DETERMINANTS OF SAFER SEX PRACTICES IN THE PREVENTION OF HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS AMONG STUDENTS ATTENDING PUBLIC MIDDLE LEVEL COLLEGES IN ELDORET TOWN, KENYA

BY

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE IN MASTER OF PUBLIC HEALTH, MOI UNIVERSITY

DECLARATION

I declare that this is my original work and has not been presented to any University/Institution for an award of a degree. This thesis or part of it should not be reproduced without prior permission of the researcher and/or Moi University

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This thesis is dedicated to my parents and siblings for their support and encouragement.

ABSTRACT

Background: Incidence of STIs including HIV/AIDs has been on the rise among the youth in the recent past and the leading contributor to all the mortality and morbidity cases. Prevention of HIV/AID's is a key public health strategy and can be achieved through abstinence, being faithful to one uninfected partner and using condoms hence safer sex practice.

Objectives: The aim of this study is to determine the ability to be aware of, initiate and sustain safe sexual behavior among college students in Eldoret town, to determine the factors influencing safe sex practice among college students attending public middle level colleges in Eldoret town. To establish the social factors influencing safe sex practice among students attending public middle level colleges in Eldoret town, to assess knowledge and practice of students attending public middle level colleges with regard to safe sex practice, to establish the challenges faced by students attending public middle level colleges in pursuit of safe sex.

Methodology: A cross sectional study was carried out in public middle level colleges in Eldoret town to determine the factors influencing safe sex practices. Stratified sampling was employed, and total of 360 college students were interviewed using a self-administered questionnaire.

Results: Majority of the respondents 95.1% were aware of the importance of having safe sex and 97.8% of the respondents had knowledge on condom use. Further, 95.8% had sex because they were promised gifts and favors and a further 94.4% had sex under the influence of alcohol. Challenges of safe sex practice included; sex under the influence of alcohol (91%) peer pressure (75.9%), inconsistent use of condoms (82.1%), being faithful to one partner (67.1) among others.

Conclusion: Participants had a satisfactory level of knowledge on safe sex practices and HIV/AIDs prevention. In conclusion safe sex practices require a combination approach incorporating a supportive behavioral and structural intervention. Challenges among the youth include indulging in many high risk behaviors hence prevention interventions that focus on changing individual-level behaviors are necessary. The Ministry of Health and Ministry of Education should ensure that the media disseminates information and intervention relating to safe sex practices among the youth. Peer education should be adopted and school-based interventions should include information on behavior change, condom use, HIV transmission, HIV prevention and consequences of unsafe sex.

LIST OF ABBREVIATIONS

AIDS - Acquired Immunodeficiency Syndrome

ARVs - Antiretroviral

C.I - Confidence Interval

HIV - Human Immunodeficiency Virus

IREC - Institutional Research and Ethics Committee

KAIS - Kenya Aids Indicator Survey

KDHS - Kenya Demographic and Health Survey

KMTC - Kenya Medical Training College

MOH - Ministry of Health

PPS - Probability Proportion Sampling

RTI - Reproductive Tract Infections

SDG - Sustainable Development Goals

SSA - Sub Saharan Africa

STI - Sexually Transmitted Infections

VCT - Voluntary Counseling and Testing

WHO - World Health Organization

DEFINITION OF TERMS

C**omprehensive knowledge about HIV/AIDS** – This is An important composite measure and is defined as knowing that both consistent use of condoms during sexual intercourse and also having just one uninfected faithful partner can reduce the chance of getting the HIV/AIDs, knowing that a healthy looking person can have the HIV/AIDS, and knowing that HIV/AIDS cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS.

Reproductive tract infections – These are infections that affect the reproductive tract. They include sexually transmitted diseases, endogenous infections caused by overgrowth of organisms normally present in the genital tract of healthy women.

Safe sex – Safe sex practices are preventive measures or behaviors that reduce one's risk of being infected with the HIV. They include abstinence (resisting sex), faithfulness to one uninfected partner, proper condom use and HIV testing. Safe sex practice depends on ones' level of awareness.

Sexually transmitted diseases – These are infections that are passed from one person to another through sexual contact. The causes of STDs are bacteria, parasites, fungi, and viruses.

Sexually transmitted infections – These are infections that are spread predominantly by sexual contact. Some STIs can also be spread through non-sexual means such as via blood or blood products. A person can have an STI without having obvious symptoms of disease. Common symptoms of STIs include vaginal discharge, urethral discharge or burning sensation in men, genital ulcers, and abdominal pain.

Social factors – These are physical conditions of the environment in which people are born, live, learn, play, work and age.

Unsafe sex – Unsafe sex is when a susceptible person has sex with at least one partner who has an STI, without taking measures to prevent infection.

Condom – A condom is a sheath shaped barrier device made of rubbery material that is used during sexual intercourse. When used correctly, condoms prevent HIV, as well as pregnancy and most STIs.The most popular and common type of condom is made from a thin latex.

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ACKNOWLEDGEMENT

My gratitude goes to God Almighty for giving me life, health and strength throughout this life course. To Moi University School of Public Health, thank you for giving me the opportunity to advance my education. I would also like to acknowledge my supervisors Dr. Peter Koskei and the late Prof. David Ayuku for their inputs and insights in the development of this thesis.

To my parents and siblings, thank you for the encouragement and love. Finally, to my friends, Monica, Jedidah and Eve, I am eternally grateful to you for always being there for me.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Sexually transmitted infections (STI's) and reproductive tract infections (RTI's) are responsible for ill health throughout the world, both directly increasing the risk of transmission of human immunodeficiency syndrome (HIV) infection. In 2008, UNAIDS reported estimated 340 million new cases of curable STIs globally, as well as incurable viral STIs including some 5 million new HIV infections yearly (UNAIDS, 2008). In 2020s, global statistics of HIV/AIDS showed that an estimated 37.7 million [30.2 million–45.1 million] people were living with HIV. Of these, 1.5 million [1.0 million–2.0 million] people became newly infected with HIV in 2020. A total of 79.3 million [55.9 million–110 million] people have become infected with HIV since the start of the epidemic and 39% of new HIV infections were in sub-Saharan Africa. (UNAIDS 2020.)

According to the Global burden of disease study 2016, Communicable diseases are among the leading causes of death and disability in Kenya. The Kenya strategic plan 2018-2030 reported HIV to be the leading cause of inpatient mortality, among both sexes and all ages. In this study (mortality study 2017) unsafe sex was reported among the health risk factors in Kenya (MOH,2017). The HIV prevalence in Kenya as at 2012 was 5.6% with 0.5 infections per 100 persons yearly. In addition, the HIV prevalence among adults and adolescents aged 15-64 years was higher in urban areas than rural areas (6.5%) and (5.1%) respectively. The HIV prevalence was also higher in women (6.9%) compared to men (4.6%). Women aged 20-24 years were over three times more likely to be infected (4.6%) than young men of the same age group (1.3%)(KAIS, 2012)

Kenya has the fifth-largest number of persons living with HIV in the world, and HIV continues to be a leading cause of adult morbidity and mortality (UNAIDS 2018).

The Kenya Population-based HIV Impact Assessment (KENPHIA) 2018 survey indicates that Kenya's HIV prevalence now stands at 4.9%. According to KENPHIA, the prevalence of HIV in women is at 6.6%, twice that in men at 3.1%. The gender disparity in the burden of HIV is even greater than 3 times in between the ages of 20-34 years.

Safer sex involves taking precautions that decrease the potential of transmitting or acquiring sexually transmitted infections, including HIV, while having sex. Using condoms correctly and consistently during sex is considered safer sex or taking Pre-exposure prophylaxis if you are at risk of HIV infection or having undetectable viral load if you are living with HIV. Quality-assured condoms are the only products currently available to protect against sexual infection by HIV and other sexually transmitted infections. When used properly, condoms are a proven and effective means of preventing HIV infection among women and men. In order to achieve the protective effect of condoms, they must be used correctly and consistently. Incorrect use can lead to condom slippage or breakage, thus diminishing their protective effect (NASCOP, 2016).

The major mode of Transmission of HIV is through unprotected sexual intercourse with an infected person. There are several combinations of approaches supported by WHO to prevent the sexual transmission of HIV. These include abstinence, correct and consistent condom use, reduction in the number of sexual partners, HIV testing and counseling, delaying sexual debut, treatment for STIs and male circumcision (WHO, 2007).

Although perception of risk is considered to be the first stage towards behavioral change from risk-taking to safer behavior, the association between perception of risk of HIV infection and sexual behavior remains poorly understood. There exists a strong positive association between perceived risk of HIV/AIDS and risky sexual behavior for both women and men. Statistics show that the use of condoms by men and women who have more than one sexual partner increased only slightly between 2008 and 2013. There is therefore need for effective approaches that would increase condom use to effectively reduce the risk of HIV infection (Kenya AIDS response progress report, 2014).

Safer sex is important for protection against STDs including HIV. Consistent and correct condom usages along with a monogamous relationship are two important aspects for STD and HIV prevention. Some of the risk factors for engaging in unsafe sexual activities among the college students are use of alcohol, partner characteristics such as steady versus non steady partner, and substance abuse. The purpose of this study is to examine the knowledge of HIV/AIDS, knowledge of safer sex practices, perceived susceptibility, and future time perspective to the practice of safer sex behaviors in sexually active college students.

Many young people who become sexually active risk infection since the main mode of transmission are by heterosexual contact. Unsafe sex is the leading risk factor and contributor to morbidity (25.2%) and mortality (29.2%) in Kenya. This leads to many conditions affecting health, such as HIV, reproductive tract conditions and other sexually transmitted infections, unwanted pregnancies, and psychosocial conditions, among others (MOH, 2019).

While abstinence is a reliable way to prevent pregnancy and STIs, the majority of people become sexually active at adolescence. The burden of HIV/AIDs and STIs continue to increase worldwide thus the use of barrier method is recommended as the primary means to reduce the spread of STIs.

Other than delay in sex debut, condom use especially by men and women with multiple sexual partners is a key intervention for prevention of HIV infection and other STI's among young people. Other strategies include reduction in the number of sexual partners, HIV testing and counseling, treatment for STIs and male circumcision (Kenya AIDS progress report, 2014).

If safer sex is not practiced, there will be a continuous increase of incidence and prevalence of STIs and HIV/AIDs among the youth in Kenya hence increase in morbidity and mortality which will be a burden to health care system in Kenya

1.2 Problem Statement

Kenya, the HIV/AIDs prevalence rate as of 2021 was 4% among adults (15-49) with an incidence rate of 0.73 per 1000 uninfected population. In 2019, Uasin-gishu county reported a HIV prevalence of 3.7% and 1000 new infections majority occurring among youths aged 15-24 years.

According to Kenya demographic health survey of 2018, awareness of HIVAIDS is universal in Kenya. Despite the high awareness of HIV infection, risky sexual behavior is still prevalent among the Kenyan youths hence high incidence among the youth.

There is a gap in HIV prevention programs. Knowledge about HIV among young people is high but the proportion of young people starting sex before 15 years remain a concern (over 10%). There is also an increase in men and women with multiple sexual partners and condom use is less than 40% among men and women engaged in risky sex (Kenya AIDS response progress report.)

Most college students are in the 18-24 age group where they have a high sense of vulnerability, do not have adequate information about sex and HIV/AIDS and are ignorant, this has hampered prevention efforts.2014).

There is therefore a need to bridge the gap between knowledge and practice in Kenya so as to reduce the incidence and prevalence among Kenyan youths.

If the incidence rate is not delt with, the global health HIV sector strategy that aims at reducing HIV infections from 1.5 million in 2020 to 335 000 by 2030, and deaths from 680 000 in 2020 to under 240 000 in 2030 will not be realized.

1.3 Justification

Kenyan youths are exposed to many risks that come with early sexual début. They are faced with challenges of remaining in school, gaining meaningful employment, avoiding unwanted pregnancies, STIs and HIV (Decker et.al 2020)

Globally, youth 15-24 years account for 45% of new HIV infections and the burden continues to increase worldwide thus safe sex is strongly recommended as a primary means to reduce the spread of HIV and other STIs. Inconsistent condom use represents the most proximal risk for acquisition and transmission of HIV. Factors including physical and

sexual violence, coercion, and substance use among others are big contributors to safe sex practice.

Addressing the HIV epidemic in Uasin-Gishu requires a multifaceted approach that includes prevention, treatment and social interventions. Some of the prevention methods include awareness and education and condom distribution. Ways of addressing social and economic factors include empowering youths so as to reduce their vulnerability to HIV.

1.4 Research Questions

1. What is the level of knowledge about safe sex practice among students attending middle level college?
2. What are the social factors the influence safe sex practice among students attending public level college
3. What are the challenges faced by students of public middle level colleges in pursuit of safe sex?

1.5 Objectives

1.5.1. Broad Objective

To determine the factors influencing safer sex practice among college students attending public middle level colleges in Eldoret town

1.5.2 Specific Objectives

1. To assess knowledge and practice of safer sex among students attending the public middle level colleges in Eldoret.

2. To establish the social factors influencing safer sex practices among students attending public middle level colleges in Eldoret town
3. To determine the social challenges faced by students attending public middle level colleges in pursuit of safe sex.

CHAPTER TWO

2.0 LITERATURE REVIEW

The World Health Organization defines sexual health as a state of physical, emotional, mental and social well-being. In relation to sexuality, it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence (CDC 2019)

According to the Ministry of Health, Kenyans are, increasingly adopting safe sex practices, which can be attributed to steady improvements in communities' knowledge of and attitudes towards safe sex. Health risk factors in Kenya include social factors like lifestyle, drug and substance use. Tobacco use remains high, particularly among productive populations in urban areas and among males. One in five males aged between 18 and 29 and one in two males aged between 40 and 49 use tobacco products. Overall, 13 per cent of Kenyans report some form of tobacco use. The same pattern is seen in the use of alcohol products, especially the impure alcohol products. A total of 19 per cent said that they were current drinkers of alcohol. Youth remain a vulnerable group, with 29 per cent of all new HIV infections recorded in adolescents and young people (MOH, 2017).

HIV incidence in Kenya declined from 27 per 1,000 population in 2015 to 14 in 2019. This was still higher than the global HIV incidence that was estimated to be 0.24 per 1,000 HIV-uninfected people. Globally, the rate of decline in HIV incidence is still inadequate to achieve the target of ending the HIV epidemic by 2030.

2.1 Knowledge and practice

Knowledge of how HIV is transmitted is crucial to enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk of infection because they may have shorter sexual relationships with multiple partners or engage in other risky behavior.

The KDHS data show that about 50% of women and men aged 15-49 years have comprehensive knowledge about HIV/AIDS, with slightly lower levels among women than men (49% for women and 56 % for men). Comprehensive knowledge about HIV/AIDS is lower among the younger and older age groups (i.e., 15-19 and 40-49). The data further indicate that knowledge is lower among women and men who have never had sex and higher among those who have never married but who have had sexual intercourse. In Kenya, the DHS of 2008/09 found out that comprehensive knowledge about HIV prevention among young people is below 50%. Young men have a high level of knowledge than young women (KDHS 2014).

Today, slightly more than half of young people know about HIV prevention (54% of women and 55% of men). Knowledge of prevention is lowest among respondents aged 15–17 years (44% for both women and men) and among those who have never had sex (47% for women and 48% for men). Young women and men in urban areas are more likely than their counterparts in rural areas to have knowledge about HIV prevention (57% of young women and 63% of young men in urban areas have knowledge about prevention, as compared with 52% of young women and 51% of young men in rural areas). Knowledge about HIV prevention increases with increasing education, from 13% among young women with no education to 69% among those with more than secondary level of education and

from 14% among young men with no education to 80% among those with more than secondary level of education (KDHS 2022).

2.3 Social factors influencing safe sex practice

Some behaviors that put individuals at greater risk of contracting HIV include having sexual intercourse without use of condoms, engaging in harmful use of alcohol and drugs in the context of sexual behavior and peer pressure.

Peer influence

The sexual behavior among youths and their peers is worrisome. Information on sexual behavior is important in designing, implementing, and monitoring HIV prevention programs. Information on higher-risk sexual intercourse among women and men who have ever had sexual intercourse gives information on the trend of sexual behaviour. In the 2022 DHS, a higher proportion of men (15%) than women (4%) reported having two or more sexual partners in the 12 months period prior to the survey. Of those with more than one partner in the last 12 months, 24% of women and 45% of men reported using a condom during their last sexual intercourse. In the 12 months period before the survey, 19% of women had sex with a person who neither was their husband nor lived with them, and just 37% of these women reported using a condom during their last sexual intercourse with such a partner. Thirty-five percent of men reported having sex in last 12 months period with a person who neither was their wife nor lived with them, and 68% of these men reported using a condom during their last sexual intercourse with such a partner. Average numbers of sexual partners are 2.3 among women and 7.4 among men. Among women but not men, the percentage who reported using a condom at last sex with a person who neither

was their spouse nor lived with them decreases with age, from 46% among women age 15–19 years to 29% among women age 30–49 years

Substance use

Sustainable Development Goal 3 sets out a commitment by governments to strengthen the prevention and treatment of substance abuse. The use of psychoactive drugs without medical supervision is associated with significant health risks and can lead to the development of drug use disorders. Drug use disorders, particularly when untreated, increase morbidity and mortality risks for individuals, can trigger substantial suffering and lead to impairment in personal, family, social, educational, occupational or other important areas of functioning (WHO 2019).

Substance use and not using condoms are the most important indicators associated with the risk of becoming infected with STI both among the youth.(UNICEF 2010) Many youth experimented with alcohol and abused other substances. This behavior compromised their judgment and increased their chances of engaging in risky sex (Magu *et al.*,2012). Engaging in sex under the influence of alcohol can compromise power relations, impair judgment, and increase risky sexual behavior. According to KDHS 2014, the percentage that had sexual intercourse when drunk or with a drunken partner was higher for women than for men (7percent and 2.6 percent, respectively) in the 20-24 age group.

Condom use

Abstaining from sex, having sex with only one uninfected partner, using condoms are well-known ABC methods of preventing HIV transmission. Among those prevention methods, consistent and correct condom use is a critical component in a comprehensive and sustainable approach to the prevention of HIV. Prevention methods, particularly consistent condom use, have helped to reduce

HIV transmission and curtailed the broader spread of HIV in settings where the epidemic is concentrated in specific populations (UNAIDs 2018).

According to the previous studies, low consistent utilization of condom have been associated with different factors. Cost of condom, religious ideology, alcohol or drug use, younger sexual debut, poor knowledge of HIV/AIDS, beliefs of diminished sexual pleasure if condom is used and male emotional fulfillment, disbelief in prevention efficacy, trust in relationships, gender inequality and perceptions of modesty, partner characteristics and type of relationship, lower education and unemployment, and psychological problems were among the independent predictors.

Using condoms consistently and correctly will help protect from the risks of sexually transmitted infections (STIs), including HIV. They will also protect one from unplanned pregnancy during sex. Sexual fluids such as semen, vaginal fluids and blood can pass on HIV and STIs. A condom forms a barrier between these fluids and entry points into the body. Although a few STIs can also be passed on through skin-to-skin contact (for example genital warts), condoms still reduce the risk of many of these infections

Perception on condom use relies on an individual's ability to effectively and convincingly communicate to their partners on its importance. In a study carried out in Ghana on the determinants of condom use to prevent HIV infection among youth, 65% of the sexually active male respondents had used condoms at least once and only 25% had used condoms during the last sexual intercourse. Findings indicated that perceived susceptibility to HIV infection, perceived barriers to condom use, perceived self-efficacy to use condoms and perceived social support were significant predictors of condom use. Perceived barriers significantly interacted with perceived susceptibility and self-efficacy.

The Kenya Aids Indicator Survey (KAIS) reported that majority of Kenyans (52.2% of women and 73.1% of men) had more than one sexual partner in their lifetime. In the 12 months period preceding the survey, 2.2% of women and 14.2% of men had more than one sexual partner. Condom use was low with partners of unknown HIV status, with 22.5% of women and 33.2% of men reporting condom use in casual partnerships. Among women and men, 4.4% and 3.1% respectively, had ever received money or favors in exchange for sex. Among men, 17.4% had ever given money, or favors in exchange for sex (KAIS, 2014).

Research done by Farmer & Meston, (2006) indicates condom use self-efficacy is higher in men than in women. Frequency of sexual intercourse was found to have positive association with condom use while relationship duration was negatively associated with condom use.

A study conducted on Sexual Risky Behaviors among the Youth in Kenya found a significant relationship between gender and condom use and that youths regarded condom use beneficial, more prevalent and necessary for the prevention of HIV/AIDs and other STIs (Magu *et al*., 2012).

Some of the factors that influence correct and consistent use of condoms include availability, distribution, accessibility, cost and condom beliefs (KDHS 2014). To change the course of the HIV/AIDs epidemic, there must be interventions to accelerate prevention alongside treatment with the ultimate goal being achieving universal access to prevention, treatment, support and care.

2.4 Challenges of safer sex practice

Young people in Kenya are exposed to HIV in different ways depending on their geographic location, age, sex and educational levels.

Many youths tend to experiment and indulge in some risky sexual behaviors primarily due to the feeling of independence as well as poor access to adequate and appropriate information about sexual and reproductive health risky behaviors such as unprotected sexual activities among adolescents is a major public health concern. Majority of adolescents in Africa and Europe engage in sexual activity between the ages of 12–19 years and most of them achieve sexual debut by 16 years (Harsin, J. D., et al.2021). The median age of sexual debut among the Kenyan youth is 17.5 years for both young men and women. Significantly by age 15 years, 22% of young men and 20% of young women will have had sex (NASCOP, 2018).

Drug and use of alcohol are also on the rise. While proper and consistent use of condoms has been shown to reduce the risk of HIV associated with unprotected sex, controversy surrounding condom access by young people continues to be a heated debate in Kenya especially among religious groups (Mung'ala, 2015)

Coercion to engage in unwanted sex places women at risk for HIV infection. A survey of 125 women living in low-income housing developments in Fulton County, Georgia, showed that 53 (42%) women had engaged in unwanted sex because a male partner threatened to use force or used force to obtain sexual access (Kalichman *et al*., 2005).

A study conducted in Zimbabwe indicated lack of sexual decision-making power, economic dependence, low self-efficacy or fear as some of the challenges women face in their relationships. Sometimes more than one of these factors operated in a single sexual encounter forming a complex myriad of barriers to overcome in order to succeed at safer sex. Lack of sexual decision-making power was reported as a product of women's inferior social position.(Mugweni, 2014)

2.5 Theoretical framework

The health belief model

The purpose of the health belief model is to explain and predict an individual's preventive health behavior. It focuses on the relationship of health behaviors, practices and utilization of health services. The theory shows that a person must hold beliefs in order to change behavior. A person's motivation to undertake a health behavior can be divided into three main categories: individual perceptions, modifying behaviors, and likelihood of action.

The Key descriptors of this model include:

Perceived Susceptibility – This is the individual's perception of the likelihood of experiencing a condition that would adversely affect one's health.

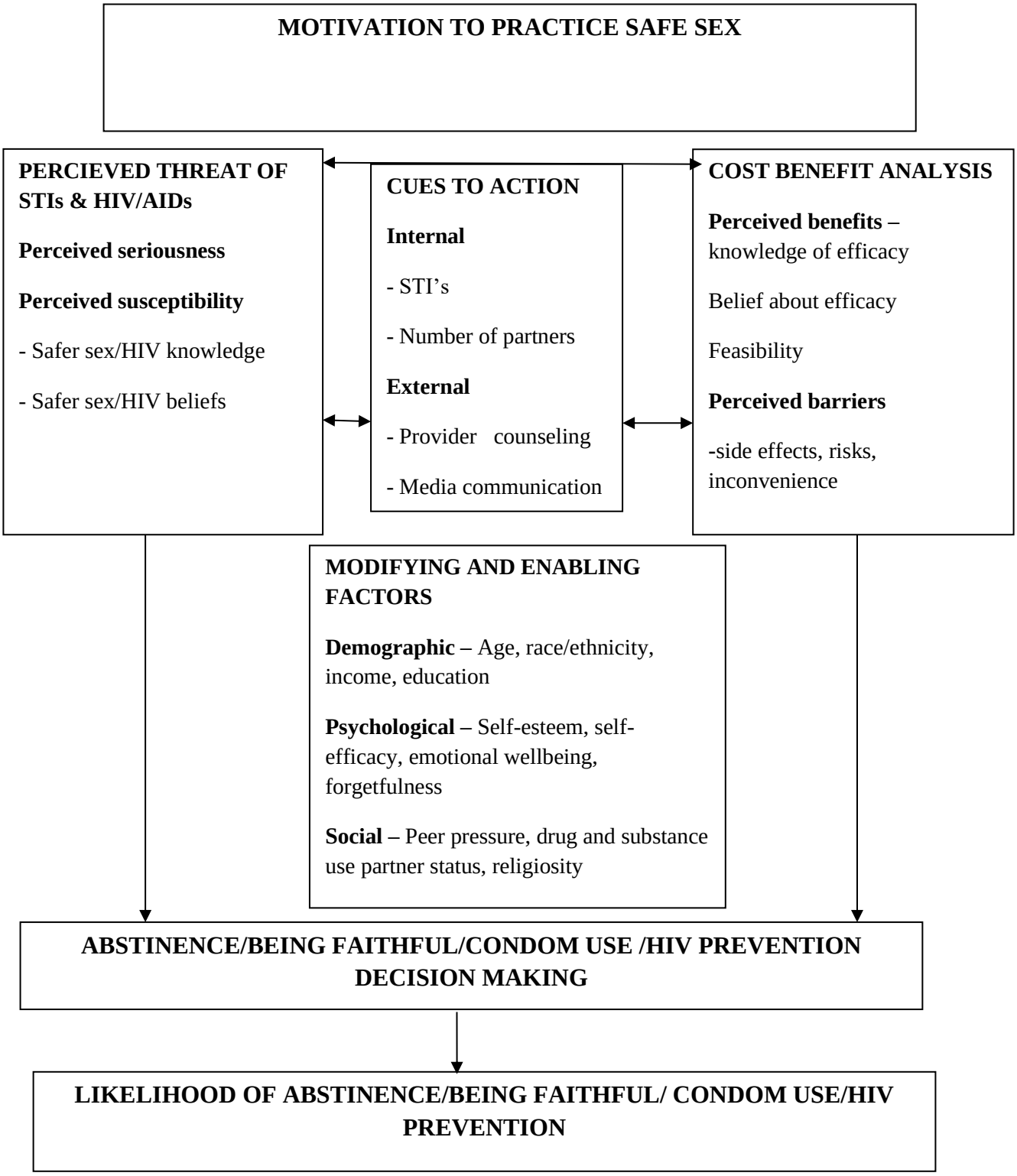
Perceived Seriousness – Individuals perception of how serious the condition is, in this case STIs

Perceived Benefits of Taking Action – this the belief in the effectiveness of the new behavior i.e. safe sex practice

Barriers to Taking Action – Action may not take place, even though an individual may believe that the benefits to taking action are effective. This may be due to barriers. Barriers

relate to the characteristics of a treatment or preventive measure may be inconvenient, expensive, unpleasant, painful or upsetting. (Why the individual is not practicing safe sex)

Cues to Action – An individual's perception of the levels of susceptibility and seriousness provide the force to act. Benefits (minus barriers) provide the path of action. These cues may be internal or external (Hochbaum *et al*., 1952).


MOTIVATION TO PRACTICE SAFE SEX
PERCIEVED THREAT OF STIs & HIV/AIDs
Perceived seriousness
Perceived susceptibility
- Safer sex/HIV knowledge
- Safer sex/HIV beliefs
CUES TO ACTION
Internal
- STI's
- Number of partners
External
- Provider counseling
- Media communication
COST BENEFIT ANALYSIS
Perceived benefits – knowledge of efficacy
Belief about efficacy
Feasibility
Perceived barriers
-side effects, risks, inconvenience
MODIFYING AND ENABLING FACTORS
Demographic – Age, race/ethnicity, income, education
Psychological – Self-esteem, self-efficacy, emotional wellbeing, forgetfulness
Social – Peer pressure, drug and substance use partner status, religiosity
ABSTINENCE/BEING FAITHFUL/CONDOM USE /HIV PREVENTION DECISION MAKING
LIKELIHOOD OF ABSTINENCE/BEING FAITHFUL/ CONDOM USE/HIV PREVENTION

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Area

The research was conducted in Eldoret town which is the capital and largest city in Uasin Gishu County. It is also the second largest urban center in Midwestern Kenya after Nakuru and the fifth largest urban center in the country (KNBS, 2019). Eldoret town has both private and public middle level colleges. There are 3 public middle level colleges in Eldoret town. These include: Eldoret Polytechnic, Rift Valley Technical Training Institute (RVTTI) and Kenya Medical Training College (KMTC).

3.3 Study Population

The study population was students between the ages of 18-24 years attending Eldoret Polytechnic and Rift Valley Technical Training Institute.

3.4 Study Design

A descriptive cross sectional study design was used.

3.5 Sample Size determination

To achieve 95% confidence interval and sampling error of 5% the sample size is determined using the following formula (Mugenda, 2003)

Sample size = $\frac{z^2(p \times q)}{d^2}$

Where z =1.96 (a statistical constant)

d =0.05 (sampling error)

p=0.4 (prevalence of those not using condoms) (KDHS, 2014)

q=0.6 (1-p)

$$n = \frac{(1.96)^2(0.4)(0.6)}{(0.05)^2}$$

368.79 = round off to 369

The sample size is 369.

3.6 Pilot Study

The pilot study was conducted in Kitale Technical Training Institute (KTTI), a public middle level college located in Kitale town some 73 km North of Eldoret. A total of 37 students were sampled (10% of the sample size). The data collection tool was thereafter reviewed and adjusted accordingly.

3.7 Sampling Procedure

The number of students in each institution was obtained from the Institutions record office. In each institution, a sample proportionate to the sample of the institution was picked. The 2 institutions each formed a stratum. Students were categorized based on the course and year of study forming another level of stratification. Simple random sampling was used to pick the courses to be included. Convenience sampling followed to identify who will be included in the study. A total of 369 questionnaires were filled.

3.8 Data cleaning and data analysis

All the questionnaires were thoroughly checked to ensure quality and clarity of response. Association between categorical variables was checked using Chi-square test. Measures of central tendency were used for continuous variables. Spearman's method was also used for analysis.

Table 3.1 Sample frame

INSTITUTION	Total no of students	No of courses	No of courses sampled	No of males sampled	No of females sampled	TOTAL
RVTTI	5800	8	6	90	62	152
ELDORET POLY	8300	11	8	132	85	217
Total	14100	19	14	222	147	369

3.8.1 Inclusion criteria

Students between the ages of 18-24 years

3.8.2 Exclusion criteria

Students who were less than 6 months old in the college.

Students who were sick on the day of the interview

3.9 Data collection instruments

A closed-ended, self-administered questionnaire was used to collect data.

3.10 Data collection procedure

The college administration granted permission to collect quantitative data from consenting students. Questionnaires were distributed by the researcher anonymous and distributed to the participants. The researcher was involved in handing out the questionnaires to the participants.

3.11 Ethical Consideration

Before data collection, approval was obtained from the Moi Teaching and Referral Hospital and Moi University Institutional Research and Ethics Committee (MTRH/MU-IREC). approval number 0001969.

The study participants were informed of the nature and purpose of the study. Confidentiality and anonymity of any information they gave was assured. Participation in the study was voluntary, free from coercion.

The participants who agreed to participate were given a consent form to sign as a way of authorizing their participation in the study.

3.12 Study Limitations

Under reporting or over reporting of sexual activities by the youth, were anticipated. However this was countered by assuring confidentiality and allowing the questionnaire to be self-administered rather than use interviews which may have biased the information.

The population captured was predominantly an urban population and may not be representative of youth in general, however it provides information of possible sexual behavior aspects that would require interventions in urban and rural settings.

CHAPTER FOUR

4.0 Results

This chapter presents the summary of findings as per the specific objectives. Presentations of the results are in tables and graphs where appropriate. The demographic characteristics of the study respondents are also given as a background to the analysis part. The research was conducted in January 2018

4.1 Demographic Characteristics

A total of 357 questionnaires were analyzed. The number of males were 237 (66.4%), the females were 120 (33.6%) of the study population. The mean age of the responding college students was 22.2 years (SD = 2.541) and ranged from 20 to 30 years. Most of the students (n = 285; 79.8%) were single while (n = 72; 20.2%) were married.

Table 4. 1 Sample characteristics

Sex	Male, n (%)	237 (66.4%),
	Female, n (%)	(120) (33.6%)
Age	N	357
	Mean (SD)	22.20 years (SD = 2.541)
	Min.–Max.	20-30
Marital Status	Single n (%)	285 (79.8%)
	Married n (%)	72 (20.2%)

In relation to religion, (333) 89.8% of the participants were Christians while (24) 6.5% were Muslims. (14) 3.8% belong to other religion as shown in figure 4.1

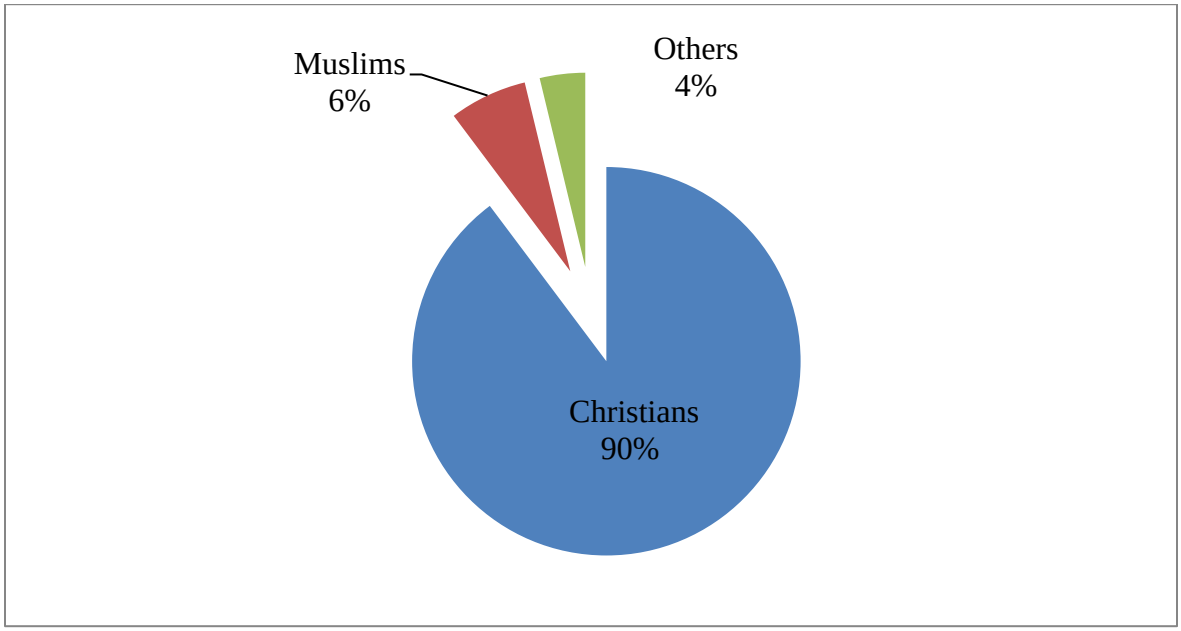


Figure 4.1 Religion of the respondents

4.2 Knowledge on safe sex practice

The results revealed the knowledge of the students on safe sex practice. Respondents under the study had shown fair knowledge about safe sex practices with 262 (73.4%) reported that they have ever had sex, 72 (20.2%) reported having sex in days ago, 48 (13.4%) reported having sex in weeks ago, 72 (20.2%) reported having sex in month ago and 94 (26.3%) reported having sex in a year ago. A total of 333 (93.3%) respondents reported that they have ever seen a male condom while 143 (40.1%) reported that they have ever seen a female condom. During sex, 95 (26.6%) respondents reported using a condom each time, 143 (40.1%) reported using a condom occasionally, while 24 (6.7%) reported never using a condom, as shown in the Table 4. 2 below with the commonest reasons being “Was unplanned intercourse,” 71 (19.9%).

Table 4. 2: Condom use among the respondents

		Every time	Occasionally	Never	Total
male	Count	85	152	0	237
	%	35.9%	64.1%	0.0%	100.0%
Female	Count	31	41	48	120
	% within Sex	25.8%	34.2%	40.0%	100.0%
Total	Count	116	193	48	357
	%	32.5%	54.1%	13.4%	100.0%

A significant negative correlation (*Spearman R coefficient* is -0.148) was shown between knowledge of male condom and frequency of use of the condom (*P*-value < 0.007). A significant (weak) negative correlation (*Spearman R coefficient* is -0.107) was shown between knowledge of female condom and frequency of use of the condom (*P* value < 0.051). Respondents reported use of condoms at last intercourse. The findings revealed possibly reasons for condom use were 168 (47.1%) to prevent HIV/AIDs, 95 (26.6%) used the condom to avoid pregnancy. 57 (16%) used the condom to both prevent STIs/HIV and avoid pregnancy. Only 37 (10.4%) used the condom because they did not trust partner/partner may have other partners as shown in figure 4.2. The practice of safe sex is one that adopts, among other measures, the use of condoms, which is the most effective and recommended for the control of sexual infection. Studies show that infrequent use of condoms is the main variable associated with the presence of Sexually Transmitted Infections (STIs)(Cruzeiro *et al*, 2019)

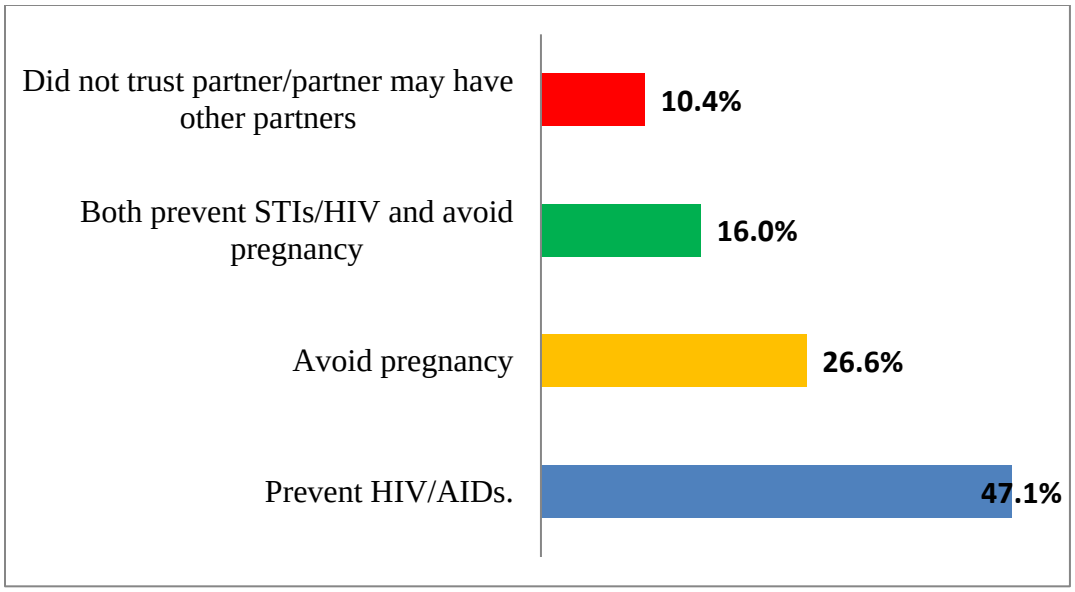


Figure 4.2 reasons for use of condom.

Table 4. 3 Spearman's rho Correlation between knowledge of male condom and frequency of use

		Have you ever seen a male condom	Have you ever seen a male condom	Have you ever seen a female condom	How often do you use the condom
Have you ever seen a male condom	Correlation Coefficient	1.000	.219**	-.148**	
	Sig. (2-tailed)	.	.000	.007	
	N	357	357	333	
Have you ever seen a female condom	Correlation Coefficient	.219**	1.000	-.107	

	Sig. (2-tailed)	.000	.	.051
	N	357	357	333
How often do you use the condom	Correlation Coefficient	-.148**	-.107	1.000
	Sig. (2-tailed)	.007	.051	.
	N	333	333	333

**. Correlation is significant at the 0.01 level (2-tailed).

It should be noted that more than 214 (59.9%) of participants said no consequences of having unsafe sex practice. but only about 143 (40%) reported being aware of the importance consequences of having safer sex practice. Also, only 24 (6.7%) of participants knew that safe sex practice could prevent HIV/ AIDS and Unplanned pregnancies respectively as shown in figure 4.3

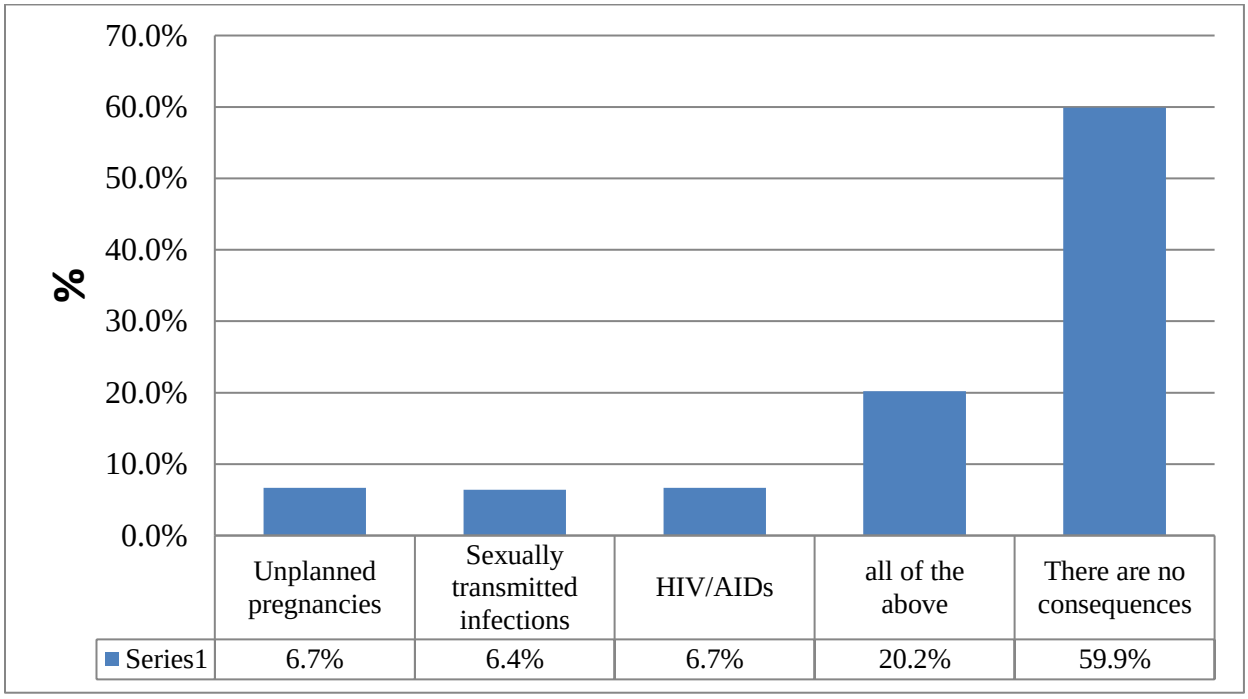


Figure 4.3 the consequences of unsafe sex

From figure 4.4, majority of the students, (40.1%) received information on HIV/AIDS through sex education in school while 13.4% received information about HIV/AIDS from their sexual partner.

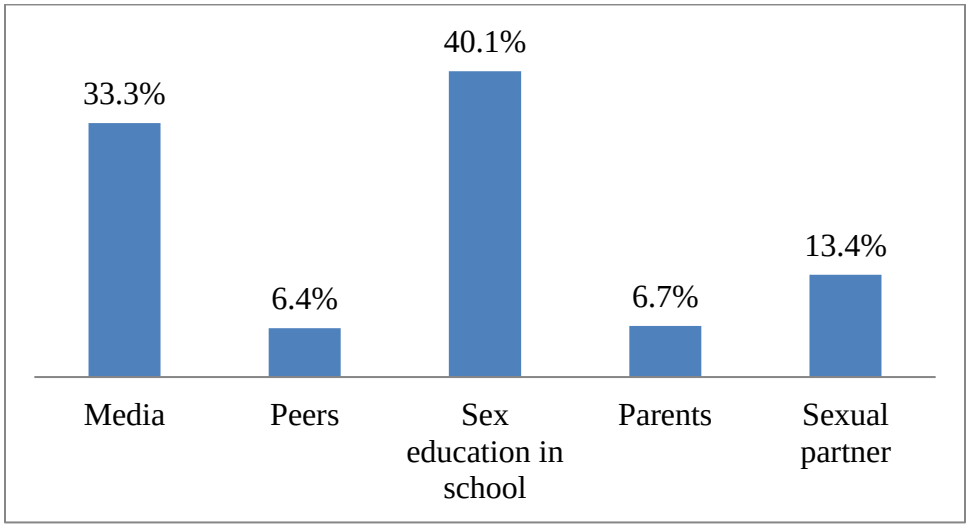


Figure 4.4 source of the information

4.3 Social factors influencing safe sex practice among students attending public middle level colleges

It was observed in the findings that there was a prevalence of the first intercourse at the ages between 16 and 18 years, representing 215 (60.2%) of the total number of college students investigated as indicated in table 4.4 below. Regarding sexual behavior, 262 (73.4%) had active sex life.

Table 4. 4 first sexual encounter

	Frequency	**Percent**
Below 15 years of age	23	6.4
16-18 years of age	215	60.2

Above 18 years of age	119	33.3
Total	**357**	**100.0**

The results showed that men who practice safe sex every time 85 (23.8%) use the condom but those who practice safe occasionally 152 (42.6%) use the condom. Only 31 (8.7%) of the women frequently mentioned consistent use of condoms and 41 (11.5%) use condom occasionally while 48 (13.4%) never use a condom. About half (184 or 51.5%) of respondents cited physical attraction as reasons for sexual activities. Promise of money, gifts or favors (15 or 4.2%) was reported by both sexes as reason for going into sex. Peer pressure (86 or 24.1%) was reported as a reason given by students for engaging in sex as shown in table 4.5. Peer pressure is considered to have a significant influence on youths` sexual behaviours (Bernstein 2001:157). It can encourage youths to experiment a range of sexual behaviours, and doing so may lead to an increased risk of unwanted-pregnancy and contracting sexually transmitted diseases, including HIV/AIDs (Kirby 2007:123). Peer influence is factor that influenced students' sexual behaviour. The behaviour is a means of gaining entry and certification into a social peer group. Part of being accepted by peers is to emulate their behaviour; in this instance, sexual behaviour is perceived as an official group membership 'stamp'.(*Ndumiso et al*,2016).

Table 4. 5 Social factors influencing sexual intercourse with a partner.

		Promise of money, gifts or favors	Alcohol use	Peer pressure	Willingness	Physical attraction	To keep my partner	To prove myself to my partner	To win my partner	Multiple	Total
male	Count	1	23	24	21	77	0	13	20	58	237
	% within Sex	0.4%	9.7%	10.1%	8.9%	32.5%	0.0%	5.5%	8.4%	24.5%	100.0%
Female	Count	24	0	48	28	0	20	0	0	0	120
	% within Sex	20.0%	0.0%	40.0%	23.3%	0.0%	16.7%	0.0%	0.0%	0.0%	100.0%
Total	Count	25	23	72	49	77	20	13	20	58	357
	% within Sex	7.0%	6.4%	20.2%	13.7%	21.6%	5.6%	3.6%	5.6%	16.2%	100.0%

4.4 The challenges faced by students attending public middle level colleges in pursuit of safe sex.

Factors such as use of condoms, having sex under the influence of alcohol, being faithful to one partner, coercion into sex to keep partner have been identified to influence the sexual behavior of students attending public middle level colleges.

Table 4. 6 Challenges experienced in sex life among college students

		Having sex under the influence of alcohol	Peer pressure	Consistent use of condoms	Being faithful to one partner	Having sex to keep the relationship	Coercion into sex by a partner	Totals
male	Count	24	48	0	24	93	48	237
	% within Sex	10.1%	20.3%	0.0%	10.1%	39.2%	20.3%	100.0 %
Female	Count	24	0	48	0	24	24	120
	% within Sex	20.0%	0.0%	40.0%	0.0%	20.0%	20.0%	100.0 %
Total	Count	48	48	48	24	117	72	357
	% within Sex	13.4%	13.4%	13.4%	6.7%	32.8%	20.2%	100.0 %

It is obvious students attending public middle level colleges go into sex for the same reason. An interesting finding here is 93% have not received money, gifts or favors in exchange

for sex. Consistent use of condoms accounted for 13.4% of the respondents. Unplanned intercourse was a common reason given by all the groups for engaging in sex without condom. Others said partner dislikes condoms, uncomfortable and dislike of condoms were other reasons that influence unsafe sex according to figure 4.5 below. It should be noted that more than 93.3% of participants said they had knowledge of condoms even before ever having sex.

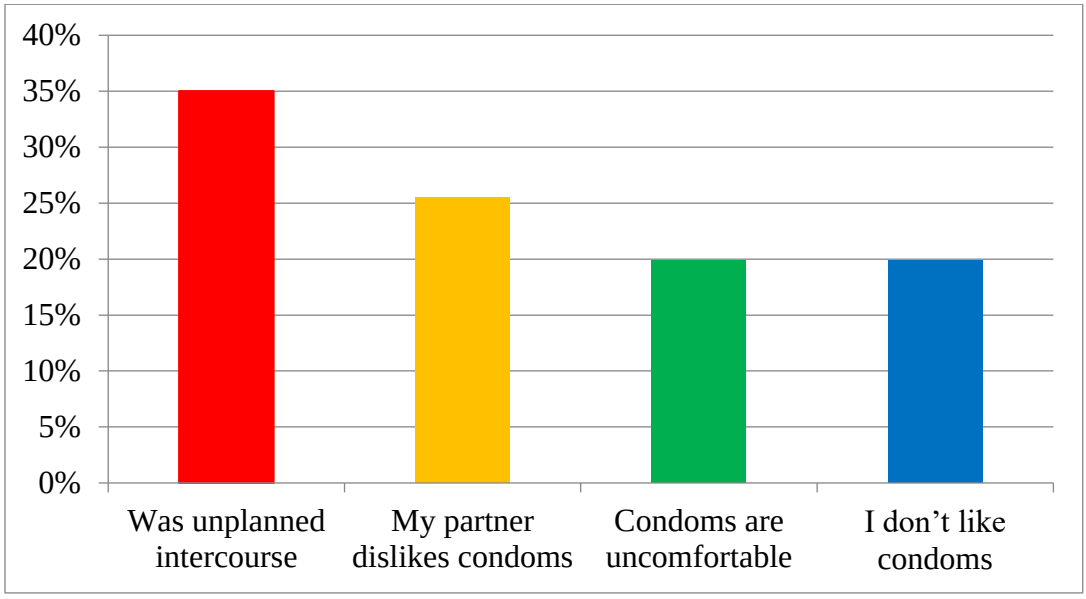


Figure 4.5 Condom use

Having sex under the influence of alcohol accounted for 13.4% (48) of the respondents. Alcohol consumption among college students significantly predicts their perceived likelihood of having sexual intercourse. Both a feeling of emotional closeness and an increased sexual arousal are associated with the consumption of psychoactive substances (Oppong. *et al*, 2014, Bal. *et al* 2018).

Peers pressure from friends was cited as a challenge for sexual activities of the respondents mentioned that they were influenced by their friends to have sexual intercourse to catch up

with what friends were doing. Females are the most affected with peer pressure. Perceived social pressure (subjective norm), and perceived behavioral control (perceived control) result in the formation of intentions. Intentions are the underlying psychological factor for the formation of behavior, while perceived controls may also contribute to it (Rashidian and Russell, 2012 p 18).

Being faithful to one partner (10.1% of males) reported to be a challenge. Perceptions factors influencing condom use include trust in partner's sexual faithfulness. Research has documented that individuals who have multiple sexual partners are more likely than others to report high levels of condom use (Adetunji J,2019). The longer a relationship lasts, the greater the likelihood that condom use will be discontinued

Having sex to keep the relationship is another challenge reported among the respondents (males at 39.2% and females at 20.0%). This was more so for male students, who feared losing their partners. respondents suggested that the fear of losing a partner often leads students into unwanted and frequent sexual activity. Respondents perceive sex as something that could strengthen a relationship. In these long-lasting relationships, there is a concern that the request for the use of condoms may generate a feeling of distrust regarding the fidelity of the couple.

CHAPTER FIVE

5.0 DISCUSSION

Safe sex practices refer to sexual activity and especially sexual intercourse in which various measures such as the use of latex condoms or the practice of monogamy are taken to avoid sexually transmitted infections (STIs), such as the human immunodeficiency syndrome. Promotion of safe sex practices among college students is particularly important considering the burden of HIV and other STIs among the youths. In order to efficiently promote safe sex practices particularly among college students, we must understand the determinants of this behavior (Addoh *et al*., 2017).

5.1 Knowledge and Practice

Findings from this study reveal that 40.1% of the students received information about HIV/AIDS from sex education in school and some from media. Peers and parents were also indicated as source of information while the 13.4 % of students got information about HIV/AIDS from their sexual partners. Teens often seek social and sex-related information from the media rather than adults or their parents. They are always attracted to programs in sexual-related contents found in the media which influences their choice of safe sex practice. This echoes the popularity of the youth that media coverage plays a major role in information dissemination thus should be availed and made accessible to the youths in order to improve on safe sex practice (Mureiko, 2013).

A study conducted by Petros *et al* (2017) showed a significant difference was served between the sexes with regard to the peers as a source of information on HIV.In these study a higher proportion (19%) of the males heard of the disease from a friend as compared to only 9.1% of the females.

Results of this study concluded that respondents have comprehensive knowledge about safe sex practices and HIV/AIDs. Respondents who had knowledge on HIV transmission (94.7%) were likely to practice safer sex compared to those who did not have knowledge on HIV. In addition, respondents who were aware of the ways in which HIV can be transmitted (96.2%) were more likely to practice safe sex compared to those who were not aware. The KDHS showed that HIV/AIDs knowledge is universal in Kenya. However, only 56% of men and 66% of women have comprehensive knowledge on HIV (KDHS 2014). This is contrast to a study conducted in Nigeria, which showed that more than 50% of the respondents were not aware of the causes of HIV/AIDs but had knowledge on the ways in which the disease can be transmitted (Iliyasu et al., 2006).

On safe sex practice, 59.9% of the respondents were aware of the importance of having safe sex and 40% were aware of the consequences of having unsafe sex. This was similar to the findings of a study on knowledge and practices of safe sex among students of College of Medical Sciences, University of Maiduguri, Borno State, Nigeria which showed that most of the students had adequate knowledge on safe sex (Chukwu *et al.,* 2017).

From this study, 93.3% of the respondents had knowledge on condom use. On sex practice, 77.8% have ever had sex and of these 62.1% had used a condom on their first sexual encounter and 67.1% had used a condom in their last sexual encounter. Regarding frequency of condom use, 54.1% reported to use condoms occasionally while 32.5% use it every time they have a sexual encounter. A study conducted in Mombasa County in 2012, on sexual behavior amongst youth in colleges and youth centers in Mombasa showed that 90% of college going youth reported condom use. However consistent condom use is reported by only half of them (50.7%). A similar pattern is noted among participants in

youth centers in the same region. About half the youth (52.6%) who were sexually active reported condom use during last sexual activity and this was similar in college youth (56.8%) and youth centers (49.2%)

5.2 Social determinants of safe sex practice

Alcohol use is one of the determinants of safe sex practice. The study revealed that 94.4% of the respondents reported to have ever had sex under the influence of alcohol. A study conducted in Ethiopia on sexual behaviors and associated factors showed that engaging in sex under the influence of alcohol compromises the power of relations, impairs judgment and increases risky sexual behavior (Demissie *et al.*, 2015). This contrasts with the findings of the study which found out that alcohol usage was not associated with sexual practice.

This study showed that 6.4% of the students got information from their peers. Peer pressure was identified by 13.4% of the respondents in this study as one of the challenges in pursuit of safer sex practices. This is consistent with a study conducted by Zuber in 2012 that showed that sexual debut influenced by peers accounted for 23% of college youth and youth centers in Mombasa.

This study showed that 32.5% of respondents use condoms every time they have a sexual encounter. From the demographics, age and marital status were associated with safer sex practices. This is consistent to the findings of a study conducted by Rooy *et al* (2014) that showed age was associated with safe sex practice and younger students are more likely to used condoms as a safe sex practice method as compared to older students.

5.3 Challenges

Promise of money, gifts or favors as an influence to have sex was not associated with safe sex practice. From this study, 7.0% of the respondents were promised money, gifts or favors in exchange for sex. Exchanging money and gifts for sexual favors is a habit that exists in East Africa as in many other countries. People who exchange sex for money are at high risk of getting or transmitting sexually transmitted infections since they are likely to engage in risky sexual behaviors like unprotected sex and multiple sexual partners (CDC 2016). Payment for sexual intercourse was associated with the risk of contracting HIV and other sexually transmitted infections. This is due to compromised power relations that result in inconsistent condom use (KDHS 2014).

Studies conducted in Nazareth, Addis Ababa, Shedi and Enemay towns showed that 24,20.4%, 19 and 67.6% of students are sexually active, respectively. Regarding the condom use, 44% in Nazareth and 55.6% Addis Ababa never uses a condom. Only 28.7% sexually active youths used condom during their first sexual intercourse in Shedi town (Dekeke & Sandy, 2014). A study conducted in Moshi, Tanzania secondary schools indicates 29% study participants are sexually active. 21.6% start sexual intercourse before age of 15 and 52.2% of them did not use a condom in their last sexual intercourse (Lyimo, Todd, Richey, & Njau, 2018).

Other challenges experienced by the students on safe sex practice include having sex under the influence of alcohol, peer pressure, consistent use of condoms, being faithful to one partner and coercion into sex. All the mentioned challenges were not significant therefore they were not associated with safe sex practice.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

Participants had a satisfactory level of knowledge on safe sex practices and HIV/AIDs prevention. With regard to safe sex practice, perception of risk is necessary for adoption of health protective behavior. Prevention efforts must focus on broad social factors that contribute to safer sex behaviors and extend to those in the general population with increased vulnerability to HIV, especially among the young people.

Challenges among the youth include indulging in many high-risk behaviors such as sex in exchange for money and favors, alcohol use and sex with multiple sexual partners. There is high risk of HIV transmission among young people hence prevention interventions that focus on changing individual-level behaviors.

6.2 Recommendations

The factors influencing safe sex practices require a combination approach incorporating a supportive behavioral and structural intervention. Developing a prevention menu where adolescents, depending on their phase of transition and sexual activity, may tailor their individual prevention package, would represent a major advance in preventing HIV among youth.

- Orient the students about sexual health and safe sexual practices as it will go a long way in prevention and control of HIV and STIs. Creating awareness on unsafe sexual behaviors such as inconsistent use of condoms and having multiple sexual partners present will go a long way in the fight against the spread of STIs and HIV infection

- Peer education and health clubs should be adopted in colleges as this can be an effective form through which youths can know about safe sex practices, share challenges and have school-based interventions
- The Ministry of Health and Ministry of Education should ensure that the media disseminates information relating to safe sex practices among the youth to increase awareness.

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APPENDICES

APPENDIX 1: CONSENT FORM

TITLE: Determinants of safer sex practice for prevention of HIV/AIDs and other STIs among students attending public middle level colleges in Eldoret town.

INVESTIGATOR:

RUTH KAMAU

MOI UNIVERSITY

SCHOOL OF PUBLIC HEALTH

REG.NO. SPH/PGH/11/13

TEL.NO. 0720174328

PURPOSE OF THE STUDY: To determine the factors contributing to safer sex practice among students attending public middle level colleges in Eldoret town.

PROCEDURE: All the eligible participants will be given a questionnaire to fill. Random sampling will be done then questionnaires will be administered to the students. This will only take 20minutes of your time.

VOLUNTARY: The study will be fully voluntary. One is free to refuse to participate or withdraw from the study.

BENEFITS: The findings from this research will be translated into recommendations for policy makers involved in the management of HIV/AIDs in the county

RISKS: Any information given will be confidential and no names will be used in this process.

CONFIDENTIALITY: All information will be confidential and nothing will be published or discussed in public that can identify you.

Do you agree to participate? **YES** ☐**NO**☐

Participant's signature _____

Thank you for your participation.

For any concerns feel free to reach me, RUTH on 0720174328.

APPENDIX 2: QUESTIONNAIRE

Demographic data

AGE _____Years

Marital status SINGLE ☐

MARRIED ☐

SEPARATED/DIVORCED ☐

WIDOW/WIDOWER ☐

Sex MALE ☐

FEMALE ☐

Religion CHRISTIAN ☐

MUSLIM ☐

Others (specify)_____

Year of study _____ course _____

1. What is safe sex?(multiple answers allowed)
    a. Having sex with one uninfected person ☐
    b. Having sex with only one person ☐

c. Using a condom during sex ☐

d. abstinence ☐

e. having sex in a secure place ☐

f. Having sex when you have showered ☐

g. OTHERS

(specify)…….

2. What are the importance's of having safe sex? (multiple answers allowed)

a. Protect myself from HIV/AIDs ☐

b. Protect my partner from infections ☐

c. To avoid unwanted pregnancies ☐

d. Having sex in a secure pace ☐

e. Keeping my partner ☐

f. For future marriage ☐

g. OTHERS

(specify)……

3. What are the consequences of unsafe sex?

a. Unplanned pregnancies ☐

b. Sexually transmitted infections ☐

c. HIV/AIDs ☐

d. Loosing virginity ☐

e. There are no consequences ☐

4. Have you ever seen a male condom? YES ☐ NO ☐

5. Have you ever seen a female condom? YES ☐ NO ☐

☐

6. Have you ever had sex? YES NO ☐

If NO go to question 15

7. If yes at what age as your first sexual encounter? below 15years ☐

16- 18 years ☐

Above 18year ☐

8. The first time you had sexual intercourse, was a condom used? YES ☐

NO ☐

DON'T REMEMBER ☐

9. When was the last time you had sexual intercourse? DAYS AGO ☐

WEEKS AGO ☐

MONTHS AGO ☐

YEARS AGO ☐

10. Did you use a condom at your last sexual encounter? YES ☐ NO ☐

11. What is the main reason you used a condom on that occasion?

a. Prevent HIV/AIDs. ☐

b. Avoid pregnancy ☐

c. Both prevent STIs/HIV and avoid pregnancy ☐

d. Did not trust partner/partner may have other partners ☐

e. My partner wanted ☐

f. other(specify) _____

12. Who initiated it? MALE PARTNER ☐ FEMALE PARTNER ☐

13. How often do you use the condom? Every time ☐

Occasionally ☐

Never ☐

14. If not every time, what reason(s) did he/she give for not using condoms?

a. Was unplanned intercourse ☐

b. My partner dislikes condoms ☐

c. Condoms are uncomfortable ☐

d. I don't like condoms ☐

15. Have you ever had any conversation or information about HIV/AIDs in the past?

YES ☐

NO ☐

16. What was the source of the information?

Media ☐

☐

Peers

Sex education in school

Parents

Sexual partner

17. Have you ever received money, gifts or favors in exchange for sex? YES NO

18. In the **LAST 12 MONTHS** have you ever received money, gifts or favors in exchange for sex?

YES NO

19. The last time you received money, gifts or favors in exchange for sex, was a condom used? ☐ ☐

YES NO

20. Have you ever tested for HIV/AIDs? YES ☐ NO ☐

21. How is HIV/AIDs transmitted? (Multiple answers allowed)

a) Having unprotected sex with an infected person ☐
b) insect bite ☐
c) through breast milk of an infected mother ☐
d) contaminated sharp objects ☐
e) sharing utensils with an infected person ☐

22. How can one prevent HIV/AIDs? (Multiple answers allowed)

a) Abstinence ☐
b) Using a condom ☐
c) Being faithful to one uninfected partner ☐

23. What has influenced you to have sexual intercourse with your partner (multiple answers allowed?)

a. Promise of money, gifts or favors ☐
b. Alcohol use ☐
c. Peer pressure ☐

d. I was willing ☐
e. Physical attraction ☐
f. To keep my partner ☐
g. To prove myself to my partner ☐
h. To win my partner ☐

24. What are some of the challenges you experienced in your sex life? (Multiple answers allowed)

a) Having sex under the influence of alcohol ☐
b) Peer pressure ☐
c) Consistent use of condoms ☐
d) Being faithful to one partner ☐
e) Having sex to keep the relationship ☐
f) Coercion into sex by my partner ☐
g) Others(specify)_____

24 a) Other than HIV/AIDs, what other sexually transmitted infections do you know of?(multiple answers allowed)

a) Syphilis ☐
b) Urinary tract infections ☐
c) Gonorrhea ☐
d) Herpes ☐

b) How can they (sexually transmitted infections) be prevented?

Appendix 3: IREC LETTER

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 33471/2/3

MOI UNIVERSITY
COLLEGE OF HEALTH SCIENCES
P.O. BOX 4606
ELDORET

Reference: IREC/2017/94
Approval Number: 0001969

9th November, 2017

Ms. Ruth Kamau
Moi University,
School of Public Health
P.O. Box 4606-30100,
ELDORET-KENYA.

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE
09 NOV 2017
APPROVED
P. O. Box 4606 - 30100 ELDORET

Dear Ms .Kamau,

RE: FORMAL APPROVAL

The Institutional Research and Ethics Committee has reviewed your research proposal titled:-

"Determinants of Safer Sex Practices in the Prevention of HIV/AIDS and other STIs among Students Attending Public Middle Level Colleges in Eldoret Town."

Your proposal has been granted a Formal Approval Number: ***FAN. IREC 1969*** on 9th November, 2017. You are therefore permitted to begin your investigations.

Note that this approval is for 1 year, it will thus expire on 8th November, 2018. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Sincerely,

For Mgmt

PROF.E.O.WERE
CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

cc CEO - MTRH Principal - CHS Chairman - COBES

APPENDIX 4: THE WORK PLAN: EXECUTION OF THE STUDY

Time for Proposed Activities									
	Months								
	Sep 17	Oct 17	Nov 17	Jan 18	Feb 18	March 18	June-Nov 18	Dec 18	JAN-JUNE 19
IREC Approval									
Training of Research Assistants									
Pilot testing of Data collection tools									
Data collection									
Data Entry									
Data Analysis									
Thesis write up									
Presentation/Defense									

APPENDIX 5: PERMISSION TO CARRY OUT RESEARCH

RUTH KAMAU

MOI UNIVERSITY

P.O BOX 4606,

ELDORET.

9TH JANUARY, 2018

THE DIRECTOR,

ELDORET POLYTECHNIC.

RE: PERMISSION TO CARRY OUT RESEARCH

I am a student currently taking a master of Public Health at Moi University, School of Public Health Department of Epidemiology and Nutrition. I am required to carry out a research project in partial fulfillment of the course.

The topic of my research is **Determinants of safer sex practices in the prevention of HIV/AIDs and other STIs among students attending public middle-level colleges in Eldoret town.**

I am requesting permission to visit your institution and collect data from the students in your institution. The information obtained will only be confidential and be used for purpose of the study.

Thank you in advance.

Sincerely,

RUTH KAMAU