

**FACTORS PREDISPOSING ADOLESCENTS TO HIV/AIDS IN
SELECTED SECONDARY SCHOOLS OF KIAMBU DISTRICT ,
CENTRAL PROVINCE, KENYA. //**

BY

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DECLARATION

Declaration by the candidate

This thesis is my original work and has not been submitted for a degree to any other university or for any other award.

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We certify that the work reported in this thesis was carried out by the candidate under our supervision as University supervisors.

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DEDICATION

This work is dedicated to my dear husband *Joseph Wanjau*, and our daughters *Cynthia Wangeci and Christine wambui*, who inspired me to work, supported and prayed for me.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CSA	Center of the study for adolescents
GOK	Government of Kenya
HIV	Human Immuno-Deficiency Virus
MOH	Ministry of Health
NACC	National AIDS Control council
STDs	Sexually transmitted diseases.
UNICEF	United Nations International Children Education Fund
WHO	World Health Organization

ABSTRACT

The current world is faced with the global pandemic of Acquired Immune Deficiency Syndrome AIDS, which has become a serious health problem and a tragedy. In Kenya adolescent mortality and morbidity resulting from HIV /AIDS is alarming. The age group 15 to 19 years old constitutes 35 percent of all AIDS cases and that an estimated 41,000 youth had contracted AIDS by the year 2000 (UNAIDS, 2000). Such statistics underscore the urgent need to address HIV/AIDS among the adolescents in Kenya. The study set out to investigate factors that predispose adolescents in secondary schools to HIV/AIDS.

This was a cross- sectional descriptive study aimed at investigating the factors that predispose adolescents into high-risk sexual behavior leading to HIV/AIDS infection. The population consisted of 600 secondary school students from the three selected Divisions in Kiambu District, Kenya. Out of the five Divisions in Kiambu District, three Divisions were randomly selected for the study. The stratification sampling technique was used to divide the schools into for categories after which from each category of school, two schools were randomly selected for the study. Kiambu District recorded high prevalence HIV/AIDS infection in the year 2001 being the highest in Central Province. This created the need for interventions and especially on adolescents since they are in their transition from childhood into adulthood. Three Divisions which were randomly sampled from five Divisions were; Kiambaa, Githunguri and Lari divisions where a total number of 8 schools were chosen

randomly for the study. Four categories of schools that included Single Boys and Girls, Mixed day and Boarding were stratified.

HIV/AIDS awareness questionnaire was used to gather data from randomly selected forms one to four students. Descriptive statistics, chi-square and ANOVA were utilized for the analysis of the data. This study indicated that:

1. The knowledge of the students on facts about HIV/AIDS was not reflected in their preventive measures against the diseases. Although 78% of the students knew that risk of getting HIV/AIDS is increased by engaging in unprotected sex, hardly do they use condoms. Only 12.8% of the study population reported to have used condoms on irregular basis.
2. Majority of adolescents 59% did not perceive themselves to be at risk of contracting HIV/AIDS and only 41% considered themselves to be at risk. However there was no statistical significant difference between male and female students perception of getting HIV/AIDS ($\chi^2=3.069$; $p=1$ $P> 0.05$ $df= 4$).
3. The students reported having several sexual partners with girls 47% reporting high number than boys who reported 45%. Also, majority of girls 16.7% unlike boys 2% meets their sexual partners in drinking pubs and bars.

The study recommends that adolescents must learn the facts before they become sexually active, and the information needs to be regularly reinforced and built on both the classroom and beyond. It is also essential to reach young people before they engage in high-risk behavior. Information on HIV/AIDS and reproductive health, as well as life skills, should be integrated into primary and secondary schools throughout the year.

CHAPTER 1

1.0 GENERAL INTRODUCTION AND LITERATURE REVIEW

1. 1 General Introduction

The Human Immuno deficiency Virus (HIV) and the Acquired Immunodeficiency Syndrome (AIDS) are urgent problems worldwide and have been termed as the greatest challenges facing humanity in the 21st century (Tobijor, 2000). In the current situation, where a cure continues to elude researchers and where infection results in the death, curbing the spread of HIV/AIDS through prevention has been the focus of efforts all over the world. Over the last decade, the Acquired Immune Deficiency Syndrome (AIDS) has become the world's most devastating epidemic and a serious health problem. By the end of the year 2003 the prevalence of HIV/AIDS worldwide had gone up. Statistics showed that globally 40 million people were living with AIDS, 5 million were infected and 3 million died. In the Sub-Sahara Africa, those living with HIV/AIDS were 28 million, 3 million were infected and 2 million had died by the end of year 2003,(UNAIDS, 2003)

In Kenya, studies reveal that presently an estimated 3 million Kenyans are already infected with HIV/AIDS while 2 million have already died of the virus, since the epidemic began. The infection rate is one among every 10 people and 50 % of these cases occur among adolescents (GOK, Ministry of Health, 2003; UNAIDS, 2003). However the government of Kenya is committed towards eradicating the HIV/AIDS scourge such that on November 14th 1999 it was declared a national disaster (NACC, 2000).

1.2 Review of Relevant literature

1.2.1 Background

Acquired Immune Deficiency Syndrome (AIDS) is caused by the virus known as Human Immuno-Deficiency Virus (HIV). AIDS weakens the body's defense mechanism against other infections. The virus is found in high concentration on sexual fluid, semen, vaginal secretion and blood. This implies that the transmission happens primarily when sexual fluids and blood of an infected person come into contact with those of an uninfected person. The virus can also be contracted through the transfusion of contaminated blood, by sharing intravenous (IV) needles or mother to child transmission during pregnancy, at the time of childbirth or through breast feeding (Kimmel and Welner, 1995; Kelly, 2000; Tobijor, 2000). Recently, it has been shown that traces of HIV virus are present in other body fluids such as tears and saliva. However, the concentration of fluids may not be sufficient to cause infections (UNICEF, 2000; Action Aid, 1999).

The sub-Saharan Africa has 68% of the infections and 74% of the AIDS cases and this accounts for 3% of global AIDS spending. The Kenyan epidemic is now 22 years old since Kenya Ministry of Health officially reported the first AIDS case. In East Africa, the epidemic has passed through a series of stages; the first stage was rapid spread among the high-risk groups, the second stage was slowly spread into the general adult population and Kenya is presently at the beginning of stage three which involves the spread to and among the youth, adolescents and young adults (Tony, 2000).

At the dawn of the 21st century, it was estimated that by the end of the year 2000, 33.1 million men, women and children world- wide lived with AIDS while,

21.8 million people had already died of AIDS (UNAIDS, 2000). The overwhelming majority of people with HIV live in the developing countries. These countries account for some 95% of the global total and that 50% of the world's infection occur in the 15-24 age groups (Tobijor, 2000). By the end of the year 2001, it is estimated that world wide about 22 million people had already died of AIDS and 36 million people were infected with the Human Immunodeficiency Virus (HIV) the virus that causes AIDS. Further report indicate that 50 percent of the worlds infection occurred in adolescents and young adults 15-24 years of age (GOK, Ministry of Health, 2001;Tobijor, 2000).

The impact of HIV/AIDS among adolescents is felt by the society at large. Students are dying or leaving schools reducing both the quality and efficiency of educational system (Ledger, 1997). The high mortality and morbidity among adolescents has also affected the health sector manpower development and economy at large. This is due to sicknesses, funeral expenses, care for the sick and orphaned children. At the individual level the impact of HIV leads to unhappiness and stigmatization felt by infected adolescents.

It has become clear that prevention of HIV/AIDS among adolescents is essential and that by understanding factors that predisposes adolescents to risky sexual behaviour might be the single most powerful weapon against the spread of HIV/AIDS epidemic (Tobijor, 2000; UNAIDS, 2000).

1.2.2 Studies on HIV/AIDS among adolescents

Adolescence is a very significant stage of human development characterized by one of the most crucial life task of preparation for adult hood. According to WHO (1997), this is a period in one's life between 10 and 20years in which the individual progresses from the point of initial appearance of the secondary characteristics to that of primary maturity. During this phase, the individual's psychological process and patterns of identification develop from those of a child to that of adult; and a transition is made from a state of total socio-economic dependence to one of relative independence.

The prevalence of HIV/AIDS among adolescents varies widely among regions and countries. In the developed countries such as Northeast part of Asia, HIV is spread from unsafe drug injecting (UNAIDS, 2000 b). Reports from UNAIDS (1999), estimated that one third of the 33 million people living in the world with HIV were young people aged 15-24 years.

In Kenya, HIV/AIDS among adolescents is almost entirely a sexually transmitted infection. A study done in Kenya by WHO (1997) indicated that 90 percent get infected through sexual contact, and that teenage girls are more susceptible and vulnerable to the epidemic with an infection rate of five times more than boys of the same age. The same study revealed that, girls might be at a greater risk of HIV infection than boys because of physiological factors. They are more exposed to the virus during sex because of the large mucosal surface in the virgina. Also the semen which has a high concentration of the virus than the virginal fluids stays in the virgina relatively for long time. Lastly since infections in women are asymptomatic, women may have STD for a long time before receiving treatment and

this can facilitate HIV infection. Most teenagers in Kenya report very early sexual debut (experience of first sexual intercourse) which tends to be at a younger age than elsewhere in the sub Saharan Africa. This increases the number of sexually active young people whereby 90% of adolescents are sexually active by the age of 20 years. More so adolescents are less likely to be protected from the consequences of sexual intercourse and more likely to be ignorant of the ways in which accidental pregnancy or sexually transmitted infections can be prevented (GOK, Ministry of Health, 2000).

A survey done by Tony (2000) revealed that, Kenyan teenagers commonly report relationship with multiple sexual partners, with boys being seven times more promiscuous than girls. The survey also indicated that a majority of teenage girls are coerced or forced into first sexual intercourse hence increasing sexual activity and vulnerability of HIV/AIDS infection.

1.2.3 Adolescents Knowledge about HIV/AIDS

Adolescents are vulnerable because they often do not know how serious the problem of HIV/AIDS is, how it is caused or what they can do to protect themselves. Many adolescents do not go to school, and do not have access to information about AIDS, or to opportunities to develop the life skills that they need to turn this information into action. Frequently they also do not have access to services that take their specific needs into consideration. In addition to the individual characteristics of young people themselves, other peer groups also influence them and also the attitudes and behaviours of the significant adults in their lives, such as parents, teachers and service providers influence adolescent and increase the risk of infection. The wider context in which they live, learn and work, including social values and norms,

policies and legislation, and their economic situation are also very important. Societies often compound young people's risk by making it difficult for them to learn about HIV/AIDS and reproductive health. The adolescents are also not able to comprehend the extent of their exposure to risk and potentially dangerous results (Weiss and Gupta; 1998; Boyer and Keggeles, 1991).

Adolescents in secondary schools are predisposed to HIV infection due to the fact that schools provide little help to them on sexual and reproductive health issues and do little counseling to assist them in understanding their sexual identity and how to cope with its demand. The values of behavioral standards communicated to adolescents through the mass media, and society around them weakens their ability to deal in a mature way with their emerging sexuality. Similarly unwillingness of parents to discuss sexual issues with adolescents predisposes them to negative influences in and outside school. Lastly, since adolescents belong to a group which is most likely to be AIDS free young girls and boys are subjected to sexual attention from adults who may be infected by the HIV (Kelly, 2000).

Many adolescents are at risk due to lack of knowledge and accurate information on HIV/AIDS. As a result, they become sexually active early in life without the benefit of necessary information, skills and services to protect themselves from HIV/AIDS. A study done by Kiragu and Roberts (1990) in Zambia, Cameroon, Tanzania and Kenya revealed that 20 to 50 percent of young girls did not know how to protect themselves. Knowledge and cognitive maturity are associated with safer sex. For example in Mozambique, Zambia, Uganda and Kenya more schooling and high academic achievement was associated with more use of condoms (UNAIDS, 2000; Kilian *et al.*, 1999).

1.2.4 Vulnerability and Perception on risk of contracting HIV/AIDS

In order for adolescents to take the risks that are important for their development and avoid those that will do them irreparable harm, their rights to health and development need to be fulfilled. This includes their rights to information and skills, a range of services, a safe and supportive environment, and opportunities to participate. Frequently, this has not been achieved in Kenya on the fight against HIV/AIDS predisposing them to infection.

In countries where the predominant mode of transmission is by heterosexual sex, girls are often more vulnerable than boys, for both biological and social reasons. Conversely, in countries where the predominant routes of spread are men having sex with men or injecting drug use (IDU), boys are likely to be more at risk of HIV infection. Young people involved with sex work, migrants and refugees, and adolescents living in the street, in war situations or who are marginalised and discriminated against, are all likely to be especially vulnerable. Of course vulnerability is also increased by HIV/AIDS itself, for example young people who are living with HIV/AIDS and AIDS orphans (of whom a large proportion are adolescents) become even more vulnerable to HIV/AIDS.

Human Immuno-Deficiency virus (HIV) requires specific identifiable actions (behaviour) for transmission to occur. To become infected or to transmit HIV to another person visible actions must occur involving one or more participants. Adolescents HIV infection does not occur in a vacuum rather there are factors and influences that sustain and accelerate the progress of adolescent to engage in risk behavior that predisposes them to HIV infection.

In traditional Kenyan society, sex education system emphasized periodic abstinence, withdrawal and non-penetrative sex as a means of preventing unwanted pregnancies. Female virginity was highly valued and sexual practices for young girls and boys were largely condemned (Tuju, 1996). Today, the break down of traditional social institution, values, and norms has led to high level of sexual activity among adolescents resulting to the increase of HIV/AIDS among them (Ledger, 1997).

Perception of risk and feeling of invulnerability can be a significant obstacle in changing adolescents' behavior. Many adolescents feel invulnerable to HIV infection. For example students interviewed in Malawi, South Africa, Tanzania and Kenya revealed that they did not consider themselves at risk, while others said that if they became infected other people would be responsible and not themselves (Helitzer- Allen, 1994; Macphail and Campbell, 2001). Such findings reflect adolescent negative perception towards HIV infection and the belief that HIV is not a threat to them.

1.2.5 Socio- economic, cultural practices and HIV/AIDS

Culture can be defined as 'that complete whole, which includes knowledge, beliefs, art, morals, law, custom and any other capabilities and the habits acquired by man as a member of the society'. The members of a particular society should transmit the sum total of the knowledge attribute and habitual behavior patterns.

Around the world a variety of cultural practices, social institutions, norms and values increase adolescent's risk for HIV/AIDS infection. In most societies women status is to subordinate their own interest to those of their partners. With such expectation, young girls often feel powerless to protect themselves, hence endure sexual coercion and abuse. A study from Cameroon and Kenya indicated that 40 percent of sexually

active Secondary School girls had been forced into sex (AMREF, 1994; Rwenge, 2000). Since force is used, abrasion and cuts are more likely to occur and the virus can easily find its way into blood stream. What is worse, condom use is unlikely in such situations (WHO, 1997).

In some communities, circumcision and initiation ceremonies are accompanied by post-initiation sexual experimentation predisposing them to HIV infection. For example several tribes in Southern Malawi perform their initiation in form of sexual intercourse where an elderly man breaks young girls virginity. Among the Maasai in East Africa, Kenya included, the relationship among male peers is close to an extent that after circumcision the initiates share girl friends (Nduati and Kiai, 1996; Tale, 1995).

Cultural sexual practices such as virginity testing for young girls places such a high premium on chastity before marriage influencing young girls to practice anal sex to preserve virginity. This predispose them to HIV infection due to bleeding and lesion than if they had virginal sex (Stein, 2000). During some marriages young girls at age 10 are given to older men in order to cement friendship and economic ties between them. For example, in Kenya the Maasai community marries off schoolgirls to older men. This predisposes young girls to HIV infection because their husbands usually already had a number of sexual partners (Zabin and Hayward, 1993).

According to Collins (1997), Mann and Tarantola (1996), HIV/AIDS spread fastest in conditions of poverty and lack of information. Many young adolescents live in these conditions and as such are exposed to HIV infection. Studies show that in many countries young girls tend to seek support and security from men by trading in sex. For example in Sub Saharan Africa and South Africa adolescent girls and boys

enter into sexual relationships with older men and women who pay their school fees, buy them gifts and other inducements. Similarly in Kenya, adolescent girls from poor and unstable family environment are more likely to have had sexual experience than those from stable family (Meeker and Calves, 1997; Campbell, 2001; Kiragu and Zabin, 1993).

Different aspects of social life have predisposed adolescents into risky sexual behavior leading to HIV infection. These include gender, age differences, peer relation, use of intravenous drugs, among others. Research has shown that in the industrial world, an estimated 70 percent of HIV occurs among homosexuals while in Kenya unsafe sexual behaviour among adolescent girls is associated with using alcohol, drugs, or tobacco (UNAIDS, 1999; Kiragu and Zabin, 1993). Most adolescents are keenly sensitive to peer opinion. Studies have shown that sexual behaviour of friends influences their own sexual behaviour (Boyer and Keggeles, 1991). For example, in South Africa, Uganda and Kenya adolescent boys and girls were influenced by their peer into being sexually active (Preston -Whyte, 1999, Hulton *et al.*, 2000; Kiragu and Zabin, 1993). Anxiety and apprehension prevent adolescents from using condoms. Many fear asking their partners sexual history in fear of endangering their relationship and may be relieved if the partner brought up the issue of protection (Loxley, 1996). Adolescents, who deny their personal risk of HIV prevention message, dismiss their relevance (Ben-Zur *et al.*, 2000).

1.3.0 Rationale of the study

1.3.1 Justification of the study

Today young people are the AIDS generation. They have never known a world without HIV and though millions have already died, the HIV/AIDS epidemic remains largely invisible to adults and young people themselves. As a result, few adolescents in Kenya know they are infected. This means that within the next five years or so, many of these young adolescents' boys/girls will marry or get married. As a consequences infection rates among the young husbands /wives in the mid twenties will inevitably increase and so too must be the number of infected babies. This implies that stopping HIV/AIDS in Kenya requires comprehensive strategies that focus on the youth. By the end of the year 2001, Kiambu District recorded a high prevalence rate of infection of 63,495 being the highest in Central Province and this created the need for intervention (NAS COP, 2001)

Most young people in Kenya are sexually active and a case study conducted by CSA (1995) reported that teenagers engage in their first sexual intercourse before the age of 10. They are also involved with several partners and do not use any form of protection against HIV infection. The social economic and cultural changes in societies have led to various sexual behaviour changes in adolescents most of which have serious sequelae leading to the alarming high morbidity and mortality rate of adolescents in Kenya. The frightening feature of this pandemic is that currently there is no cure for HIV infection or a vaccine to prevent its infection hence primary prevention is paramount.

As such it is important to study adolescents since they are at the period of profound sexual awakening, learning, and experimentation hence need extensive support on knowledge and factors that may lead them to high risk sexual practices predisposing them to HIV infection. The study will also help to obtain their views on preventive measures, which they

consider appropriate for their age. Even though some are already infected, majority are not and this requires prompt intervention. The findings of the study will be useful to HIV/AIDS education planners and curriculum developers in designing better intervention strategies to reduce the spread of HIV /AIDS infection among adolescents in Kenya.

1.3.2 Research Questions

The study addressed the following questions:

- (i) What knowledge do adolescents have about HIV/AIDS?
- (ii) What factors predispose adolescents to HIV/AIDS in secondary schools?
- (iii) How do these factors predispose them to HIV/ AIDS?

1.3.3 Null Hypotheses

- (i) Adolescents have no knowledge about HIV/AIDS
- (ii) There is no significant relationship between the adolescents' knowledge on factors that predispose to HIV/AIDS and their protective measures.
- (iii) There is no relationship between the mode by which factors predispose the adolescents to HIV/AIDS and the frequency of adolescents in each mode

1.3. 4 Objectives of the study

General Objective

To investigate the factors predisposing adolescents to HIV/AIDS in Secondary schools.

Specific Objectives

- (i) ✓ To investigate adolescent knowledge about HIV/AIDS.
- (ii) ✓ To determine the factors that predisposes adolescents to HIV/ AIDS
- (iii) ✓ To establish how these factors predisposes adolescents to HIV/AIDS

1. 3.5 Significance of the study and ultimate application

Theoretical Significance

- The study will provide additional knowledge and literature to similar studies to be conducted elsewhere.

Practical significance

- The findings of this study will hopefully be utilized by educational planners and curriculum developers in designing health education programmes about HIV/AIDS education in and outside secondary and primary schools.
- The findings will help the educational planners to come up with preventive measures and strategies which adolescents consider relevant at their age.

CHAPTER 2

2.0 MATERIALS AND METHODS

2.1 Study area

This study was carried out in Kiambu District, Central Province, Kenya. Kiambu District borders Nairobi on its northwestern side (Appendix 1). According to 1999-population census, the district has a population of 744,055 people with a density of 562 persons per km². Kiambu District is made up of five divisions with a total number of 80 Secondary Schools.

2.2 Study design

This was a descriptive, cross-sectional survey. According to Cohen and Lawrence (1995) descriptive surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared or determining the relationships that exist between specific events.

2.3.0 Study population

The study population comprised of schoolboys and girls in Form One to Form Four classes from the selected secondary schools in Kiambu districts.

The target population of this study consisted of the form one to form four students in secondary school in the year 2002/2003 in the selected schools. Secondary school students were chosen since they are in adolescent stage and are comprised of the sexually active group in the society with little or no information on how to protect themselves making them vulnerable to HIV/ AIDS. Besides adolescents are the window hopes of tomorrow and that whatever happens at this stage will have a great impact both to the individual and the society at large. Thus it was of interest to know

their level of major factors predisposing them to HIV/AIDS infection and reinforces health programs to adequately arm the students for these challenges

2.3.1 Inclusion criteria

- Those students who were willing to participate

2.3.2 Exclusion criteria

- Those students who did not consent were excluded from the study.

2.4 Sampling Techniques

Table 1 : Sampling procedure

Category Of school	Mixed day	Mixed Boarding	Single Boys	Single Girls	Total
No. selected	2	2	2	2	8
Total no. of Schools.	21	2	18	16	57
Sample size	100	100	200	200	600
Boys	50	50	200	0	300
Girls	50	50	0	200	300

Three divisions from five divisions in Kiambu District were randomly sampled.-Kiambaa, lari and Githunguri with a Total of 57 Schools. The 57 Schools were stratified into four categories of mixed day and mixed boarding, single boys and single girls.

From each stratum 2 schools were randomly selected except for mixed boarding which had only two schools. Giving a total of 8 schools for the study. Selected schools included Kiereini and Senior chief representing Mixed Boarding, Kiambu Municipality and Kamuchege for Mixed Day, Kambui Girls and Kagwi Girls for Single Girls .

From each of the Mixed day and Mixed boarding schools a population of 50 students were taken respectively while from single Boys and Girls schools 100 students were sampled as indicated in the table above. A total population of 300 boys and 300 Girls were sampled in order to get information from a sample with equal Girls and Boys. In the sampled

schools, class registers were used to randomly sample students by use of alphabet. Probability of population by sample size was used to determine the number of students to be sampled per form depending on the size of classes.

2.5 Sample size Determination

A standard formulae for estimating samples as used by Fisher *et al.* (1998) was used to determine the sample size.

Formulae:

$$n = \frac{Z^2_{pqD}}{d^2}$$

Where, Z = standard normal deviate (1.96) corresponds to 95% confidence interval.

p = proportion in target population - 0.5

q = $1-p$ ($1-0.5$) = 0.5

d = degree of accuracy – 0.05

D = Design effect (district 1)

$$= \frac{(1.96^2)(0.5)(0.5) \times 1}{0.05^2}$$

$n = 384$

-400 but a population of 600 was taken for more accuracy.

2.6 Data collection procedures and instruments

In order to obtain the primary data balanced, pre-coded questionnaires were designed in light of the objectives and were divided into four sections. The questionnaire was administered in English since the students were conversant with English and knew how to read and write.

The questionnaire was pre-tested in Kiambaa Division of Kiambu District in order to establish its validity and reliability. This enables the researcher to improve on the questionnaires and clarify any ambiguities.

Before the exercise of data collection started, the students consent was sought and the purpose of the study explain to them. The sampled students were gathered in one hall where the exercise was carried. With the help of guidance and counseling masters /mistress and teachers on duty, the researcher distributed the questionnaire to the respondents. This was done after classes at four o'clock or during weekends for boarding schools where the respondents were required to respond to them for a period not exceeding 30 minutes. The questionnaires were then collected by the researcher herself. Assistance to supervise the exercise was sought from concerned teachers to facilitate the exercise. Besides, chances of respondents referring to books or to their friends for information was minimized. Finally, it was expected that this nature of administration of the questionnaire maximized on their return rate in addition to ensuring respondents that their responses would be treated in strict confidence. To ensure confidentiality and the anonymity of respondents the students were not to write their names in the questionnaires. All the sampled students participated.

The research instrument used in this study was a questionnaire and was considered advantageous because one can collect a lot of information within a short time. Besides, the respondents would feel free to note down their responses without any fear since they are not being observed. This would ensure confidentiality.

2.7 Data Analysis

- Upon completion of data collection, the questionnaires were coded for analysis. Coding was undertaken with an aim of making the data presented convenient.
- Coding took into cognizance the four sections of the questionnaire.
- The data were analyzed using of the Statistical Package of the Social sciences (SPSS) computer software and the results presented inform of charts, figures, graphs and tables. The statistical tools used included Chi-square and ANOVA to test the relationships between variables.

2.8 Ethical consideration

Permission to carry out the study was sought from various relevant authorities including Ethical review committee at Kenyatta University, Ministry of Education, D.E. O s office Kiambu District and school heads of administration. Purpose of the study was explained to all the students who participated and they were assured of anonymity and confidentiality. The information obtained from the students was kept in strict confident and only for the purpose of the study.

CHAPTER 3

3.0 RESULTS

For the purpose of the present study, the total number of students who were involved were 600 and their social -demographic background is presented (see table 3). This is because any study of HIV/AIDS involves biological development and behavior change of people. The socio-demographic background is essential in understanding peoples' sexual life and behaviour. The table below shows the distribution of the schools that were visited for the study.

Table 2: Distribution of Schools visited for the study.

N=8

Type of School	Boys Boarding	Girls Boarding	Mixed Boarding	Mixed Day
Name of Schools	Kiambu Kijabe	Kambui Kagwi	Kiereini Senior Chief Koinange	Kiambu municipality Kamuchege

3.1 Socio –demographic background

The social-demographic background is shown in Table 3

Age

The age of the students interviewed ranged between 13 –19 years .The table shows that (0.5%) of students were 13 years old or younger, (22.8%) aged 13-15 years old while (76.7%) aged 16-19 years old.

Class

Students who responded to the interview were one hundred and thirty- three (22.2 %) in form one, one hundred and fifty five (25.8%) inform two, one hundred and seventy one (28.5%) in

form three and one hundred and forty one (23.5%) in form four. All the sampled students responded.

Home

Those students who came from urban setting were three hundred and twenty-three (53.8%).

While two hundred and seventy-seven (46.2%) were from rural areas.

Boarders

From the 500 students who included boarders both of mixed boarding and single boarding, majority of them (46.0%) reported to be staying with both parents during school holidays.

One twenty six (21.0%) stayed with mothers, forty-five (7.5%) stayed with fathers and fifty-three (8.8%) stayed with guardians.

Non- boarders

The number of non boarders who stayed with both parents 5.8% tally with those who stayed with mothers only while 2.2 % stayed with fathers only and 2.8% stayed with their guardians.

Religion

Majority of the students who constituted (98.5%) were Christians, (1.3 %) were Muslims and only (0.2%) do not belong to any religion.

Sex and Type of school

Three- hundred (50%) students were male and female respectively. From the four categories of schools, Single girls and boys boarding schools had a total of 33.3% students respectively, while mixed day and boarding had 17% students respectively.

Table3: Frequency Distribution by socio-demographic background of study population.

N=600

Characteristic	Frequency	%
Age in years		
Less than 13	3	.5%
13-15	137	22.8%
16-19	460	76.7%
Above19	0	0
Class		
Form one	133	22.2%
Form two	155	25.8%
Form three	171	28.5%
Form four	141	23.5%
Home		
Rural	277	46.2%
Urban	323	53.8%
Who the boarders stay with		
Mother	126	21.0%
Father	45	7.5%
Both parents	276	46.0%
Guardian	53	8.8%
Who the Non- boarders stay with		
Mother	35	5.8%
Father	13	2.2%
Both	35	5.8%
Guardian	17	2.8%
Religion		
Christian	591	98.5
Muslim	8	1.3
None	1	0.2
Sex		
Boys only	300	50.0
Girls only	300	50.0
Type of schools		
Boys	200	33.3
Girls	200	33.3
Mixed boarding	100	16.5
Mixed day	100	16.5

3.2 Adolescents knowledge of HIV/AIDS

This was assessed using statement of true or false. These statements were categorized in order to show how knowledgeable the students were, True, 1 and False 0. The student's level of knowledge is shown in figure 1. From 50% and above indicated that the students were knowledgeable about HIV/AIDS.

From the respondents, 40% of the students correctly stated that one cannot tell a person infected with HIV/AIDS by just looking at him or her while (93%) incorrectly stated they would tell. About 65.8% correctly stated that a person with AIDS can give others while two hundred and five (34.2%) incorrectly stated that those infected could give others. Also 76% correctly stated that the risk of contaminating HIV is increased by the presence of other sexually transmitted diseases while 23.8% incorrectly stated that it does not. While 89% correctly stated that engaging in unprotected genital intercourse with an infected person exposes one to HIV infection, 11% incorrectly stated that it does not. Around 78.7% correctly stated that every form of homosexuality is a high-risky behavior in the spread of HIV/ AIDS while 21.3 % stated incorrectly that homosexuality is not a high risky sexual behaviour. But 38.7% students correctly sated that a person with many different sexual partners is at risk of HIV infection while around 61.3% differed with the statement. There were 55.2% who stated correctly that by reducing the number of sexual partners one reduces chances of HIV infection as 44.8 % incorrectly stated reducing number of sexual partners does not reduce the rate of HIV infection. For the statement that regular use of condoms help reduce the risk of contacting HIV/AIDS, around 49.8% stated correctly and about 50.2% incorrectly stated that regular use of condoms does not help in reducing the risk of getting HIV/AIDS.

According to sex, 38.3% of boys stated correctly the facts about HIV/AIDS and only 11.7 % did not state these correctly while 72% of the girls stated these correctly with only 12% stating them incorrectly (Table 4).

Table 4: Students knowledge of HIV/AIDS by sex

	Stated correctly		Stated incorrectly	
	Frequency	Percentage	Frequency	Percentage
Boys	230	38.3	70	11.7
Girls	228	38	72	12
Total	458	76.3	142	23.7

($\chi^2 = 0.418$; $p = 0.07$; $p > 0.05$; $df = 1$)

3.3 Socio-economic and cultural factors

The respondents were supposed to respond to the given statements and indicate their level of agreement or disagreement as shown in figure 2.

Pornographic materials

Three hundred and sixty six (61.0%) strongly agreed that materials like film and literature predispose students to HIV/AIDS. One hundred and fifty seven (26.2%) agreed, Twenty-seven (4.5%) were not sure, thirteen (2.2%) disagreed and thirty-seven (6,2%) strongly disagreed with the statement. ($\chi^2 = 31.322$ $p = 0.01$; $p < 0.05$; $df = 4$).

Drug use and abuse

One hundred and eighty four (30.7%) students strongly agreed that drug use and abuse predispose students to high-risk sexual behavior. Two hundred and fifty (41.7%) agreed, eighty-six (14.3%) were not decided Forty-six (7.7%) disagreed while thirty-four (5.7%) strongly disagreed. ($\chi^2 = 37.322$ $p = 0.02$; $p < 0.05$; $df = 3$).

Peer pressure

Two hundred and thirty six (39.3%) students strongly agreed that peer pressure exposes them to risk sexual behavior hence predisposing them to HIV/AIDS. Two hundred and forty (40.05) agreed, seventy-four (12.3%) were not decided, thirty one (5.2%) disagreed, while nineteen (3.2%) strongly disagreed, ($\chi^2=14.054$, $p=0.02$; $p < 0.05$; $df=3$).

Influence from mass media

One hundred and thirty six (22.7%) students strongly agreed that mass media has a strong influence in adolescents risk sexual behavior predisposing them to HIV/AIDS. Two hundred and forty one (40.2%) agreed, one hundred and twenty four (20.7%) were not decided, sixty (10.0%) disagreed while thirty-nine (0.5%) strongly disagreed. Majority of the students reported that the current television programs like Miami Sands, La Mujer de mi Vida, Passions, and the Bold and Beautiful contains sexual and love messages that excites and are likely to predisposes them to HIV infection, ($\chi^2=31.322$ $p= 0.01$; $p < 0.05$; $df=4$) .

Poverty

One hundred and fourteen respondents (19.0%) strongly agreed that poverty makes students engage in sex in order to meet their desired needs. One hundred and ninety (31.7%) agreed, One hundred and twenty one (20.2%) were not decided, sixty-six (11.0%) disagreed, and one hundred and nine (18.2%) strongly disagreed.

Availability of contraceptives

One hundred and eighty one (30.2%) strongly agreed that accessibility to contraceptives makes them feel safe and protected and hence increases their irresponsible sexual behavior. Two hundred and seventeen (36.2%) agreed, one hundred and twelve (18.7%) were not decided forty-six (7.7%) disagreed and forty-four (7.3%) strongly disagreed, ($\chi^2 =10.418$; $p= 0.08$; $p > 0.05$; $df=2$) .

Curiosity

One hundred and eighty three (30.5%) students strongly agreed that students need to experiment on new things build up by curiosity, makes them to engage in unprotected sex predisposing them to HIV/AIDS. Two hundred and seventy nine (46.5%) agreed, seventy (11.7%) were not decided, thirty one (5.2%) disagreed and thirty-seven (6.2%) strongly disagreed ($\chi^2=30.322$ $p= 0.04$; $p < 0.05$; $df=4$).

Poor role model from parents

One hundred and thirty six (22.7%) students strongly agreed that parents influence their behaviour exposing them to HIV/AIDS, Two hundred and forty five (40.8%) agreed, one hundred and seventeen (19.5 %) were not decided, fifty one (8.5 %) disagreed and fifty-one (8.5 %) strongly disagreed, ($\chi^2=10.455$ $p= 0.02$; $p < 0.05$; $df=3$).

Relaxed rules at home, church and society

One hundred and seventeen (19.5%) students strongly agreed that relaxed rules at home /church and society influence their risk sexual behaviour, One hundred and eighty five (30.8%) agreed, one hundred and thirty two (22.0 %) were not decided, ninety five (15.8%) disagreed and seventy one (11.8%) strongly disagreed

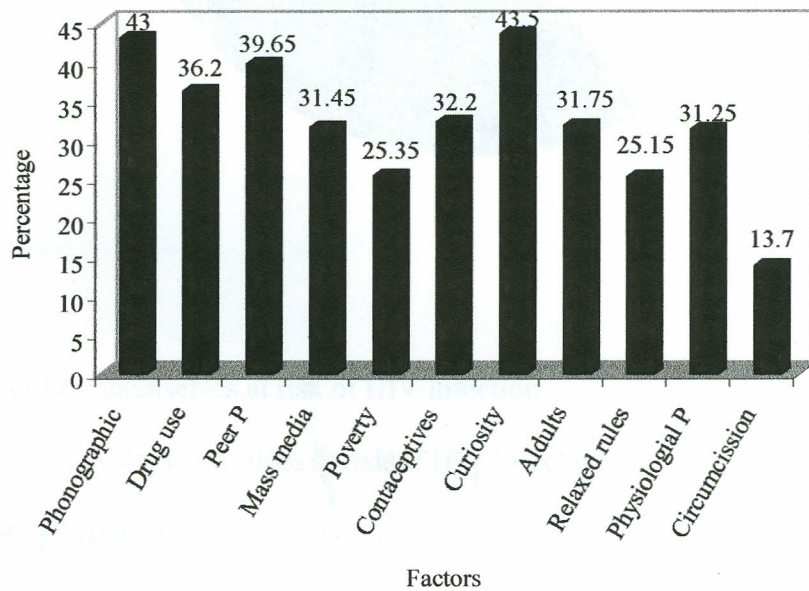
Physiological problems associated with adolescents

One hundred and twenty five (20.8%) students strongly agreed that physiological problems of adolescents during their development into adult hood influence them to risk sexual behaviour. Two hundred and forty nine (41.5%) agreed, one hundred and nine (18.2%) were not decided, Sixty- four (10.7%) disagreed and fifty-three (8.8%) strongly disagreed.

Male and female circumcision

Seventy three (12.2%) students strongly agreed that male and female circumcision may expose them to HIV/AIDS infection, ninety one (15.2 %) agreed, seventy nine (13 .2 %) were not decided, one hundred and thirty one (21.8%) disagreed and two hundred and twenty six (37.7%) strongly disagreed.

Fig 2 Social economic and cultural factors

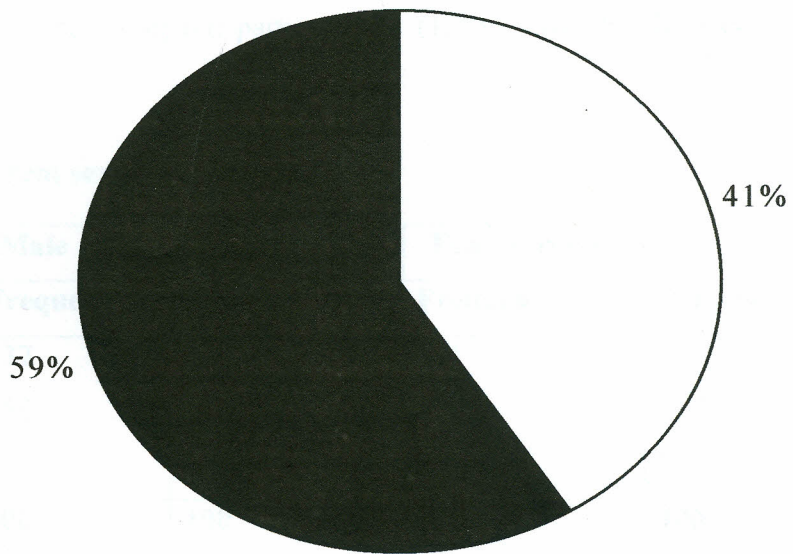


($f=2.213$; $p < 0.05$; $p=0.01$, $df=2$; $df=3$). f value of general table = 2.717

Figure1: Socio- economic and cultural factors that influence adolescents risk behaviour

3.4 Perception of Students vulnerability to HIV/AIDS

Figure 2 demonstrates the distribution of students according to how they considered themselves to be at risk of getting HIV/AIDS. Two hundred and forty six (41.0%) considered themselves vulnerable while three hundred and fifty four (59.0%) reported to be out of risk of getting HIV infection.



41% - Consider themselves at risk of HIV infection

59% - Don't consider themselves at risk of HIV infection

($\chi^2 = 3.069$; $p = 0.06$; $p > 0.05$; $df = 4$)

Fig2: Perception of the student's vulnerability to HIV/AIDS

Asked on how likely they considered themselves to be at risk of getting HIV, forty five students (7.5%) said very likely, one hundred and thirty four (22.3%) likely, One hundred and twenty six (21.0%) were not sure, ninety five (15.8%) less likely and two hundred (33.3%) very unlikely(Figure 3).

Sexual practices

On the issue of how many sexual partners that one should have, the respondents had different views. Majority of students, four hundred and forty four (74.0%) said they have a boy/girl friend against one hundred and fifty six (26.0%) who did not have. Two hundred and seventy eight (46.3%) students said that one should have several sexual partners, three hundred and

fifteen (52.5%) said should have only one partner while (1.2%) 7 said they have none (Table 5.)

Table 5: Number of current sexual partners by sex

Number of sexual partners	Male response		Female response	
	Frequency	Percent	Frequency	Percent
Several	137	45.5	141	47
One	158	52.7	157	52.3
None	5	1.7	2	0.7
Total	300	100	300	100

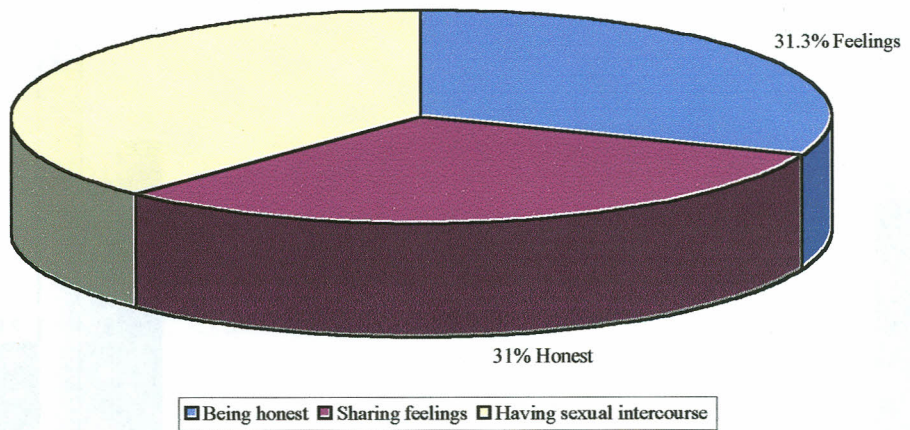
Regarding when they meet their sexual partners, Four hundred and twenty three (69.0%) meet them over the holidays, one hundred and four (17.3%) during school outings, twenty two (3.7%) during school visiting days , fifty six (9.3) in beer drinking pubs and only four (0.7%) during Sundays (Table6).

Table 6: When adolescents meet their sexual partners

When they met their sexual partners	Male		Female	
	Frequency	Percent	Frequency	Percent
During holidays	234	78	189	60
During outings	45	15	59	19.7
During school visiting days	15	5	7	2.3
Pubs	6	2	50	16.7
Sundays	0	0	4	1.3
Total	300	100	300	100

($\chi^2 = 17.762$; $p = 0.01$, $p < 0.05$; $df = 2$).

38% Sexual Intercourse



($\chi^2 = 17.018$; $p = 0.01$; $p < 0.05$; $df = 2$).

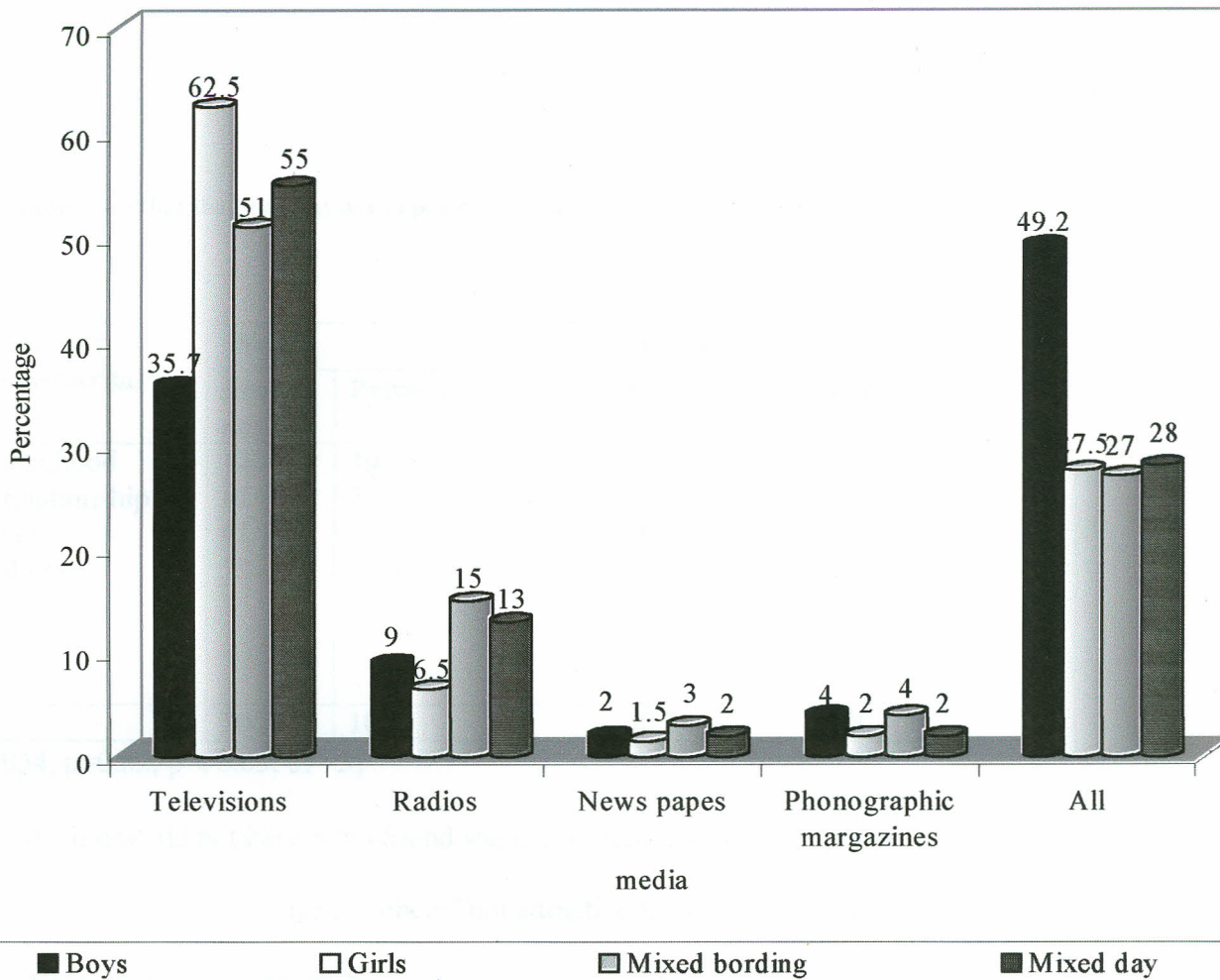
Fig 3 : Ways of showing love

On the aspects of the best way of expressing love to their lovers, One hundred and eighty six (31.0%) reported that they did it through being honest, one hundred and eight (31.3%) through feelings, Two hundred and twenty six and (37.7%) through sexual intercourse (figure3)

On the issue of whether the students have considered going for voluntary counseling and testing, Two hundred and twenty nine (38.2%) reported that they considered though they have not yet undergone the testing while three hundred and seventy one (61.8%) have not yet considered attending voluntary counseling.

Influence from mass media

On how mass media influences the students behaviour, five hundred and nineteen (86.5%) felt that mass media influence adolescents' sexual behaviour while eighty- one (13.5%) felt it does not. Three hundred and three (50.5%) of the students were accessible to television, fifty-nine while (9.8%) to radios. About twelve (2.0%) of the students were accessible to newspapers and eighteen (3.0%) to pornography magazines while two hundred and eight (34.7%) to all the mentioned mass media.



($\chi^2=31.322$ $p=0.01$; $p < 0.05$; $df=4$)

Fig 4: Mass Media available to students by type of school.

Peer pressure

Different students had different views on what their peers said about pre- marital sex .Two hundred and four (34.0%) perceived it as a proof that one is a ‘man’, one hundred and ninety seven (32.8%) said it sustains relationship. Ninety one (15.2%) was for the idea of abstaining and one hundred and eight (18.0%) thought that they should use condoms (Table 6).

Table 7: What the peers say about pre-marital sex

N=600

What peer say about premarital sex	Male		Female	
	Frequency	Percent	Frequency	Percent
Sign of manhood	120	40	84	28
Sustain relationship	81	27	116	38.7
Abstinence	41	13.7	50	16.7
Use condoms	58	19.3	50	16.7
Total	300	100	300	100

($\chi^2=14.054$, $p=0.02$; $p < 0.05$; $df=3$)

For the girls, if one did not have a boyfriend she is considered to be antisocial, foolish old fashioned and outdated “fala hajaona mbele” not attractive to boys childish and immature, and lastly she is rejected by the peers.

A boy without a girl friend is considered to be shy and afraid of girls, not a man enough, foolish, not sexually active/ dormant and infertile, abnormal, childish and not mature, not to belong to “Dot Com” generation and not up to standard to be associated with his peers.

Asked who the students shared sexual issues with, three hundred and eighty two (63.7%) discussed sexual issues with their friends one hundred and thirteen (18.8%) shares with parents, thirty four (5.7%) shared with teachers and seventy one (11.8%) shares with health workers (Figure 5).

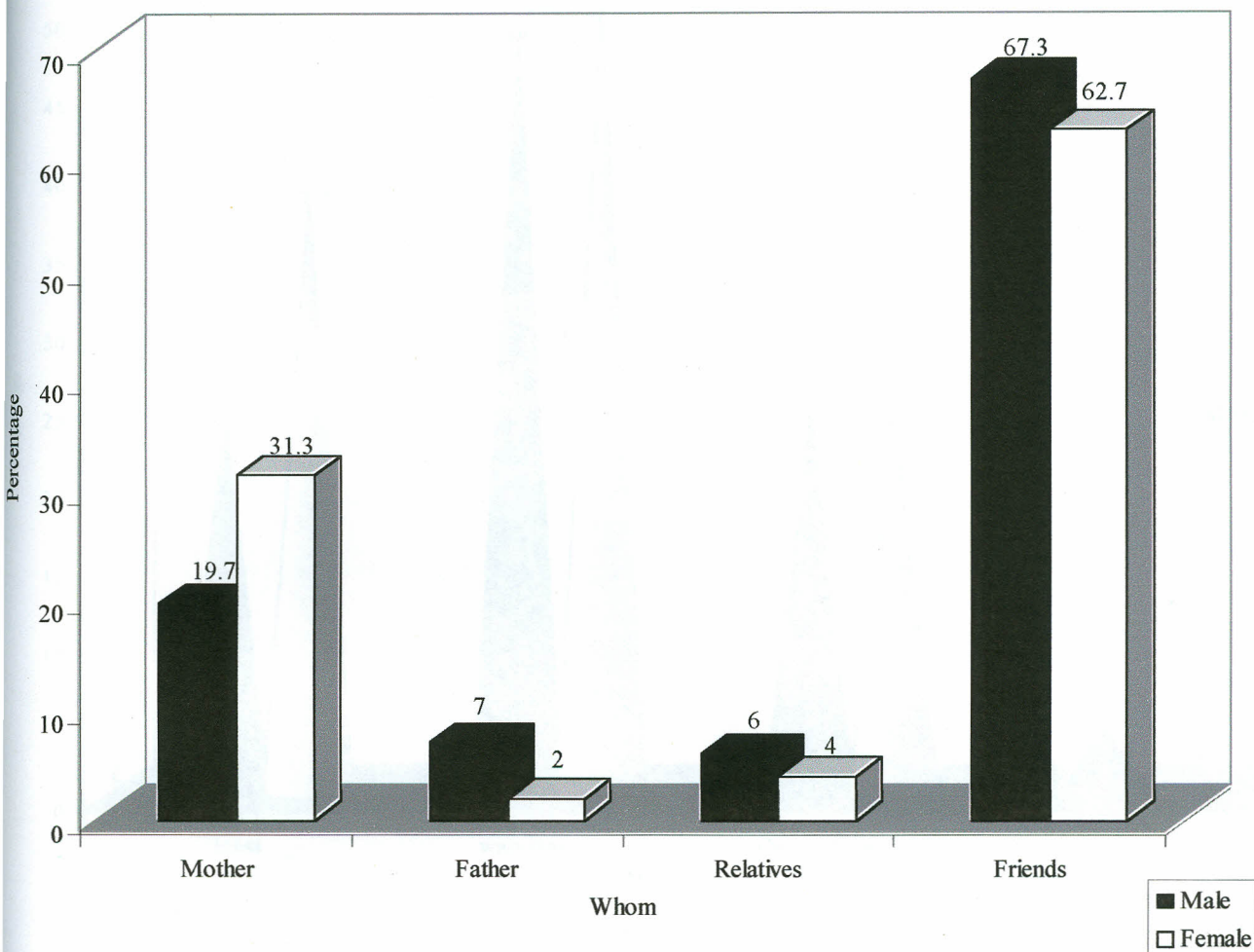
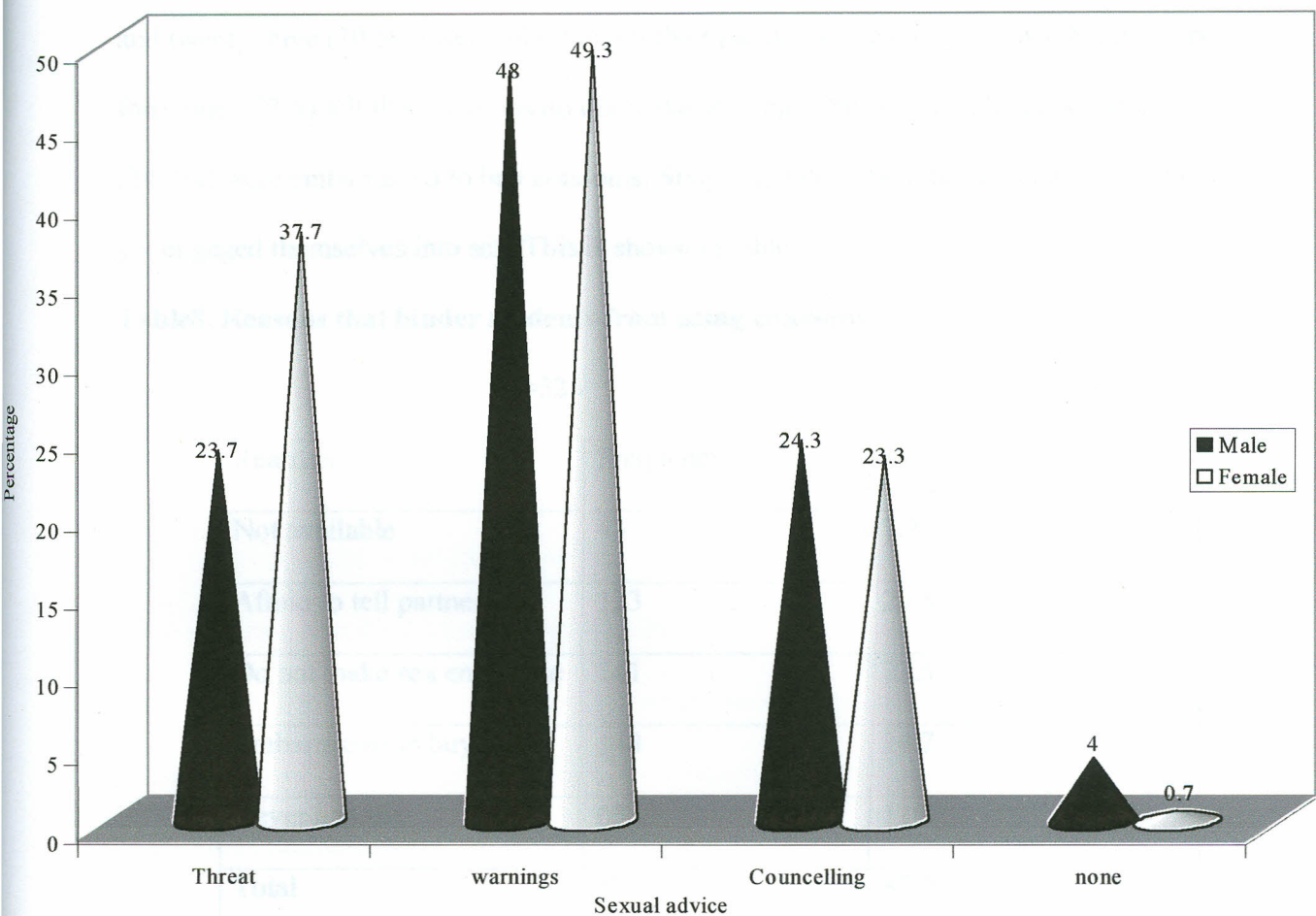


Fig 5: With whom the students discussed sexual issues

Parents

Four hundred and sixty four (77.3%) students accepted that it is suitable to discuss sexual issues with parents while one hundred and thirty six (22.7%) did not accept.

Regarding the form of sexual advice they receive from parents, one hundred and eighty four (30.7%) received it in form of threats, two hundred and ninety two (48.7%) received it in form of warnings, one hundred and ten (18.3%) received it in form of counseling while fourteen students (2.3%) received no advice from parents (Figure 6).



($\chi^2=28.506$ $p=0.02$; $p < 0.05$; $df=4$)

Fig 6: Form of sexual advice received from parents by sex

Condom use

In regard to the condom use, Five hundred and twenty three (87.2%) students have not used a condom while only seventy(12 .8%) have used condoms .Among those who have used condoms ,twenty one (3.5 %) have used it occasionally ,at least twenty nine(4.8%) have used every time , and twenty seven (4.5%) rarely .

From the total population of 600 sampled students, only 77 had used condoms while 523 had not. Those students who had not used condoms reported various reasons that hinder their use.

Forty three (7.2%) students reported that condoms were not available to them, one hundred and twenty three (20.5%) were afraid to tell their partner to use condoms, one hundred and forty one (23.5) felt that condoms do not make sex enjoyable, one hundred and forty eight (24.7%) were embarrassed to buy condoms. Sixty-eight (11.3%) reported that they had not yet engaged themselves into sex. This is shown in table 7.

Table8. Reasons that hinder students from using condoms

n=523

Reasons	Frequency	%
Not available	43	7.2
Afraid to tell partner	123	20.5
Do not make sex enjoyable	141	23.5
Embarrassed to buy them	148	24.7
Never had sex	68	11.3
Total	523	87.2

($\chi^2=37.329$; $p= 0.02$; $p < 0.05$; $df=4$)

However, two hundred and seventy two (45.3%) reported that they would accept the use of condoms by their lover while three hundred and twenty eight (54.7%) said they would not accept. Asked whether they get condoms when they are in need of them three hundred and sixty nine (61.5%) reported that they do not get condoms when they are in need while two hundred and thirty one (38.5%) said they got condoms when in need.

CHAPTER 4

4.0 DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

4.1 DISCUSSION

This study was carried out in Kiambu District with an aim of investigating factors that predisposes adolescent to HIV/AIDS. It points out the adolescents knowledge of their risk sexual taking behaviour and practices, role of socio-economic and cultural factors, mass media and parents in influencing their sexual behaviour.

The findings of the study revealed that there was no significant difference between male and female student's knowledge on HIV/AIDS ($\chi^2 = 0.418$; $p = 0.07$; $p > 0.05$; $df=1$) (refer to table 4). Thus sex and type of school as variables were not found to influence the level of student's knowledge on HIV/AIDS. This could be supported by the fact that HIV/AIDS education has been implemented in secondary schools syllabus and the students are likely to be readily exposed to HIV/AIDS related information without gender discrimination.

However the students demonstrated gaps in knowledge on how HIV /AIDS is transmitted. While more than 70% of the students sated correctly that the risk of getting HIV is increased by the presence of Sexually Transmitted Diseases, engaging in un protected genital intercourse or homosexuality with an infected person, gross misconception were also reported. For instance, 55.2% of the students sated incorrectly that reducing number of sexual partners and regular use of condoms do not reduce their risk of getting HIV, and that a person with many different sexual partners is not at risk of getting HIV/AIDS. About 44.8% of the students stated incorrectly that one cannot tell a person infected with HIV by just looking at

him or her. Although 89% of the students had the knowledge that engaging in un-protected sexual intercourse with an infected person poses a high risk of HIV/AIDS, rarely do they use condoms. Only 12.8% students reported that they use condoms while 87.2% do not use condoms. From the findings the students knowledge on HIV /AIDS was not reflected in the protective measures taken against the disease.

The findings of this study are consistent with studies done by UNAIDS (2002), which revealed that in countries with generalized HIV epidemic such as Cameroon Central Africa and Lesotho, more than 80% of the young women aged 15-24 do not have sufficient knowledge about HIV/AIDS.

There was a significant difference between the type of school and socio-economic and cultural factors predisposing adolescents to HIV/AIDS ($f=2.213$; $p< 0.05$; $p=0.01$, $df=4$ $df=3$). f value of general table =2.717 (refer to Figure 1). This difference could be explained by the differences in family background between the boarders and the non -boarder students. Out of the 100 non-boarders only 5.8% had both parents as compared to a total of 500 boarders of whom 46% had both parents. This could be due to the fact that the non-boarders come from within Kiambu environ which has a high prevalence of HIV and hence poverty due to death of able and young people. This could have resulted into single parenthood status and children being orphans.

Poverty was cited to expose adolescents to HIV with 50.7 % of the students agreeing with the statement. Such circumstances would expose adolescents to risky sexual taking behaviors since it would result to adolescent boys / girls entering into relationship with so called sugarmummies and sugardadies' in Kenya in favour of gifts and money to meet their needs. A similar study done in South Africa revealed that students engage into relationships

with sugar daddies and sugarmummies who pay school fees, buy them gifts and offer other inducements (Meeker and Calves, 1997).

In an environment of poverty and deprivation, young girls are particularly at risk and more so by the fact that from this study 16.7% of girl's students reported that they meet their sexual partners in beer/ alcohol drinking pubs. The influence of alcohol is likely to make girls feel powerless, be unable to make correct judgement and also fail to protect themselves against HIV. This coincides with a study done in Kenya in Rift Valley Province by NACC, 2000 which revealed that 40% of sexually active female secondary schools students said they had been forced or tricked into sex. Unwilling sex with an infected person carries a high risk of infection especially for girls. Since force is used abrasions and cuts are more likely and the virus can easily find its way into the blood stream. Also condoms use is unlikely in such situations.

The study revealed no significant difference between the students perception of vulnerability to HIV/AIDS, ($\chi^2 = 3.069$ $p = 0.06$ $p > 0.05$; $df = 4$). (refer to figure 2). This lack of significant difference between male and female students' perception could be attributed to the fact that they are all in the adolescent stage and lack the judgement that comes with their experience, hence cannot appreciate the adverse consequences of their action. Hence this might explain why, though 33.3% of the students reported that they are very unlikely to be at risk of getting HIV/AIDS and 69.8% said that the use of condom is not the best measure to protect them from HIV/AIDS. This implies that although the adolescent's behavior increases their vulnerability, the risk of HIV/AIDS may be particularly hard for the adolescents to grasp. This could be attributed to the fact that HIV has a long incubation period and a person's risk behavior does not have immediately the apparent consequences. At the same time, the potential social cost of a young person preventing HIV

infection including loss of the relationship, loss of trust, and loss of peer acceptance can be too high a price to bear. Hence even if they appreciate the risk of HIV/AIDS, many adolescents did not perceive themselves to be at risk of getting HIV/AIDS

The findings corroborate those of Tobijor (2000) from a recent national survey of teens in school in Latin America which revealed that though the students were sexually active only about half of them (57%) used condoms during their sexual intercourse. Elsewhere in South Africa, studies have shown that young people do not consider themselves to be at risk of contracting HIV/AIDS, while other said in a focus group discussion that if they became infected, other people would be responsible not themselves (Campbell and Macphail, 2001).

There was a significant statistical difference between male and female students regarding the best ways of showing love to their lovers ($\chi^2 = 17.018$ $p = 0.01$ $p < 0.05$; $df = 2$). Thus sex of the students as a variable was found to influence the students' way of showing love to their lovers (Figure 3). According to the findings of the study, male students felt that sexual intercourse was the best way of showing love to their lovers. This difference between the male and female students on the way of showing love could be due to the fact that girls would prefer to keep off from sexual activities due to expected repercussions of unwanted pregnancies, early child bearing and dropping out of school while boys feel that they have nothing to lose.

The perception of what the peer thinks often has a greater influence on sexual and other risk taking behavior than the opinions of parents and other adults. The findings revealed that there was a highly significant difference between the male and female students on their peers views about pre-marital sex ($\chi^2 = 14.054$, $p = 0.02$; $p < 0.05$; $df = 3$) (refer to table 6). The sex of students as a variable was found to influence their views on pre-marital

sex. This statistical difference between the male and female student's view on pre-marital sex could be caused by the fact that male students considered having sexual intercourse as a sign of one being seen as a 'real man'. Hence the desire to be considered a hero and not ostracized by peers as a virgin was very strong. However students had different views regarding how one is considered by peers if she/he does not have a girl/boy friend, where: some considered one to be old fashioned, outdated, foolish, not belonging to the current 'dot com' generation, not man enough, and the rest said that one is isolated from the peers.

A similar study by Boyer and Keggeles (1991) in US indicates that the sexual behaviour of friends influences young people's own sexual behavior. In Kenya Kiragu and Zabin (1993) revealed that adolescent men whose friends were sexually active were seven times more likely to be sexually active themselves. While in Uganda young men report that peer pressure made them to "Prove that you are a man" and a young man is quoted to have said, "it is not enough to get her to fall in love with you; you must be able to show your friends that you have slept with her (Hulton *et al.*, 2000).

A great deal of information about reproductive health is gained from the entertainment programs in the mass media. Many of these programs have the effect of promoting risky attitudes and behavior and portraying sex acts as good. The findings of the study indicate that, 62.7% of the students strongly agreed that mass media influences their sexual behavior and only 16.5 % strongly disagreed. Majority of the students (50.5%) reported television as their favourite source of information. The students reported their favourite programs from the Kenya broadcasting cooperation (KBC) television as Miami Sands, Deception, La Murjer de mivida, the bold and the beautiful and live wire ware house. However, there was a significant difference between the male and female students where majority of girls reported being exposed to television while boys were exposed to

pornographic films and literature ($\chi^2=31.322$ $p= 0.01$; $p < 0.05$; $df=4$) (refer to figure 4).

Thus the sex of students as a variable was found to influence the students exposure to mass media.

From the study, majority of the students (86%) reported that these pornographic media influences their sexual behavior in various ways: The adolescents become curious of what they see and they want to experiment, increases their sexual desires and make the sex act look good. They make students to become sexually active and hence want to prove man/woman hood. Students lack self control and results to raping of girls, some students sneak out of the school to go and meet their sexual partners, male students start having an emotional attraction to the female teachers and vice visa with the girls hence loses concentration in class.

From the study findings majority of the students (77.3%) reported that it is was suitable to discuss sexual issues with parents. However, when asked who they discussed sexual issues with, 65% preferred friends, 25.5% mothers, 4.5 % fathers and 5.0% relatives .The failure to discuss sexual issues with parents could be attributed to the values norms, and the customs that governs the African parent child relationship where sexual issues are not discussed with children. This explains why majority of the students reported that the type of sexual advice they received from their parents was inform of threats and warnings (Figure 6). Sex as a variable was found to influence the type of sexual advice that the students received from their parents. However the study revealed that the level of sexual advice given to the students in form of threats and warnings differed by sex and was high on the girls than boys (refer to figure 6). This difference on more threats and warnings directed to girls than the boys could be attributed to the fact that, parents fear the immediate consequences unexpected pregnancies and dropping out of school while the boys are out of these dangers. This implies

that the element HIV/AIDS resulting from the boys risk sexual behavior could be invisible to the parents or they lack the knowledge about HIV/AIDS.

These findings are at variance with those of Kiragu and Zabin (1993) from United States where 37% of respondents reported that they discussed sexual issues with parents while 30% discussed with friends. Although the study did not investigate on difference, this major difference could be attributed to the differences in culture and customs between the African and the western world. In many African cultures, parents traditionally do not discuss sex with their children. Instead, the grand parents, uncles, and aunts play this major role. Now the break down of the traditional values has left many parents with the challenge of talking to their children about HIV/AIDS and sex. More so the topic of sex is considered sacred and in some societies it is a taboo to even mention sex. This has contributed to parent's embarrassment to talk about sex to their children and hence avoid the topic. On the Contrary, in the western world, sex is discussed openly between parents and their children. The gap in communication between the students and their parents in the Kenyan communities and more so Kiambu could be attributed to various reasons:

Many parents know very little about HIV/AIDS and worry of the information to give their children. Parents could also fear that their teenage children might ask questions that they might not be able to answer. More so, those parents from the rural area are less educated than their children and hence worry that they lack knowledge to talk with their children about sex.

The study revealed a statistical significant difference between male and female students on the reasons that hindered them from using condoms ($\chi^2=37.329$; $p= 0.02$; $p < 0.05$; $df=4$), (refer to table 8). While girl's major hindrance of condom use was due to the fear of telling their lovers, boys felt that condoms do not make sex enjoyable. This difference between the boys and the girls on condom use could be attributed to the fact that condom use

requires their sex partners awareness and cooperation. Hence many adolescents are afraid to ask their partner's sexual history or to use condoms for fear of endangering the relationship.

These finding shows that those young people who know how to protect themselves from HIV/AIDS often lacks the skills to do so due to the anxiety and the embarrassment.

Thus they prefer to consider themselves 'safe' rather than face the discomfort of taking steps to ensure their safety. At the same time however, many would be relieved if the partner brought out the issue of protection. This is similar to a study done in Malawi where more than half of the adolescent girls surveyed from 10 rural villages reported that they would rather risk pregnancy than ask a boy to use condoms (UNAIDS, 2002).

From the study findings, those who accepted the fact that use of condoms was protective measure against HIV /AIDS said they would accept their lovers to use them while those who did not accept would never want their lovers to use them. This difference could be attributed to the fact that those who accepted condom use perceived themselves to be at risk of getting HIV/AIDS while those who rejected the use of condom had a lower perception.

4. 0.1. A Comparison with Past Studies

The findings of this study are consistent with studies done before. The current study revealed that there was no significant difference between the male and female students' knowledge of HIV/AIDS. These results are consistent with those of Carr (2000) which reported gaps in knowledge where 50% to 75% of young people aged 15-19 in South Africa did not know that a person with HIV may look healthy.

UNICEF (2000), reported lack of relationship between knowledge and HIV/AIDS preventive measures in Cameron and Zambia where young girls were more knowledgeable about HIV than boys, knew how to protect themselves, but they often hesitated to introduce the topic to their partners lest they appear more knowledgeable. This is consistent with the

current study where girls failed to use condoms as a preventive measure against HIV due to the fear of telling their lovers to use condoms.

The current study revealed that there was a significant relationship between the socio-economic and cultural factors in influencing the adolescent's sexual behavior. From the findings of the study, the family background of the students played an important role in influencing their sexual risk taking. This is consistent with Naranja and Padila (1999) findings which reported that sexual risk behavior by adolescents was more common among families with only one income earner than in those with two or more.

The study revealed that there was no significant difference between the male and female students' perception on their risk of getting HIV/AIDS. This collaborates with those of UNICEF (2000) done in Zimbabwe where more than half of the young girls and boys interviewed said they were not at risk for HIV/AIDS, while some questioned the existence of HIV/AIDS.

The current study revealed a significantly positive relationship between those students who accepted that condoms were the best measure to protect them from HIV/AIDS and those who accepted the use of condoms by their lovers. This was inconsistent with Health Belief Model by Becker and Maiman (1975), which revealed that it is only when an individual perceives himself to be at risk of contracting a given disease that he is likely to take recommended action. This study also revealed a statistical difference between male and female students on the reasons that hindered them from using condom. According to the health belief model, the likelihood of taking recommended preventive health action depends on whether perceived benefits outweigh the perceived barriers of the preventive action (Becker and Maiman, 1975).

Studies by Tony (2000) reported that peers influence the adolescents sexual risk behavior. A study carried out in South Africa among the adolescent reported that their peers would ridicule a person who fails to hold onto a relationship because she refused sex. When adolescents believe that their peers think that unprotected sex is not risky, then they are more likely to have unprotected sex themselves. These findings are supported by those of this study, which revealed a significant difference between the male and female students in their peers' view about pre-marital sex.

4.2 CONCLUSIONS

The study findings led to the following conclusions.

Adolescents do not consider themselves to be vulnerable to HIV/ AIDS. From the study, only 41% of the students considered themselves to be vulnerable while 59% did not consider themselves to be at risk (refer to **figure2**).

Adolescents reported having knowledge about HIV/AIDS and 89% knew that unprotected sex exposes one to HIV infection. However this was not reflected in their protective measures where majority (54.7 %) did not use condoms yet many of them (54.7 %) reported having several sexual partners.

The relationship between the parents and their children in discussing sexual issues was not effective and 48 % received sexual advice informs of warnings. However there was a significant difference where more warnings were directed to girls than boys were (refer to **figure 6**).

Mass media influenced adolescent's sexual behaviour and 86.5% cited that television programs like Miami Sand, bold and beautiful and live wire warehouse portray sex acts as good. However there was a significant difference on exposure to mass media on boys and

girls. While majority 62.5% girls were exposed to television program, boys 49.2% were exposed to all the mass media mentioned which included pornographic magazines, newspapers, televisions and radios (refer to **figure 4**).

Condoms use as a preventive measure against HIV/AIDS was found to be popular among adolescents. Only 12.8 % of the study population had used condoms on irregular basis while 54.7 % said they had not used condom for various reasons (refer to **table 8**).

From the study findings, peers were reported to play an important role in influencing adolescents' sexual behavior. This was demonstrated by the fact that 70.7% of the adolescents reported that they discussed sexual issues with friends. Regarding their opinion on premarital sex only 16.7 % were for abstinence. However there was a significant difference between boys and girls view on premarital sex. While majority of boys 40% were for the opinion that it was a sign of Manhood, majority of girls 38.7% were for the opinion that it sustained relationship (refer to **table7**).

Risk sexual practice was high among girls than boys where 47% of girls had several sexual partners as compared to 45% of boys. On where they meet their sexual partners 16.7 % of girls meet them in drinking pubs as compared to 1.3% boys population (refer to **table 5 and 6 respectively**).

4.3 RECOMMENDATIONS

The study came up with the following conclusions:

Adolescents must learn the facts about HIV/AIDS before they become sexually active, and the information needs to be regularly reinforced and built on both the classroom and beyond. It is also essential to reach young people before they engage in high-risk

behavior. Information on HIV/AIDS and reproductive health, as well as life skills, should be integrated into primary and secondary schools throughout the year.

Since family plays a very important role in helping teenagers avoid risk behaviours, frank discussions between parents and adolescent children on matters concerning sexuality and use of condoms should be encouraged. This can enable adolescent to adopt behaviours that will prevent them from getting HIV and other STIs. Many parents could be unwilling to talk about sex or feel uncomfortable doing so, or they lack knowledge themselves hence more programs are needed to help them overcome their discomfort as well as their lack of information. The messages could be disseminated to parents by the relevant authority through schools occasions like Visiting days, school learning days , open days and during annual general meetings.

Schools are important venues for educating teenagers on many kinds of health risk, including HIV/AIDS, sexually transmitted diseases and intended pregnancy. Reproductive health education for young people helps young people remain abstinent longer. It is recommended that effective educational programs should focus on curriculum, have clear messages about risks of unprotected sex and how to avoid risks, teach and practice communication skills, address social and media influences, and encourage openness in discussing sexuality. This education must reach the adolescents before they become sexually active since it is easier to instill safe sex practices earlier than to change established risky behaviour. The relevant authority should monitor mass media programs.

HIV prevention programs for adolescents must consider the developmental needs of this age group. Programs should focus on contextual factors that lead young people to engage in higher rates of sexual activity and lower rates of condom use. Also any program directed to adolescents should be interesting, fun and interactive, and involve them in planning and

implementation. These programs should be implemented in venues outside schools, such as shopping centers and recreation /community centers.

Condom use as a protective measure against HIV infection is unpopular and infrequently used by the adolescents. It is recommended that adolescents not only need correct information and practices in self-protective skills, but also easy accesses to condoms in order to keep themselves risk-free. Schools should be considered appropriate sites for the availability of condoms, because they contain large adolescent populations and may potentially provide a comprehensive array of related educational and health care resources. Those religion-founded schools that oppose condom use should advocate for total abstinence.

Efforts to encourage sexual abstinence should be supported. Schools should start AIDS club such as “true love waits “, performing Dramas and plays on HIV/AIDS creating an AIDS open day through football match or songs. Teens who are thinking about becoming sexually active should be encouraged to consider the implications of their decisions. Also it is important to examine whether they are prepared to deal with the responsibility that comes as a result of being sexually active. This can be done by creating seminars and workshop in schools to educate the adolescents on sexuality.

Peer counselors and educators should be encouraged in schools. Also HIV/AIDS education programs should attempt to personalize perception of risk through peer modeling and exposing the students to testimonials from similar peers who might have had a personal history of HIV/AIDS infection. This would be a demonstrated way of increasing personal perception of risk and the negative outcome which would result from their irresponsible sexual behavior.

The following measures to prevent HIV in schools were recommended by students:
The guidance and counseling department should be created where they do not exist and be

managed by qualified teachers. More so the guidance and counseling masters and mistresses should be empowered from the society and Ministry of Education, AIDS education in schools should be able to deliver the accurate information. They complained that the teachers delivering the topic should undergo AIDS education training in order to deliver properly without mincing words. The students proposed that separating the girls from boys would discourage boy girl relationship that exists in mixed schools hence reducing sexual activities in Schools. Club such as abstinence and 'true love waits' ought to be started and encouraged in Secondary Schools. Health education on issues like drug use and abuse, family planning, sexually transmitted diseases and how to have healthy relationships should be given to the students. Lastly they recommended that there should be serious monitoring of phonographic films and literature that enters into the schools and strict measures should be taken upon students who abuses drugs.

There is need to carry out further research work on a similar study conducted among primary school pupils. Also there is need to carry out a study on adolescent perception to Voluntary Counseling and testing (VCT) in the same District. This study will be useful for further research and also for public health practices. The information of this study finding will be disseminated to the society through publications on journals, Internet and new papers.

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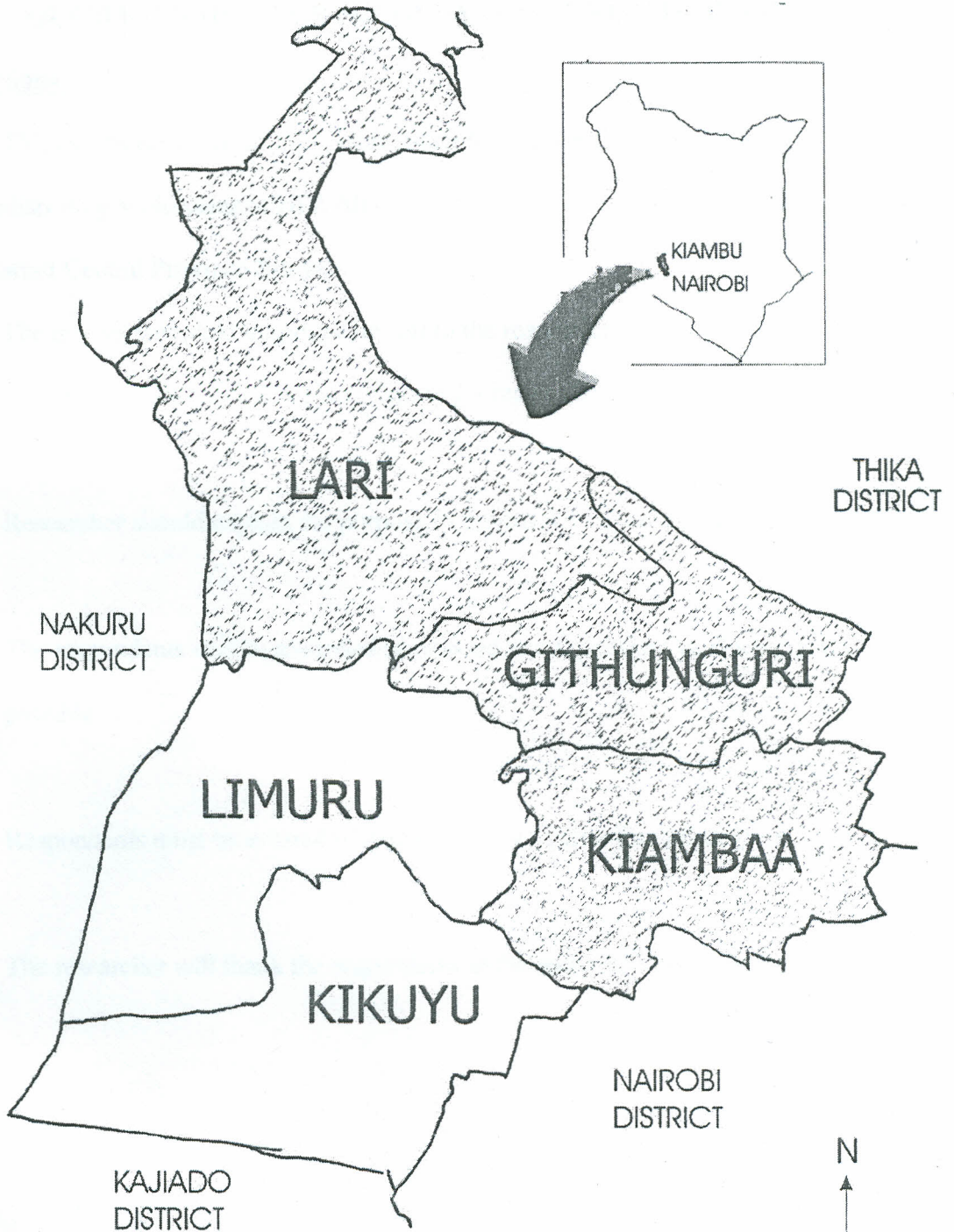
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MAP OF KIAMBU DISTRICT SHOWING THE STUDY AREA

SCALE 1: 5,000



LEGEND

 STUDY AREA

APPENDIX II

QUESTIONNAIRE FOR SECONDARY SCHOOL STUDENTS:

Instructions.

- i) This questionnaire is meant to gather data for a research project on factors Predisposing adolescents to HIV/AIDS in selected Secondary schools in Kiambu District Central Province Kenya.
- ii) The interviewer must introduce herself to the respondents before distributing the questionnaires and request for respondent's consent.
- ii) Researcher should explain the purpose of the study to the respondents.
- iii) The respondents will be requested to respond to all questions as sincerely as possible.
- v) Respondents must be assured of confidentiality of all information given.
- vi) The researcher will thank the respondents at the end of the interview.

A GENERAL INFORMATION

NAME OF SCHOOL: _____ CLASS: _____
DIVISION: _____

SECTION A

Tick the most appropriate answers from the choices provided after each respective question.

1. Sex: Male _____ Female _____
2. Age: (i) Less than 13 (ii) 13-15 (iii) 16-19
3. Class/ Form: 1 _____ 2 _____ 3 _____ 4 _____
4. Where is your home now?
(i) Rural
(ii) Urban
5. **For the Non –Borders only:** Whom do you stay with (tick one)
(i) Mother
(ii) Father
(iii) Both
(iv) Others (specify).....
6. Who do you live with during school holidays.
(i) Mother
(ii) Father
(iii) Both
(iv) Other people (specify}...
7. What is your religion?
(i) Christian
(ii) Muslim
(iii) Others (specify)...

B ADOLESCENTS KNOWLEDGE ABOUT HIV/AIDS

8. Which of the following statements is TRUE/ FALSE according to you?

(Tick in the blank spaces provided).

(a) A person can be infected with HIV/AIDS and not even know it	True _____ False _____
(b). One can tell someone infected with aids virus HIV by just looking at him or her.	True _____ False _____
(c) A Person who is sick with AIDS can give others..	True _____ False _____
(d)Risk of contacting HIV is increased by the presence of other sexually transmitted diseases.	True _____ False _____
(e) HIV is transmitted by engaging in un protected genital intercourse with an infected person	True _____ False _____
(f) Every form of homosexuality is a high –risk behavior in the spread of HIV/AIDS.	True _____ False _____
(g) A person with many different sexual partners could be at risk of HIV infection.	True _____ False _____
(h) By reducing the number of sexual partners, one reduces chances of HIV infection.	True _____ False _____
(i) Regular use of condoms helps to reduce the risk of contracting HIV.	True _____ False _____

C SOCIAL –ECONOMIC AND CULTURAL FACTORS

The following are suggested factors that predispose adolescents to HIV/AIDS.

Please indicate your opinion of these statements by putting a tick against **SD,” D”, N ,“ or SA”** on the box provided after each question ,where:

SD = Strongly Disagree with the statement

D = Disagree with the statement

N = Neither Agree nor Disagree with the statement

A = Agree with the statement

SA = Strongly Agree with the statement.

		SD	D	N	A	SA
(a)	Reading or watching ponographic materials					
(b)	Drug use and –Abuse					
(c)	Peer Pressure / influence					
(d)	Influence from Mass media					
(e)	Poverty					
(f)	Availability of contraceptives					
(g)	Curiosity / need to experiment					
(h)	Poor role modeling from Adults					
(i)	Relaxed rules at home / church /society					
(j)	Physiological Problems associated with adolescent stage.					
(k)	Male and female circumcision					

10 (a). Do you consider yourself to be at risk of getting HIV/AIDS?

(i) Yes

(ii) No

✓ (b)How likely are you at risk of getting HIV/AIDS?

(i) Very likely

(ii) Less likely

(iii) Not sure

(iv) Less unlikely

(V) Very unlikely

- (c) Do you have a boyfriend/girlfriend?
- (i) Yes
 - (ii) No
- (d) How old were you when you had your first sexual intercourse?
- (i) Less than 10
 - (ii) Less than 15
 - (iii) Less than 19
- (e) When do you meet your sexual partners?
- (i) During holidays
 - (ii) During outings
 - (iii) During school visiting days
 - (iv) Others (specify)....
- (f) Which of the following is the best way of showing love to your Lover?
- (i) Being honest
 - (ii) Sharing feelings
 - (iii) Having sexual intercourse
- (g) Do you believe that Boys should have several girl friends to prove their man hood?
- (i) Yes
 - (ii) No
- (h) How many sexual partners should one have?
- (i) Several
 - (ii) One
 - (iii) Others (specify)....
- (i) When you are suffering from sexually Transmitted Diseases (STD'S) do you make it known to your sexual partner?
- (i) Yes
 - (ii) No
- (j) Who do you share with the above problem?
- (i) Friends
 - (ii) Parents
 - (iii) Teachers
 - (iv) Health workers
 - (v) Others (Specify).....
- (k) Where do you get drugs to treat (STDs)
- (i) shops
 - (ii) herbs
 - (iii) Hospital /Clinics
 - (iv) Self treatment
 - (v) Others (Specify).....
- (L) Have you considered going for Voluntary Counseling Test (VCT)?
- (i) Yes
 - (ii) No

(m) What are you doing to protect yourself from getting AIDS? Give at least three ways.

(i)

(ii)

(iii)

D ROLE OF PEERS, MASS MEDIA , AND PARENTS

Kindly tick what is applicable to you and also fill the blank spaces provided.

11. (a) Do you know somebody of your age who has a Girl/Boy friend?

(i) Yes

(ii) No

(b) If yes do they have sexual intercourse?

(i) Yes

(ii) No

(c) What do your peers say about pre-marital sex?

(i) It is a proof of manhood

(ii) It sustains relationship

(iii) It should be avoided /abstinence

(iv) To use condoms

(vi) Others (specify).....

(d) How is one considered by the peers if he /she does not have a Boy/ Girlfriend?

(i)

(ii)

(iii)

12 (a). Which of the following Mass Media are you accessible to

(i) Televisions

(ii) Radios,

(iii) News papers

(iv) Phonographic Magazines

(v) Others (specify)....

(b) If you are accessible to TV which current Program and in which channel do you enjoy most ?

(i)

(ii)

(ii)

(c) In your opinion do you think phonographic media influences the student Sexual behaviour?

(i) Yes

(ii) No

(d) If yes to the question, how?

(i)

(ii)

(iii)

13(a). Do you think it is good to discuss sexual issues with parents?

(i) Yes

(ii) No

(b) Whom do you discuss sexual issues with?

(i) Mother

(ii) Father

(iii) Relatives

(iv) Friends

(vi) Others (specify)

(c) What form of sexual advises do you receive from your parents?

(i) In form of threats

(ii) In form of warnings

(iii) In form of counseling

(iv) Others (specify).....

14(a) How many types of Condoms do you know?

(i)

(ii)

(b) Have you ever used a condom?

(i) Yes

(ii) No

(c) If yes how often?

(i) Occasionally

(ii) Every time of sexual intercourse

(iii) Rarely

(d) If no to the above question, why?

(i) Condoms are not available

(ii) I am afraid to tell my lover to use it

(iii) Condoms do not make sex enjoyable

(iv) I am embarrassed to buy Condoms

(v) Others (specify)...

(e) Would you accept the use of condoms by your lover?

(i) Yes

(ii) No

(f) Do you easily get Condoms when you are in need?

(i) Yes

(ii) No

(g) Do you think condoms are the best measures to protect adolescents?
against HIV/AIDS?

(i) Yes

(ii) No

25 Other than use of Condoms suggest at least four other measures of
preventing the spread of HIV/AIDS among adolescents in schools.

(i)

(ii)

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

to: "EDUCATION", Nairobi
to: Nairobi 33411
copying please quote

MOEST 13/001/32C 165/2
and date



JOGOO HOUSE "B"
HARAMBEE AVENUE
P.O. Box 30040
NAIROBI

23rd August 20..02

Patricia Wanjiru Karuru
Kenyatta University
P.O. BOX 43844
NAIROBI

Dear Madam

RE: RESEARCH AUTHORISATION

Following your application for authority to conduct research on 'An investigation of factors prectisposing Adolescents to HIV/AIDS infections in selected Secondary Schools in Kiambu District, I am pleased to inform you that you have been authorised to conduct research in Kiambu District for a period ending 30th September, 2003.

You are further expected to deposit two copies of your research findings to this Office upon completion of your research project.

Yours faithfully


A. G. KAARIA
FOR: PERMANENT SECRETARY/EDUCATION

CC
The District Commissioner
Kiambu District
P.O. BOX
KIAMBU

The District Education Officer
Kiambu District
P.O. BOX
KIAMBU