

Research Article

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Relationship between knowledge of proper condom use among students of Kirinyaga University.

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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 shows that the number of abortions is high. It is estimated that Uganda, Tanzania and Kenya have 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 according to the institution's clinic medical report, 2015/2016. The study targeted 132 respondents. From the study, 109 respondents filled-in and returned the questionnaires making a response rate of 82.7%. The study noted the following: 95.4% of the respondents indicated condoms have an expiry date, 93.6% knew condom offers protection against HIV/AIDS and pregnancy, condoms are free and available in University and public health facility, 56% had attended a seminar on condom use, 75.2% indicated that condom size is fit for use for all people and condom should be stored in a cool place. Majority 85.3% of the respondents indicated that condom should not be reused. Over three quarters 80.7% of the respondents indicated that they had information on how to use condom where 33% got information on condom use from social media, 19(17.4%) from TV, radio and newspapers. Further, the findings showed that 15.6% of the respondents obtained information on condom use from seminars, 13.8% from churches and mosque, 12.8% from social studies, 7.3% from parents and guardian. The findings show respondents had adequate knowledge on condom use but failed to use condoms consistently due to several reasons, more important one being unplanned sex. 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.

Keywords

STDs,
Condom,
Kirinyaga University,
AIDs.

Introduction

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.

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 are impacted to the students through common courses offered during their first year of study. They are equipped with facts, information and skills which may help them to understand more about condom use. 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. A study was conducted in Germany on knowledge on condom use among heterosexual men (Gredig et al., 2006).

Numerous studies done in different nations in expecting condom use actions amongst different set of individuals, the value of the theory has not been confirmed. However, it essential be said that there was one training that tried associate 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 came from South Africa (Turchik & Gidycz, 2012).

In a study done by (Masoda, 2012) on Information and attitudes on condom use for dropping HIV infection among Goma University scholars in the Democratic Republic of Congo. The findings showed that the

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 which tries 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 on pricing of the condom. 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 pharmacies 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 tell 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 have seen a condom demonstration were 2 to 5 times as likely to use a condom as those who have not seen. This means they had good knowledge of right condom usage. Among the three countries, there was no country showed 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. 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 who 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. 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 don't 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 which had been employed since 2002 and was aiming young people aged 18-25 years in organizations of higher learning 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. A study was conducted on knowledge of condom usage among undergraduates of university of Nairobi and the study discovered that 93 percent knew how to use condom (P-value of 0.002) which was statistically significant. The study concluded that most of the respondents were conscious of determination of condoms use. Additionally according to (Kimathi, 2014) in this study on knowledge of condom use among commercial sex workers in Nairobi city, 98 percent knew how to use condoms and further investigated whether age was a factor in determining condom use. The findings revealed that respondents below 20 years didn't use condoms and these findings concurred with a study concluded in Nakuru town which found out that respondents aged between 18-24years did not use condoms (Kamau, 2015) This is important for the study considering university students are within this age group.

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 is 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.

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 have. 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 is 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, the 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.

Significance of the Study

The findings may assist the policy makers, program developers and implementers in developing more effective preventive strategies in STIs an 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.

Without doubt, 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 on 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.

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 but 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. This include topics like proper condom use, change of attitudes, 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.

Methodology

3.2 Research Design

Research design is a structure that monitors the collection and investigation of the data and is a detailed plan for how research study was directed according to the data required in order to answer the 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 was measured as they naturally occur and was 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 helped the researcher to identify the type of attitude they have 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 1320 undergraduate students from all over the country.

3.4 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 selected because they were expected to have benefited from the university HIV/STI prevention strategies. The population was 1,320 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 was prepared. Students in this schools were conveniently sampled because of the complexity of the time table.

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 be in a marriage setup where use of condoms may not be applicable.

3.4.2 Sample size estimation

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 2565 participants was 132 participants.

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 will not accrue to penalty or discrimination. The respondents were requested to complete the questionnaires and they were to 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 acceptable if it is 0.70, the acceptable minimum. To achieve reliability, the sample population clearly defined and questionnaires was strictly be filled by the respondents from the university and was administered the same way to all respondents. According to (Pallant, 2001), a value of 0.70 or above is acceptable. In this case if the value was 0.85 and it considered reliable. 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 was 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 made a decision about the short and long term storage of the information generated this was stored in paper form by writing on paper the coded data and also electronic storage.

After storage of coded 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.

Results and Discussion of the Findings

Response Rate

The study targeted 132 respondents. From the study, 109 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.

4.4 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 considerate of a theme (Oxford dictionary, 2011). The researcher wanted 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 Knowledge on whether condom offer protection against HIV/ AIDs & pregnancy

	Frequency	Percent
YES	102	93.6
NO	7	6.4
Total	109	100.0

Data on table 4.3 indicates the respondents' knowledge on whether condom offer protection against HIV/ AIDs and pregnancy or not. Majority 102(93.6%) of the respondents knew condom offer protection against HIV/ AIDs and pregnancy, while 7(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 Knowledge on whether condoms are available in University and public health facilities

	Frequency	Percent
YES	103	94.5
NO	6	5.5
Total	109	100.0

Table 4.4 presents information on whether free condoms are available in university and public health facilities. Majority of the respondents 103(94.5%) indicated that condoms are free and available in

university and public health facility while 6(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: Attendance of a seminar on knowledge on condom use

	Frequency	Percent
YES	61	56.0
NO	48	44.0
Total	109	100.0

Data on table 4.5 below presents information on whether the respondents had attended a seminar where how to use condom. More than half 61(56%) of the

respondents indicated that they had attended a seminar on condom use while 48(44%) said they had never attended any such seminar.

Table 4.6 Use of sharp objects to open a condom package

	Frequency	Percent	Cumulative Percent
YES	100	91.7	91.7
NO	9	8.3	100.0
Total	109	100.0	

Data on table 4.6 presents results of respondents on whether somebody should not use sharp object (s) to open a condom package. Majority 100 (91.7%) of the respondents indicated no one should use sharp object to open a condom package while 9(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 Use of adding a lubricant when using a condom

	Frequency	Percent
YES	27	24.8
NO	82	75.2
Total	109	100.0

Table 4.7 present data on whether it is an important to add lubricant when using a condom. Majority 82(75%) of the respondents indicated that it was not important to add lubricant when using a condom while the rest

27(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 Withdrawal of penis immediately after ejaculation.

	Frequency	Percent	Cumulative Percent
YES	85	78.0	78.0
NO	24	22.0	100.0
Total	109	100.0	

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. Most of the respondents 85(78%) indicated it’s essential for a person using male condom to withdraw his penis immediately after ejaculation. A small

section of the respondents (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 Knowledge on whether male condoms should be put on when penis is erect

	Frequency	Percent
YES	101	92.7
NO	8	7.3
Total	109	100.0

Table 4.9 presents respondents opinion as to whether male condoms should be put on when the penis is erect. More than three quarter 101(92.7%) indicated that male condoms should be put on when penis is

erected, while 8(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 Wearing of female condom at least 30 minutes before having sex

	Frequency	Percent
YES	73	67.0
NO	36	33.0
Total	109	100.0

Table 4.10 presents respondent’s views as to whether female condoms should be worn at least 30 minutes before having sex. About 73(67%) of the respondents indicated that female condoms should be worn at least 30 minutes before having sex , 36(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 Whether condom size is fit for use for all users

	Frequency	Percent
YES	82	75.2
NO	27	24.8
Total	109	100.0

Table 4.11 Indicates respondents’ views as to whether condom size is fit for use for all users. Majority 82(75.2%) indicated that condom size is fit for use for all people while 27(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 Knowledge on whether condom should be stored in a cool place

	Frequency	Percent
YES	89	81.7
NO	20	18.3
Total	109	100.0

Table 4.12 respondents’ views as to whether condom should be stored in a cool place. Most of the respondents 89(81.7%) indicated that condom should be stored in a cool place. A few of the respondent

20(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 Knowledge on whether condom should be reused.

	Frequency	Percent
YES	16	14.7
NO	93	85.3
Total	109	100.0

Data on table 4.13 respondents views as to whether condom should be reused. Majority 93(85.3%) of the respondents indicated that condom should not be reused while a small section indicated that condom

should be reused. The results indicated that most respondents had information that condom should not be reused.

Table 4.14 Respondents knowledge on condom use

	Frequency	Percent
YES	88	80.7
NO	21	19.3
Total	109	100.0

Table 4.14 respondents' views as to how to use condom. More than three quarters 88(80.7%) indicated that they had information on how to use condom while less than a quarter (19.3) indicated they did not have information on how to use a condom. These findings

pointed out that most 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 Sources of information on where knowledge on condom use can be obtained

	Frequency	Percent
Media	19	17.4
Social media	36	33.0
Social studies	14	12.8
Parents	8	7.3
Seminars	17	15.6
Church/ mosque	15	13.8
Total	109	100.0

Table 4.15 presents respondents views as to the sources of information on condom use. Majority 36(33%) of the respondents indicated they got information on condom use from social media, 19(17.4%) from TV, radio and newspapers. About 17(15.6%) of the respondents obtained information on condom use from seminars, 15(13.8%) from churches and mosque 14(12.8%) from social studies, while only 8(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 condom use.

Summary

On the levels of knowledge on proper condom use, findings showed that majority of the respondent has adequate knowledge as stipulated in various aspects assessed. About (95.4%) of the respondents indicated Condoms have an expiry date, Further, 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 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. They also indicated that about (67%) of the respondents indicated that that female condoms are not won at least 30minutes before having sex while other indicted 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%) 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, a portion (23.9%) of the respondents indicated that they used condoms because they feared becoming pregnant or Impregnating their partners, (21.1%) respondents fear 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 a 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.

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 ($p < 0.05$). Pearson Chi-Square statistic, $\chi^2 = 14.191^a$, 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 ($P < 0.05$).

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.

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 refresher course on consistency of proper condom use and 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 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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