

**RELATIONSHIP BETWEEN KNOWLEDGE OF PROPER CONDOM USE AND
BEHAVIOUR AMONG STUDENTS OF KIRINYAGA UNIVERSITY**

BY

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**A Research Proposal Submitted in Partial Fulfillment for the Award of Master's degree in
Psychology (Health Psychology) in the Department of Psychology of University of Nairobi**

2017

DECLARATION

I declare that this research project is my original work and has not been presented for a degree in any other University

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Supervisors Declaration

This research dissertation has been submitted for examination with my approval as university supervisor.

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DEDICATION

This research project is dedicated to my beloved daughter Prudence and Muiga family. Their forbearance of my inevitable absence from them while working on my project was a source of encouragement and determination for me to complete this document.

ACKNOWLEDGEMENT

My gratitude goes to my superior Dr. Charles Kimamo for the specialized guidance, patience and many hours spent in supervising me throughout the project. I want to appreciate all staffs of the department of psychology, University of Nairobi for their support. I acknowledge the management of Kirinyaga University for their support during the data collection phase, staffs and students of Kirinyaga University for their support and participation respectively.

I recognize my Family and colleagues for their endless inspiration and support during writing of the research project.

I acknowledge the faithfulness of God throughout the research period.

Lastly my gratitude goes to all those who participated in any way. May God bless you all.

ABSTRACT

Proper and consistent condom use has been proved to decrease the risk of sexually transmitted diseases (STDs) transmission and unintended pregnancy to almost 100%. However, condom use remains low among youths and statistics show that the number of abortions is high. It is estimated that Uganda, Tanzania and Kenya recorded 2.4 million abortion cases in 2016. In Kenya, Kirinyaga University has embarked on health education and supply of condoms to its students as an intervention to reduce STDs and unwanted pregnancies. Despite this intervention, the students continually contracted STIs and unwanted pregnancies leading to abortions and high use of emergency contraceptives pills according to the institution's clinic medical report, 2015/2016. The current study objectives were to find out the level of knowledge on proper condom use, to establish the consistency of proper condom use and to the attitude towards condom use among the students of Kirinyaga University. The theoretical framework for the study was protection motivation theory by Rogers (1983). The study included only undergraduate students in session. The target population was 2565 and sample size was 132. Simple random sampling was used to select the respondents that participated in the study. The study adopted descriptive cross-sectional design. Data collection was done through questionnaires. The instrument validity and reliability was through a pilot study where the researcher used Kirinyaga University diploma students. Information was analyzed using both descriptive statistics with help of SPSS 21.0. Quantitative data was analyzed using means, percentages and chi-square test. The findings show respondents had adequate knowledge on condom use but failed to use condoms consistently due to several reasons, most important one being unplanned sex. Additionally, students held a negative attitude towards condom use especially when the risk of pregnancy is eliminated and are in stable relationship 'trusted partner'. Lastly, there was a positive correlation between actual condom use, knowledge and attitude. The results will be shared with Kirinyaga University, NACOSTI, NACC and NASCOP through County office.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
ABC	Abstinence Being Faithful and Condom use
AIDS	Acquired Immune Deficiency Syndrome
BBC	Behavior Change Communication
CDC	Center for Disease Control
CEO	Chief Executive Officer
FP	Family planning
GOK	Government of Kenya
HIV	Human Immune Deficiency Virus.
MOH	Ministry of Health
NACC	National Aids coordinating council
RH	Reproductive Health
STI	Sexually Transmitted Infection
SPSS	Statistical Package for Social Sciences
UN	United Nation
UoN	University of Nairobi
WHO	World Health Organisation

CHAPTER ONE

1.0 Introduction

The Chapter provides the: Background of the study, statement of the problem, Research objectives, research questions, significance of the study and definition of terms.

1.1 Background of the study

Unplanned pregnancy and sexually transmitted infections (STI) including HIV/AIDs are the core health worries that can result from engaging in unprotected sexual activity. However, Correct and consistent condom use can decrease the health risk although it is not full protection but to a great extent. In order to attain maximum condom protection, condoms must be used correctly and consistently (Center for Disease Control (CDC) report, 2015) failure of condoms to offer protection results from improper and inconsistent use which leads to leakage, breakage or slippage. According to Kenya HIV County profiles (2016), consistent and proper use of condoms can reduce the risk of HIV and other sexually transmitted infections by more than 90%. According to (Joyce et al., 2014) in the report on unintended pregnancies in Kenya the report indicated that over 40 percent of the pregnancies in Kenya are unintended and approximately 14 percent of the of the pregnancies in Kenya end in abortions which are unsafe and this results to about 2,600 deaths of women and girls annually in Kenya. With free education in Kenya, many girls are able to access university education and since they are youths they have the ability to conceive and form part of the above statistic. University students are generally youths whose age ranges mostly from 18yrs to 24yrs and therefore they are in a stage in their live that they are curious, energetic and are in a process of establishing their identity in society in this regard sexual exploration is one of the most exploited at this stage since they are free of parental watch. Importantly the students need to acquire life skills that equip them to be responsible adults and eventually fit in the society socially. Parents, significant others and various social institutions engage this students in discussions, seminars and workshops in order to equip them with knowledge and skills to operate their independent lives. It is in right of this that Kirinyaga University offer seminars to students to equip them on life skills were sexuality is discussed and proper use of condoms is extensively discussed. This effort is based on Protection Motivation Theory by (Rogers, 1975) which alludes that when a person is made aware of the health threat

that they face by engaging in unhealthy behavior, it is propagated that the individual is more probable to adapt a healthy behavior to protect his/her health.

Proper condom use is use of condoms correctly and consistently and that means therefore that a sexually active student needs to use condoms every time they are engaging in a sexual intercourse whether it's vaginal, oral or anal. There are key aspects which must be incorporated in use of condom for it to qualify as correct use and these are: to check the package for any tear expiry date, use a new condom for every sexual act, ensure there is a reservoir tip, for male condom wear it when penis is erect, when opening the package user should not use sharp object, after ejaculation and before penis gets soft remove the condom, using a tissue paper wrap the used condom and dispose it and in case condom breaks during sex, stop and withdraw the penis then remove the broken condom and replace it with a new one (CDC, 2013)

STDs/HIV/AIDs and unintended pregnancy has increased significantly over the past decade. Correct and reliable use of the condoms moderates the risk of HIV spread and it is measured almost more than 98% effective. In Sexual Transmitted Infections (STI) the condom can prevent viral, bacterial and parasitic infections and laboratory studies has proved that condoms are effective barrier against the smallest pathogen (CDC report, 2015). One of the viral diseases commonly transmitted by sexual intercourse is HIV/AIDS (MOH, 2016).

In 2013, CDC estimated that 2.1 million people became freshly disease-ridden with HIV in United States of America (USA), about 500 million persons developed chlamydia, gonorrhoea infections, syphilis infections or trichomoniasis every year, in Canada, more than 2 million women have conceived because of having unprotected sex, and out of the 2 Million, 200,000 got STI. In Asia for example in China, the most populous country with a population of 1.3 billion is in the lead to approximately 80 million unintended pregnancies, seconded by India with a population of 1.2 billion having 400,000 STI cases being reported in each year (CDC, 2015). Condom advertising has conventional deliberate consideration in the fight of the AIDS pandemic (WHO, 2015). This is particularly important in sub-Saharan Africa where HIV transmission is mainly through sexual contact.

Campbell (2011) recognized that sub-Saharan Africa has destructive approaches toward condom use and this is often grounded on cultural factors for example the desire for children and female sexual compliance as ways to realize economic status. Lule and Gruer (2013) indicated that

among Ugandan students that only a few people saw the condom as an operative preventive method against HIV/AIDS: most people indicated that it is unsafe or an encouragement to promiscuity. They additionally showed that condoms had been used by 35% of males and 24% of females but were presently continuously used by only 9% of men and 11% of women (CDC, 2015). The usage of condom was recognized by 25% of respondents who were cross-examined. Kaya and Kau (2009) showed that amongst social discipline scholars at the University of North West South Africa, where, 84% indicated that the greatest way of preventing HIV/AIDS infection was 'using condoms in the development of sexual intercourse'. Kidan and Azeze (2015) surveyed condom usage among the Ethiopian college students. It was found that unavailability (44.3%), partner mistrust (43%), and shortage of condoms in the college condom box (8%), and partner's having disagreement (5.1%) contributed to inconsistency of condom use among students.

Currently in Kenya, HIV prevalence is at 5.7% with teenagers showing the higher infected group (MPH, 2016). A progress report (2016) by the National Aids Control Council (NACC) indicated that the Kenya AIDS epidemic by 2015 was that a total of 1,517,707 people lived with HIV virus that is a prevalence rate of 5.9% and 77,647 people got infected with HIV virus each year where 71,034 are people aged 15 years and above where all the university students lie. In the same report it is indicated that HIV among the young people (15-24 years): 35,776 new infections, 268,586 living with HIV 3,853 die each year due to HIV related complications. Therefore, young people contributed to half of adult new HIV infections in 2015. As compared to year 2013, the young people shown a rapid rise in their contribution from 29% to 51% in 2015 which is an issue of serious concern. It is projected that the occurrence of AIDS will reach about 10% of the sexually active people in Kenya by the year 2020 if possible preventive procedures are not taken. There is a paucity of data concerning male condom use, especially regarding knowledge about the correct use of male condoms by the target group of the youth in our 47 counties, Kirinyaga being one of them. Such data are vital for prevention programs since heterosexual contact and the use of male condoms are the predominant forms of sexual contact and condom use respectively in Kirinyaga County. Knowledge on suitable condom use to avert the risk to contracting STI and unplanned pregnancy is therefore presumed to be readily adequate concept to University scholars. This study investigates relationship between knowledge of proper condom use and condom use behavior among the students of Kirinyaga University.

1.2 Statement of the Problem

According to the Kirinyaga University morbidity reports for the period January 2014 to December 2016 , 613 students have contracted STIs and 34 has become pregnant (unintended and unwanted) which has led to increase in abortion cases and use of emergency contraceptives. Globally every year, nearly 22 million unsafe abortion are reported which contribute to maternal morbidity and mortality (WHO, 2015). In Kenya 464,960 induced abortion was estimated in the year 2012 which was translating to 30 abortions for every 100 births (KDHS, 2013). Importantly to note is the measures the University has put in place to prevent students from contracting STIs and unintended pregnancies which includes: Health talk on safe sex practices, family planning and provision of condoms (3000-4000 condoms distributed per month) throughout the academic years.

Sexually transmitted infections (STIs) are among the most widespread infectious diseases, excreting earth-shattering economic and social liability on families and communities globally. They remain important causes of illness and death due to common complications such as infertility, ectopic pregnancy, fetal deaths, pelvic inflammatory disease, miscarriage, and congenital infections. Likewise, HIV epidemics develop more swiftly and spread more extensively in places where other STIs are poorly controlled. There gap set out in this study is poor or inadequate knowledge, low attitude and behavior on condom use. If the prevalence of STIs and unintended pregnancies continue in this trend and adequate attention is put in place to avert this situation, students will not achieve their goals due to lost academic hours in illness and the University will not achieve its mandate. This happen because there may be no or little knowledge on proper condom use and negative attitude. Lack or inadequate of knowledge from university courses, seminars, peer influence may be the cause. In addition Kenya may not achieve vision 2030 and the Sustainable Development Goals (SDGs).

Of significance to note is that there is no study that has been conducted in Kirinyaga University to investigate if there is any relationship between knowledge on proper condom use and use behavior hence this evidence is lacking. The researcher investigated if there is any relationship between knowledge on proper condom use and use behavior with the aim of informing future Interventions on condom use targeting students in universities.

1.3 Research Objectives

1. To find out the level of knowledge on condom use among the students of Kirinyaga University
2. To establish the consistency of proper condom use among the students of Kirinyaga University
3. To determine the attitude towards condom use among the students of Kirinyaga University
4. To find out whether there is association between knowledge on condom usage and the actual condom use behavior among undergraduates of Kirinyaga University.

1.4 Research Questions

1. What is the level of knowledge on proper condom use among the students of Kirinyaga University?
2. To what extent do the students of Kirinyaga University consistently use condoms?
3. What is the attitude of the students of Kirinyaga University on use condoms?
4. How does the level of knowledge on condom use influence the actual behavior on condom use among the students of Kirinyaga University use condoms?

1.5 Study Justification

STIs, unwanted pregnancies and abortions among the University students is a major concern to the University management and Ministry of Health in general. There is lack of information on the reason why despite the preventive intervention put in the place, the problem may be worsening. STI cases are increasing over the last three years: 3.24%, 4.23% and 4.42% of the patient attended in the University clinic for the period 2014, 2015 and 2016 respectively. The provision of information to youths about unsafe sexual behavior and its consequences was amongst the earliest prevention strategies. However there is increased prevalence of STI/HIV/AIDs, unwanted pregnancies and abortions among youths in Kenya today. The researcher seeks to uncover the gap between knowledge and behavior so that more comprehensive strategies can be developed to deal with youths. Finally, the proposed study sought to gather evidence if there is a relationship between knowledge on proper condom use and use behavior among the University students ,and which will inform future intervention.

1.6 Significance of the Study

The findings may assist the policy makers, program developers and implementers in developing more effective preventive strategies in STIs and unwanted pregnancy. In addition this may help in reducing unsafe sexual behavior and promote safe sex practice among students. The findings of this study may contribute towards increased awareness and knowledge of condom use amongst the students at Kirinyaga University. This study may add vital information in literature on awareness and knowledge of condom use which may serve as reference source to academicians on the same topic.

The Ministry of Health and the County Government of Kirinyaga may also gain a deeper understanding of the level of knowledge, attitude, and use of condom among the students and be able to formulate policies in health that will inform future interventions targeting students and youths. Data acquired in this study will inform Kirinyaga University Management on the situation on the ground and inform future prevention interventions.

1.7 Scope and Limitation of the Study

The study had significant limitations since it was conducted in Kirinyaga University only, and therefore, the result may not be generalized to other universities considering the university is situated in a rural setup. Only undergraduate students were involved in the study therefore, a comparative study involving postgraduates would be required in order to generalize result to university students. The independent variable under study were knowledge and dependent variable was use behavior, however dependent variable can be influenced by other factors like religion, norms, technology and myths. The study targeted regular undergraduate students because this group had been taken through sexual education sessions during their orientation at the university which include topics on proper condom use. It was assumed that all students attend the sessions. Sexuality being a delicate topic for discussion, respondent bias was expected and it could not be effectively eliminated. In addition, majority of the respondents were not married, hence making their sexual behavior casual and therefore, the dual protection offered by the condoms (contraceptive and STI) played a role in the use tendency, comparative study with married students is required before the findings are generalized.

1.8 Definition of Terms

Behavior refers to apparent activity of an organism: everything an organism does that involves act and or response to stimulation (Levitis et al., 2009)

Condom refers to a device, usually prepared of latex, used to protect against pregnancy and/or STDs such as gonorrhea, syphilis and HIV (CDC, 2015)

Knowledge refers to facts, Proofs, information, and skills attained by a person through involvement or education; the theoretical or practical understanding of a subject. (Oxford dictionary, 2rd edition)

Proper condom use refers to correct and consistent condom use (CDC, 2013)

Sexually transmitted infection refers to variety of infection which are caused by pathogens acquired and transmitted through sex route (Kimberly et al., 2015)

Unintended pregnancy refers to unplanned pregnancy

Unsafe Abortion refers to Termination of pregnancy before viability (20 weeks gestation) by unskilled person or in an environment lacking minimum medical standards, or both (WHO, 2014)

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section is organized in sub topics each addressing the objectives of the study, and at the end there is the theoretical frame work.

2.2 Knowledge on proper condom use

Knowledge refers to information, facts and skills developed by an individual through involvement or teaching; the theoretical or practical considerate of a theme (Oxford dictionary, 2011). Knowledge of condom use in education institutions is impacted to the students through common courses offered during their first year of study. They are equipped with facts, information and skills which is intended to help them to understand more about condom use and eventually influence their use behaviour. The aim of these programme is to help student to Prevent transmission of HIV/AIDs (USAID, 2016). A complete literature appraisal disclosed that the act has been used to predict condom use behaviors among young University students in Hispanics (Malcolm et al., 2013), South African university students (Protogerou et al., 2013) and United Kingdom (Newby et al., 2013). The knowledge level on proper condom use in Chinese among female sex workers was found to be moderate. However, the knowledge level was found to be low among the drug users (Jing et al., 2009) in both Portugal and Spain university students (Muñoz-Silva et al., 2007). Similar findings were also identified in young adults in rural areas of Ethiopia (Molla et al., 2007). A study was conducted in Cape Town South Africa among the Xhosa adolescents. The findings of the study indicated that, youth do not prefer to use condoms when having sex (Jermmott et al., 2007). The recommendations for further studies were; other researchers to find out why they prefer not to use condoms, whether there is a relationship level of knowledge on condom use and need to have sex. This study poses the gap which the researcher is determined to unveil as to whether the adolescents (students) prefer not to use condom due to lack of knowledge or not.

Numerous studies done in different nations in examining condom use actions amongst different set of individuals, the value of the theory has not been confirmed. However, it is important to state that there was one study that was conducted and it examined the association of condom

use behaviors between USA college students and South African scholars (Heeren et al., 2007). It was found that the learners from US were extra knowledgeable compared to those who came from South Africa (Turchik & Gidycz, 2012).

In a study done by Masoda (2012) on Information and attitudes of condom use for dropping HIV infection among Goma University scholars in the Democratic Republic of Congo, majority of participants 137 (99%) knew what condoms are used in HIV/ AIDS prevention. The researcher sought to know whether the participants knew material making up condom. The findings indicated that 92 (67%) of the respondents knew that condom is made up of latex while 33% did not. An item was incorporated in the questionnaire intended to measure knowledge level on expiry date of condoms. All students (100%) knew that condoms have an expiry date. These were characterized by p-value of 0.001 which was statistically significance. The study concluded that the knowledge on material making a condom is well known to the youth and it's not by chance. The study further wanted to find out whether the participants knew the pricing condoms. These findings indicated that 55(40%) participants said the cost for one condom was fifty Congolese francs, 54 (39 %) said the cost was 100 Congolese francs and 29 (21%) did not know. About 96% of the participants recognized that condoms were sold in pharmacy, shops over the counter. About 5 (4%) said that they were available in the shops, and 1 (1%) of the respondents said that he did not know where to buy condoms.

A study was done among youths in Burkina Faso, Ghana, Malawi and Uganda on knowledge of condom usage (Robin, 2011). From the results of the study, it was proven that the strongest predictor of knowledge of correct condom use among both male and female was found to be low. In some specific part of Africa, that is Burkina Faso, Ghana and Uganda, adolescents who had seen a condom use demonstration were 2 to 5 times as likely to use a condom as those who had not seen. This means they had good knowledge of right condom usage. Among the three countries, there was no country that show 100% level of usage (Robin, 2011). The proportion reporting use of the method in the 3 months preceding the survey was 38% in Burkina Faso, 47% in Ghana, 20% in Malawi and 36% in Uganda. In addition from the results of this study, the researcher concluded that age difference between associates was a major factor on use of condoms. Young males whose partner was up to four years younger and about 2 ½ times more

likely to use condoms than those whose partner is 5–9 years younger. Other significant predictors of the study on condom usage were; residence and teaching.

A study was done on knowledge of condom use among University of Nairobi students. The findings showed that 93% knew how to use condom with a P-value of 0.002 which was statistically significance. The study concluded that most of the respondents were aware of purpose of condom. A study was done on knowledge of condom use among commercial sex employees in Nairobi city. Majority 98% knew use of condoms (Kimathi, 2014). The researcher wanted to know whether age was a factor in determining the use of condoms. The findings indicated that those participants below 20 years didnt use condoms. These findings agreed with findings of Kamau (2015), who found that respondents who use condoms were aged between 18 years and 24 years in Nakuru town. According to Kenya division of reproductive health Ministry of Health report of 2013 when reviewing the accomplishment of an mediation “Dabed” a full strategic BCC for STI/HIV/AIDS,RH/FP services in organization of higher learning targeting 18-25 years found out that there was increase in knowledge on prevention of HIV (condom use) and unplanned pregnancies. However the knowledge had not translated to behaviour change significant to note in the same report an evaluation of another intervention “University –based peer education and RH Service program.” which had been implemented since 1988 in Kenyatta University by Path Finder international revealed that the peer education had reduced on pre-marital pregnancies STIs treatment post-abortion care cases and increased contraceptive use among other indicators. In summary, in the above study one intervention demonstrate that knowledge is impacting on behaviour and on the contrary the other intervention revels no impact hence the need of the study to shed more light.

According to (Anderson et al., 2002), Knowledge does not necessarily result in behaviour change, nor does it influence risk perception of sexually transmitted infections. On the contrary According to a study conducted in Uganda (Godden, 2004) revealed that there was a strong relationship between condom knowledge and condom usage among adolescents. Those who had knowledge on condom use demonstrated consistent condom use compared to their counterparts that lacked knowledge.

2.3 Prevalence of HIV versus condom use

Studies conducted in Africa show that unintended pregnancy is brought almost by low application of knowledge on condom use (NASCO, 2014). In many parts of the world, new HIV infections are tremendously focused among young people between 15 – 24 years, and this has been connected with low level on condom usage among the youths and adults 15 years and older. Young people accounted for 40% of new HIV infections in 2006 (Joint United Nations Programme on HIV/AIDS 2006). Different occurrence were related with different level of knowledge on HIV. In the year 2005, the occurrence among young people aged 15–24 was anticipated to be 4.3% for females and 1.5% for males (UNAIDS, 2006). CDC published that Ghana, Uganda, Malawi and Bukina Faso, had a HIV prevalence rates of 0.8 to 2.0 for females and 0.3 to 0.6 for males in Burkina Faso, 1.1-1.5 for women and 0.2- 0.3 for men in Ghana, 3.9 to 16.8 for women and 1.4 to 5.9 for men in Malawi and 4.2 to 5.7 for women and 1.9 to 2.6 for men in Uganda (UNAIDS Report, 2006). Unless young persons accept defensive activities, this tendency may endure in the nonexistence of a HIV/AIDS treatment.

Unplanned pregnancy is also a key reproductive well-being problem among young persons in Sub-Saharan Africa. Even though birth rates are highly in many countries, significant magnitudes of couples are becoming pregnant (Alan Guttmacher Institute, 2013). Utmost sexually active adolescent do not want to get children because they are schooling and are disposed to the risk of unplanned pregnancy (CDC, 2015). It has been found that, there are about 8 years between the age at which men in the region initiate sexual activity and the age at which they have their first child (Westoff, 2002). There are four studies done in Uganda, Malawi, Bukinafaso and Ghana in the early 2000s intended to evaluate the occurrence of unplanned pregnancies among adolescents women. Proportions of recent births to adolescent women that were either mistimed or unwanted were 23% in Burkina Faso, 40% in Ghana, 40% in Malawi and 39% in Uganda (Westoff, 2002). The dangers of HIV and unplanned pregnancy are real among youths in Sub-Saharan Africa. For young peoples who are sexually active, condom use is the only method that offers protection against HIV and some other STIs (Davis, 2012). The CDC noted that condom use is an effective method of stopping unwelcome pregnancy, and it was certain that people preferred condom use as a family planning method among unmarried young people (Trussell et al., 2014). A review of literature on condom promotion and use for

HIV prevention in developing countries, found that only consistent use of the condom offers effective protection against HIV. The report noted that the effect of condoms may be mitigated by inconsistent use, low use among those at highest risk, and negative interactions with other strategies. It is recommended that, among other things, there is need to measure the rates of consistent condom use among the students and the youths. To date, very few studies have attempted to examine the level of knowledge on precise and reliable method of condom use as a family planning method in Kenya.

2.4 Consistency of proper Condom Use

Consistency denotes use of condoms every time when a person is having sex. Consistency of proper use of condoms is associated with low transmission of HIV/STDs and prevention of early pregnancy. Center for disease control (CDC) has observed that developed countries have been able to reduce and control of HIV/AIDS compared to developing nations through use of condom (CDC 2014). In developing countries there has been reported cases of early pregnancies which has led to giving birth when not planned (CDC, 2014). In school and out of school Proper condom use can be used to prevent unwanted pregnancies and STDs transmission (Ministry of Health, Kenya Report, 2013). A study was done in Hebei North University, the Peking University, the Fudan University, the Shanghai Jiao Tong University, the Zhejiang University and University of Science and Technology of China on Consistency of proper condom use among the undergraduate students (Wang lee, 2014). The study found that 45% of respondents did not use condoms all the time when they had sexual intercourse. The indicators (predictors) of this variable (Guidelines on condom use, multiple use of sex partners and Views beside use of condom) are statistically significant ($F=9.505$, $df= 124$, $sig 0.001$). This finding is of concern considering the implications of failure to use condoms to students especially on their future endeavors.

In a study done in Chad on Consistency of proper condom use by prostitutes (Deneux, 2013) only 57% of the respondents used condoms all the time they had sex; 43% did not. This is a worrying statistic considering that this constitutes is the key driver to HIV and STDs transmission. It is also important to note that some of university students engage in this vice especially those from low social economic status.

A comparative study was done among adolescents aged 13- 19 years in Burkina Faso, Ghana, Malawi and Uganda on knowledge of steadiness on condom use (Robin, 2011). From the findings of the study, it was demonstrated that the strongest predictor of evenness of condom use among participants was exposure to seminars and education. In Ghana and Uganda, respondents who were using condoms, were two times as likely to be knowledgeable compared to those who did not use condom. The main indicators of consistency of condom use included; Age, sex level of education, exposure to the radio programmes on condom use and knowledge of correct use of condoms.

A study was done in Kenya on consistency of proper condom use by Kenya Medical Training College students in 15 campuses across the country (Njuguna, 2012). The findings indicated that 68% of the respondents use a condom when having sex while 32% do not. A large percentage (63% of 32%) indicated that they didn't use the condom all the time that they had sex while 37% indicated they didn't enjoy when having sex in a condom.

A study was done in Meru among mothers of reproductive age. The investigator investigated whether the research participants used condoms all the time they had sex. A few (12%) indicated they used them while 88% didn't. The category who used the condom indicated they put on condoms because they had multiple sex partners and they didn't want to get pregnant or STDs.

In Kenya, 20% of youth aged between 15 - 19 years are being infected by HIV/AIDs (CDC, report 2015). CDC found that correct & consistent use of condoms during sexual period can significantly reduce the risk of getting Sexually Transmitted Infections (STIs). Another study was done in secondary schools in Kisumu County (Oloo, 2012). The purpose of this study was to determine the knowledge, attitude and practice of sexual health with regard to condom use and HIV/AIDS among adolescents attending secondary schools in Kisumu County. Primary data was collected from 384 participants using questionnaires. The study found out that out of 384 participants, 205 (53.4%) of the respondents reported that they had sex activity while the rest had not. In Kirinyaga County about 44% of men who had reported two or more sexual partners did not use condom during the last sexual intercourse (KDHS, 2014). It is from gaps identified from this review literature that the researcher wishes to identify the relationship between knowledge of proper condom use and condom use behavior among the students of Kirinyaga University College.

2.5 Attitude towards Condoms Use

In most countries in the world, most governments do provide condoms particularly in the hospitals to be picked by patients who visit the hospitals (World Health Organisation Report, 2015). The Government do also provide the condom in the public universities and this has been facilitated by university management. In Christian based private universities and colleges, the condom use has been taken in a negative attitude because, the management or sponsors do not approve the use (Van der Velde et al., 2009).

In Uganda, a study was done on condom use among the youths by Amstrong (2014) From the results of the study, it was established that sexual risk is related to an increased probability of youths using condoms, but only if health workers and health stake holder are open, skilled and feel comfortable having such discussions and can communicate this to the owners. Parents may feel shy and hence develop negative attitude in discussing use of condoms with their children (NASCOP, 2015). For example mother cannot discuss the issues of sexuality with sons. There are mythologies that those men who are not circumcised cannot use condoms.

Following a study on sexual education in Mozambique (Pettifor, 2009), young women were more receptive to changing their attitudes and practices. In the Cameroon it was noted that many young men changed sexual partners oftenly and that condom use was low in regular relationships (Avasthi et al., 2012). It was found that accessibility and knowledge on condoms use was very low (Nicholas, 2011).

A study was done In Rwanda among the commercial sex workers. The findings revealed that 71 percent of the women reported that didn't use condom with a regular sex partner (Bozette, 2015).

In Kenya, a study conducted in public universities aimed at evaluating attitude of condom use among students found out on Multiple regression analysis that the participants' attitude toward condom use was significantly ($p < 0.01$) predicted their intention to use condoms (Kibore, 2014). Chi-square analysis also revealed that over 80% of the participants had positive attitude towards condom use. This ment that 78% of the participants strongly agreed that respondents used a condoms during sexual intercourse. It was also noted that 87% of the participants strongly agreed that condom use could help them prevent pregnancy. The association between attitude on condom use and condom use behaviour was statistically significant at 95% confidence interval ($\chi^2 = 77.58$, 226. DF=2, $P < 0.001$). The study did not show how proper condom use change

condom use behaviour. However, 6.3% of the respondents strongly disagreed that condom use can protect them against HIV. About 76% of the participants indicated it is extremely important for them to use condom in order to protect themselves from pregnancy and STIs. The study concluded that respondents were having a positive attitude on condom use.

Despite extensive efforts in promoting positive attitude on condom use, young people in most colleges and universities still engage in risky sexual behaviors and condom use remains relatively low. A multitude of factors may impede young people's ability to protect themselves by using condoms, including attitudes towards condoms and ineffective use of the method. Numerous studies have found that young people's perceptions of condoms tend to be negative (Muyinda, 2008). Studies by CDC, NASCOP and WHO have also documented that young people have concerns about condom safety and breakage, condom ineffectiveness (e.g., condoms have small holes or they can disappear into the vagina) (Feldman, 2015), the negative effect of condom use on sexual enjoyment (Hulton, 2010) and the low quality of condoms especially condoms that are free (Feldman, 2015; Hulton, 2010). In a number of studies, trust in a sex partner was mentioned as a reason for not using condoms (Feldman, 2015). Although a number of studies have looked at young people's perceptions of condoms, there is little data on the extent to which perceptions about condoms may mitigate condom use. It is from this reviewed literature that the researcher wishes to identify the relationship between knowledge of proper condom use and condom use behaviour among the students of Kirinyaga University College.

2.6 Theoretical Frame Work: Protection Motivation Theory

Protection Motivation Theory (PMT) was originally proposed by Rogers (1975). He proposed to provide conceptual simplicity to the understanding of fear petitions. A later revision of Protection Motivation Theory (Rogers, 1983) extended the theory to a further general theory of persuasive message, with an importance on the cognitive processes interceding behavioral change. Protection motivation theory clarifies how people reply to fear arousing health risk communication or fear appeals. This regards to the motivation to protect oneself against a health threat.

PMT (Rogers, 1983) as cited by (Lazarus, 1966) and (Leventhal, 1970) described that adaptive and maladaptive handling with a well-being threat as a consequence of appraisal procedures. A progression of threat assessment and a procedure of coping assessment, in which the behavior

options to reduce the risk are evaluated (Boer & Seydel, 1996). The assessment of the well-being threat and the assessment of the handling responses end in the aim to perform adaptive answers. Maladaptive responses are those that place an individual at health risk and may include behaviors that lead to undesirable consequences.

The students in Universities are typically aged between 18-24yrs who are sexually energetic. Their physical and biological change are not fully matured hence make them susceptible if they involve in risky sexual conduct and the severity of the consequences is adverse in terms of psychological, social, economic and health aspect. Safe sex practice have empirical evidence of response efficacy in reducing these consequences. The theory explains that the students on their part must assess themselves on their self-efficacy to use condom as a safe sex practice.

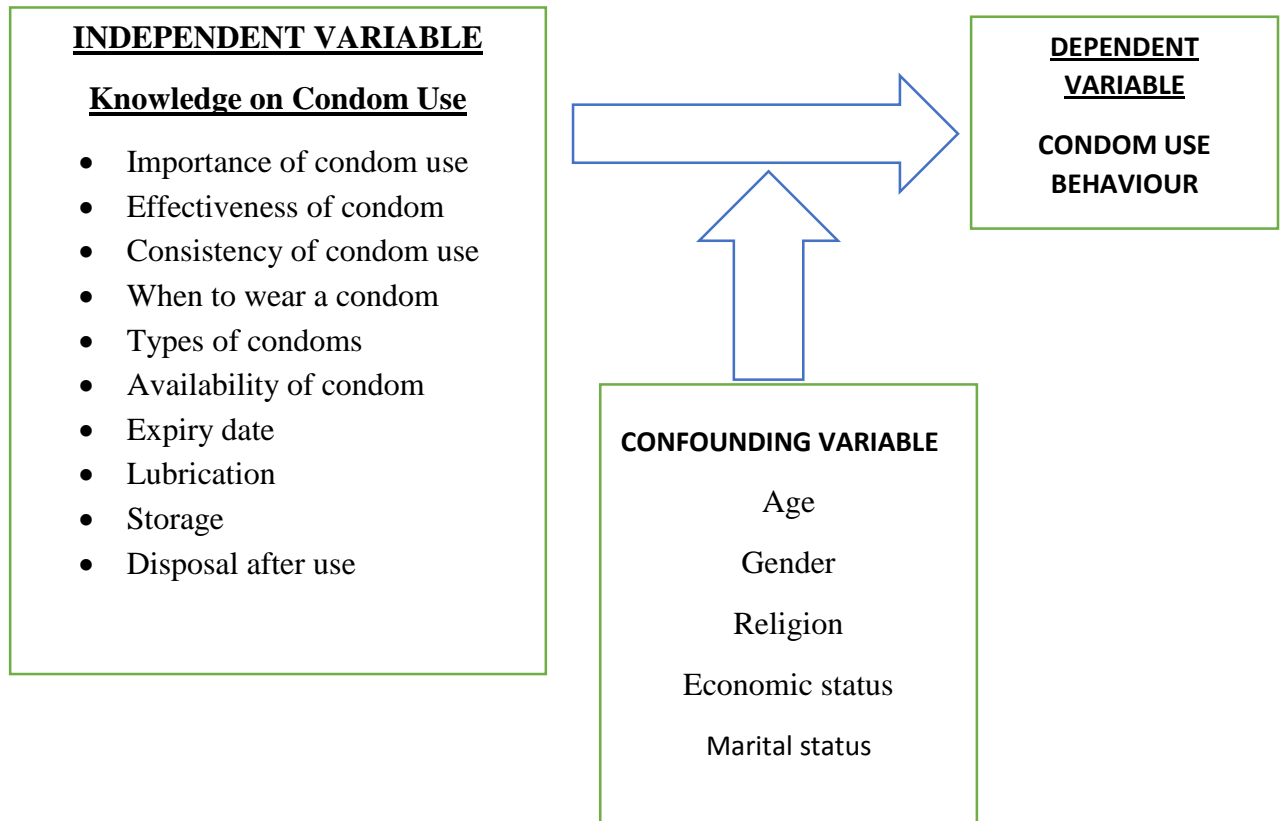
This theory was used in this study where it assisted the researcher to identify knowledge level of proper Condom or practice which can explain the behavior of condom use which may help prevention acquiring or spreading STIS and unwanted pregnancies. Protection Motivation Theory explain what, how and what motivates an individual to protect themselves from an external or health threats. According to this theory the determinants of intentions to behave in a healthy manner are vulnerability, efficacy and self- efficacy. The theory also explains further and says that people must be equipped with knowledge on how to use condom properly. If people are informed through, seminars, conferences, lectures and through mass media their behaviour on condom use is expected to change. This theory was chosen because it explains how people who are equipped with knowledge on proper condom use are expected to behave and to hold a favorable attitude which main variables of this study are.

2.7 Conceptual Framework

The conceptual framework shows the relationship between knowledge of proper condom use and condom use behaviour among the students of Kirinyaga University. The variables that guided this study: the level of knowledge and the condom use behaviour, the independent variables tried to explain how the respondents is equipped to use the condom. The dependent variable may be influenced by: age, gender, religion, economic status and marital status as confounding factors. The indicators of knowledge include: Importance of condom use, Effectiveness of condom, Frequency of condom use, types of condoms, Where to get a condom, Importance of expiry date, lubrication, storage and disposal after use. The indicators of dependent variable

include ; consistency of use, expiry date, Use in last sexual encounter. Type of sex in which condom is used, Type of the relationship where condom is used, Where to acquire condoms, Which type to use, Use of lubricants, Where are stored condom and the intension to use condom in future.

Figure 2.1 Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter summarizes the methodology which was used in the study. The following aspects were discussed; research design, study area, target population, sampling procedure, data collection and instruments.

3.2 Research Design

Research design is a structure that monitors the collection and investigation of the data and is a detailed plan of how a research study will be directed in order to answer research questions in an economical manner (Orodho, 2005). This study adopted descriptive cross-sectional study design. In this study the researcher used cross-sectional design to find out relationship between knowledge of proper condom use and condom use behaviour among the students of Kirinyaga University.

The study integrated the descriptive research design into the cross-sectional survey design. This is because the variables under study were measured as they naturally occurred and were not manipulated or controlled. The variables were level of knowledge, consistency of proper condom and attitude towards condom use. According to (Kothari, 2003) if the research is concerned with finding out what, when, and how much of the phenomena, descriptive research design is found to be appropriate. The researcher described the level of knowledge, when and how the respondents use condoms. Descriptive research design helped the researcher to come up with information on consistency of proper condom for example whether they use condoms every time they have sex. The design assisted the researcher to identify the type of attitude respondents had toward condom use.

The design used quantitative approach. Quantitative approach emphasizes measurement and data is analyzed in a numerical form to give a precise definition. It provides information about the phenomenon being studied and established patterns, trends and relationships from the information gathered. It also provides greater depth to responses and understanding which forms a link with respondents. It was appropriate because it offered investigator outline to define relevant aspects of the occurrences from a single institute.

3.3 Study Area

Kirinyaga University is a fully chartered public university located in Kirinyaga County in kirinyaga central district and it is approximate 115kilometers North East of Nairobi off Nairobi – Sagana- Embu highway. It has a total of five schools: engineering and built sciences, health science, business and economics, pure and applied sciences, hospitality and textile technology and computing and information technology. The university receives students from Kenya University and colleges’ central placement. It has a total of 2550 undergraduate students and 15 post graduates from all over the country.

3.4 Population and Sample selection

Kirinyaga University was selected because is a public university having students from all over the country hence a representation of university students. The target population for the study consisted of undergraduate students in Kirinyaga University, undergraduate students were also selected because they were expected to have benefited from the university HIV/STI prevention strategies. The population was 2550 undergraduate students. From target population a sample size was computed. A list of schools :health sciences, business and economics, hospitality and textile engineering and built sciences, computing and information technology and lastly pure and applied sciences, was obtained and sample frame prepared. Students in this schools were conveniently sampled because of the complexity of the time table.

The investigator sampled 10% of the target population. According to Mugenda and Mugenda (2013) 10% of the population is a good representative sample. 10% of the 2550 participants were 255 participants.

3.4.1 Inclusion/Exclusion Criteria

Undergraduate Students in class for common courses during study period were included in the study however postgraduate students were excluded because majority may have been in a marriage setup where use of condoms may not be applicable.

3.5 Research Instrument

The researcher used self-designed questionnaires which had four main domains which related to the main variables studied: Social demographic, knowledge on condom use, condom use practice and finally attitude towards condom use. Primary data was collected using questionnaires that had structured questions. Section A consisted of demographic information; gender, age, pocket

money among others. Section B of the questionnaire helped in collecting information on level of knowledge. This section had questions presented in likert scale where the respondents was required to indicate their level of agreement with statements that express a favorable or unfavorable attitude towards a concept being measured. In this case, a five ordered response levels scale was used which are 5= Strongly Disagree, 4= Disagree, 3=Neutral, 2=Agree, 1= Strongly Agree.

Section C covered the objective or research question 2; consistency of proper condom. This section used both close and open headed questions. The variable to be covered in this section of the questionnaire is consistency of proper condom. Section D, covered the objective or research question targeting attitude towards condom use.

3.6 Data Collection

The questionnaires were hand delivered to the respondents with a covering letter within campus premises. The researcher requested Kirinyaga University Lectures taking students through common courses to permit 10-20 minutes to administer questionnaires to the students. The researcher introduced the study to the Students highlighting the aim and the purpose of the Study. The researcher explained that participation is voluntary and failures to participate would not accrue a penalty or discrimination. The respondents were requested to complete the questionnaires ,drop them in a box.

Secondary data was collected from online journals, websites and magazines. Due to the sensitivity of the data collected the space between student chairs in the lecture hall was wide enough to ensure privacy. After completing the questionnaire the student were required to drop it in a sealed box.

3.7 Pilot Study

Pilot study was conducted in Kirinyaga University among diploma and certificate students, This pilot study was conducted to assess validity and reliability of the research instrument. The data that was collected was analyzed for the responsiveness to the research objectives and questions Time taken to fill the questionnaire was also assessed and all items that were difficult to the respondents were revised.

Reliability test was done through test-retest method. Results from the two tests was correlated using Pearson moments correlation method, reliability coefficient was 0.70. According to (Pallant, 2001), a value of 0.70 or above is acceptable. Piloting was done to students and was not be included in the actual study. Pretesting of questionnaires was also be done to check on repetitiveness, ambiguity and length of the questionnaires hence corrections was done

Validity refers to the extent to which an instrument truly measures that which it was intended to measure or how truthful the research instruments are (Cable & DeRue, 2002). In order to ascertain the validity of the questionnaires, pretest was conducted. Variable was considered to have content validity because there was a general agreement from the literature that knowledge on condom use has measurement items that cover all aspect of variable being measured. Since the selection of variable in this research was based on extensive review of theoretical and empirical literature, it is considered to be content validity.

3.8 Data Analysis

Descriptive statistics were used on all variables. Bivariate analysis was carried out to determine the relationship between knowledge on condom use and the actual condom use, knowledge on condom use and attitude towards condom use. Pearson's chi-square test was calculated to test the independence. Multivalent analysis was also conducted to test the association and the internal consistency to determine if the items in the questionnaire measured the domain of interest. Correlation was used to compare between the independents variables and dependent variable.

The data analysis consisted of examining the evidence so as to address the initial propositions of the study. After collecting data the researcher ensured it was processed in some manner before carrying out analysis. Pre-processing helped correct problems that are identified in the raw data. After correcting any errors that may have influenced data analysis, the researcher formulated a coding scheme which was summarized and analyzed in various ways.

After coding data the researcher choose a statistical software package SPSS version 21.0 which was used for data analysis. The researcher used descriptive statistics including frequency distribution tables, percentages and measures of central tendency such as mean, mode and median. The findings were presented in data tables, means, percentages, chi-square, test

statistics, and standard deviation where applicable and was accompanied by relevant explanations.

3.9 Ethical Consideration

Ethical approval was sought from NACOSTI, Kirinyaga University scientific and ethical review committee and Kirinyaga University management. Consent of the respondents was sought from the respondents by signing the consent form and the purpose of the research was explained in detail to the respondents. Privacy of the respondents was duly protected. The respondents were assured that the information collected was for academic use only and would not be used for any other purpose whatsoever and respondents were informed of the freedom to or not to participate in the study. The data collected was used solely for the resolution of the research and not availed to any third parties. Consent was assumed incase the respondent participated.

CHAPTER FOUR

RESULTS AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter entails data presentation on the findings, analysis and interpretation which were generated by the study as set out in the research methodology. The data presented covered the relationship between knowledge of proper condom use, use behavior and attitude towards condom use among students of Kirinyaga University. The data was gathered exclusively from a structured questionnaires. This instrument was designed in line with the objectives of the study.

4.2. Response Rate

The study targeted 255 respondents. From the study, 211 respondents filled-in and returned the questionnaires making a response rate of 82.7%. According to Mugenda and Mugenda (1999) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent; therefore, the response rate obtained in this study was excellent for analysis and reporting.

4.3 Demographic Information

Table 4.1 shows the demographic information of the respondents. It included; respondents' ages, gender, academic levels, marital status profiles and the amount of pocket money given.

Table 4.1: Demographic Information

INDICATORS	ITEMS	FREQUENCY	PERCENTAGE
AGE	18	18	8.3
	19	48	22.9
	20	62	29.4
	21	46	22
	22	23	11
	23	4	1.8
	24	10	4.6
ACADEMIC YEAR	1 ST	122	57.8
	2 RD	81	38.5
	3 RD	6	2.8
	4 TH	2	0.9
MARITAL STATUS	SINGLE	208	98.6
	MARRIED	3	1.4
POCKET MONEY GIVEN	1,000-5000	161	76.1
	6,000-10,000	37	17.4
	ABOVE 11,000	14	6.4

Majority 120(56.9%) were females while 91(43.1%) were males. The findings further showed that 18(8.3%) were aged 18 years, 48(22.9%) were aged 19 years, 62(29.4%) were aged 20 years, 46(22%) were aged 21 years, 23(11%) were aged 22 years, 4(1.8%) were aged 23 years and 10(4.6%) respondents were aged 24 years. The study concluded that all respondents were youths (according to government of Kenya definition' 18-45 years'). On academic year of study, majority respondents sampled were first years 122(57.8%), 2rd year 81(38.5%), 3rd year 6(2.8%) and fourth year 2(0.9%). On marital status, most of the respondents involved in the study were singles 208 (86.4%), 3(9.2%) were married. Additional, findings showed that majority 161

(76.1%) of the respondents were given pocket money of between 1,000 to 5,000, 37(17.4%) of the respondents were given 6,000-10,000 and 14(6.4%) were given pocket money above 11,000.

4.4 Level of Knowledge on Condom Use

Knowledge refers to information facts, and skills developed by an individual through involvement or education; the theoretical or practical consideration of a theme (Oxford dictionary, 2011). The researcher sought to know the level of knowledge on condom use among the students. Table 4.2 presents data on the respondents' knowledge on whether condom have an expiry date. The findings were presented on table below.

Table 4.2: Knowledge on expiry date of condoms

	Frequency	Percent
Yes	104	95.4
NO	5	4.6
Total	109	100.0

Majority (95.4%) of the respondents indicated condoms have an expiry date while 5(4.6%) indicated condom have no expiry date. These findings indicate that majority of respondents knew condom have an expiry date which is correct information.

Table 4.3 indicates the respondents' knowledge on whether condom offer protection against HIV/ AIDs and pregnancy or not.

Table 4.3: Knowledge on whether condom offer protection against HIV/ AIDs & pregnancy

	Frequency	Percent
YES	197	93.6
NO	14	6.4
Total	211	100.0

Majority 197(93.6%) of the respondents knew condom offer protection against HIV/ AIDs and pregnancy, while 14(6.4%) indicated condom do not offer protection against HIV /AIDs and

pregnancy. These findings indicated that the respondents knew that condoms offer protection against HIV/ AIDs and pregnancy. These findings agreed with (Kaya & Kau, 2009) who reported that among social science students at the University of North West in South Africa, 84% knew that the best way of preventing HIV/AIDs infection was ‘using condoms in the course of sexual intercourse.

Table 4.4 below presents information on whether free condoms are available in university and public health facilities.

Table 4.4: Knowledge on whether condoms are available in University and public health facilities

	Frequency	Percent
YES	199	94.5
NO	12	5.5
Total	211	100.0

Majority of the respondents 199(94.5%) indicated that condoms are free and available in university and public health facility while 12(5.5%) did not. These results indicated that most respondents were aware of availability of free condoms at the University and public health facilities

Table 4.5 below presents information on whether the respondents had attended a seminar where how to use condom.

Table 4.5: Attendance of a seminar on knowledge on condom use

	Frequency	Percent
YES	118	56.0
NO	93	44.0
Total	211	100.0

More than half 118(56%) of the respondents had attended a seminar on condom use while 93(44%) had never attended any such seminar.

Table 4.6 below presents results of respondents on whether somebody should use sharp object (s) to open a condom pack.

Table 4.6: Use of sharp objects to open a condom pack.

	Frequency	Percent	Cumulative Percent
YES	193	91.7	91.7
NO	18	8.3	100.0
Total	211	100.0	

Majority 193 (91.7%) of the respondents indicated no one should use sharp object to open a condom package while 18(8.3%) indicated somebody should use sharp object to open a condom package. These findings indicate that respondents had knowledge that somebody should not use sharp object to open a condom package. Condom is made up of rubber and therefore, once you touch it with a sharp object it will tear (CDC, 2014; WHO, 2015). A condom should be opened with plain hands to avoid destruction.

Table 4.7 present data on whether it is an important to add lubricant when using a condom.

Table 4.7 Use of adding a lubricant when using a condom

	Frequency	Percent
YES	52	24.8
NO	159	75.2
Total	211	100.0

Majority 159(75%) of the respondents indicated that it was not important to add lubricant when using a condom while the rest 52(24.8%) indicated that it was important to add lubricant when

using a condom. These findings indicated that majority of the respondents knew that lubricants could render a condom ineffective.

Table 4.8 indicated respondent's views on whether it is essential for a person using male condom to withdraw his penis immediately after ejaculation.

Table 4.8: Withdrawal of penis immediately after ejaculation.

	Frequency	Percent	Cumulative Percent
YES	165	78.0	78.0
NO	46	22.0	100.0
Total	211	100.0	

Most of the respondents 165(78%) indicated it's essential for a person using male condom to withdraw his penis immediately after ejaculation. A small section of the respondents 46(22%) indicated that it is not essential for a person using male condom to withdraw his penis immediately after ejaculation. These findings showed that the some respondents did not have knowledge that there is no need of withdrawing the penis before ejaculating.

Table 4.9 presents respondents opinion as to whether male condoms should be put on when the penis is erect.

Table 4.9: Knowledge on whether male condoms should be put on when penis is erect

	Frequency	Percent
YES	196	92.7
NO	15	7.3
Total	211	100.0

More than three quarter 196(92.7%) indicated that male condoms should be put on when penis is erected, while 15(7.3%) indicated male condoms should not put on when penis is erected. The findings indicated that respondents knew that male condoms should be put on when penis is erect.

Table 4.10 presents respondent's views as to whether female condoms should be worn at least 30 minutes before having sex.

Table 4.10: Wearing of female condom at least 30 minutes before having sex

	Frequency	Percent
YES	141	67.0
NO	70	33.0
Total	211	100.0

About 141(67%) of the respondents indicated that female condoms should be worn at least 30 minutes before having sex , 70(33%) of the respondents indicated that female condoms are not worn at least 30 minutes before having sex. These results indicate that a significant number had the knowledge that female condoms are worn 30 minutes before having sex.

Table 4.11 Indicates respondents' views as to whether condom size is fit for use for all users.

Table 4.11: whether condom size is fit for use for all users

	Frequency	Percent
YES	159	75.2
NO	52	24.8
Total	211	100.0

Majority 159(75.2%) indicated that condom size is fit for use for all people while 52(24.8%) indicated condom size is not fit for use for all people. The findings showed that respondents has knowledge that condom size is fit for use for all people.

Table 4.12 respondents' views as to whether condom should be stored in a cool place.

Table 4.12: Knowledge on whether condom should be stored in a cool place

	Frequency	Percent
YES	172	81.7
NO	39	18.3
Total	211	100.0

Most of the respondents 172(81.7%) indicated that condom should be stored in a cool place. A few of the respondent 39(18.3%) of the respondents indicated that condom should not be stored in a cool place. The findings showed that the majority of the respondent had the correct information on condom storage.

Table 4.13 respondents views as to whether condom should be reused.

Table 4.13: Respondents Knowledge on whether condom should be reused.

	Frequency	Percent
YES	34	14.7
NO	177	85.3
Total	211	100.0

Majority 177(85.3%) of the respondents indicated that condom should not be reused while a small 34(14.7%) section indicated that condom should be reused. The results indicated that most respondents had information that condom should not be reused.

Table 4.14 presents data on respondents' self-assessment on knowledge of proper condom use,

Table 4.14: Respondents knowledge on condom use

	Frequency	Percent
YES	170	80.7
NO	41	19.3
Total	211	100.0

More than three quarters 170(80.7%) indicated that they had information on how to use condom while less than a quarter 41(19.3) indicated they did not have information on how to use a condom. These findings pointed out that majority of the respondents have information on how to use condom. These findings agree with the findings of (Kimathi, 2014) study which showed that 93% knew how to use condom with a P-value of 0.002 which was statistically significant.

Table 4.15 below presents respondents views as to the sources of information on condom use.

Table 4.15: Sources of information on where knowledge on condom use can be obtained

	Frequency	Percent
Media	37	17.4
Social media	70	33.0
Social studies	27	12.8
Parents	15	7.3
Seminars	33	15.6
Church/ mosque	29	13.8
Total	211	100.0

Majority 70(33%) of the respondents indicated that they got information on condom use from social media, 37(17.4%) from TV, radio and newspapers. About 33(15.6%) of the respondents obtained information on condom use from seminars, 29(13.8%) from churches and mosque 27(12.8%) from social studies subject, while only 15(7.3%) from parents and guardians. This finding concurs with the NASCOP (2015) on the study on attitudes towards condom use where parents were shy and held a negative attitude towards talking to their children on proper condom use.

4.5 Consistency of Condom Use

The other objective of the study was to establish the consistency of proper condom use. Consistency use of condoms has been identified by scientist to reduce transmission of HIV and prevention of early pregnancy. In school and out of school proper condom use can be used to

prevent unwanted pregnancies (Ministry of Health Report, 2013). To get the results of this objective, a series of indicators were put in the questionnaire and the findings are presented; Table 4.16 indicates whether condom was used during the respondent's first sexual encounter.

Table 4.16: whether respondents used condom during first sexual encounter

	Frequency	Percent	Mean	SD
YES	145	68.8	1.31	0.465
NO	66	31.2		
Total	211	100.0		

Majority indicated 145(68.8%) used condom during the first sexual encounter, while 66(31.2%) indicated they did not use a condom during their first sexual time. The researcher observed that 100% of the respondents were sexually active.

table 4.17 presents data on whether the respondent had ever had sex without a condom.

Table 4.17: Sex without a condom

	Frequency	Percent	MEAN	SD
YES	118	56.0	1.45	0.518
NO	91	43.1		
No response	2	.9		
Total	211	100.0		

More than half 118(56%) of the respondents agreed that they have ever had unprotected sex, 91(43.1%) disagreed and 2(0.9%) did not disclose the answer. These findings showed that majority of the students had sex without a condom (Mean 1.45, SD=0.518).

Table 4.18 presents the data on whether respondents had had sex in the last six months.

Table 4.18: Information on engagement in sexual activity in the last six months

	FREQUENCY	PERCENT
YES	198	93.6
NO	13	6.4
TOTAL	211	100

The results showed that majority 198 (93.6%) had had sex in the last six month while the minority 13 (6.4%) had not. further, the researcher wanted to find out whether the respondents were using condoms for the last six months, The data is presented in table 4.19 below.

Table 4.19: Frequency of condom use during sexual encounter in the last six months

	Frequency	Percent	Mean	SD
Every time	23	11.8	2.96	1.086
Regularly	50	23.5		
Rarely	116	54.9		
Never	21	9.8		
Total	211	100.0		

It became apparent that 23(11.8%) had used a condom every time, 50(23.5%) had used condom regularly, 116(54.9%) rarely, However 21(9.8%) of the respondents indicated they had not used condoms. The findings showed that most of the respondents were sexually active (mean = 2.96, SD= 1.086) and did not use condoms every time they engaged in sexual intercourse (82.6%). These findings agree with (Wang lee, 2014) who conducted a study in Hebei North University, the Peking University, the Fudan University, the Shanghai Jiao Tong University, the Zhejiang University and University of Science and Technology of China which targeted consistency of proper condom use among the undergraduate students. The study found that 45% of respondents did not use condoms all the time they had sex. The Researcher further questioned reasons why respondents would consider to consistently use condom during sexual activities.

Table 4.20: Reasons for consistency of proper use of condom during sex time

	Frequency	Percent	Valid Percent
Respondents fear contracting HIV	45	21.1	MEAN= 3.05, SD=1.626
Fear of contracting pregnancy or Impregnating my partner	50	23.9	
Sex without condom is messy	35	16.5	
it is good behavior to use a condom	29	13.8	
Partner insisted on condom use	35	16.5	
To avoid STI	17	8.3	
Total	211	100.0	

Majority 50(23.9%) of the respondents indicated that they feared becoming pregnant or Impregnating their partners, 45(21.1%) respondents feared contracting HIV, 35(16.5%) thought that sex without condom is messy, 29(13.8%) indicated it is good behavior to use a condom and 17(8.3%) indicated they used condoms to avoid STIs. These findings pointed out that respondents knew the importance of using condoms consistency (MEAN= 3.05, SD=1.626). These findings were in line with the findings by USAID, 2016 which indicated that use of condoms may help student to prevent HIV/AIDS, pregnancies and other STIs. In numerous parts of the world, new Human Immunodeficiency Virus infections are extremely focused among young persons between 15 – 24 years, and this has been linked with no use of condom among the youths and adults 15 years and older (CDC, 2015). On the contrary, the researcher investigated reasons which would make respondent's to sometimes fail to use a condom and table 4.21 presents this data as follows:

Table 4.21: Options that described reasons why sometimes respondents failed to use a condom

	Frequency	Percent	Valid Percent
Respondents don't like condoms	29	13.8	Mean = 7.22, SD=4.175
condoms were unavailable	15	7.3	
was under influence of alcohol or other substances of abuse	8	3.7	
had not planned to have sex	21	10.1	
was unable to negotiate for condom use	2	.9	
sex was against my will	4	1.8	
It just happened	25	11.9	
Respondents trust their partners	19	9.2	
Respondents had a HIV test so there was no need of condom use	18	8.3	
Respondents were using family planning methods	4	1.8	
The girl was on the safe days	25	11.9	
Respondents curious to know how sex feel without a condom	15	7.3	
was my first sexual encounter with the partner	19	9.2	
More than one above reasons	3	2.8	
Total	211	100.0	100.0

Majority 29((13.8%) indicated that respondents didn't like condoms, or sex just happened, 21(10.1) had not planned to have sex, 19(9.2%) trusted their partners, 19(9.2%) was a first sexual encounter with a partner, 18(8.3%) had a HIV test so there was no need, 15(7.3%) condoms were unavailable, 8(3.7%) was under influence of alcohol or other substances of abuse, 2(0.9%) was unable to negotiate for condom use and 3(2.8%) of the respondents had failed to

use a condom because of other reasons. The findings exhibited that respondents failed to use a condom at one time (Mean = 7.22, SD=4.175).The researcher observed that 22% of the respondents had sex which they had not planned for .This finding agrees with studies conducted in Africa which have shown that the unintended pregnancy is brought about by low application of knowledge on condom use (failed to use a condom) (NAS COP 2014). However, these results were not supported by Robin, (2011) who indicated that inconsistency of condom use included; old age, sex education, exposure to the radio and knowledge of correct use of condoms.

4.6 Attitude toward Condom Use

The third objective of this study was determine the attitude towards condom use among the students of Kirinyaga University. To obtain sufficient data on attitude toward condom use, a series of items were incorporated in the questionnaire. Table 4.22 presents respondents response to several statements which reflected respondents attitude towards condom use.

Table 4.22: Attitude towards condom use

	SA	A	N	D	SD
One should use a condom when you can't trust their partner	62(56.9%)	20(18.3%)	5(4.6%)	1(0.9%)	11(10.1%)
There is a need to use a condom if one uses other method of family planning	29(26.6%)	29(26.6%)	17(15.6%)	14(12.8%)	20(18.3%)
Respondents don't think I need to use a condom with a steady sex partner	17(15.6%)	14(12.8%)	19(17.4%)	19(17.4%)	39(35.8%)
Sex is too exciting to use a condom	12(11%)	9(8.3%)	27(24.8%)	0%	38(34.9%)
When both have tested for HIV respondents don't need a condom.	16(14.7%)	11(10.1%)	15(13.8%)	30(27.5%)	37(33.9%)
Respondents don't think my partner would like to use condom	12(11%)	14(12.8%)	23(21.1%)	22(20.2%)	38(34.9%)
It's embarrassing to carry a condom	23(21.2%)	15(13.8%)	11(10.1%)	20(18.3%)	40(36.7%)

Majority 62(56.9%) strongly agreed that one should use a condom when they can't trust their partner, a small number of 20 respondents (18.3%) agreed, while 5(4.6%) were neutral, 1(0.9%) disagreed and 11(10.1%) strongly disagreed. information obtained indicates that the majority of the respondents would not use condoms if they trusted their partner. These findings were supported by Van der Velde et al., (2009) who did a study in Christian based private universities and colleges. He found that the condom use had a negative attitude because the management or

sponsors of the university prohibit sex and if it was done, they didn't use condoms because they believe that it is not godly. A total of 29(26.6%) respondents strongly agreed that there was need to use a condom if one uses another method of family planning. A total of 29(26.6%) agreed, 17(15.6%) were neutral, 14(12.8%) disagreed and 20(18.3%) strongly disagreed. This means that 46% of the respondents held a negative attitude toward use a condom if they had a family planning method which infers that they hold a positive attitude towards condom use for pregnancy prevention not for STI prevention. A 17(15.6%) of the respondents strongly agreed that they don't think they need to use a condom with a steady sex partner, 14(12.8%) agreed, 19(17.4%) neutral, disagreed 19(17.4%) and strongly disagreed 39(35.8%) this infers therefore the majority (70.4%) held a negative attitude toward condom use in stable relationships. These findings disagreed with the findings of (Bozette, 2015) a study was done In Rwanda among the commercial sex workers. The findings reviewed that 71 percent of the women reported they don't use condom during sexual act with a regular partner. A portion 12(11%) of the respondents strongly agreed that sex is too exciting to use a condom while 9(8.3%) agreed, 27(24.8%) and strongly disagreed 38(34.9%). A small section 16(14.7%) of the respondents strongly agreed that when both sexual partners have tested for HIV they don't need to use a condom while 11(10.1%) agreed, 15(13.8%) were neutral, 30(27.5%) disagreed and 37(33.9%) strongly disagreed, this infers therefore that 38.6% of the respondents held a negative attitude towards condom use when both partners HIV status is known. About 12(11%) of the respondents strongly agreed that they don't think their partners would like to use condom while 14(12.8%) agreed, 23(21.1%) neutral, 22(20.2%) disagreed and 38(34.9%) strongly disagreed. The study noted that 23(21.2%) of the respondents indicated it's embarrassing to carry a condom, 15(13.8%) agreed, 11(10.1%) were neutral, 20(18.3%) disagreed and 40(36.7%) strongly disagreed. Multiple regression analysis revealed that the participants' attitude toward condom use was significantly ($P < 0.01$) predicted their intention to use condoms (Kibore, 2014).

Data on table 4.23 indicates cross tabulation targeting whether respondents talked about condoms and lack of trust with sex partners.

Table 4.23: Use of condoms versus lack of trust in with a sex partner cross tabulation

		use of condoms demonstrates your lack of trust with sex partners					
		SA	A	N	D	SD	
Respondents don't think of using a condom in future	SA	11	1	1	1	6	21
	A	3	3	1	1	2	10
	N	2	3	1	1	4	11
	D	2	7	3	4	6	22
	SD	9	1	2	4	29	45
Total		27	15	8	11	47	109

About 47=% strongly disagreed that talking about condom use does not demonstrates lack of trust with sex partners.

Table 4.24 indicates the association of respondents not talking about condom and its use due to lack of trust with sex partner.

Table 4.24 Association of respondents not talking about condom and condoms use due to lack of trust with sex partner cross tabulation

		SA	A	N	D	SD	
I cannot talk about condom	SA	6	3	1	1	2	13
	A	3	1	0	2	2	8
	N	6	5	0	0	7	18
	D	5	2	5	3	8	23
	SD	7	4	2	5	28	47
Total		27	15	8	11	47	109

Majority 42(38.5%) of the respondents indicated they strongly disagree with condom use while 22(20.2%) disagreed, 19(17.4%) were neutral, 13(11.9%) agreed and strongly agreed respectively. These findings concluded that most respondents like condom when having sex. In

addition the researcher questioned the likelihood for the respondents to use condom in future and table 4.25 shows respondents preference for a condom use during sex.

Table 4.25: Respondents preference for a condom during sex

	Frequency	Percent
SA	25	11.9
A	25	11.9
N	37	17.4
D	43	20.2
SD	81	38.5
Total	211	100.0

The data indicated that 25(11.9%) strongly agreed and agreed, 37(17.4%) were neutral, 43(20.2%) disagreed and 81(38.5%) strongly disagreed. The findings showed that majority of respondents did not like wearing condoms during sex and other like wearing condoms for protection purposes, this infers that cumulatively majority of the respondents hold a negative attitude towards condom use (58.7%). Table 4.26 presents data on respondents the extent of embarrassment when buying a packet of condom for use.

Table 4.26: Whether respondents feel embarrassed to buy a packet of condom for use

	Frequency	Percent
SA	25	11.9
A	23	11.0
N	35	16.5
D	46	22.0
SD	82	38.5
Total	211	100.0

Most 82(38.5%) of the respondents strongly disagreed they feel embarrassed to get condom for use. About 46(22%) disagreed, 35(16.5%) were neutral, 23(11%) agreed and 25(11.9%) strongly agreed. These findings indicated that respondent's don't feel embarrassed to get condom for use which is a positive attitude towards use of condoms. Table 4.27 presents information on whether a partners would get angry for suggesting use of a condom.

Table 4.27: Partner would get angry for suggesting use of condom

	Frequency	Percent
SA	19	9.2
A	21	10.1
N	39	18.3
D	53	24.8
SD	79	37.6
Total	211	100.0

A total of 79(37.6%) of the respondents strongly disagreed that their partners would get angry for suggesting use of condom while 53(24.8%) disagreed, 39(18.3%) were neutral, 21(10.1%) agreed and 19(9.2%) strongly agreed. These findings indicated that partners would not get angry for suggesting use of condom which is a positive attitude towards condom use.

Table 4.28 indicates respondent's responses as to whether condom has a smell that is unpleasant.

Table 4.28: Condom use has rubber smell which is bad

	Frequency	Percent
SA	35	16.5
A	27	12.8
N	37	17.4
D	45	21.1
SD	68	32.1
Total	211	100.0

A 68(32.1%) of the respondents indicated strongly disagreed, 45(21.1%) disagreed, 37(17.4%) were neutral, 27(12.8%) agreed and 35(16.5%) strongly agreed. These findings indicated that respondents had a positive attitude towards condom use due to rubber smell which is not bad. further the respondents were questioned on whether condom reduces the sexual excitement, table 4.29 indicates responses on whether condom use reduces the sexual excitement

Table 4.29: Condom use reduces the sexual excitement

	Frequency	Percent
SA	37	17.4
A	37	17.4
N	33	15.6
D	41	19.3
SD	63	30.3
Total	211	100.0

About 63(30.3%) of the respondents strongly disagreed that condom use reduces the sexual excitement, about 41(19.3%) disagreed, 33(15.6%) were neutral, 37(17.4%) agreed and strongly agreed respectively. These findings indicated that the respondents' view that condom use do not reduce sexual excitement which is a favorable attitude towards condom use. In addition the

research evaluated the respondent opinion on whether condom use is painful and uncomfortable and table 4.30 presents responses.

Table 4.30: Opinion of the respondents on whether condoms use is painful and uncomfortable.

	Frequency	Percent
SA	33	15.6
A	35	16.5
N	52	24.8
D	25	11.9
SD	66	31.2
Total	211	100.0

Majority 66(31.2%) of the respondents strongly disagreed that condoms are painful and uncomfortable. About 25(11.9%) disagreed, 52(24.8%) were neutral, 35(16.5%) agreed and 33(15.6%) strongly agreed. These findings indicated that condoms are neither painful nor uncomfortable. Therefore the respondents had positive attitude about the condom use however a third of the respondents were of contrary opinion. Data on table 4.31 indicates responses as to whether condom use encourages promiscuity.

Table 4.31: Condom use encourages promiscuity

	Frequency	Percent
SA	41	19.3
A	35	16.5
N	29	13.8
D	23	11.0
SD	83	39.4
Total	211	100.0

The findings indicated that about 83(39.4%) of the respondents strongly disagreed that condom use encourages promiscuity, 29(13.8%) were neutral, 35(16.5%) agreed and 41(19.3%) strongly agreed. These findings revealed that respondents held opinion that condom use does not encourages promiscuity which is a positive attitude.

4.7 Correlation between Knowledge on Condom use and the Actual condom use Behavior

Table 4.32 Chi square and cross tabulation

		Value	Characteristic d.f	P-Value
Condom protecting respondents.	Pearson Chi-Square	63.499 ^a	8	.000
			against STI & Pregnancy	
Condom availability	Pearson Chi-Square	36.156 ^a	12	.000
			Within university and public places	
Education about condoms	Pearson Chi-Square	8.370 ^a	3	.039
			Seminars on condom use	
Addition of more lubricants	Pearson Chi-Square	14.191 ^a	4	.007
			Vaseline, saliva, water or lotion	
Condom use	Pearson Chi-Square	21.525 ^a	8	.006
			Wearing of condom when erected	
Condom fitness	Pearson Chi-Square	64.037 ^a	20	.000
			For all sizes	
Reuse		131.111 ^b	Condom can be reused 3	.000

Results showed that from the top row of the table below, Pearson Chi-Square statistic, $2= 63.499^a$, and $p < 0.001$. Meaning $p < 0.05$ (in fact $P < 0.001$). Knowledge on condom use where protection against STI & Pregnancy by the respondents seems to be related to actual condom use behaviour ($p < 0.001$). From 2nd row on the table below, Pearson Chi-Square statistic, $2= 36.156^a$, and $p < 0.001$. The study concludes that availability of condoms within university and public places is associated with actual condom use behaviour ($p < 0.001$). Pearson Chi-Square statistic, $2= 8.370^a$, and $p > 0.05$. Conclusion is that education i.e. Seminars on condom use is related to actual condom use behaviour ($p < 0.05$). From the 4th row of the table below, Pearson Chi-Square statistic, $2= 14.191^a$, and $p > 0.007$. The study showed that use of lubricants such as Vaseline, saliva, water or lotion has some relationship to actual condom use behavior ($p < 0.05$).

Pearson Chi-Square statistic, $2= 21.525^a$, and $p > 0.007$. The findings concluded that wearing of condom when erect is associated with actual condom use behavior ($p < 0.05$). The findings indicated that for all sizes fitness is related to actual condom use behaviour ($p < 0.001$). Pearson Chi-Square statistic, $2= 64.037^a$, and $p < 0.001$; Condom reuse is related with actual condom use behaviour ($p < 0.001$). Pearson Chi-Square statistic, $2= 131.111^b$, and $p < 0.001$.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter describes the summary of key research findings resulting from the analyses of the relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University. The chapter summarizes conclusions drawn and the recommendations arising out of this study.

5.2 Summary

The study examined the relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University. The research study was informed by the limited studies on the relationship between knowledge of proper condom use and use behavior as a predictor on a health outcome. According to Anderson et al. (2002), Knowledge does not necessarily result in behavior change, nor does it influence risk perception of sexually transmitted infections. On the contrary, according to a study conducted in Uganda in 2004 there is a strong association between condom related knowledge and condom use among adolescents in Uganda. Low condom use among university students has become an issue of concern because of the negative implications this behavior has on the student life that is contracting sexually transmitted infections and unwanted pregnancies. According to Kenya NACC progress report (2016) young people contributed to half of adult new HIV infections in 2015, the young people have shown a rapid rise in their contribution to new infections from 29% in 2013 to 51% in 2015 which is an issue of serious concern. University students are youths where majority are 18-24 years thus consideration in the above mentioned report. Kirinyaga University has put in measures to prevent HIV/STI and unwanted pregnancies in place by consistently supplying free male and female condoms and offering health education on the same but despite the intervention, the university clinic continues to receive an increasing number of clients with STDs and unwanted pregnancies for the last three years. Therefore the researcher developed interest in carrying out the study to uncover the mystery.

Chapter one comprises of the background of the study which forms the bases of the study in terms of knowledge of proper condom use, condom use behavior and the attitudes towards condom use and refers to previous researches done on condom use.

Chapter two offers extensive literature review of the related studies on knowledge on condom use and use behavior among university students. Additionally the chapter includes conceptual framework and theoretical framework demonstrating the interaction between independent and dependent variables.

Chapter three provides research methodology that includes research design, sample size, sample selection, data collection instruments, data analysis and finally ethical consideration.

Chapter four composes the results of the study which was derived from descriptive and inferential statistics and discussions on social demographic factors, knowledge of proper condom use, condom use behavior, attitude and correlation of knowledge and behavior.

The study concludes with chapter five which presents conclusion and recommendations.

5.3 Key Findings

The social demographic information of the study shows Majority 91(83.5%) were females while 18(16.5%) were males. The findings further showed that all the respondents aged between 18-24 years with majority were 19 years, 32(29.4%). The study concluded that all respondents were youths (according to government of Kenya definition' 18-45 years'). On academic year of study, majority respondents sampled were first years 63(57.8%) and on marital status, most of the respondents involved in the study were singles 94 (86.4%). Additional findings showed that majority 83 (76.1%) of the respondents were given pocket money of between 1,000 - 5,000 per month.

On the levels of knowledge on proper condom use, findings showed that majority of the respondent had adequate knowledge as stipulated in various aspects assessed. About 95.4% of the respondents indicated Condoms have an expiry date. More than three quarter of the respondents 93.6% knew condom offer protection against HIV AIDs and pregnancy. In addition they also knew that condoms are free and available in university and public health facility located within the university. The study findings noted more than half (56%) of the respondents indicated that they attended a seminar where use condom was taught. The findings also showed that 91.7% of the respondents indicated somebody should not use sharp object to open a condom package. They know that Sharp objects may cut the condom and it may not be safe for use. A number of the respondents showed that condoms comes with its original lubricants hence it was

not important to add a lubricant when using a condom. The findings also pointed out most of the respondents (78%) indicated it's not essential for a person using male condom to withdraw his penis immediately after ejaculation. They knew that since condom is used for protection there was no need to withdraw the penis. Majority (92.7%) of the respondents knew that a male condoms should be put on when penis is erected. About 67% of the respondents indicated that female condoms are worn at least 30minutes before having sex while other indicated it's not necessary. One third (33%) of the respondents indicated they got information on condom use from social media and only 7.3% from parents and guardians.

The study also revealed that majority (68.8%) of the respondents used condom during the first sexual encounter but a small section (31.2%) who did not use a condom during their first sexual time. The study also showed that the respondents agreed that they ever had unprotected sex, (56%) agreed and 1(0.9%) did not disclose the answer. The study also identified the basic reasons why respondents would have consistency of proper use of condom during sex time with a portion (23.9%) of the respondents indicating that they used condoms because they feared becoming pregnant or Impregnating their partners, 21.1% respondents feared contracting HIV, and only 8.3% indicated they used condoms to avoid STI. The study also showed reasons why sometimes respondents failed to use a condom; 13.8% indicated respondents don't like condoms, sex just happened, 10.1 had not planned to have sex, 9.2% trust their partners, 9.2% , was the first sexual encounter with the partner, 9(8.3%) they had an HIV test so there was no need, 7.3% condoms were unavailable, 3.7% was under influence of alcohol or other substances of abuse, 0.9% was unable to negotiate for condom use and 2.9% of the respondents had failed to use a condom because of various reasons.

On assessing the attitude towards condom use, A section (26.6%) of the respondents strongly agreed that there was a need to use a condom if one uses another method of family planning; 29(26.6%) agreed, 15.6% were neutral, 12.8% disagreed and 18.3% strongly disagreed. This means that cumulatively 46% of the respondents held a negative attitude toward use a condom if they were on a family planning method which infers that they hold a positive attitude towards condom use for pregnancy prevention not for STI prevention. The respondents also show strongly a negative attitude towards wearing a condom where, 34.8% agreed that sex was too exciting to use a condom while (8.3%) agreed, (24.8%) and strongly disagreed (34.9%). Further,

the respondents showed a negative attitude to wearing of condoms where, a small section (14.7%) of the respondents strongly agreed that when both sexual partners have tested for HIV they don't need to use a condom while 10.1% agreed, 13.8% were neutral, 27.5% disagreed and 33.9% strongly disagreed. The study noted that 21.2% of the respondents indicated that embarrassing to carry a condom, 13.8% agreed, 10.1% were neutral, 18.3% disagreed and 36.7% strongly disagreed. In summary, respondents had a negative attitude towards condom use and they only considered use of condoms as a last option.

Pearson Chi-Square statistic, $\chi^2 = 63.499^a$, and $P < 0.001$. Meaning $P < 0.05$ (in fact $P < 0.001$). Knowledge on condom use where protection against STI & Pregnancy by the respondents seems to be related to actual condom use behaviour ($P < 0.001$). Pearson Chi-Square statistic, $\chi^2 = 36.156^a$, and $p < 0.001$. The study concludes that availability of condoms within university and public places is associated with actual condom use behaviour ($P < 0.001$). Pearson Chi-Square statistic, $\chi^2 = 8.370^a$, and $P > 0.05$. Conclusion is that education i.e. Seminars on condom use is related to actual condom use behaviour ($p < 0.05$).

5.4 Similar Findings and in Relation to the Study Findings

According to Kenya division of reproductive health Ministry of Health report of 2013 when reviewing the achievement of an intervention "Dabed" a comprehensive strategic BCC for STI/HIV/AIDS, RH/FP services in institution of higher learning which had been implemented since 2002 and was targeting young people aged 18-25 years in institutions of higher learning found out that there was increase in knowledge on prevention of HIV (condom use) and unintended pregnancies, however the knowledge had not translated to behavior change, significant to note in the same report was an evaluation of another intervention titled University-based peer education and RH Service program .Which had been implemented since 1988 in Kenyatta University by path finder international which revealed that the peer education had reduced on pre-marital pregnancies, STIs treatment, post-abortion care cases and increased contraceptive use among other indicators.

In this study the respondents had adequate knowledge on proper condom use but 56% of the respondents failed to use condom consistently. Majority 62(56.9%) strongly agreed that one should use a condom when they can't trust their partner, information obtained indicates that the majority of the respondents would not use condoms if they trusted their partner. These findings

were supported by Van der Velde et al., (2009) who did a study in Christian based private universities and colleges. He found that the condom use had a negative attitude because the management or sponsors of the university prohibit sex and if it was done, they didn't use condoms because they believe that it is not godly. According to this study 58.6% held a negative attitude towards condom use during sex in addition they would be embarrassed to carry a condom and held opinion that condom use encourages promiscuity .

The study concluded that there was a correlation between Knowledge on condom use where protection against STI & Pregnancy by the respondents seems to be related to actual condom use behavior ($p < 0.001$). The study concludes that availability of condoms within university and public places is associated with actual condom use behavior ($p < 0.001$). Seminars on condom use is related to actual condom use behavior ($p < 0.05$)

5.5 Implications of the Findings

Findings in this study provides background information on the relationship between knowledge on proper condom use and use behavior among students of Kirinyaga University. In addition the findings will be consumed by the university management to come up with strategies to improve on attitude towards condom use among its student while maintaining condom supply.

NACC and NASCOP will use this finding to develop better comprehensive policies and strategies on condoms and youth /adolescents HIV care package.

Finally, the study adds to the existing body of knowledge and will be a source of information to other researchers interested in the topic and any other related topic.

5.6 Limitation of the Study

There was electioneering period during data collection period which affected students availability thus prolonging data collection period.

5.7 Conclusions

1. The study concluded respondents had adequate information on the levels of knowledge based on condom use on average however it is not a 100%.
2. That the student failed to use condoms consistently due to several reasons more important on being unplanned sex hence they had not equipped themselves with condom.

3. That student hold a negative attitude towards condom use especially when the risk of becoming pregnant is eliminated and in a stable relationship ‘trusted partner’.
4. There is a positive correlation between actual condom use, knowledge and attitude.

5.8 Recommendations

Based on the findings made in the course of this study, the following recommendations are hereby suggested:

1. A topic on condom use should be incorporated in the curriculum and taught in the first semester, first year when first year report so as to enhance the level of knowledge and skills on condom use. In this course unit the new students will be able to have more information on importance of using condom if need be to avoid and control STI and unwanted pregnancy.
2. The university management through dean of students welfare department should hold a refresher course on consistency of proper condom use and encourage them to develop a culture of carrying a condom as a proactive measure to ‘accidental sex’.
3. Seminars, education, awareness campaigns, guidance and counselling to be strengthen in university to change the attitude towards condom use among the students.

5.9 Recommendations for Further Studies

This study has explored the relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University. The study focused on the relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University only, thus the same study should be done in other universities and in the rest of 47 Counties to enable generalization of results.

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APPENDICES

APPENDIX I: A CONSENT EXPLANATION

RELATIONSHIP BETWEEN KNOWLEDGE OF PROPER CONDOM USE AND USE BEHAVIOUR AMONG STUDENTS OF KIRINYAGA UNIVERSITY

Dear Respondent

I am Molly Muiga a student at University of Nairobi pursuing a Masters degree in Health Psychology, currently I am carrying out a research study on above named topic in Kirinyaga University, Kirinyaga County and I kindly request you to participate in the study.

Purpose: The study is concerned with the relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University.

Procedure: To answer all questions as honest as possible

Risk: there is no risk involved in participating in the study since all your response will only be available to the investigator and participation is on voluntary basis and therefore you have a right to withdraw at any level without a penalty.

Confidentiality: DO NOT include your personal details (name or student registration number) and therefore all the answers will remain anonymous which will ensure confidentiality.

Thank you for your cooperation.

Yours sincere,

Molly Muiga.

APPENDIX II: CONSENT FORM

**A CONSENT FORM ON RELATIONSHIP BETWEEN KNOWLEDGE OF PROPER
CONDOM USE AND USE BEHAVIOUR AMONG STUDENTS OF KIRINYAGA
UNIVERSITY**

I am a student at University of Nairobi pursuing a master's degree in psychology. Currently I am carrying out a research on above named topic in Kirinyaga University, Kirinyaga County. Your response will be treated confidentially. Please give your honest answers to the questions and therefore, do not write your name on the questionnaire. To participate in this study you are required to sign the form as prove that you have voluntary agreed to participate.

Research participants. Sign Date

Principle investigator. SignDate

APPENDIX III: QUESTIONNAIRE

In order to ensure confidentiality do not put down your name on the questionnaire but please answer the questions as honestly and objectively as possible.

SECTION A: Demographic Information

1. What is your gender? Male Female other, specify.....

2. How old are you?

Age (years)	18	19	20	21	22	23	24
Response							

3. Which academic year are you?

First Second Third Fourth

4. Marital status

Single Married divorced widows

5. Pocket money per month 1, 000 -5000 6000- 10, 000 above 11,000

SECTION B; LEVEL OF KNOWLEDGE ON CONDOM USE

Kindly indicate the appropriate answer.

statement	YES	NO
1. Condoms have an expiry date		
2. condoms offer protection against: HIV,STDs and pregnancy		
3. free condoms are available in university and public health facilities		

4. I have attended a seminar where how to use condom was taught
5. Somebody should not use sharp object to open a condom package
6. It is important to add lubricant when using a condom(Vaseline, saliva ,water or lotion)
7. It essential for a person using a male condom to withdraw his penis immediately after ejaculation?
8. Male condoms should be put on when penis is erect?
9. Female condoms are worn at least 30 minutes before having sex.
10. condoms size is fit for use for all people
11. condom should be stored in cool place
12. Condoms can be reused.

9.I have information on how to use condoms Yes () No ()

10.Indicate source of information where you obtained on condom use

Media [] social media [] social studies [] parent[] peers[] seminars[] church/mosque[]

SECTION C; consistence of proper condom use.

1 Condom use at the first sexual encounter

Yes [] No []

2.Have you ever had sex without a condom

Yes [] No []

3. Frequency of sexual encounter during the last 3 months

None [] Once [] Twice [] Three times [] Four or more[]

4.Condom use when having sexual intercourse in the past 3 months

Every time [] Regularly [] Never []

5.Indicate reasons why you would have consistency of proper use of condom during sex time

1. I fear contracting HIV virus
2. I fear contracting STIs
3. I fear becoming pregnant or impregnating my female friend

4. Sex without condom is messy
 5. It is a good behavior to use a condom
 6. If My partner insists on condom use
6. Kindly choose options which describe why sometime you may have failed to use a condom.
1. I don't like condoms
 2. Condoms were not available
 3. Was under influence of alcohol or other substance of abuse
 4. Had not planned to have sex
 5. Was unable to negotiate for condom use with my partner.
 6. Sex was against my will
 7. It just happened
 8. I trust my partner
 9. We had a HIV test so there was no need.
 10. We had a family planning method.
 11. The girl was on the safe days.
 12. Was curious to know how sex feel without a condom
 13. Was my first sexual encounter with my partner.

SECTION D; Attitude towards condom use

Kindly rate the following statements in the scale indicating your own opinion.

A=Agree, SA= Strongly Agree, N= Neutral, D= Disagree, SD= Strongly Disagree

- | | | SA | A | N | D | SD |
|--|--|----|---|---|---|----|
| 1. One should use a condom when you can't trust your partner. | | | | | | |
| 2. There is need to use a condom if one uses other methods of family planning. | | | | | | |
| 3. I don't think I need to use a condom with a steady sex partner | | | | | | |
| 4. Sex is too exciting to use a condom | | | | | | |
| 5. When both have tested for HIV we don't need a condom | | | | | | |
| 6. I Don't think My partner would like to use condom | | | | | | |

7. It's embarrassing to carry a condom with me.
8. I don't think of using a condom in future
9. I cannot talk about condoms
10. I don't like condoms
11. I will be embarrassed to get condoms for use
12. My partner would get angry for suggesting use of condom
13. Condom has a rubber smell which is bad.
14. Condom should be used during casual sex not with a regular partner
15. Condom use reduces the sexual excitement
16. I find condoms painful/uncomfortable
17. Condom use encourages promiscuity.
18. On influence of alcohol or other drugs I hate using a condom
19. I had not planned to have sex it just happened.
20. Use of condoms demonstrate your lack of trust with your partner.

THANK YOU

APPENDIX IV: INTRODUCTION LETTER



UNIVERSITY OF NAIROBI

FACULTY OF ARTS
DEPARTMENT OF PSYCHOLOGY

Telegrams: Varsity Nairobi
Telephone: 3318262 ext.28439
Telex: 22095

P.O. BOX 30197
NAIROBI
KENYA

September 28, 2017

NACOSTI
P.O. Box 30623 – 00100
NAIROBI


Dear Sir/Madam

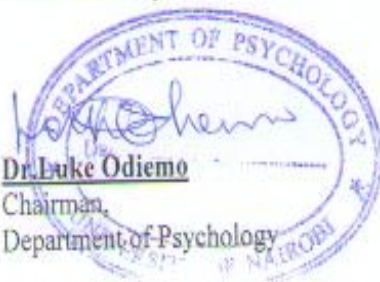
RE: MOLLY MUIGA – REG. NO. C50/78871/2015

The above named is a student in the Department of Psychology undertaking a Masters degree in Health Psychology at the University of Nairobi. She is doing a project on "***Relationship between knowledge of proper condom use and use behavior among students of Kinyaga University***". The requirement of this course is that the student must conduct research project in the field and write a Project.

In order to fulfill this requirement, I am introducing to you the above named student for you to kindly grant her permission to collect data for her Masters Degree Project.

Yours Sincerely,


Dr. Luke Odiemo
Chairman
Department of Psychology



APPENDIX V: NACOSTI RESEARCH AUTHORIZATION LETTER



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/17/77138/19817**

Date: **15th November, 2017**

Molly Waruguru Muiga
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Relationship between knowledge of proper condom use and use behavior among students of Kirinyaga University”* I am pleased to inform you that you have been authorized to undertake research in **Kirinyaga County** for the period ending **14th November, 2018**.

You are advised to report to **the County Commissioner & the County Director of Education, Kirinyaga County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Kirinyaga County.

The County Director of Education
Kirinyaga County.

APPENDIX VI: PERMIT



Kirinyaga University

Tel: +254 701562092, +254 728499650, +254 709742000/30
P.O. Box 143-10300 Kerugoya.

Email: info@kyu.ac.ke
Website: www.kyu.ac.ke

OFFICE OF THE DEPUTY VICE CHANCELLOR
Academic and Students Affairs

Ref: KyU/EXT/18/Vol. 1/26

October 16, 2017

Molly Muiga
P O Box 143-10300
KERUGOYA

Dear Ms Molly,

**RE: RESPONSE - PERMISSION TO COLLECT DATA AT KIRINYAGA
UNIVERSITY**

Reference is made to your letter dated October 17, 2017 on the above subject.

Approval has been granted. You are required to adhere to KyU guidelines governing collection of data.

You are advised to produce the approval letter at the various departments you will be visiting during your visits to collect data and your operations /access is limited to the areas indicated below as per your request letter:

- All Students in All schools

Wishing you well in your study.

Prof. Charles O.A. Omwandho
DEPUTY VICE-CHANCELLOR ASA

Cc Vice-chancellor



KyU is ISO 9001:2015 certified

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