KNOWLEDGE, ATTITUDE AND PRACTICES ON HIV PREVENTION AMONG ADOLESCENT STUDENTS OF KISOKO HIGH SCHOOL TORORO DISTRICT

BY

OWOR MOSES

BMS/0041/141/DU

A RESEARCH PROPOSAL SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE AND DENTISTRY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY DEGREE OF KAMPALA INTERNATIONAL UNIVERSITY

APRIL, 2019
DECLARATION

I OWOR MOSES, hereby declare that this research report is my own original work and has never been presented in training school or any other tertiary institution or university for award of diploma or degree.

NAME OF RESEARCHER : OWOR MOSES

REGISTRATION NUMBER : BMS/0041/141/DU

SIGNATURE : ...........................................

DATE : ..............................................
SUPervisor’s approval

This research report and the entire research process was supervised and approved by my supervisor.

SUPERVISOR: Dr. ODONG RICHARD JUSTIN


SIGNATURE: .................................................................

DATE: .............................................................................
ACKNOWLEDGEMENT

First and foremost I would like to acknowledge the guidance of the Holy Spirit and thank God the almighty who has enabled me to start and go through this course till this far I have come, “EBENEZER”.

I would like to acknowledge Kampala International University and my lecturers for having given me a chance to turn my dream into a reality.

Last but not least I acknowledge the efforts of my supervisor, colleagues, friends, family and my fiancée that guided, encouraged and supported me throughout the course of this research.
DEDICATION

I dedicate this research to my beloved family for the immeasurable support, encouragement and patience to mention but a few, my father Ps. Ofwono Chrisphine and mother Mrs Mary Ofwono, my brothers and sisters; Mr & Mrs. Abbo Esther, Mr & Mrs. Awor Beatrice, Mr. Bero Steven and my younger siblings. Thank you all and may the almighty God bless you abundantly.
TABLE OF CONTENTS

DECLARATION ..................................................................................................................... i
APPROVAL......................................................................................................................... ii
ACKNOWLEDGEMENT ...................................................................................................... iii
DEDICATION ..................................................................................................................... iv
TABLE OF CONTENTS .................................................................................................. v
LIST OF TABLES ........................................................................................................... viii
LIST OF FIGURES .......................................................................................................... ix
LIST OF ABBREVIATIONS ............................................................................................. x
TERMS AND DEFINITIONS ............................................................................................ xi
ABSTRACT ..................................................................................................................... xii
CHAPTER ONE ............................................................................................................. 1
  1.1. Introduction ........................................................................................................... 1
  1.2. Background .......................................................................................................... 2
  1.3. Problem statement ............................................................................................... 4
  1.4. Purpose of the study ............................................................................................. 5
  1.4.1. Major objective ............................................................................................... 5
  1.4.2. Specific objectives .......................................................................................... 5
  1.5. Research questions ............................................................................................... 5
  1.6. Justification .......................................................................................................... 5
  1.7. Scope of the study ............................................................................................... 6
  1.7.1. Geographical scope ......................................................................................... 6
  1.7.2. Content scope .................................................................................................. 6
  1.7.3. Time scope ....................................................................................................... 6
  1.8. Conceptual framework ......................................................................................... 7
  1.8.1. Structural framework ...................................................................................... 7
  1.8.2. Explanation of conceptual framework .......................................................... 7
CHAPTER TWO: LITERATURE ...................................................................................... 8
  1. Introduction ............................................................................................................... 8
  2.1. The Knowledge on HIV prevention methods among adolescents ....................... 8
2.2. Attitude on HIV prevention methods among adolescents ........................................ 9
2.3. The practices on HIV prevention among adolescents ........................................ 10

CHAPTER THREE: METHODOLOGY ............................................................................. 13
3.1. Study design ....................................................................................................... 13
3.2. Study site .......................................................................................................... 13
3.3. Study population ............................................................................................... 13
3.4. Inclusion criteria ............................................................................................... 14
3.5. Exclusion criteria .............................................................................................. 14
3.7. Sampling technique .......................................................................................... 15
3.8. Data collection tools ......................................................................................... 15
3.9. Study procedure ............................................................................................... 15
3.10. Quality Control .............................................................................................. 15
3.11. Data Analysis and presentation ...................................................................... 16
3.12. Limitation of the study ................................................................................... 16
3.13. Ethical considerations: .................................................................................. 16

CHAPTER FOUR: RESULT .......................................................................................... 17
4.0. PRESENTATION AND INTERPRETATION OF RESULTS ................................... 17
4.1. Socio-demographic characteristics of the adolescents of Kisoko high school in Tororo district ................................................................................................. 17
4.2. Knowledge on HIV prevention methods among adolescent students of Kisoko High School in Tororo district ........................................................................ 18
4.3. The attitude on HIV preventive methods among adolescent students of Kisoko High School in Tororo district ................................................................. 19
4.4. The practices on HIV prevention among adolescent students of Kisoko High School in Tororo district .................................................................................. 20

CHAPTER FIVE: DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS ................................................................................................. 21
5.1. DISCUSSION OF RESULTS ................................................................................ 21
5.1.1. Knowledge on HIV prevention methods among adolescent students of Kisoko High School in Tororo district ................................................................. 21
5.1.2. The attitude on HIV preventive methods among adolescent students of Kisoko High School in Tororo district ................................................................. 22
5.1.3. The HIV prevention practices among adolescent students of Kisoko High School in Tororo district. 

5.2. CONCLUSION

5.3. RECOMMANDATIONS

REFERENCES

APPENDIX I: QUESTIONNAIRE

APPENDIX II: INTRODUCTORY LETTER

APPENDIX III: WORK PLAN

APPENDIX IV: BUDGET

APPENDIX V: MAP OF UGANDA SHOWING TORORO DISTRICT

APPENDIX VI: MAP OF TORORO DISTRICT SHOWING KISOKO SUB COUNTY
LIST OF TABLES

Table 1: Demography characteristics of the respondents...................................................... 17

Table 2: Attitude of respondents............................................................................................ 19
LIST OF FIGURES

FIGURE 1: CONCEPTUAL FRAMEWORK........................................................................................................... 7

FIGURE 2: KNOWLEDGE OF THE SPECIFIC METHODS OF HIV PREVENTION BY THE RESPONDENTS... 18

FIGURE 3: HIV PREVENTION METHODS PRACTICED AMONG THE RESPONDENTS................................. 20
LIST OF ABBREVIATIONS

AIDS Acquired Immune Deficiency Syndrome

CDC Center for Disease Control

DOC Dean of Clinical

GFC Globefeed.com

HAART Highly Active Anti-Retroviral Therapy

HIV Human Immune Deficiency Virus

KHS Kisoko High school

MOH Ministry of Health

NCCA National AIDS Control Council

STD Sexually Transmitted Diseases

TASO The AIDS Support Organization

UAC Uganda Aids Commission

UBOS Uganda Bureau of Statistics

UNAIDS United Nations Programme on HIV and AIDS

UNESCO United Nations Educational, Scientific and Cultural Organization

UNICEF United Nations International Children’s Emergency Funds

VHCT Voluntary HIV Counseling and Testing

WHO World Health Organization
TERMS AND DEFINITIONS

**Infection rates:** Occurrence of an infection in a specific period of time.

**Intergenerational sex:** When young people have sexual relationships with older people usually for material gain.

**Opportunistic diseases:** Diseases that occur due to reduced body immunity.

**Perception:** Conscious understanding of something.

**Prevalence:** Is the occurrence of both new and old cases of a particular disease in a population in a given period time.

**Prevention:** The act of avoiding the occurrence of something.

**Sexual debut:** First time sexual intercourse.

**Sexual exploitation:** Sexual abuse.

**Sexual risk behaviors:** Sexual behaviors that can lead to the spread of infections e.g. unprotected sex.

**Sexually transmitted disease:** Diseases transmitted through sexual contact with an infected person.

**Transmission:** Spread of infection from one person to another.

**Vertical transmission:** Transmission from mother to child either through breastfeeding or at birth.
ABSTRACT

HIV remains a global health problem. In 2016 alone, 610,000 young people between the ages of 15 to 24 were newly infected with HIV, of whom 260,000 were adolescents between the ages of 15 and 19 and this led to the launch of a new global strategy which aims to end the AIDS epidemic by 2030 hence it is critical to accelerate efforts to address the epidemic among adolescents (UNICEF, 2017). This study aimed to assess the knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school, Tororo district.

We conducted a secondary school based cross sectional descriptive study to describe the knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school in Tororo district from September 2018 to April 2019, data was collected from 100 participants by the use of self-administered questionnaires containing questions to assess the respondents’ socio-demographic data, knowledge, attitude and practices on HIV prevention and methods.

The modal age of the participants was 15-19 years; most of them resided in rural area and all were single. Majority of the respondents 92(92%), knew that HIV can be prevented through abstinence, 90 (90%) by use of condom, 88 (88%) by being faithful and 67 (67%) by not sharing sharps. More than three quarters of the respondents 80 (80%) didn’t know about SMC and 68 (68%) didn’t know about PMTCT as HIV preventive measures, the respondents 72 (72%), 81 (81%), 75 (75%), and 69 (69%) said abstinence, condom use, being faithful and PMTCT respectively were good methods for HIV prevention and 52 (52%) were abstaining, (42%) were faithful to only one sexual partner, 44 (68.7%) male respondents had done safe male circumcision and 80 (80%) of the respondents had tested for HIV infection. The study found adolescents with good level of knowledge on abstinence, being faithful, condom use and not sharing sharps but inadequate knowledge about SMC and PMTCT, they had good attitude towards abstinence, being faithful, Condom use and PMTCT methods of HIV prevention and practiced Abstinence, SMC and HIV testing commonly. The result justifies the effort put by different stakeholders to create and promote awareness on HIV prevention in Kisoko high school.
CHAPTER ONE

1.1. Introduction

HIV/AIDS remains one of the world's most significant public health challenges, particularly in low and middle income countries and globally 36.7 million people were living with HIV by 2015, and 1.8 million of these were children (WHO, 2017). With the vast majority of people living with HIV in low and middle income countries, an estimated 2.1 million people were newly infected with HIV in 2015 and estimated 35 million people died from HIV-related causes so far, including 1.1 million in 2015 (WHO, 2017). In 2015, a new global strategy was launched which aims to end the AIDS epidemic by 2030 and to achieve this, it is critical to accelerate efforts to address the epidemic among adolescents (UNICEF, 2017).

There are an estimated 24.7 million people living with HIV in sub-Saharan Africa, nearly 71% of the global total and ten countries; Ethiopia, Kenya, Malawi, Mozambique, Nigeria, South Africa, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe account for 81% of all people living with HIV in the region (UNAIDS, 2013).

In East Africa taking a look at Kenya, Kenya is one of the four HIV ‘high burdens’ countries in Africa; about 1.5 million people were living with HIV infection at the end of 2015 and the high burden of HIV and AIDS in Kenya accounts for an estimated 29 per cent of annual adult deaths, 20 per cent of maternal mortality, and 15 percent of deaths of children under the age of five (NACC, 2016). The epidemic has also negatively affected the country’s economy by lowering per capital output by 4.1 percent with an estimated 71,034 new HIV infections among adults and about 6,613 new infections among children annually (NACC, 2016).

Moving down to Uganda, HIV prevalence in the general population in Uganda increased from 6.4% in 2004/5 to 7.3% by 2011, this tally with the 2013 HIV estimates which show that HIV prevalence stabilized around 7.4% in 2012/2013(UNAIDS, 2015). This however undermines the fact that the country that was well known for earlier interventions that drastically reduced the prevalence in the earlier years of the epidemic is seeing a reversal (UNAIDS, 2015).

The latest spectrum estimates of 2015 from Ministry of Health indicate that the total burden of HIV in Uganda is increasing and the number of persons in the country living with HIV has
continued to increase from 1.4 Million in 2013 to 1.5 Million in 2015 (MOH, 2015). This is as a result of continuing spread of HIV and increased longevity among persons living with HIV (MOH, 2015).

In Tororo, a report by Bogere the Aids Support Organization (TASO) area manager revealed that the rate of HIV/AIDS infections is increasing in Tororo and the neighboring districts as the number of new clients seeking treatment had drastically increased from 250 to 1,000 in the last one year (Bogere, 2009).

1.2. Background

HIV (human immunodeficiency virus) is a retrovirus that infects cells of the immune system, destroying or impairing their function hence immune system becomes weaker as the disease progresses and the person becomes more susceptible to other infections (WHO, 2017). The most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS), which can take 10-15 years to develop and antiretroviral drugs can slow down the process even further (WHO, 2017). Untreated, HIV reduces the number of CD4 cells (T cells) in the body and makes it harder and harder for the body to fight off infections and some opportunistic infections or cancers which then take advantage of a very weak immune system, a signal that the person has AIDS (CDC, 2017). No cure currently exists for HIV but with proper medical care, HIV can be controlled and also some groups of people are more likely to get HIV than others because of many factors, including their sex partners, their risk behaviors, and where they live (CDC, 2017).

HIV, the virus that causes AIDS, “acquired immunodeficiency syndrome,” has become one of the world’s most serious health and development challenges, the first cases were reported in 1981 and today there are approximately 36.9 million people currently living with HIV and tens of millions of people have died of AIDS-related causes since the beginning of the epidemic (Curran et.al, 2012). While new cases have been reported in all regions of the world, approximately 70% are in sub-Saharan Africa where most people living with HIV or at risk for HIV do not have access to prevention, care, and treatment, and there is still no cure and it primarily affects those in their most productive years; about 38% of new infections are among those under age 25 and affects the health of individuals, it impacts households, communities, the development and economic growth of nations (Curran et.al, 2012).
HIV can be transmitted in several ways; unprotected sexual intercourse (vaginal or anal) or oral sex with an infected person, transfusions of contaminated blood or blood products or transplantation of contaminated tissue, sharing of contaminated injecting equipment and solutions or tattooing equipment, through the use of contaminated surgical equipment and other sharp instruments and the transmission between a mother and her baby during pregnancy, childbirth and breastfeeding (WHO, 2017).

There are several ways to prevent HIV transmission; practicing safe sexual behaviors such as using condoms, getting tested and treated for sexually transmitted infections including HIV to prevent onward transmission, avoiding injecting drugs or if you do so always use sterile needles and syringes, ensuring that any blood or blood products that you might need are tested for HIV, accessing voluntary medical male circumcision if you live in one of the 14 countries where this intervention is promoted, starting antiretroviral therapy if you have HIV as soon as possible for your own health and to prevent HIV transmission to your sexual or drug using partner or to your infant (if you are pregnant or breastfeeding), using pre-exposure prophylaxis prior to engaging in high risk behavior, and demanding for post-exposure prophylaxis if there is a risk that you have been exposed to HIV infection in both occupational and non-occupational settings (WHO, 2017).
1.3. Problem statement

HIV remains a global health problem, in 2016 alone, 610,000 young people between the ages of 15 to 24 were newly infected with HIV, of whom 260,000 were adolescents between the ages of 15 and 19 and this led to the launch of a new global strategy which aims to end the AIDS epidemic by 2030 hence it is critical to accelerate efforts to address the epidemic among adolescents (UNICEF, 2017). An estimated 36.7 million people were living with HIV in 2015; the vast majority of people living with HIV were in low- and middle-income countries with an estimated 2.1 million people newly infected with HIV in 2015 and an estimated 35 million deaths from HIV-related causes, including 1.1 million in 2015 (WHO, 2017). Despite gains in preventing new HIV infections, sub-Saharan Africa remains the region most severely affected with HIV and three countries; Nigeria, South Africa and Uganda represented almost 48% of the new HIV infections in the region (UNAIDS, 2015).

In East Africa, the high burden of HIV and AIDS in Kenya accounts for an estimated 29 per cent of annual adult deaths, 20 per cent of maternal mortality, and 15 percent of deaths of children under the age of five (NACC, 2016).

Uganda is still classified as a high burden country with high number of persons living with HIV which has continued to increase, with HIV prevalence among young women almost 4 times higher than in young men of the same age (UNAID, 2017). Lack of sexual education is telling as in 2014 only 38.5% of the young women and men could correctly identify ways of preventing the sexual transmission of HIV (UNAID, 2017).

In eastern Uganda, according to Musoba the executive director of UAC, new cases of HIV were increasing in eastern Uganda which could jeopardize Uganda’s goal to eliminate the epidemic by 2030 and in Tororo the HIV infection increased from the previous 4.1 to 4.4 percent (Musoba et.al, 2017). UNAIDS on Uganda country report, noted that there was observed increase in the prevalence of HIV in 2011 in sites like Tororo in Eastern Uganda and others (UNAIDS, 2014).

No studies of the knowledge, attitude and practices on HIV prevention among adolescent students has been done in Tororo schools as far as we know and hence this study sought to bridge that gap by describing the knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school in Tororo district.
1.4. Purpose of the study

1.4.1. Major objective

To assess the knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school in Tororo district.

1.4.2. Specific objectives

i. To describe the Knowledge on HIV prevention methods among adolescent students of Kisoko High School in Tororo district.

ii. To describe the attitude on HIV prevention methods among adolescent students of Kisoko High School in Tororo district.

iii. To describe the practices on HIV prevention among adolescent students of Kisoko High School in Tororo district.

1.5. Research questions

i. What is the knowledge on HIV prevention methods among adolescent students of Kisoko high school in Tororo district?

ii. What is the attitude on HIV prevention methods among adolescent students of Kisoko High School in Tororo district?

iii. What are the practices on HIV prevention among adolescent students of Kisoko high school in Tororo district?

1.6. Justification

The continued spread of HIV/AIDS despite aggressive prevention programs and wide spread public awareness presents a public health issue.

This study has a significance use by identifying knowledge, attitude and practice on HIV/AIDS prevention among adolescent school students, which will clearly show the gap and help all concerning bodies to give consideration and reduce the mortality and prevalence of among the highly active age groups.
Therefore, this study was to help in providing information about knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school in Tororo district and in turn to help as baseline data for policy makers and relevant stakeholders to design strategies.

1.7. Scope of the study

1.7.1. Geographical scope

Kisoko high school is a government aided non USE secondary school located in Kisoko parish, Kisoko Sub County, Tororo district in eastern Uganda. Kisoko Sub County is located about 5km from Tororo town along Nangogera/Buteleja road. Tororo district is in the far east of Uganda at the Malaba border to Kenya. It is about 178km from Kampala, the capital city of Uganda and it’s bordered by districts like Mbale, Buteleja, Busia, Manafa, Budaka and Bugiri and on the east side by the neighboring country, Kenya.

1.7.2. Content scope

This study was carried out on adolescents who were those aged between 10 – 19 years and focused on the knowledge, attitude and practices on HIV prevention among adolescent students of KHS in Tororo district.

1.7.3. Time scope

This research was carried out between the month of September 2018 and April 2019. This time duration covers for topic selection, proposal development, research tools and funds mobilization, data collection, data analysis, report writing and dissemination of the information.
1.8. Conceptual framework

1.8.1. Structural framework

Figure 1: conceptual framework

Interaction between knowledge, attitudes and practices lead to the prevalence of HIV among adolescents. Practices dependence on the level of knowledge and attitude towards the subject and attitude will influence the practices such as number of sexual partners, condom use among others; the interplay of the three factors leads to prevalence of HIV and its outcome.
CHAPTER TWO: LITERATURE

1. Introduction

This chapter presents literature from other researchers as per the objectives of this study.

2.1. The Knowledge on HIV prevention methods among adolescents

According to a study conducted in Europe assessing awareness and knowledge in depth mainly for HIV/AIDS and HPV, awareness was generally high for HIV/AIDS (above 90%); although, as shown by some of the findings on condom use in this study, knowledge does not always translate into behavior change, adolescents' sex education is important for STD prevention, and the school setting plays an important role (Samkange et al., 2017). A recent report by UNAIDS found HIV knowledge to be a strong predictor and associated with safer sexual practices, including consistent condom use (UNAIDS, 2013).

Still in the same report by UNAIDS, general knowledge of the main modes of HIV transmission was high, and was a bit higher in males than females 90.4% vs. 86.5%, however, young people had poor knowledge of mother-to-child transmission of HIV, including only 51% of female youth and other lacunae in the HIV knowledge base of the young people were more common among those infected, especially among females (UNAIDS, 2013).

A study conducted among adolescents in one of the schools in Malaysia reported only 53.02% of adolescents had good level of knowledge about HIV prevention while 46.98% were not informed, poor knowledge was found in terms of safe sex by using condom 42.5%, prevention of infection by avoiding tattooing, acupuncture, use of skin-piercing accessories 49.2% and kissing 66.1% (Khindarli, 2013). However misconception on transmission of infection through healthy-looking person, sharing food with HIV infected person, mosquito bites was found in 68.8%, 57.9% & 53.1% of the respondents respectively (Khindarli, 2013).

In Ethiopia, Almost all of the students in a study by Ahmed had heard at least one of HIV/AIDS preventive methods; abstinence, faithfulness to one’s partner and usage of condom as a means of HIV/AIDS prevention methods were responded by 93.4%, 84.1% and 47.1% of students respectively and they reported the routes of transmission as; Unsafe sex (96.7%), sharing sharp material (90%), unsafe blood transfusion (96.5%) and mother to child transmission 64% (Ahmed et al., 2015). According to Yasin’s study in Ethiopia, Only a small percentage of students; 12.6%
reported mosquito bite, 10.7% eating raw meat, prepared by HIV infected person, 8.76% sharing toilet, 9% sharing public swimming and 10.4% shaking hands with infected person as a mode of transmission (Ahmed et.al, 2015).

In Cameroon, a study showed that Students had a satisfactory level of knowledge on HIV/AIDS prevention as majority, 96.6% of participants demonstrated an adequate understanding of routes of HIV transmission and 82.2%, 85.3% and 90.5% had knowledge about HIV prevention as being faithful, use of condoms and abstinence respectively (Kingoum et.al, 2016).

Moving to democratic republic of Congo, the majority of adolescents surveyed by Harun were aware that HIV can be transmitted by sexual intercourse (97.7%), from mother to child (88.3%) and through sharing needles or syringes (92.0%), however misconceptions about transmission of HIV were observed among 59.3% to 74.3% of respondents (Harun et.al, 2013). Almost all young people (98.9%) had heard about HIV/AIDS; 98.8% for females and 99.4% for males, the main sources of HIV knowledge were television and radio 98.3%, health organizations 53.2%, and peers 38.1%, while parents were the least likely sources of HIV/AIDS education, 6.4% to the adolescents (Harun et.al, 2013).

2.2. Attitude on HIV prevention methods among adolescents

According to UNICEF report in Namibia, Communicating the need to abstain, be faithful and use a condom has proven to be successful in many settings worldwide underlining that it is a viable and practicable HIV prevention package, however, in Namibia as well as in other countries some of the core messages have been accepted by young people only to a limited extent and in order to be internalized and practiced by the Namibian youth, it required discussing and repackaging of the ABC (UNICEF, 2016).

In regard to Mohammed’s report in south east Ethiopia, About 53% of adolescents were interested in using condom and 67.1% were willing to give advice to use condom for someone who is sexually active, 62.1% of students agreed to abstinence until marriage and 67.8% of the students agreed to being faithful with one friends (Ahmed et.al, 2015).

However, in central Uganda, about 39.2% of the study participants in the report by Rukundo and colleagues mentioned that they cannot get infected with HIV and can't contract HIV at all and
only 18.4% believed that chances of getting HIV infection were high; participants further reported that condoms and their use is a sign of mistrust, reduces sexual pleasures and they are embarrassing to buy (Rukundo et al., 2016).

In Namibia, circumcised men expressed more positive beliefs about circumcision and the health benefits than uncircumcised men (Terthu, 2010). Compared to 58.1% of uncircumcised men, 74% of circumcised men reported that it is easier to acquire HIV infection if the male is uncircumcised; even though a higher proportion of participating men in the Namibian study expressed a belief that circumcision reduces the chance of getting HIV infections, 7.6% of the 331 respondents agreed that circumcised men can safely have sex without using a condom and do not get infected with HIV hence these results suggest the perception of false HIV safety, as some people may believe that SMC provides complete protection (Terthu, 2010).

According to the study conducted in western Uganda, Bushenyi district Ishaka municipality, by Marera et al.; the results of this study noted that all adolescents (100%) understood the meaning of circumcision but 63% agreed that men should be circumcised at an adult age and not during infancy, while 54% of the participants believed that circumcision is done on religious grounds, 72% of the above preferred it to be done from the hospital not at home and it was also noted that 63% of the participants believed that circumcision reduces HIV/AIDS (Marera et al., 2013).

Voluntary HIV counseling and testing (VHCT) is one of the key strategies in the prevention of HIV in Ethiopia, however utilization of the VHCT services amongst adolescents had been reported to be low; a study conducted amongst adolescents attending high school in Addis Ababa, the capital city of Ethiopia revealed that 75.7% of students were aware of the voluntary HIV counseling and testing services, 62.2% use the services and suggested that VHCT services should be located in schools and youth clubs for better access by adolescents, also 32% of respondents rated themselves as being at risk of HIV infection and 35.2% were not willing to disclose their HIV positive status to anybody (Thupayagale et al., 2012).

2.3. The practices on HIV prevention among adolescents

The findings of the study conducted in Zimbabwe indicated that; age group, sex, marital status, age at sexual debut, number of sexual partners, sexually transmitted infections and condom use are important predictors of HIV infection among adolescents in Zimbabwe and HIV prevention programmes in Zimbabwe and indeed in other developing neighboring countries should focus on
these predisposing factors in order to mitigate the spread of HIV and AIDS among young persons (Naido et.al, 2012).

In Cameroon, Risky behaviors were found among adolescents as about 60% practice safe sex and 40% reported not to; up to 42.2% of the respondents had a history of sexual intercourse of which 56.3% had used a condom during their last three sexual encounters (Kingoum et.al, 2016). Students with medium and high levels of knowledge were more likely to display safe practices and although statistically not significant, it was found that as knowledge increased the ability of respondents to report safer sex decreased (Kingoum et.al, 2016).

Condom use among young people and adolescents were relatively low in the demographic and Health Surveys conducted in sub-Saharan Africa by UNAIDS between 2010 and 2015 which reported; less than 60% of young women with multiple partners used a condom during their last sexual intercourse in 19 of 23 countries and in 15 out of the 23 countries there were similar results for young men (UNAIDS, 2016).

And in Haiti, in a study conducted among adolescents in port-au-prince, Condoms were poorly utilized, with 65% of females and 52% of males reporting never having used a condom and an increase in prevalence of HIV infection was observed with “never use” of condom among females (Tsogzolmaa et.al, 2009).

A study conducted by Adedapo in two rural schools in South Africa found that among learners who reported being sexually active, only 53.3% reported having used condoms for their last sexual intercourse and about 49% had experienced sexual intercourse before the age of 15 years; this was significantly higher in boys (60.6%) than in girls (31.9%).(Adedapo et.al, 2014). The proportion of 49% who had engaged in early sexual intercourse in this sample is much higher than another study conducted by peltzer in South Africa that found a lower rate of 27.3% (Peltzer, 2010).

In Ethiopia as reported by Ahmed, 28.9% of the adolescents were sexually active and the majority, 61.1% of them started at the age of 15-19 years; 54.1% of them used condom and 38.5% of them did not and 66.4% of them reported to have constant sexual partner (Ahmed et.al, 2015). Yet of 61% of students who knew about anti-HIV/AIDS club in their school, only 39.5%
participated in the anti-HIV/AIDS club and 71.9% of students tested for HIV, the rest 28.9% did not test for HIV/AIDS in this study, the majority 27.6% who were not tested reported fear of the result as the measure reason (Ahmed et.al, 2015).

From the public health perspective, WHO reports that adolescents who engage in early sexual activities are less likely to use condoms and have more than one sex partner (WHO, 2008). And according to UNICEF, the age of sexual debut is rising, showing a positive change in attitudes among young people with regards to sexual behavior (UNICEF, 2013). However according to UNAIDS and UNESCO, it is still relatively low in many countries, particularly in Africa, and lower among adolescent girls than boys in low and middle income countries (UNAIDS & UNESCO, 2013). On the other hand, While only a small percentage of adolescents will become sexually active before the age of 15 (roughly 11% for girls), evidence suggests that some children as young as five are exposed to sexual activities directly or indirectly (STOP AIDS, 2016). Child marriage is a key driver of early sexual debut and in some settings up to 45% of adolescent girls reported that their first sexual experience was forced (STOP AIDS, 2016).

More on this perspective, the number of sexual partners young people have is falling, although it remains high in countries most affected by the HIV epidemic (UNICEF, 2013). For example, more than quarter of young men in Lesotho, Madagascar and Swaziland are thought to be in multiple relationships (UNAIDS & UNESCO, 2013).
CHAPTER THREE: METHODOLOGY

3.1. Study design

This was a secondary school based cross sectional descriptive study to describe the knowledge, attitude and practices on HIV prevention among adolescent students of Kisoko high school in Tororo district.

3.2. Study site

The study was carried out at Kisoko High school in Kisoko parish, Kisoko Sub County, west Budama County, Tororo district in eastern Uganda; Kisoko Sub County is located about 5km from Tororo municipality along Nangogera/Buteleja road, and Tororo district municipality which hosts the district headquarters is in the far east of Uganda at the Malaba border to Kenya about 230km from Kampala, the capital and largest city of Uganda. Tororo district is bordered by Mbale to the north, Manafa district to the north east, Kenya to the east, Busia district to the south, Bugiri district to the south west and Buteleja district to the North West.

Tororo district sits in an area of land of about 1196.4 sq km, and according to the 2017 population estimate, it had a population of 552,700 and a population density of 462.0/sq km. The 2014 national census estimated the population of Tororo district at 517,080. Agriculture is the backbone of the district economy and most of the district produce is consumed locally or sold in the urban areas within the districts. Crops grown include; millet, cassava, peas, beans, sweet potatoes, simsim, sunflower, cotton, onions, rice and maize commonly.

3.3. Study population

The population for this study comprised of adolescents (10-19 years old) who were students at Kisoko High School in Tororo district at the time of study. Tororo district has a population of 552,700 according to the 2017 population estimate; with an annual population growth rate of approximately 2.7% and 7.1% of this population are adolescents.

Kisoko Sub County has a population of 15,062 of which 7377 are males and 7685 are females. Kisoko high school is a government aided non USE, day mixed, boarding secondary school with ‘O’ and A level programs. It had a population of about 150 students across ‘O’ and ‘A’ levels.
3.4. Inclusion criteria

✓ All adolescent (10-19 years) students of Kisoko High School, Tororo district who consented were included in the study.

3.5. Exclusion criteria

✓ Adolescent students who were absent during the study time were excluded.
✓ Adolescent students who were very ill and needed emergency medical attention during the study time were excluded from the study.
✓ Adolescent students who did not consent to the study were also excluded.

3.6. Sample size

This sample size was obtained using Fisher’s et.al, 1990 formula i.e. \( n = \frac{Z^2PQ}{D^2} \).

Where; \( n = \) desired sample size

\( Z = \) standard normal deviation taken as 1.96 at confidence interval of 95%.

\( P = \) proportion of the adolescents estimated to have similar characteristics in the study area, 7.1% as estimated by UBOS 2017= 0.071

\( D = \) tolerable error 5% (0.05).

\( Q = \) population without the desired characteristics (1-P).

\( P+Q = 1 \)

\( n=\frac{Z^2PQ}{D^2} \)

\( n = \frac{1.96^2 \times 0.071 \times 0.929}{(0.05)^2} \)  
\(-: \quad n = 100.4 \)

A sample of 100 adolescent students was involved in the study.
3.7. Sampling technique

A simple random sampling method was used in the selection of the respondents and there was no regard of sex, tribe or race, religion and class level.

3.8. Data collection tools

Data for the study was collected by the use of self-administered questionnaires. Open and closed ended questions were used on the questionnaire with optional responses to make the questions easier for the respondents.

The questionnaire did not bear the respondent’s name or descriptive appearance, a criteria meant to avoid any fears and build confidence in the respondents. Short questions were used in simple and elementary English to make questionnaire easy for the respondents.

3.9. Study procedure

Equal numbers of questionnaires were distributed per class and papers with labels ‘N’ for NO and ‘Y’ for YES was folded and the students picked one at random. Those who picked ‘Y’ (YES) were the required number per that class and participated in the study.

Those who picked ‘N’ were excused and an informed consent was obtained before self-administered questionnaires were distributed by the researcher to the respondents. The researcher maintained privacy while respondents were answering the questions, at the same time, he assured the respondents that the information given would be kept confidential and adequate time was allowed to each respondent.

3.10. Quality Control

About 10 questionnaires were pre-tested and checked for completeness to sort out all the confusing questions and ensure that standard questionnaires that suit the objectives of the study are used. Data analysis was done by the help of a statistician to ensure accuracy.
3.11. **Data Analysis and presentation**

The data was entered into the Microsoft excel version 2016, clear and complete then imported to SPSS for analysis. Analysis and presentation was done per objective of the study using descriptive statistics.

3.12. **Limitation of the study**

Lack of prior similar research study on the knowledge, attitude and practices on HIV prevention among adolescent students in secondary schools of Tororo district for comparison and reference for this study.

3.13. **Ethical considerations:**

For purposes of gaining access to the respondents, a letter of introduction was sought from the faculty administration and duly presented to the respective authorities of the study site. Thereafter the researcher explained thoroughly the purpose of the study to the respondents and sought consent from them; those who did not consent were given the right not to participate in the study and those who consented were also allowed to opt out of the study in case they felt so at any time.
CHAPTER FOUR: RESULT

4.0. PRESENTATION AND INTERPRETATION OF RESULTS

4.1. Socio-demographic characteristics of the adolescents of Kisoko high school in Tororo district.

Majority of the respondents were males 64(64%), most of whom 80(80%) were aged between 15-19 years, 84 (84%) resided in rural areas and majority 86 (86%) being Japadola. All the respondents were single (100%), more than half 52(52%) were Catholics, and 32(32%) were protestants as seen in the table 1 below.

Table 1: Socio-demographic characteristics of the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 - 14</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>15 - 19</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Resident</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Rural</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Tribe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japadola</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Others</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Protestant</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Pentecostal</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
4.2. Knowledge on HIV prevention methods among adolescent students of Kisoko High School in Tororo district.

Majority of the respondents 92 (92%) knew that HIV can be prevented through abstinence, 90 (90%) by use of condom, 88 (88%) by being faithful and 67 (67%) by not sharing sharps. More than three quarters of the respondents 80 (80%) didn’t know about SMC and 68 (68%) didn’t know about PMTCT as HIV preventive measures. 34 (34%) knew about other methods like safe blood transfusion and use of post exposure prophylaxis as presented in the figure 1 below.

Figure 2: knowledge of the specific methods of HIV prevention by the respondents.
4.3. The attitude on HIV preventive methods among adolescent students of Kisoko High School in Tororo district

Majority of the respondents 72 (72%), 81 (81%), 75 (75%), and 69 (69%) said abstinence, condom use, being faithful and PMTCT respectively were good methods for HIV prevention. More than half 58 (58%) said SMC was not a good method for HIV prevention and 34 (34%) said other methods like safe blood transfusion, not sharing sharps and killing infected people are the good methods for HIV prevention as presented in table 2 below.

Table 2: Attitude of respondents to HIV prevention methods

<table>
<thead>
<tr>
<th>Method of HIV prevention</th>
<th>Attitude of the respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Abstinence</td>
<td>72 (72%)</td>
</tr>
<tr>
<td>Condom</td>
<td>81 (81%)</td>
</tr>
<tr>
<td>Being faithful</td>
<td>75 (75%)</td>
</tr>
<tr>
<td>SMC</td>
<td>42 (42%)</td>
</tr>
<tr>
<td>PMTCT</td>
<td>69 (69%)</td>
</tr>
<tr>
<td>others</td>
<td>34 (34%)</td>
</tr>
</tbody>
</table>
4.4. The practices on HIV prevention among adolescent students of Kisoko High School in Tororo district.

Most of the respondents 52 (52%) were abstaining and 48 (48%) had sexual intercourse with either one or more sexual partners. Majority of the respondents who had sexual intercourse, 28 (58%) had more than one sexual partner and only 20 (42%) were faithful to only one sexual partner and most respondents who had sexual intercourse 26 (55%) did not use condom during the last sexual intercourse they had, majority of the male respondents 44 out of the 64 males (68.7%) had done safe male circumcision and more than three quarters 80 (80%) of the respondents had tested for HIV infection as presented in the figure 2 below.

Figure 3: HIV prevention methods practiced among the respondents
CHAPTER FIVE: DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. DISCUSSION OF RESULTS

In this discussion, there is a presentation of how the current findings differ or relate to the findings of previous researchers. This has been prepared in line with the objectives of study.

5.1.1. Knowledge on HIV prevention methods among adolescent students of Kisoko High School in Tororo district.

Majority of the respondents 92(92%), knew that HIV can be prevented through abstinence, 90 (90%) by use of condom, 88 (88%) by being faithful and 67 (67%) by not sharing sharps. More than three quarters of the respondents 80 (80%) didn’t know about SMC and 68 (68%) didn’t know about PMTCT as HIV preventive measures. 34 (34%) knew about other methods like safe blood transfusion and post exposure prophylaxis.

This finding is in line with the report by Ahmed in Ethiopia who reported that almost all of the students had heard at least one of HIV/AIDS preventive methods; abstinence, faithfulness to one’s partner and usage of condom as a means of HIV/AIDS prevention methods were responded by 93.4%, 84.1% and 64% of students respectively, not sharing sharp material (90%), safe blood transfusion (96.5%) and prevention of mother to child transmission 47.1% (Ahmed et.al, 2015), also in line with a report in Cameroon where a study showed that Students had a satisfactory level of knowledge on HIV/AIDS prevention as majority, 82.2%, 85.3% and 90.5% had knowledge about HIV prevention as being faithful, use of condoms and abstinence respectively (Kingoum et.al, 2016) and as well in a study conducted in Europe, assessing awareness and knowledge in depth mainly for HIV/AIDS and HPV prevention, which reported that awareness, was generally high for HIV/AIDS prevention as it was above 90% (Samkange et.al, 2017). Majority of the respondents heard about at least one method of HIV prevention from friends, health worker or family members and very few people heard about HIV prevention from their parents, and also with Huran’s report in Congo that reported almost all young people (98.9%) had heard about at least one method of HIV prevention and majority of the respondents had got the information about HIV prevention from school and friends (Harun et.al, 2013). However these findings differed with the findings of Khindarli in Malaysia that reported that
only 53.02% of adolescents had good level of knowledge about HIV prevention while 46.98% were not informed (Khindarli, 2013). This could be because Abstinence, being faithful, condom use and sharing sharps is part of the primary school science curriculum taught under prevention of sexually transmitted diseases but SMC and PMTCT which came later has not been well appreciated by many scholars and could be missed in their teachings.

5.1.2. The attitude on HIV preventive methods among adolescent students of Kisoko High School in Tororo district

Majority of the respondents 72 (72%), 81 (81%), 75 (75%), and 69 (69%) said abstinence, condom use, being faithful and PMTCT respectively were good methods for HIV prevention and were willing to recommend to their friends as a method of HIV prevention. More than half 58 (58%) said SMC was not a good method for HIV prevention and could not recommend SMC to their friends as a method of HIV prevention respectively. The other methods recommended as good by 34 (34%) of the adolescents were safe blood transfusion, not sharing sharps and killing infected people to prevent HIV infection.

This is in line with Mohammed’s report in south east Ethiopia, About 53% of adolescents were interested in using condom and 67.1% were willing to give advice to use condom for someone who is sexually active, 62.1% of students agreed to abstinence until marriage and 67.8% of the students agreed to being faithful with one friend (Ahmed et.al, 2015). However, this finding deferred the finding in central Uganda reported by Rukundo, where only 18.4% believed that chances of getting HIV infection were high and methods like abstinence, being faithful and condom use was good for HIV prevention and about 39.2% of the study participants said that they can't contract HIV at all and were not willing to use or advice any other person to use any preventive method, they further reported that condoms and their use is a sign of mistrust, reduces sexual pleasures and they are embarrassing to buy while (Rukundo et.al, 2016), as well with the study conducted in western Uganda, Bushenyi district Ishaka municipality, by Marera et.al; the results of this study noted that all adolescents (100%) understood the meaning of circumcision but 63% agreed that men should be circumcised (Marera et.al, 2013) and also differed from Namibian report where adolescents expressed more positive beliefs about circumcision and the health benefits (Terthu, 2010). This could be because the adolescents believed that ABC is more
effective and favorable but they believe SMC gives false confidence and courage to have unprotected sex. They also said SMC caters for only boys while the ladies are not protected hence coupled with the low Knowledge on SMC and PMTC could lead to this outcome.

5.1.3. The HIV prevention practices among adolescent students of Kisoko High School in Tororo district.

Most of the respondents 52 (52%) from figure 2 above, were abstaining and most of the respondents who had sexual intercourse 26 (55%) did not use condom during the last sexual intercourse they had, lack of knowledge on how to use the condoms and fear were the reasons why they didn’t use the condoms despite the good knowledge about condom as a preventive measure. Majority of them 28 (58%) had more than one sexual partners and only 20 (42%) were faithful to only one sexual partner. Despite low knowledge and bad attitude towards safe male circumcision, these adolescents were circumcised as 44 out of the 64 males (68.7%) had done safe male circumcision and more than three quarters 80 (80%) of the respondents had tested for HIV infection. Those who did not test had fear of the outcome and others believed they were negative and needed not to test since they feel they have never had any risk of infection.

These findings were in line with Adedepo’s report in south Africa were the proportion of 49% had engaged in early sexual intercourse before 15 years of age (Adedapo et.al, 2014), and UNICEF report that the number of sexual partners young people had was falling, but it remained high in countries most affected by the HIV epidemic like, Lesotho, Madagascar and Swaziland where more than quarter of young men are thought to be in multiple relationships (UNICEF, 2013). It was also in line with the WHO report that adolescents who engage in early sexual activities are less likely to use condoms and have more than one sex partner (WHO, 2008), and Comparing to Condom use among adolescents in the demographic and Health Surveys conducted in sub-Saharan Africa by UNAIDS between 2010 and 2015 which reported; less than 60% of young women with multiple partners used a condom during their last sexual intercourse in 19 of 23 countries and in 15 out of the 23 countries there were similar results for young men (UNAIDS & UNESCO, 2013). Also in Haiti, a study conducted among adolescents in port-au-prince, Condoms were poorly utilized, with 65% of females and 52% of males reporting never having used a condom and an increase in prevalence of HIV infection was observed with “never use” of condom among females and 71.9% of students tested for HIV, the rest 28.9% did not test
for HIV/AIDS in this study, the majority 27.6% who were not tested reported fear of the result as the measure reason similar to our finding (Tsogzolmaa et.al, 2009). Still more a study conducted amongst adolescents attending high school in Addis Ababa, the capital city of Ethiopia revealed that 75.7% of students were aware of the voluntary HIV counseling and testing services, 62.2% use the services (Thupayagale et.al, 2012).

However these findings deferred from the finding in the study by peltzer still in South Africa that found a lower rate of 27.3% had engaged in sexual intercourse (Peltzer, 2010) and UNAIDs report which was much lower at roughly 11% adolescents who had engaged in sexual intercourse (UAIDS, 2016). In Cameroon, 42.2% of the respondents had a history of sexual intercourse but majority had used a condom during their last three sexual encounters (Kingoum et.al, 2016), in Ethiopia as reported by Ahmed, 28.9% of the adolescents were sexually active and the majority, 61.1% of them started at the age of 15-19 years; 54.1% of them used condom, only 38.5% of them did not and 66.4% of them reported to have constant sexual partner (Ahmed et.al, 2015). This could be because the adolescents believe abstinence is the best method as even the family members would encourage them to do so and couple with high knowledge of this method with abstinence club present in their school could be the reasons for the high number of those who are abstaining, however, the adolescent stage is faced with a challenge of secondary sexual development that makes adolescents want to explore hence the high number of the non-abstainers.
5.2. CONCLUSION

The adolescent students of Kisoko high school in Tororo district had good level of knowledge on abstinence, being faithful, condom use and not sharing sharps but few knew about SMC and PMTCT as HIV prevention methods.

The attitude towards abstinence, being faithful, Condom use and PMTCT methods of HIV prevention were good among adolescent students of Kisoko High School in Tororo district.

Abstinence, SMC and HIV testing were the commonly practiced preventive methods by adolescent students of Kisoko High School in Tororo district.

5.3. RECOMMENDATIONS

The school should continue sex education to keep awareness and safe practices among the adolescent students as well as to bridge the gap between knowledge and practice of some HIV preventive measures.

The school senior woman and senior male teacher should be applaud for effective effort in handling issues pertaining to adolescents’ private life and encouraging safe practices among them.

Health clubs in conjunction with other stake holders responsible for students’ health should continue to do health education and community awareness among the adolescents to maintain and further better this finding.

Basing on the findings of this study, further research needs to be done in this study area to describe the prevalence of HIV infection and correlates of HIV preventive method utilisation among adolescents.
REFERENCES

2. Colins Kingoum Nubed and Jane-Francis TatahKihla Akoachere, 2016; Knowledge, attitudes and practices regarding HIV/AIDS among senior secondary school students in Fako Division, South West Region, Cameroon
3. Daily monitor 31st August 2017, HIV infection soars in 11 districts by Dr Nelson Musoba
6. Domnic Marera, Mercy Singoei, Cyprian Nyaribo, 2013; Assessment of Knowledge and Attitude on Male Circumcision towards Reduction of HIV/AIDS among Residents of Ishaka Town Council-Uganda
7. Factors Contributing to the Risk of HIV Infection in Rural School-Going Adolescents; Adedapo Awotidebe, Julie Phillips, and Willy Lens ; international journal of environmental research and public health
13. HHS Author Manuscripts; Risk factors for HIV infection among Haitian adolescents and young adults seeking counseling and testing in Port-au-Prince; Tsogzolmaa Dorjgochoo, MD, MPH, Francine Noel, MD, MSCI, Marie Marcel Des champs, MD, Harry Theodore, MD, Sabine
Charles, MD, William Dupont, PhD, Peter F Wright, MD, Dan W Fitzgerald, Sten H Vermund, MD, PhD and Jean W Pape, MD


15. Journal of the international AIDS society: HIV and adolescents: focus on young key populations; Linda-Gail Bekker and Sybil Hosek.

16. Khindarli Tun, October 2013; Cross Sectional Study of Knowledge, Attitude and Practice on HIV Infection among Secondary School Students in Kuala Terengganu, Malaysia


19. MD. Harun-Or-Rashid, et.al 2013; Knowledge, attitudes and practices regarding HIV/AIDS among male high school students in Lao People’s Democratic Republic


24. Prevention Among BatuTerara Preparatory School Students in Goba Town, Bale Zone, Southeast Ethiopia by Ahmed Yasin Mohammed1, Tomas Benti Tefera and Muktar Beshir Ahmed

25. Primary Health Care: Open Access; Knowledge, Attitude and Practice On HIV/AIDS

27. Social and structural factors associated with vulnerability to HIV infection among young adults in South Africa; Pamela Naidoo, Witness Chirinda, Gugu Mchunu, Sharlene Swartz & Jaynia Anderson

28. South Africa Medical Research Council; Cape Town, South Africa: 2013.

29. Stop aids (2016) ‘adolescents and young people and HIV’ terhukutupungodji 2010; knowledge, attitudes and practices of male circumcision for HIV prevention among voluntary counseling and testing clients in Onandjokwe district hospital, Namibia


36. United Nations Programme on HIV and AIDS 2017 ‘When women lead change happens: Women advancing the end of AIDS’

37. United Nations Programme on HIV and AIDS Update 2015: Active involvement of young people is key to ending the AIDS epidemic by 2030


39. World Health Organization; ‘HIV And Adolescents 2013: Guidance For HIV Testing And Counseling And Care For Adolescents Living With HIV'

40. 'Young people and the Law in Asia and the Pacific, 2013: review of laws and policies affecting young people’s access to sexual and reproductive health and HIV services'
APPENDIX I: QUESTIONNAIRE

TOPIC:
KNOWLEDGE, ATTITUDE AND PRACTICES ON HIV PREVENTION AMONG ADOLESCENT STUDENTS OF KISOKO HIGH SCHOOL IN TORORO DISTRICT

Dear Sir/ Madam,
I am OWOR MOSES, Reg. No. BMS/0041/141/DU. Am a student of Kampala international University, western campus; pursuing Bachelors in medicine and Bachelors in surgery. I am currently conducting a study on the knowledge, attitude and practices among adolescent students of Kisoko high school in Tororo district on HIV prevention. The study is purely for academic purposes and the information given will be treated with utmost confidentiality. I therefore, humbly request you to spare some time and answer the following questions.

Serial number ……………………… Date ………………………

(To be filled in by the adolescents within the specified age limit who are students at KHS in Tororo district)

CONSENT
Having been informed about this research and all it involves, I willingly agree to participate in this study and give the correct information to the best of my knowledge as per the questions asked in this questionnaire.

Signature of the respondent ………………………………… date …………………………………

Signature of the researcher ………………………………… date …………………………………
Section A: Demographic data

<table>
<thead>
<tr>
<th></th>
<th>Gender of respondent</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a. Male</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Age group of the respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. 10-14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. 15-19</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Resident of the respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Urban</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Rural</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Tribe of the respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Japadhola</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Iteso</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Munyole</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Mugwere</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Others specify</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Religion of the respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Catholic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Protestant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Born again</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Moslem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Others specify</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Single</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Married</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Divorced</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Widow</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION B: The Knowledge of adolescent students attending KHS in Tororo about HIV prevention.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Have you ever heard about HIV prevention?</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>How is HIV prevented? Through ..................</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Abstinence</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Being faithful</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Use of condom</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Not sharing sharp objects</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>Prevention of mother to unborn baby</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>Others specify</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Is there any other way HIV can be prevented other than the above? Specify..........................................................</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>From where did you know about them?</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Hospital</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Friend</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Parent/sister/brother</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>Others specify? ..........................................................</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Where can you get HIV preventive services</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Home</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Health facility</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Others specify</td>
<td></td>
</tr>
</tbody>
</table>
# SECTION C: The attitude on HIV preventive measures among adolescent students attending KHS in Tororo district.

1. **Is there any HIV prevention method that you feel is so good and should be encouraged?**
   - a. Yes
   - b. No

2. **If yes which ones?**
   - a. Abstinence
   - b. Being faithful
   - c. Use of condom
   - d. Not sharing sharp objects
   - e. Prevention of mother to un born baby
   - f. Others specify

3. **If yes which one(s)?**
   - .................................................................

4. **Give reasons**
   - .......................................................................

5. **Is there any prevention method which is not good and should be discouraged?**
   - a. Yes
   - b. No

6. **If Yes, which one?**
   - a. Abstinence
   - b. Being faithful
   - c. Use of condom
   - d. Not sharing sharp objects
   - e. Prevention of mother to un born baby
   - f. Others specify

7. **Give reasons**
   - .......................................................................
   - .................................................................
   - j. Who should prevent against HIV? 
   - .........................................................................
SECTION D: Practices on HIV prevention among adolescent students of KHS in Tororo district.

<table>
<thead>
<tr>
<th></th>
<th>How old were you when you had the first sexual intercourse?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>&lt; 10 years</td>
</tr>
<tr>
<td>b.</td>
<td>10 – 12 years</td>
</tr>
<tr>
<td>c.</td>
<td>13 – 15 years</td>
</tr>
<tr>
<td>d.</td>
<td>15-17 years</td>
</tr>
<tr>
<td>e.</td>
<td>&gt; 17 years</td>
</tr>
<tr>
<td>f.</td>
<td>Never had sex</td>
</tr>
</tbody>
</table>

2. Did you use condom the last time you had sex?
   a. Yes
   b. No

3. How many sexual partners do you have?
   a. None
   b. 1
   c. More than 1

4. Have you done safe male circumcision?
   a. Yes
   b. No

5. If No, why?..........................................................................................................................

6. Have you ever tested for HIV?
   a. Yes
   b. No

7. If no or if yes, why............................................................................................................

Thank you for your co-operation

May God bless you!
APPENDIX II: INTRODUCTORY LETTER

OFFICE OF THE DEAN
FACULTY OF CLINICAL MEDICINE & DENTISTRY

21/01/2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: OWOR MOSES (BMS/0041/141/DU)

The above named person is a fifth year student at Kampala International University pursuing a Bachelor of Medicine, Bachelor of Surgery (MBChB) Programme.

He wishes to conduct his student research in your community.

Topic: Knowledge, attitude and practices on HIV prevention among adolescent students of Kisoke high school, Tororo

Supervisor: Dr. Odang Richard Justin

Any assistance given will be appreciated.

Yours Sincerely,

S. O. 
Dr. Adb Surat
Deputy Executive Director/Assoc Dean FCM&D

"Exploring the Heights"
Assoc. Prof. Stephen A. Kulemeka, Dean (FCM & D) 0772 507248 email: nswacw123@gmail.com
Dr. Adb Surat (Associate Dean FCM & D) email: sudarsan@kIU.ac.ug
# APPENDIX III: WORK PLAN

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PREPARATORY STAGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choosing a topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenting the topic for approval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formulation of concept paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROPOSAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submission to supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DATA COLLECTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing and testing research tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution of research tools to respondents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collection of the research tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DATA ANALYSIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compiling the collected data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computing the information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussing the results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing of the report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INFORMATION DISSEMINATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenting copies to supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenting copies to the dean of FCM&amp;D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenting copies to other relevant offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX IV: BUDGET

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>U. PRICE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal writing</td>
<td>Stationary</td>
<td>1</td>
<td>25000/=</td>
<td>100,000/=</td>
</tr>
<tr>
<td></td>
<td>Flash diskettes</td>
<td>5</td>
<td>35,000/=</td>
<td>35,000/=</td>
</tr>
<tr>
<td>Data collection</td>
<td>Pens</td>
<td>50</td>
<td>500/=</td>
<td>25,000/=</td>
</tr>
<tr>
<td>instruments</td>
<td>Questionaires</td>
<td>350</td>
<td>200</td>
<td>70,000/=</td>
</tr>
<tr>
<td>Transport</td>
<td>For approval and</td>
<td>2</td>
<td>100,000/=</td>
<td>200,000/=</td>
</tr>
<tr>
<td></td>
<td>During collection</td>
<td>2</td>
<td>100,000/=</td>
<td>200,000/=</td>
</tr>
<tr>
<td>Data collection</td>
<td>Research assistants</td>
<td>10</td>
<td>35,000/=</td>
<td>350,000/=</td>
</tr>
<tr>
<td></td>
<td>Feeding and accommodation</td>
<td></td>
<td>250,000/=</td>
<td>250,000/=</td>
</tr>
<tr>
<td>Data processing</td>
<td>Computer services</td>
<td>-</td>
<td>150,000/=</td>
<td>150,000/=</td>
</tr>
<tr>
<td></td>
<td>Data analyst</td>
<td>1</td>
<td>150,000/=</td>
<td>150,000/=</td>
</tr>
<tr>
<td></td>
<td>Compiling the dissertation</td>
<td>4 copies</td>
<td>40,000/=</td>
<td>160,000/=</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,690,000/=</strong></td>
</tr>
</tbody>
</table>
APPENDIX V: MAP OF UGANDA SHOWING TORORO DISTRICT

KEY

Tororo district
APPENDIX VI: MAP OF TORORO DISTRICT SHOWING KISOKO SUB COUNTY