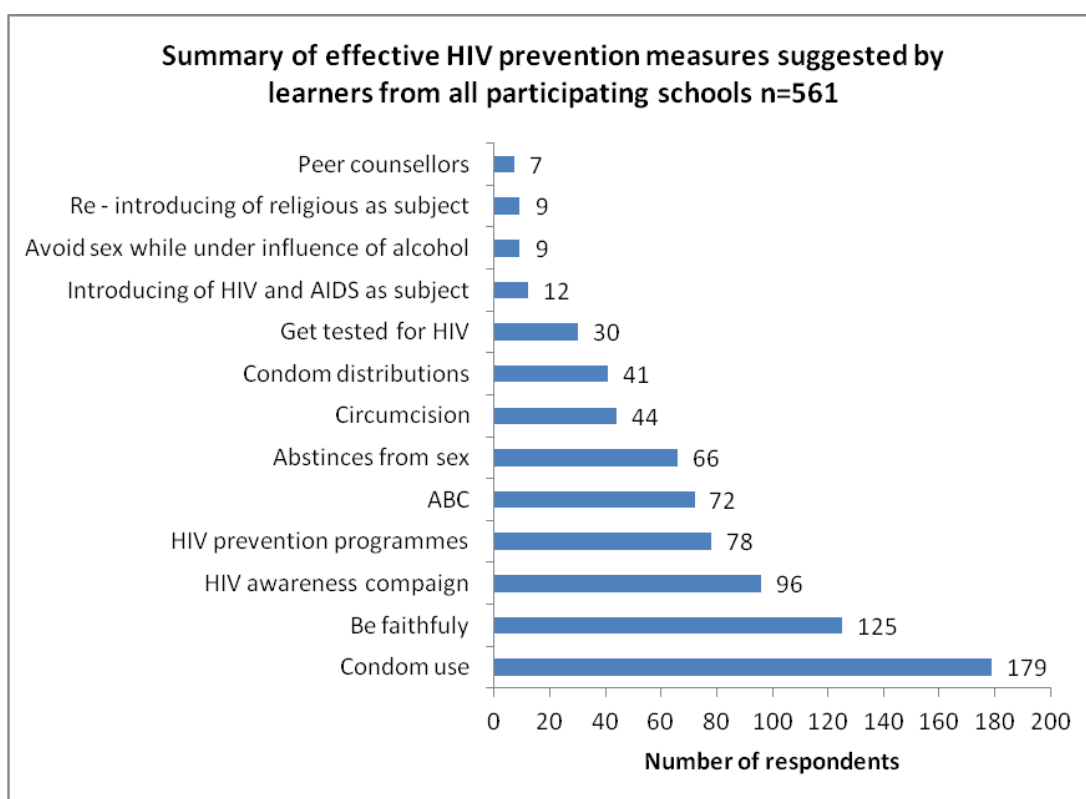


Figure 4.7: Summaries of effective HIV prevention measures suggested by learners from all participating schools

As shown in figure 4.7 the most common effective HIV prevention measures mentioned by majority of the respondents was condom use (179), followed by being

faithful, HIV awareness campaign, HIV prevention programmes and ABC (Abstain, Be faithful and Condomize) with 125, 96, 78 and 72, respectively. HIV effective measures reported least were peer counsellors, re-introducing religion as subject in schools and avoiding sex while under the influence of alcohol with 7, 9 and 9, respectively.

4.4 SUMMARY

In this chapter results from analysis of data collected for the study has been presented using frequencies, tables and diagrams where appropriate, in accordance with the objectives of the study. The associations between demographic variables and HIV knowledge, attitudes and practices were also discussed with each item.

In chapter five, a discussion of the study findings, conclusions, limitations and recommendations including suggestions of possible areas for further studies for strengthening knowledge, attitudes and practices of HIV prevention measures among the youth are presented.

CHAPTER 5

DISCUSSION, CONCLUSION, RECOMMENDATIONS AND LIMITATION OF THE STUDY

5.1 INTRODUCTION

Assessing knowledge, attitudes and practices in HIV preventive measures is an important strategy in determining the gap in knowledge about the prevention of HIV/AIDS and its relationship with attitudes and practices. The purpose of the study was to assess the knowledge and attitudes about HIV and AIDS preventive measures as well as to describe the HIV and AIDS preventive practices among male learners in secondary schools in Oshana region.

This is the first study on HIV/AIDS-related KAPs among male learners in secondary schools in Oshana region, Namibia. This chapter discusses the findings from the study, draws conclusions and highlights the limitations of the study as well as make recommendations for strategies to enhance the knowledge, attitudes and practices pertaining to HIV prevention and thereby reduce HIV infection among the youth in Namibia.

Conclusions were formulated according to objectives. The objectives were to assess the knowledge about HIV and AIDS preventive measures, assess the attitudes toward HIV and AIDS preventive measures and to describe the HIV and AIDS preventive practices among male learners in secondary schools in Oshana region

5.2 DISCUSSION OF FINDINGS

Secondary school learners are in the adolescent stage, which is the time that they begin to show interest in sexual relationships. The youths are at a stage when they may want to experiment with sex without giving much consideration to the implications of such present behaviour. It is also at this stage that many of them develop a lifelong habit, which could easily be influenced through proper guidance (Bankole & Mabekoye, 2008).

The study findings shows that a high proportion of the respondents, on average 83.7%, knew about HIV/AIDS and could correctly answer questions on HIV transmission and prevention, which indicates that the learners had a good basic knowledge on HIV transmission. The most HIV transmission route mentioned by the respondents was sexual intercourse, mother to child transmission, sharing of needle or syringe, and blood transfusion.

The research findings are similar to the findings of the study that was carried out among school adolescents in a sub-urban community in south western Nigeria by Olarinmoye, Olajide & Olarinmoye (2011), whereby sharing of sharp objects, blood transfusion and sexual intercourse were the most known routes of transmission of HIV among the respondents.

The study findings on mother to child transmission (MTCT) as route of HIV transmission is high, 97.1%, compared to the findings from the study done in Nigeria (Kamala & Aboud, 2006) whereby 20% of respondents in their study mentioned MTCT as route of HIV transmission. Transmission of HIV by mother to child during

pregnancy and breast feeding by an HIV infected mother were well known by respondents as routes through which HIV could be transmitted among the respondents.

However, misconceptions about the routes of transmission were observed such as mosquito bite, eating /drinking from the same plate or glass of an HIV positive person, hand shake and sharing a toilet with an HIV positive person in 1.4% to 5.2 % of respondents. This indicates that learners need more information and education about some other routes of transmission. Those misconceptions may contribute to discrimination against people living with HIV.

Although there were misconceptions, this study finding is lower compared to the study from Nigeria described above. High misconceptions about other routes of transmission were observed like sharing clothing, mosquito bite, hand shake, and use of toilet in 53.3% to 63.6% of respondents. Again, similar findings on misconceptions have been reported in the study conducted in Lao Peoples Democratic Republic in Asia (Thanavanh et al., 2013) where lack of understanding about some important points of transmission of HIV were reported, such as the belief that HIV can be transmitted by mosquito bites, along with shaking hands, sharing clothes, toilets and utensils with PLHIV.

Accurate HIV knowledge will support adolescents in making informed choices about the practices that may protect them from HIV transmission.

The majority of the respondents were highly knowledgeable about HIV prevention and control with the range of 28.2% -95.4%. The most HIV preventive and control

measures listed were consistent and correct use of a condom, remaining faithful, not sharing needle or syringe and male circumcision. This study finding is not unique, but is similar to the findings reported among male high school learners in Asia by Thanavanh et al. (2013) where it was reported high knowledge in HIV prevention and control.

Again, the findings on HIV prevention and control measures specific to remaining faithful to a single partner and condom use in this study are significantly high at 84.6% and 95.4% respectively, compared to 48% and 69 % reported by Kamala & Aboud (2006) in a similar study in Bukoba, rural Tanzania.

Although there was generally high knowledge on HIV/AIDS prevention among the respondents, few learners (1.9% to 18.6%) still did not know or were not aware that consistent and correct use of the condom were effective to prevent HIV transmission, as well as not sharing needle or syringe, remaining faithful to a single partner and blood test before marriage are the HIV prevention and control measures.

However, the proportion of respondents who were aware that condom use was effective to prevent HIV transmission was high (95.4%) compared to the study carried out in Kisumu District in Kenya on knowledge, attitude and practice of condom use among adolescents attending secondary schools by Ochieng, Kakai and Abok (2011) which showed only 22.9% of learners thought condoms were effective in protecting against HIV/AIDS.

It was indicated in this study that majority 79.8% of respondents are reportedly aware of the availability of HIV prevention and care programmes. Surprisingly,

33.6% of the respondents have indicated not being aware of the availability of the HIV prevention and care programmes, even though these programmes have been running in the schools for many years now. HIV prevention programmes such as True Love Waits, and Teenagers against Drug Alcohol (TADA), My Future is myChoice and HIV awareness club are active. Youth awareness and attachment to those programmes have been shown to be an effective mechanism for increasing most at-risk young people's knowledge and skills about HIV and STIs and contributes to enabling them to be responsible and protect themselves and others from HIV (WHO, 2009).

More than a half of the respondents were not aware that Post Exposure Prophylaxis (PEP) is only effective if the medicine is started within 72 hours of possible exposure to the virus. Post-exposure prophylaxis (PEP) is a short-term anti-retroviral therapy to reduce the likelihood of acquiring HIV infection after potential exposure either occupationally or through sexual intercourse, for example in case of condom burst or rape (MoHSS, 2007; MoHSS, 2008; WHO, 2013). Information appears to be lacking among learners in this regard. Equally surprising was the finding that only very few (28.2%) of the respondents were aware that PEP is one of the HIV prevention and control measures. This data presents a challenge to the present health system as it suggests that learners are less informed about post-exposure prophylaxis and may not therefore avail themselves to these services if the need arises.

The finding is similar to the study finding carried out by Bauermeister, Meanley, Pingel, Soler and Harper (2013) among single young men who have sex with men in

the United States, whereby they reported that only 27% of the respondents had heard about PEP.

These findings suggest that health education on HIV prevention and control measures are still required because learners should know all the methods that they can use to protect themselves from infection. The latter is also supported with evidence from NDHS (2006-7) that there is a high degree of agreement that children aged 12-14 years should be taught about prevention programs especially the use of condoms to avoid HIV/AIDS.

In conclusion, this study shows evidence that learners have good basic knowledge about the routes of HIV transmission. However, misconceptions about the routes of transmission were observed, meaning that learners need more information and education about some other routes of transmission to help the adolescents in making informed choices about the practices that may protect them from HIV transmission.

The researcher did not generate much data from respondents on their attitude toward HIV prevention measures, but data was collected related to their willingness to be circumcised which has been shown to significantly reduce HIV transmission. The findings showed that 77.3% reported being circumcised or willing to accept circumcision while 22.6% reported not being circumcised or unwilling to accept circumcision. Also attitudes towards PLHIV was extensively explored by the research.

On attitudes toward people living with HIV, the findings revealed that the respondents have generally positive attitudes to PLHIV. Respondents could answer

all questions related to attitudes correctly with the average of 93% positively. This was evidenced from findings that the learners are knowledgeable about HIV transmission as well as HIV prevention and control measures. This could be the reasons that respondents reported to have positive attitudes toward people living with HIV because in all the items concerning attitudes that the research explored the learners displayed mostly positive attitudes.

This is not an isolated finding since, a similar study conducted by Bankole and Mabekoje (2008) in Nigeria, the participants similarly expressed high positive attitudes towards person with HIV/AIDS with (91%). However, this finding was contrary to the study conducted by Zoo and Wang (2006) based on a survey of AIDS knowledge, attitude and behaviour among students in Linyi City in China whereby generally only few (33.8%) of respondents had a positive attitude towards people living with HIV/AIDS.

In this study, a very low percentage of respondents (1.4% to 2.9%) showed intolerance towards HIV positive persons. The findings are low compared to (2.7 to 8.9 %) negative attitudes reported by Bankole & Mabekoje (2008) in a similar study in Nigeria. Negative attitudes contribute to the observed social stigmatization and discrimination toward people living with HIV/AIDS (PLWHA).

Again, similar negative attitudes towards PLWHA have been documented by Olarinmoye et al. (2011) in high percentages in Nigeria whereby discriminatory and intolerant attitudes towards HIV positive persons were prevalent. Around 25.6% to 48.0% of respondents indicated they could not shake hands with, hug, sleep on the same bed, live in the same house, share the same office, be friends with or eat in the

same plate with people living with HIV/AIDS (PLWHA). The negative attitudes towards PLWHA were not surprising, as one could reasonably assume that the misperceptions and misconceptions were in part responsible for the negative attitude towards PLHIV. The research demonstrated that increased knowledge about AIDS is not a predictor for behavioural change (Olarinmoye et al., 2011).

To summarise the study findings about attitude toward PLHIV, this study has revealed that the respondents have generally positive attitudes to PLHIV since respondents could answer all questions related to attitudes correctly with an average of 93% showing positive attitude.

The study also examined the practices of the respondents pertaining to HIV control and prevention. The study revealed that more than half of the learners surveyed reported a history of having engaged in sexual intercourse and this was not limited to a specific age group or grade in all the schools surveyed, although those in grade 11 constituted the majority. Significantly in all schools involved in the study over 25% of the respondents had engaged in unprotected sexual intercourse. Unprotected sexual intercourse is considered a high risk behaviour that can lead to contracting HIV and other sexually transmitted diseases.

This finding is not unique, as NDHS (2006-7) has also documented that among men of aged 15-19 years, 19.2% had first sexual intercourse before the age of 15. These findings serve as evidence that premarital sex among young people in secondary

schools is rife. This may be a result of failure to emphasize the prevention messages, stressing abstinence until marriage to the learners.

The proportion of 63.5% who have had sexual experience was higher than the assessment of knowledge, attitudes and practices on HIV prevention among secondary schools learners reported in Bukoba rural in Tanzania by Kamala & Aboud (2006) which showed that 53.6 % had engaged in sexual intercourse. Again, the study finding is higher than one third of high school students in Asia reported by Thanavanh et al. to have a sexual intercourse. In all eight questions concerning practices related to HIV/AIDS, respondents presented themselves as having idea of what safer sex is all about. However, some risky practices have also been reported among the respondents.

Therefore, it is important that secondary school learners understand HIV prevention and transmission, as well as develop positive attitude and good practice. The school environment is a good place and time to have peer education programmes that address self esteem, healthy sexual attitudes, as well as to be socially active, accepting and caring. Taking into consideration the fact that not all learners are sexually active, developing messages geared towards them while offering strategies that help learners delay sex, refuse sex, or negotiate safer sexual practices should be included. The programme must give learners an understanding of why it is more advantageous to abstain from sex, without promoting unnecessary fear.

Men who have sex with men (MSM) are vulnerable to HIV as a product of higher risk sexual practices, while also being vulnerable to social exclusion and discrimination (MoHSS, 2015).

This study revealed that 3.5% of respondents have had sex with men. However, this finding was lower than what was found in a study by Thanavanh et al. (2013) based on a survey of AIDS knowledge, attitude and behaviour among male high school learners in Lao Peoples Democratic Republic in Asia. In that study they found that 14.9 % of surveyed learners with sexual experiences said they had engaged in sex with men.

Risky sexual behaviors were also reported among most of the sexually active respondents. Among the respondents (25.8%) have indicated having had unprotected sexual intercourse. However, this study finding is low comparing to 48.4% by Olarinmoye et al. (2011) from Nigeria.

This study revealed that 34.1% of the respondents did not use condoms regularly during sexual intercourse. This finding is high compared to 28.2% by Olarinmoye et al. (2011) in Nigeria. In addition, self-efficacy to use condoms and to prevent HIV may be negatively affected by certain beliefs and misconceptions that exist among the youth.

The study documented that (15.5%) of the respondents reported having had sexual intercourse while they were under the influence of alcohol. This finding is high compared to the findings in the Namibia Demography Health Survey (2006-7) which revealed that 4.2% of men had sexual intercourse in the past 12 months when drunk. In the context of HIV prevention, alcohol use and abuse is considered a risk factor

for HIV transmission. Parker and Connolly (2007) found that among those sampled, high levels of alcohol consumption were significantly related to HIV-related risk behaviours.

This study also revealed that among the respondents, 22.6% had not been circumcised or will not accept circumcision in future. This proportion is lower compared to the study conducted in Kenya by Westercamp and Bailey (2007) on acceptability of Male Circumcision for Prevention of HIV/AIDS in Sub-Saharan Africa, which showed that among those 16–21 years old, 71%, said that they would prefer to be circumcised. The younger men were more likely to accept circumcision. There is evidence that VMMC programme in Namibia has not met its mid-term target of 30% coverage for adults (MoHSS, 2014). There is compelling evidence that male circumcision reduces the risk of heterosexually acquired HIV infection in men by approximately 60% (WHO, 2015).

This study has also documented that more than one – fourth (29.2%) of the respondents have never participated in HIV prevention activities such as *True Love Waits*, *Window of Hope*, *My Future is My Choice (MFMC)*, *Teenager Against Drug and Alcohol (TADA)* and HIV and AIDS Awareness Club. Again, the study shows that 26.0% of respondents have never contributed to help HIV affected person. Programmes like the *Window of Hope* focusing on life skills and HIV and AIDS aim to equip children with the self-esteem, knowledge and skills to protect themselves against HIV/AIDS and to care for others infected or affected by the disease.

However, in Namibia life skill subject is regarded as non- promotional subject (UNAM, 2007) and may not attract keen interest and participation by the learners.

A comparison study conducted on *My Future is My Choice* (MFMC) among learners who are members of MFMC and who were not members (NDHS 2006-7) showed that learners who went through MFMC reported to practice safer sex, had more frequent HIV testing and STI treatment, and enjoyed greater knowledge about HIV and AIDS than learners who had not participated in MFMC programme.

Poor participation of youths in HIV prevention activities may result in discrimination against people living with HIV and AIDS, because programme helps each individual youth to develop self-esteem, creating positive attitudes towards people who are infected with HIV and caring for people who are sick. Discriminating attitudes to PLHIV might be an obstacle for the efficient propagation of awareness programmes (Thanavanh et al., 2013).

To summarize the study findings about practices of the respondents on HIV prevention, respondents from all age groups reported having had sexual intercourse and this is evidence that premarital sex among young people in the secondary schools is rife. Risky sexual practices such as unprotected sexual intercourse, men having sex with men and having sexual intercourse while under the influence of alcohol have been reported among the learners. This is in spite of existing programmes in schools on HIV/AIDS awareness, prevention and control. Much has to be done to educate learners about risky sexual behaviours to prevent HIV infection among youth.

It is essential to involve youth from the initial process of planning or designing HIV and AIDS prevention programmes for programme success. Therefore, respondents were asked to give suggestions on what could be effective HIV preventive measures among youth. New HIV prevention strategies are needed to effectively address the factors driving the epidemic (DHS, 2006-7). The study revealed that majority of the learners who participated in the study believe that condom use and being faithful to a partner were the most effective HIV preventive measures among the youth. However how to get the youth to effectively utilize these preventive measures remains a challenge.

These findings are similar to the study conducted by Olarinmoye (2011) on HIV/AIDS preventive measures among in-school adolescents in sub-urban community in Southern Nigeria where condom use and being faithful to a partner were also most common HIV prevention measures cited by the respondents.

Therefore, knowledge of the learners that correct and consistent use of condoms during sexual intercourse can greatly reduce the risk of acquiring or transmitting Sexually Transmitted Infections (STIs), including HIV is pivotal in ongoing efforts to stem rising incidence of HIV infection among young people in the population (Ochieng, Kakai & Abok, 2011).

It was indicated in this study that HIV awareness campaign is one of the most common HIV prevention measures mentioned by learners. Therefore, an HIV and AIDS prevention campaign should reach every person in the community in some way. Although services must reach everyone, often there are limited resources. The part of the campaign that focuses on educating people about HIV and AIDS and

changing sexual behaviour should first target specific groups of people who are most vulnerable for example youth.

An evaluation of the campaign conducted in Kenya found that there was high recall of the campaign messages among target youth. The proportion of youth reporting “never having sex” increased from 88% to 92%. Self-efficacy and intentions significantly increased over the seven-month campaign period especially among youth who had high exposure or were exposed through multiple channels (MOH, 2013). This study finding documented that only 36.4 % of the respondents never had sexual intercourse.

The result of this study further shows that implementation of HIV prevention programmes was one of the most common HIV prevention measure among youth mentioned by learners. The study conducted by Salom (2011) to evaluate the impact of HIV intervention programs in Oshana region, has also study revealed that the programmes are both popular and is an effective HIV intervention for young people in the education sector. If young people are aware of the benefits of the programmes, they will be attracted and what they learn will not be forgotten once it is meaningfully understood. Their engagement in the development of HIV prevention programmes is critical to programme success.

Many countries including Namibia have adopted a balanced promotion of all the behaviour changes known as the ABC HIV prevention strategy, which became famous because of its success in Uganda (Mlingo, 2008). Surprisingly, few learners in this study mentioned ABC compared to the number of learners who mentioned

condom use only. Therefore, much effort is needed to educate learners in the schools on abstinence from sex since only 66 (11.7%) learners in this study mentioned abstinence from sex as an effective HIV prevention strategy.

This study showed that male circumcision could be one of the HIV prevention measures among youth. A randomized control trial showed that circumcision reduces the risk of HIV infection among heterosexual men by up to 60%. It is expected that this prevention strategy will be adopted in many countries that are affected by the epidemic (Mlingo, 2008). Namibia is one of the countries that adopted Voluntary Medical Male Circumcision as HIV preventive measures (MoHSS, 2007; MoHSS, 2008).

It was indicated in this study that condom distribution was among the HIV prevention measures mentioned by the learners. This is also supported by MoHSS (2014c) that increase in condom distribution and use has been a key objective of the National Strategic Framework and both male and female condoms have proved to be effective in preventing HIV, STI and unwanted pregnancy.

In this study it was documented that getting tested for HIV was one of the HIV prevention measures among youth mentioned by the learners. The Voluntary Counseling and Testing has been identified as an entry point to most HIV and AIDS interventions globally (Chevo & Bhatasara, 2011). Knowledge of HIV status helps HIV-negative individuals make specific decisions that will help reduce the risk of contracting HIV. For those who are HIV positive, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan

for the future (NDHS, 2006-7). Therefore, youth should be encouraged to go for voluntary HIV counseling and testing.

Re- introducing of a religious subject in school was one of the effective HIV preventive measures suggested by the respondents. According to social control theories of adolescent behavior, religious functions do encourage adolescents to avoid actions that they might otherwise have taken. It is well known that one of the primary functions of religion is to help people deal with adversity (Verona, 2011). Religions help adolescents to develop competences, coping skills which are acquired via the religious promotion of beliefs and practices that can help adolescents to cope with different types of life problem, difficult moments, emotions and overcome conflicts. Therefore, based on the findings, the respondents' suggestion about the re-introducing of religious education as a subject in schools can be one of the effective HIV prevention measures among youth.

This study revealed that respondents also suggested HIV and AIDS to be a subject in school. Currently, in Namibia Life Skills subject whereby the component of HIV and AIDS is covered is incorporated in the curriculum. However, the subject is not a promotion subject (UNAM, 2007). Therefore, respondents are of opinion that Life Skills should be taught in schools as a promotion subject so that learners can imbibe and integrate comprehensive information about sexual related issues including HIV and AIDS.

In this study it was found that few learners indicated that HIV can be prevented among youth by avoiding sexual intercourse while under the influence of alcohol.

Information on alcohol and drug abuse is important for all adolescents, both regarding its effects on protected sex (for example, forgetting "intentions" to use condoms and a greater risk of incorrect use) as well as the potential for HIV infection through sharing unsterilized injecting equipment.

Only few learners mentioned peer counselling as one of HIV preventive measures among youth. This finding is similar to the study conducted by Maselesele, Lalendle and Useh (2007) on knowledge, attitudes and practices related to HIV/AIDS among learners in Vhembe district of Limpopo Province where it was revealed that respondents seemed to be less comfortable talking about the epidemic with peer educators.

However, peer education is an effective mechanism for increasing most at risk young people's knowledge and skills about HIV and STIs and contributes to enabling them to be responsible and protect themselves and others from HIV. Young people need special and urgent attention.

In South Africa, peer educators were identified, trained and supported to implement the programme in their schools with the assistance of a teacher and postgraduate students as facilitators. Peer educators organized HIV awareness activities, facilitated class discussions on risk behaviour and gender relationships, and supported learners in solving personal problems (Maselesele et al., 2007). Namibia is one of the countries with the Adolescent living with HIV and AIDS guideline in place (MOHSS, 2012). Subsequently, in Oshana region four schools: Mwachina gwa Nembenge, Erundu Secondary School, Eluwa Special Schools and Okaukuejo School, life skills teachers were trained by MoHSS Family Health Division on

Adolescent Friendly Health Services and Adolescent living with HIV and AIDS guidelines as focal teachers to assist learners in sexual reproduction related issues including HIV and AIDS. Twenty learners were trained as peer counsellors at Okaukuejo School in 2014 together with the life skills teacher (FHD annual report, 2014).

5.3 CONCLUSION

This study aimed to assess the knowledge, attitudes and practices toward HIV/AIDS prevention measures among male learners in Secondary School in Oshana region. A high level of knowledge about the route of HIV transmission and prevention was found and respondents execute positive attitude toward people living with HIV/AIDS. However, some misconceptions are highlighted about HIV transmission and intolerant attitudes toward PLHIV which need to be addressed.

Although respondents were found to have high level of knowledge on HIV/AIDS, risky sexual practices still remain. Evidenced, among all respondents in all the schools over 25% had engaged in unprotected sexual intercourse. HIV preventive measures were also highlighted and discussed accordingly. It has become evident that much still need to be done to make HIV prevention among youth more effective.

5.4 RECOMMENDATIONS

Based on the findings of this study the researcher makes the following recommendations for practice and for further research which can contribute to the fight against HIV/AIDS among the youth. The recommendations are made for the different stakeholders including the Ministry of Education, Ministry of Health and Social Services, parents and the learners.

5.4.1 Recommendations for the Ministry of Education

The study highlighted limited awareness among learners about the effectiveness of condom used in prevention of HIV and AIDS.

- It is hereby recommended that the Ministry of Education takes the lead to educate the learners on HIV preventive and control measures because learners should know all methods that they can use to protect themselves from infection.

This should be the responsibility of Life Skills teachers in collaboration with MoHSS specific Division of Special Program (Division responsible for HIV and AIDS, Tuberculosis and Malaria) and the Family Health Division. By equipping learners with knowledge about HIV/AIDS, this will address the misconceptions and improve the attitude of learners toward PLHIV. This was also recommended by NDHS (2006-7) that there is a high degree of agreement that learners should be taught about prevention programmes especially the use of condoms to avoid AIDS.

The research also showed that some of the learners are not aware about the availability of HIV prevention and care programmes.

- It is thus recommended that the Ministry of Education through the Life Skills teachers raise the awareness of the learners about the availability of HIV prevention and care programmes in school, to strengthen HIV prevention programmes in schools and to make sure that learners are actively involved from the initial process of planning or designing HIV and AIDS prevention programmes. The Ministry should collaborate with MoHSS to design HIV/AIDS prevention programme in this regard.
- It is also recommended Life Skills teachers emphasize more on the aims of HIV and AIDS prevention and care programmes that are to equip children with the self-esteem, knowledge and skills to protect themselves against HIV/AIDS and to care for others infected or affected by the disease.

The research highlighted the misconceptions about some routes of transmission among some learners such as the belief that HIV can be transmitted by mosquito bite, eating /drinking from the same plate or glass of an HIV positive person, hand shake and sharing the toilet facility with HIV positive person.

- It is recommended that through the HIV/AIDS Management Unit in the Ministry of Education and through collaboration with MoHSS staff in the region and other stakeholders, a multisectoral approach should be adopted to improve HIV education and awareness among the learners. Nurses and other health care providers should be involved to organize and present topics related to HIV (of

their choice) to the learners. This may help the learners to have a broad understanding of HIV and AIDS as well as addressing misconception about the route of HIV and AIDS transmission. If those misconceptions are not corrected they may contribute to discrimination of people living with HIV.

- It is also recommended that teachers be trained in comprehensive sexuality education and HIV/AIDS to stimulate their interest in teaching learners. Teaching strategies should enhance a friendly classroom environment which is non-threatening and gender sensitive to encourage learners to speak freely about sexuality. The Ministry of Education should collaborate with the Programme Officer for Special Programmes in MoHSS in the region to assist with the training.

5.4.2 Recommendations for the Ministry of Health and Social Services

The research findings have revealed that learners are less informed about post-exposure prophylaxis (PEP) and may therefore not avail themselves to utilize these services if the need arises.

- It is recommended that MoHSS through the Infection Control Nurse at regional level should take the lead to educate the learners about the Post Exposure Prophylaxis guidelines so that learners should be aware that if the condom burst during sexual intercourse without knowing one's HIV status they need to visit the hospital within 72 hours.

The research also highlighted sexual risk behaviors such as practicing unprotected sexual intercourse, men who had sex with men and men who had sexual intercourse while under the influence of alcohol were reported among the respondents

- It is therefore recommended to strengthen sexual and reproductive health education through the school health programme. Issues such as pre-marital sex and prevention of complications of reproductive tract infections should be emphasized. This should be a responsibility of MoHSS Primary Health Care services at regional level.

5.4.3 Recommendations for parents and learners

Parents should play a role to encourage their children to attach themselves on HIV prevention and care programmes for example HIV and AIDS awareness club, My Future is My Choice (MFMC) and others programmes as mentioned before. Such programme implementers should seek parental awareness through radio talk and the MFMC to be a topic in the agenda during parents meeting so that parents can be able to motivate the learners to attach themselves to such programmes.

Learners should also take responsibility for their health and show keen interest in understanding issues around HIV and AIDS transmission and prevention. Furthermore learners behave responsibly and engage in safe sex practices like condom use and avoidance of alcohol and drug abuse.

5.4.4 Recommendations for further research

Since this study targeted male learners only, it would be interesting to have a similar study on female learners as well.

Other areas that could be further researched on the topic include:

- Determining the factors that influence the utilization of existing HIV/AIDS prevention programmes among the youth in Namibia
- Parental and community contributions to HIV risk reduction among the youth in Namibia.
- Assessment of knowledge and skills of teachers in delivering HIV prevention programmes in schools in Namibia.

Additionally it is also recommended that MoHSS should conduct evaluation or implementation research on AFHS in Namibia.

Also the impact of peer counselling among learners in HIV and reproductive health education in the country should be investigated.

5.5 LIMITATIONS OF THE STUDY

There were several limitations to the study.

Few respondents were between 14- 16 years old. This is because the researcher had experienced challenge of receiving back all questionnaires among the mentioned age group. The reason being learners under 18 years had to obtain consent from their parents or guardians to participate in the study.

The study was restricted only to four secondary schools in one region involving 592 male learners. This limits the generalization of the study findings to others regions and to all male learners of similar age. Sexual behaviours and practices are sensitive topics that many youths are reluctant to talk about. As such, there could be some bias in the reported sexual practices. However, the anonymity of the questionnaires hopefully encouraged learners to be honest in their responses.

Despite the mentioned limitations, the researcher believes this study might be a reasonable source of information for programme managers, researchers and policymakers.

5.6 SUMMARY

This chapter presented a discussion of the findings, conclusions, limitations and recommendations of the study. In this chapter, the discussion of the findings, and comparison with the findings from other studies were done in accordance with the objectives of the study. The research findings were summarized in line with the objectives of the research and appropriate recommendations made to the key stakeholders to strengthen knowledge and improve attitude and practices among the youth regarding HIV prevention and control. Areas for further research on the topic have also been highlighted.

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ANNEXURES

ANNEXURE 1: RESEARCH QUESTIONNAIRE

DATA COLLECTION TOOL

KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS HIV/AIDS PREVENTION MEASURES AMONG MALE LEARNERS IN SECONDARY SCHOOLS IN OSHANA REGION, NAMIBIA

Questionnaire Number	
Date of interview	
Name of School	
Location of School	Rural <input type="checkbox"/> Urban <input type="checkbox"/>

SECTION A: DEMOGRAPHIC INFORMATION

No		Please indicate with an X	
1.	Age group	14-16	
		17-19	
		20-21	
2.	Level of educational	Grade 8	
		Grade 9	
		Grade 10	
		Grade 11	
		Grade 12	
3.	Religion	Roman Catholic	

		Anglican	
		Lutheran	
		None	
		Other(Specify) _____ _____	

SECTION B:

B1.Knowledge regarding transmission and prevention of HIV/AIDS

Please tick one answer in each item

1.	HIV can be transmitted by sexual intercourse	Yes	
		No	
2.	HIV can be transmitted from mother to child	Yes	
		No	
3	HIV can be transmitted by sharing needle or syringe	Yes	
		No	
4.	HIV can be transmitted by shaking hand	Yes	
		No	
5	HIV can be transmitted by blood transfusion	Yes	
		No	
6		Yes	

	HIV can be transmitted by eating and drinking from the same plate or glass of an HIV positive person	No	
7.	HIV can be transmitted by sharing a toilet with an HIV-positive person	Yes	
		No	
8.	HIV can be transmitted through a mosquito bite	Yes	
		No	

B2. Knowledge about prevention and control of HIV/AIDS

		Yes	No	Don't know
09	HIV can be prevented by not sharing needle or syringe			
10	HIV can be prevented by consistently and correctly use of condom during sexual intercourse			
11	HIV transmission can be avoided by remaining faithful to a single partner			
12	HIV transmission can be avoided by a blood test before marriage			
13	Male circumcision can reduce the risk of HIV infection			

14	Are you aware of the availability of HIV prevention and care programme in this region e.g. True Love Waits, Teenagers Against Drug and Alcohol Abuse?			
15	Post Exposure Prophylaxis is only effective if the medicine is started within 72hours of possible exposure to the virus e.g. Treatment that given in case of condom burst to prevent HIV transmission			

SECTION C: Attitudes toward People Living with HIV (PLHIV)

	Do you think that	Yes	No	Don't know
16	If one of your relative, who is HIV positive, becomes ill, would you be willing to care for her/him in your house or community?			
17	If your friend is HIV positive, would you continue your friendship with him/her?			
18a	If a shopkeeper or food seller is HIV positive, would you buy items from him/her?			
18b	If you know your friend or relative is HIV positive would you be willing to eat from the same plate with him?			
19	If a learner is HIV positive, she/he should be allowed to continue his/her studying in school?			
20	If a teacher is HIV positive, she/he should be allowed to continue his/her teaching in school?			

21	You are willing to attach yourself to the HIV prevention and care programme e.g. True Love waits ,Window of Hope . ,Teenager Against Drug and Alcohol (TADA)			
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SECTION D: Practices related to HIV/AIDS

No	Have you:	Yes	No
22	Ever had sexual intercourse?		
23	Ever had sex with men?		
24	Ever had unprotected sexual intercourse?		
25	Used condom regularly during sexual intercourse with casual partner?		
26	Ever had sexual intercourse while you are under the influence of alcohol?		
27	Been circumcised or will accept circumcision?		
28	Participated in HIV prevention activities?		
29	Contributed to help HIV affected person?		

30. What suggestions do you have to make HIV prevention among the youth more effective?

Thank you for your time!

ANNEXURE 2 CONSENTS

2. (A) THE CONSENT FOR LEARNERS UNDER 18 YEARS (For Parents)

"Your child has been randomly selected to participate in a study by **Ms Peneyambeko Ipawa Shikulo student number 9419985**, who is pursuing a study for a Masters degree in Public Health at the University of Namibia.

The title of the study is:

KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS HIV AND AIDS PREVENTION MEASURES AMONG MALE LEARNERS IN SECONDARY SCHOOLS IN OSHANA REGION

The aim of the study is: To assess the knowledge, attitudes and practices on HIV prevention among male learners in secondary schools in Oshana Region in order to strengthen HIV prevention and control measures among the youth in Namibia

The study is significant as it will help to improve programming for HIV/AIDS control among young people in Namibia.

Therefore, your child will be expected to answer some questions related to knowledge, attitudes and practices of young people towards HIV prevention. It is expected that it will require about 20mins for each person to answer all the questions and no names of the respondent is required. The answers will be treated with strict confidentiality.

Do you agree that your child should take part in answering the questions provided in the questionnaire? If yes, please sign below

Parent/Guardian of respondent

Date

Interviewer's name

Date

ANNEXURE 2 (B)

2. (B) CONSENT FORM (For Learners 18 Years and above)

You have been randomly selected to participate in a study by **Ms Peneyambeko Ipawa Shikulo student number 9419985**, who is pursuing a study for a Masters degree in Public Health at the University of Namibia.

The title of the study is:

KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS HIV AND AIDS PREVENTION MEASURES AMONG MALE LEARNERS IN SECONDARY SCHOOLS IN OSHANA REGION

This study has been described to me in language that I understand and I freely and voluntarily agree to participate. I understand that my identity will not be disclosed and the consent I am going to give will be kept confidential. I may choose to withdraw or not answer specific questions in this study without giving a reason at any time and this will not negatively affect me in any way.

Participant's signature

Date

Interviewer's signature

Date

ANNEXURE 3: LETTER REQUESTING MALE LEARNERS NUMBER

P.O.Box 2783
Oshakati
06 July 2014

TO: The Regional Director
Ministry of Education
Oshana Region

Dear Ms Shinyemba

RE: REQUESTING OF MALE LEARNERS NUMBER OF THE AGE BETWEEN 14-21 YEARS.

I am Peneyambeko Ipawa Shikulo (**student number 19985**) UNAM postgraduate student doing Master in Public Health (third year) currently busy with the research proposal. Student doing master in Public Health are required to undertake research as a requirement to obtain the degree. I am Health Programme officer in the Ministry of Health and Social Services (MoHSS) - Oshana Region.

The study topic is: **Knowledge, attitude and practice towards HIV and AIDS prevention measures among male learners in secondary schools in Oshana region**

I am humbly requesting your good office to assist me with the total number of **male learners per school** from the following schools listed below. These information will help me to calculate the study sample. These schools have been randomly selected.

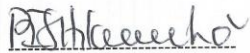
- **Iipumbu Senior Secondary School**
- **Oshakati Junior Secondary School**
- **Ekwafo Junior Secondary School**
- **Mweshipandeka Senior Secondary School**
- **Andimba Toivo ya Toivo Senior Secondary School**

Your office will be updated with details about the research topic after the research proposal has been approved. I still have to come back to your office to request the permission to conduct the research.

Please do not hesitate to contact my supervisors Dr Louis Pretorius at (0812495933) and Ms Ndapeua Shifiona at (065- 2232252) for more information.

Your support and cooperation in this regard is highly appreciated.

Yours sincerely



Ms P.I.Shikulo (0812567373)

UNAM GRADUATE STUDENT / APPLICANT:19985



ANNEXURE 4: LETTER PROVIDING NUMBER OF MALE

CT-2009 11:31 From:

To: 0221338

Page: 1



REPUBLIC OF NAMIBIA

OSHANA REGIONAL COUNCIL

DIRECTORATE OF EDUCATION

PLANNING AND DEVELOPMENT DIVISION

*Aspiring to Excellence in Education for All*Tel: (065) 229800
Fax: (065) 229834E-mail: gbsimasiku@yahoo.com
Enq: Mr. Best S. Simasiku
Ref: 29/07/14906 Sam Nujoma Rd
Private Bag 5518
OSHAKATI
NAMIBIAMs Peneyambeko Shikulo
P.O Box 2783
OSHAKATI
Namibia

29 July 2014

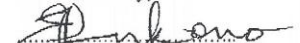
*Attention: Ms Shikulo***RE: REQUEST OF MALE LEARNERS' NUMBER OF THE AGE BETWEEN 14-21 YEARS**

With reference to your letter dated 06 July 2014 on the aforesaid subject, please below is the information requested by you in the given table.

School Name	Number of Learners
Iipumbu Secondary School	469
Oshakati Secondary School	420
Ekwafo Secondary School	265
Mweshipandeka Secondary School	345
Andimba TYT Secondary School	350

Please do not hesitate to contact us should you require more clarity.

Yours sincerely,


 MRS DUTTE N. SHINYEMBA
 REGIONAL DIRECTOR: OSHANA

29/07/14



ANNEXURE 5: ETHICAL CLEARANCE CERTIFICATE FROM UNAM



ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: SONPH/10/2015

Date: 10 February, 2015

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: Knowledge, attitude and practice towards HIV and AIDS prevention measures among male learners in secondary schools in Oshana region

Nature/Level of Project: Masters

Researcher: P.I. SHIKULO

Student Number : 9419985

Host Department & Faculty: School of Nursing and Public Health

Supervisor : Dr. L. Pretorius ; (Main) (Co) Dr. N. Shifiona

Take note of the following:

- (a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.
- (b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.
- (c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.
- (d) The UREC retains the right to:
 - (i). withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
 - (ii). request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Prof. I. Mapaure
UNAM Research Coordinator
ON BEHALF OF UREC

ANNEXURE 6: LETTER OF PERMISSION FROM UNAM POSTGRADUATE STUDIES RESEARCH COMMITTEE

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park
☎ +264 61 206 3111; URL: <http://www.unam.edu.na>



19 February 2015

TO WHOM IT MAY CONCERN

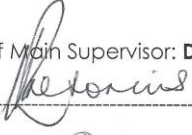
RE: RESEARCH PERMISSION LETTER

1. This letter serves to inform that student: **PI Shikulo** (Student number: **9419985**) is a registered student in the School of Nursing and Public Health at the University of Namibia. His research proposal was reviewed and successfully met the University of Namibia requirements.
2. The purpose of this letter is to kindly notify you that the student has been granted permission to carry out postgraduate studies research. The School of Postgraduate Studies has approved the research to be carried out by the student for purposes of fulfilling the requirements of the degree being pursued.
3. The proposal adheres to ethical principles.

Thank you so much in advance and many regards.

Yours truly,

Name of Main Supervisor: **Dr L Pretorius**

Signed: 

Dr. C. N.S. Shaimemanya

Signed: 

Director: School of Postgraduate Studies

Tel: 2063523

E-mail: cshaimemanya@unam.na

ANNEXURE 7: LETTER REQUESTING PERMISSIN TO CONDUCT RESEARCH AMONG LEARNERS IN OSHANA REGION

Enquiries: Ms P.I.Shikulo
Tel no: 0812567373
Fax no: 065 -221338

P.O.Box 2783
Oshakati
14 March 2015

TO: The Permanent Secretary
Ministry of Education Namibia
P/Bag 13186
Windhoek

Dear Sir

RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AMONG LEARNERS IN OSHANA REGION

I am Peneyambeko Ipawa Shikulo (**student number 19985**) UNAM postgraduate student doing Master in Public Health. Students doing master in Public Health are required to present a research study as a requirement to obtain the Master degree. I am a Health Programme Officer in MoHSS, Oshana Region. My research focuses on **Knowledge, Attitude and Practices towards HIV and AIDS prevention measures among male learners in secondary schools in Oshana region**

It is against this background that I humbly request your good office to grant me permission to conduct the research in the selected secondary schools in Oshana region. The study will involve male learners between the ages of 14-21 years. For learners under age of 18 years, consent to participate in the study will be obtained from the parents, while learners over 18 years of age will give consent themselves.

The exercise will be taking place between May - June 2015 and it will not interrupt with the school activities as the researcher will arrange appropriate time with the school principals to collect data from the learners. I would like to conduct the pilot study at Oshakati Senior Secondary School whereby 20 learners will participate. Pilot study will be conducted as soon as I am granted the permission.

Kindly receive the attached documents: The research proposal as approved by UNAM Senate, Clearance certificate and permission letter and questionnaire

I would be grateful if my application receives your timely and favourable consideration and your kind cooperation will be highly appreciated.

Yours in Health and Education



Ms P.I. Shikulo (0812567373)
UNAM GRADUATE STUDENT / APPLICANT: 9419985

**ANNEXURE 8: ANNEXURE 8: PERMISSION LETTER FROM THE OFFICE OF
PERMANENT SECREYARY OF THE MoE**

20/04/2015 10:27 Min of Education

(FAX)2933922

P.001/001



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Enquiries: Mr C. Muchila
E-mail: Cavin.Muchila@moe.gov.na
Tel: +264 61 2933200
Fax: +264 61 2933922

Private Bag 13186,
WINDHOEK
Namibia

File no: 11/1/1

Date: 09 April 2015

To: Ms P. I. Shikulo
Cell: 0812567373
Fax: 065 - 221338

Dear: Ms Shikulo

SUBJECT: PERMISSION TO CONDUCT A RESEARCH STUDY IN OSHANA REGION

Your correspondence regarding the subject above, seeking permission to conduct a research study in the schools of Oshana Region has reference.

Kindly be informed that the Ministry does not have any objection to your request to conduct a research study at identified schools in the region concerned.

You are, however, kindly advised to contact the Regional Council Office, Directorate of Education, for authorisation to go into the schools and for proper information coordination.

Also take note that the research activities should not interfere with the normal school programmes. Participation by either teachers or learners should be on a voluntary basis. Should you involve minors in your research activities, consent for participation should first be obtained from the parents/guardians of the minor(s).

By copy of this letter the Regional Education Director are made aware of your request.

Sincerely yours

Alfred Ilukena
Mr. Alfred Ilukena
PERMANENT SECRETARY
cc: Director of Education: Oshana



All official correspondence must be addressed to the Permanent Secretary

**ANNEXURE 9: PERMISSION LETTER FROM THE OFFICE OF THE
DIRECTOR OF EDUCATION OF OSHANA REGION**



REPUBLIC OF NAMIBIA

**OSHANA REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE**
Aspiring to Excellence in Education for All

Tel: 065 - 230057
Fax: 065 - 230035

Private Bag 5518
Oshakati
NAMIBIA
28 May 2015

Enquiries: Liisa Nanguti-Shilongo
Email: liisashilongo@gmail.com
Cell phone: +264 81 292 3577
Ref: 8/5/2/20

TO: Ms P. I. Shikulo
Cell phone No: 0812567373
Fax No: 065-221338

SUBJECT: PERMISSION TO CONDUCT A RESEARCH STUDY IN OSHANA REGION

1. This letter serves to inform you that the Oshana Directorate of Education, Arts and Culture concurs with the permission granted to you by the Ministry of Education, Arts and Culture, to conduct a research in Andimba Toivo yaToivo SS, Oshakati SS, Ekwafo SS, Mweshipandeka SS and Iipumbu SS.
2. As per your request, the number of male learners in the selected schools are:

• Iipumbu SS:	494
• Oshakati SS:	443
• Ekwafo SS:	336
• Mweshipandeka SS:	373
• Andimba Toivo yaToivo SS:	360
3. As indicated by the office of the Permanent Secretary for the Ministry of Education, Arts and Culture; please ensure that the research activities do not interfere with the normal school programmes and participation should be voluntary.

Thank you

Yours Sincerely,

D. N. Shinyemba 28/05/15
MRS. DUTTE N. SHINYEMBA
REGIONAL DIRECTOR
OSHANA REGION

