Factors Influencing Behaviour Change for the Prevention of the Spread of HIV/Aids among Students in Githunguri Division, Githunguri District, Kiambu County, Kenya¹

I. N.Ndegwa² M. P. Wanderi³ A. Mwisukha⁴

Abstract

The Human Immunodeficiency Virus (HIV) continues to spread in most countries of the world including Kenya. Since HIV/AIDS has no cure as yet, behavior change has been fronted as the most likely scientific basis for the reduction in HIV prevalence. The virus is spread mainly through sexual behavior and drug taking; behaviours that are generally private and sometimes difficult to discuss openly. This study looked at behavior change for the prevention of the spread of the Human Immunodeficiency Virus (HIV) among students in Githunguri Division of Githunguri District in Kiambu County, Kenya. This study was a descriptive survey conducted among secondary school students in Githunguri District. Out of a total of 28 public schools in the Division, seven (7) of them were randomly selected using the stratified sampling method, while one (1) school was purposively selected as it was the only one of its kind, adding up to a total study sample of 8 secondary schools. School boys and girls from Form One to Form Four in the sampled secondary schools were used through the use of a questionnaire since the study required collection of primary data. Data analysis revealed that, behavior change had occurred among 56% of the respondents who had abstained from sex as compared to 36% of the respondents who had not abstained. Out of the 36% of the respondents who had engaged in sex, 50.8% of them had used condoms as compared to 49.2% of the respondents who had not used condoms. Females reported an average of 1.48 sexual partners, while the male respondents reported an average of 2.03 sexual partners. Behavior change was influenced by religion, knowledge of HIV/AIDS, influence from HIV/AIDS prevention methods and gender. HIV prevention efforts had a significant influence on behavior change for the spread of HIV/AIDS among students. The study recommended the need to have prevention efforts that focus more on adolescents so as to enhance their behavior change since nationally, some 400,000 students graduate from secondary schools every year. These young people represent a key cohort for behavior change communication and character formation.

Key Words: Human Immunodeficiency Virus (HIV), Acquired Immuno- Deficiency Syndrome (AIDS), Behavior change, abstinence, Behavior change programmes for HIV/AIDS, Youth Friendly Services

Abbreviations and Acronyms

AIDS:	Acquired Immunodeficiency Syndrome
BCC:	Behavior Change Communication
FHI:	Family Health International
HIV:	Human Immunodeficiency Virus
KAIS:	Kenya Aids Indicator Survey
KDHS:	Kenya Demographic Health Survey
KIE:	Kenya Institute of education

¹ These are results of a study completed in 2011.

² Holds a B.Ed., M.Sc and a Post Graduate Diploma in HIV & Aids Control and Management; currently serving as the Deputy Provincial Quality Assurance and Standards Officer, Nyeri County, Kenya.

³ Holds a B.Ed., M.Ed. and a PhD.; is currently an Associate Professor and Director, University – Industry Partnerships, Kenyatta University, Kenya

⁴ Holds a B.Ed., M.Ed and a PhD.: is currently aSenior Lecturer and Acting Dean, School of Applied Human Sciences, Kenyatta University, Kenya

KSPA:	Kenya Service Provision Assessment
M.o.H:	Ministry of Health
NACC:	National Aids Control Council
NASCOP:	National Aids Control and STI Programme
STDs:	Sexually Transmitted Infections
UNAIDS:	Joint United Nations Programme for HIV and AIDS
VCT:	Voluntary Counseling and Testing
WHO:	World Health Organization
YFS:	Youth Friendly Services

Background to the Problem

Young people under the age of 25 years are estimated to account for more than half of all new HIV infections worldwide (UNAIDS, 2008). Sub-Saharan Africa is home of two thirds (68%) of people living with HIV/AIDS or 22.5 million infected people (UNAIDS, 2008). In Kenya, the HIV prevalence rate increased to 7.8% in 2007 from the 6.7% prevalence recorded in the year 2006 (NASCOP, 2008). The increase in the percentage of the population living with HIV is because of wider access to antiretroviral drugs. In addition, four out of every five HIV positive Kenyans are unaware of their status and about two thirds of the country's 37 million people have never been tested for the virus (NASCOP, 2008). Kenya is one of the countries in Africa where there has been a favorable trend in HIV incidence. This is related to changes in behavior and prevention programmes. However, these intervention programmes still reach only a minority of those in need and a number of prevention targets like the adolescents are not being reached adequately. Young people are particularly vulnerable and are the key to the future course of the HIV pandemic. Data from Kenya and other countries in Africa show that young people are at the greatest risk for HIV infection, and yet they have the best chance of reversing trends in behavior that place them at risk (UNAIDS, 2006). They need to make responsible decisions about sexual behavior and protect themselves from unwanted pregnancies, HIV, and other sexually transmitted infections. It is against this background that this study was conducted to establish factors influencing behavior change for the prevention of HIV/AIDS among students in Githunguri Division. In this case, behavior change includes measures taken by individual persons to protect themselves from HIV infection such as abstinence from sex, use of condoms and reducing the number of sexual partners.

Statement of the Problem

Wider delivery of effective behavior change strategies is central to reversing the global HIV epidemic (Global HIV Prevention Group, 2008). The availability of new biomedical HIV prevention modalities such as vaccines and microbicides is still many years away. Even when these tools finally emerge, human behavior will remain critical as new prevention strategies are unlikely to be hundred percent effective in preventing HIV prevention (Global HIV Prevention Group, 2008). According to the KDHS (2003), almost 99% of the youth in Kenya (students inclusive) are aware of the presence of HIV/AIDS pandemic but behavior change is slow as most of them still engage in risky sexual behavior as is evidenced by the high number of teenage pregnancies and school dropouts. The concern for youths in secondary schools is even overwhelming in that in Kenya (Githunguri Division inclusive), age at first sexual intercourse is low (14 years) and age at first marriage seems to have been declining (16 years) contributing to observed increase in school dropouts (NASCOP, 2005). Data is lacking on factors influencing behavior change for HIV/AIDS prevention among students in Kenya (NASCOP, 2007). Consequently, the factors that influence behavior change for HIV/AIDS prevention amongst students are not well understood. For instance, it is not known why high levels of awareness about risky sexual behavior do not translate to the desired behavior change.

Justification for the Study

At the beginning of this decade, the global community embraced a set of ambitious development goals for the new millennium. Among them was the commitment to halt and begin to reverse the global HIV epidemic by 2015. Behavior change remains the world's primary tool for achieving this goal, clarity is urgently required regarding the optimal means of producing needed behavior changes, hence this study.

Youths are a very potential population subset that needs to be understood and therefore studies should focus on promoting desired behavior among this age cohort because of the physiological changes that could drive them to engage in risk behavior for HIV. Available data provides limited information for devising effective HIV/AIDS prevention strategies targeted at the Kenyan adolescents. Youths also form the majority of the population (Government of Kenya, 2002) and, hence, the need for the focus of this study. The study may provide guidelines on how to promote desired behavior among the youth to prevent HIV/AIDS especially in this era of no known and effective cure for AIDS. The study findings will form an important platform for implementers and policy makers in using effective strategies for behavior change promotion among the youth in Githunguri Division and in Kenya as a whole.

Adolescents need to have enough resources and available information support to be able to make the changes necessary to protect themselves. According to the Health Belief Model of behavior change, individuals must perceive themselves to be at risk of the health threat, before they take actions to reduce risky behaviors or to engage in healthy alternative behavior. Thus, adolescents who report high perceived risk for HIV/AIDS practice safer sexual behaviors, whereas those who perceive low risk for contracting HIV/AIDS report practicing unsafe sexual behaviors.

Adolescents and Sex

About half of all new H.I.V infections occur among the youth aged between 15-24 years of age (UNAIDS, 2008). In some countries in Africa where AIDS is wide- spread, early and risky sexual activity increases young people's vulnerability to HIV (UNAIDS, 2007). HIV is concentrated in high risk groups which often includes significant number of young people (UNAIDS, 2007). The impact of HIV/AIDS among adolescents is felt by the society atlarge. Students are dying or leaving schools, reducing both the quality and efficiency of the educational system (Tobijar, 2000).

Prevention of HIV Transmission through Behavioral and Sexual Means

Sexual behavior is private and patterns of sexual behavior are not well understood (Kenyatta University, AIDS Control Unit, 2006). There are also many religious and cultural dilemmas in dealing with HIV as sexually transmitted. Finding ways to alter and change sexual behavior to eliminate the further spread of HIV has proved to be extremely difficult (Kenyatta University, AIDS Control Unit, 2006). Sexual contact is the most frequent means of transmission of HIV. Between 75% and 85% of all HIV infections in adults and adolescents worldwide are transmitted through unprotected sexual intercourse. Heterosexual intercourse accounts for more than 70% of all adult and adolescent infections and homosexual intercourse accounts for a further 5-10%, although the proportions may differ from region to region (Tuju , 1996). Lack of perception of risk and feeling of invulnerability can be significant obstacles in changing adolescent's behavior (Tuju, 1996). Since the discovery of HIV, there have been many programs and measures to promote behavioral change towards safer sex.

Behavior Programs Targeted at Adolescents

HIV prevention behavior programmes can target individuals, families, communities, entire societies or (ideally) a combination of all these. Well designed programmes seek to achieve results on multiple levels. They promote accurate individual knowledge and perception of risk and increase individual motivation to avoid risky behavior (the Global HIV Prevention and Working Group, 2008). Prevention programmes also build individual skills needed to use to effectively negotiate risky situations. Within households, HIV prevention programmes aim to decrease the stigma associated with both HIV and sexuality, to promote open discussions about sexuality and drug use and to influence gender roles and norms. At a community level, effective HIV programmes seek to increase the value associated with safer behaviors to support community members reduce their risk, to build solidarity and reciprocity and to reinforce new norms (The Global HIV Prevention and Working Group, 2008).

The government of Kenya has acknowledged the need to establish youth-friendly HIV prevention services (M.O.H, 2005). Youth-friendly services are accessible, acceptable and appropriate for adolescents (M.O.H, 2005). They are broad-based health and related services provided to young people to meet their individual health needs in a manner and environment to attract interest and sustain their motivation to utilize such services (M.O.H, 2005). Currently, Kenya has a few youth friendly services where young people can access reproductive health care services.

Government Policy on HIV/Aids and the Youth

The government of Kenya is committed towards eradicating the HIV/AIDS scourge, for instance, on November 14th 1999, the government declared H.I.V/A.I.D.S a national disaster (NACC, 2000). In addition, the Sessional Paper No. 4 of 1997 of the Republic of Kenya gives guidelines on youth education. The government, in 2001 revised the secondary school curriculum by incorporating STI as an integral subject among the various subjects being taught in the schools (K.I.E, 2001). The overall goal of the AIDS education programmes is to prevent the spread of the HIV/AIDS among the youth in and out of school through behavior change.

The National AIDS Control Council (NACC) was established in 2000 under the Office of the President to provide leadership and a stronger coordination mechanism for a new multi-sectoral national response to HIV/AIDS (NACC, 2008). The NAC has a costed plan for effective HIV management, including HIV prevention, for the period 2005/6-2009/10 and coordinates all HIV and AIDS programmes, policies and interventions in the country, working and liaising with stakeholders from government, civil society, the private sector, external agencies and the corporate world.

In September 2003, the Kenyan government approved a bill that would make it a criminal offence to terminate or deny employment to anyone on the basis of his/her HIV status and would prevent insurers from raising premiums or denying services to HIV-positive clients. With the passing of the HIV/AIDS Prevention and Control Act in December 2006, Kenya now has a policy prohibiting HIV screening for general employment purposes and ensuring that AIDS research protocols involving human subjects are reviewed and approved by a national or local ethical review committee (NACC, 2008). The country has anti-discrimination laws and regulations that specify protection for vulnerable subpopulations which include children, women and young people. Promotion and protection of human rights is explicitly mentioned in some HIV policies and strategies and there also policies and laws against child marriage, sexual abuse and gender-based violence.

The country has a national policy for free (to users) HIV-prevention services, Antiretroviral Therapy and HIV related care and support interventions. Through the Joint Annual Performance Review (JAPR) process, the NACC conducts regular national annual reviews to monitor and evaluate the progress in implementing the national strategic plan including whether current practices promote risk behavior or hamper access to HIV prevention services (NACC, 2008). Kenya has a policy or strategy that promotes information, education and communication on HIV to the general population. The key messages that are explicitly promoted include being sexually abstinent, delaying sexual debut, being faithful, using condoms consistently, engaging in safer sex and involving people with HIV to a greater extent in the national response. The government promotes increased knowledge of HIV status by vigorously promoting counseling and testing. Other policies it promotes include, blood safety, personal hygiene and sanitation, improved methods of waste disposal, HIV-related reproductive and sexual health education for young people and HIV education as part of the curriculum in primary and secondary schools and teacher training colleges (NACC, 2008).

Research Methodology

This study was a descriptive survey conducted among secondary school students in Githunguri Division, Githunguri District of Kiambu County in Kenya. The study population comprised of schoolboys and girls in Form One to Form Four classes from all Secondary schools in Githunguri Division. There are twenty-eight secondary schools in Githunguri Division; one (1) mixed boarding school, four (4) boys boarding schools, four (4) girls boarding schools and nineteen (19) mixed day schools.

Stratified random sampling was used to identify eight schools that made up the sample. The sample was stratified into four categories namely, mixed day schools, mixed boarding schools, single boarding boys' schools and single boarding girls' schools. Since there was only one mixed boarding school in the area, it was purposively included in the sample. To determine the sample size, Mugenda and Mugenda (1999) formula was used. That is $n=z^2paD/d^2$

Where, n= Standard normal deviate (1.96) corresponds to 95% confidence interval.

p= Proportion in target population with the desired characteristic, 5.7% (HIV adult prevalence of 15-49 years)

q= 1-p (1-0.57) =0.43 d= degree of accuracy, that is 0.05 n= (1.96²) (0.57) (0.43) \div 0.05² n= 377 (although a sample size of 384 subjects was used for better results of the study).

This is illustrated in the table below.

Category of School	Mixed Day	Mixed	Single Boys	Single Girls	Total
		Boarding	Boarding	Boarding	
No. Selected	3	1	2	2	8
Boys	52	20	120	0	192
Girls	52	20	0	120	192
Sample size	104	40	120	120	384
(Total)					

Since the study involved collection of primary survey data, a questionnaire was administered. Two secondary schools from Githunguri Division were randomly selected for the pilot study. The two schools were not therefore involved in the subsequent actual study. The content validity of the questionnaire was assessed by the researcher's supervisors.

Findings and Conclusions of the Study

Background Information of the Respondents

Table 1 below shows characteristics of the respondents in terms of age, sex and form (class).

Gender	Frequency	Percent
Male	202	58.9
Female	141	41.1
Age		
13-15 yrs	67	19.5
16-19 yrs	268	78.1
Class/form		
Form 1	125	36.4
Form 2	52	15.2
Form 3	72	21.0
Form 4	90	26.2
Total	343	100.0

As shown in the table 1 above, majority (78.1%) of the respondents were in the age range of 16 to 19 years while minority, (19.5%) were 13 to 15 years age bracket. It was also established that 40.5% of the respondents that were interviewed were female, while 58.9% were male. It can further be seen that although 36.4% of the respondents were drawn from form one while 26.2% were in form four, the sample was fairly representative of all the levels of students in the schools.

Religion of Respondents

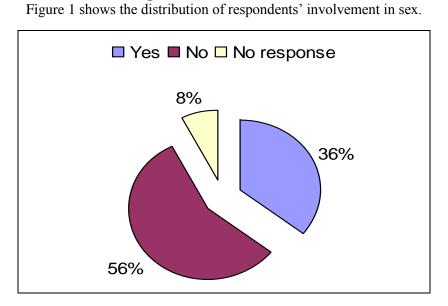
Table 4 below shows the religion of the respondents.

Table 2: Religion	of Respondents
-------------------	----------------

Religion	Frequency	Percent
Muslim	8	2.3
Protestant	181	52.7
Catholic	98	28.6
No response	56	16.3
Total	343	100.0

Results in table 2 show that majority of the respondents (52.7%) were Protestants while 28.6% were catholic. About 16% of the respondents did not respond suggesting that they could not identify with any religious affiliation. Religion was important in the study as it provides moral guidance in issues of sex before marriage, abortion and marriage, thus preventing the spread of HIV/AIDS.

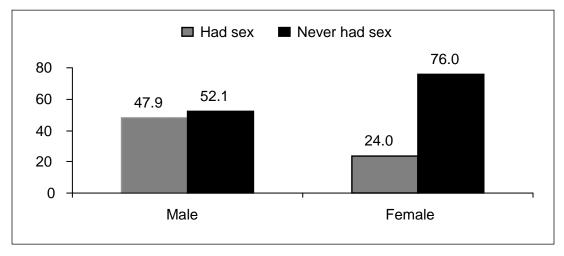
Figure 1: Involvement in Sex



As shown in Figure 1 above, majority of the respondents (56%) had never had sexual intercourse while 36% had engaged in sex. Eight percent of respondents did not respond to the question probably because they were uncomfortable revealing such information about themselves. These results show that the proportion of 36% of respondents who had been engaged in sex were vulnerable to contracting HIV. This also implies that the message on attitude change towards casual sex had little impact.

Figure 2: Involvement in Sex on the Basis of Gender

Figure 2 shows the distribution of respondents' involvement in sex on the basis of gender.



Results shown in Figure 2 above show that 47.9% of the male respondents compared to 24% of the female respondents conceded to have had a sexual experience. It is however possible that boys accepted to having sex so as to look like real men. Girls on the other hand suppressed acknowledging exposure to sex so as not to appear to have loose morals. These results are similar to those attained by a study carried out by Karuru (2004), where more male students (47%) as compared to female students (24%) had engaged in sex.

Figure 4: Last Date of Sexual Intercourse

Figure 3 below shows the last dates of sexual intercourse for the respondents who had engaged in sex.

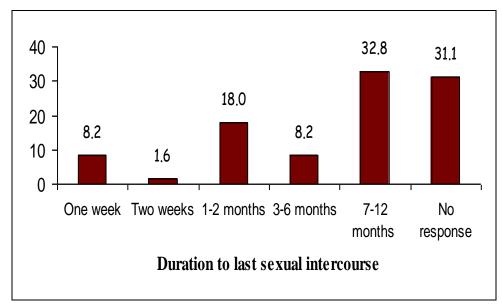


Figure 3 above depicts the last time the respondents had sexual intercourse prior to the survey. It shows that 32.8% of the respondents had sex between 7-12 months prior to the survey while 26.2% had engaged in sex 1-6 months before the study was carried out. About ten percent of the students had had sex within two weeks before the survey. 31.1% of the respondents gave no response probably due to the myths and taboos surrounding the subject of talking about sexual issues openly in the society. Wambua (2001) conducted a study among church going youth in Machakos District and discovered that 69% of the respondents had engaged in sex, while only 30.5% of the respondents abstained. These findings by Wambua (2001) tally with the findings of this study.

Figure 4: Use of Condom during Last Sexual Intercourse

Figure 4 below shows whether respondents used condoms during their last sexual intercourse.

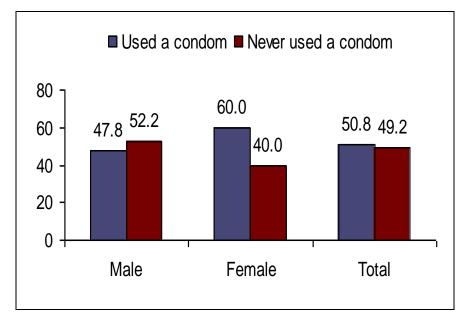


Figure 4 above shows the use of condom amongst respondents where 50.8% had used condoms while 49.2% had not. It also shows that more females (60%) than boys (52.2%) had used a condom. The findings imply that about one half of the students that had engaged in sex never used protection and therefore had exposed themselves to the risk of contracting HIV and other STDs.

Perception on abstinence	Gender		Ever had sex	
	Male f(%)	Female f(%)	Yes f(%)	No f(%)
Coward	106 (58.9)	72 (60.5)	66 (56.9)	100 (59.9)
Not functioning sexually	80 (44.4)	36 (30.3)	38 (32.8)	72 (43.1)
Responsible	38 (21.1)	41 (34.5)	18 (15.5)	59 (35.3)
Infected with HIV	30 (16.7)	28 (25.5)	24 (20.7)	30 (18.0)
Nothing	36 (20.0)	12 (10.1)	18 (15.5)	26 (15.6)

Percentages and totals based on respondents

Table 4 above shows that slightly more females (60.5 %) than males (58.9%) thought they would be regarded as cowards when they abstained from sex. It can also be seen that more of those that had never had sex (59.9%) thought they were regarded in this manner. The latter finding does not suggest that students would engage in sex so as not to be regarded as cowardly. The findings further show that more males (44%) than females (30.3%) felt that they would be regarded as being sexually dysfunctional if they abstained from sex. More of those that had never had sex (43.1%) also believed they would be regarded as dysfunctional. Apparently very few of the respondents thought they would be viewed positively when abstaining from sex. This suggests that many of the youth believed that abstinence was not regarded as a positive virtue by the larger society. This supports research findings of a study carried out amongst adolescents by the Kenya Ministry of Health (2001). The study revealed that adolescents engaged in unprotected sex, thus predisposing themselves to HIV infection.

Table 5: Respondents' View on Information Highlighted Most in Behavior Change Programmes

Information highlighted most in behavior change programmes	Frequency	Percent
Decreasing frequency and number of sexual partners	85	24.8
Promoting abstinence	70	20.4
Delaying the onset of sexual intercourse	62	18.1
Treatment of sexually transmitted infections	46	13.4
Use of condom	18	5.2
No response	62	18.1
Total	343	100.0

Table 6 shows that majority of the respondents (24.8%) rated decreasing frequency in number of sexual partners as the information highlighted most in behavior change programmes targeted at the youth. 20.4% of the respondents indicated that messages on promoting abstinence were highlighted most in behavior change programmes targeted at the youth. 18.1% of the respondents indicated that messages that promoted the delay of the onset of sexual intercourse were highlighted most in behavioral programmes targeted at the youth. Another 13.4% of the respondents indicated that messages on treatment of Sexually Transmitted Infections were highlighted most in behavioral programs targeted at the youth. However, 18.1% of the respondents gave no response. This indicated that there was a strong relationship between information, awareness, knowledge, perception and behavior change.

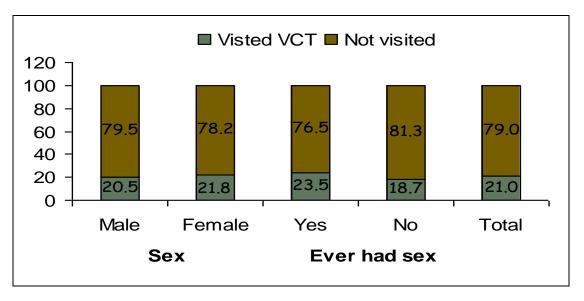
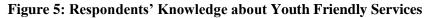
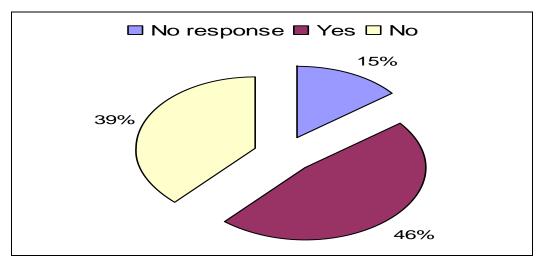


Figure 4: Respondents' Visit to a VCT Center within Twelve Months

Figure 4.10 shows that majority of the respondents (79%) had not visited VCT

12 months before this study while a minority of the respondents (21%) had visited VCT 12 months before this study. It can also be seen that more girls than boys did attend VCTs. Similarly respondents that had engaged in sex sought VCTs more than those that had not. More needs to be done to encourage more youth to attend VCTs to not only know their status but also to seek information about HIV and AIDS. Failure to attend VCT centers may hinder behavior change among adolescents as they will not have access to information on HIV/AIDS given in these centers.





The respondents were asked about their awareness of the youth-friendly services. Figure 4.11 depicts that majority of the respondents (46.9%) had heard about youth friendly-services, while 38.5% had not heard of the services. Only 14.6% did not respond to the question. Youth-friendly services are accessible, acceptable and appropriate for adolescents (M.O.H, 2005). They are broad-based health and related services provided to young people to meet their individual health needs in a manner and environment to attract interest and sustain their motivation to utilize such services as VCT and reproductive health education. This is meant to enhance behavior change as the students will not fear to seek VCT services due to stigmatization or ignorance.

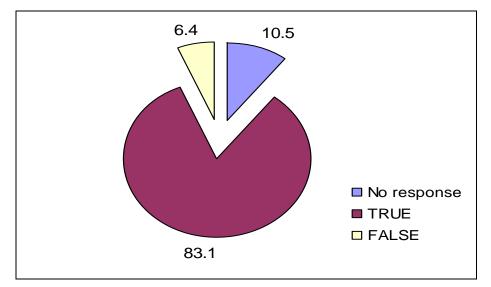


Figure 6 Respondents' Views on Fear for HIV Testing

Figure 6 above reveals that majority of the respondents (83.1%) agreed that most people are afraid of HIV test because they would not like to know their status, while 6.4% did not agree. Only 10.4% did not respond to the question. Knowledge of HIV status is important as far as behavior change is concerned. However, HIV/AIDS is surrounded by fear, ignorance and denial that have led to stigmatization and discrimination against people living with HIV/AIDS. Fear of being identified with HIV keeps people away from knowing their HIV status as well as changing unsafe sexual behavior.

Knowledge of HIV Status

Table 6 below shows the respondents willingness to know their HIV status.

From the table 6, majority of the respondents (70.8%) would like to know their HIV status, while 17.5% did not want to know their HIV status. However, only 11.1% did not respond to the question.

	Frequency	Percent
No response	38	11.1
Yes	243	70.8
No	60	17.5
Total	343	100.0

Table 6: Respondents'	Willingness to know their HIV status

Knowledge of HIV status would assist in behavior change as students would be able to make informed choices as far as their sexual behavior is concerned. They may opt to abstain from sex, remain faithful to one uninfected partner or use condoms during sexual intercourse.

The Influence of Prevention Efforts Targeted at Adolescents and Behavior Change for HIV and AIDS Prevention

The chi-square analysis was done to determine if HIV and AIDS prevention efforts targeted at adolescents would significantly influence behavior change for HIV and AIDS prevention among secondary school students in Githunguri Division. Table 7 below shows the analysis.

HIV prevention effort	Yes (N) (%)	No (N) (%)	Total(N) (%)
Peer education	152 (33.48)	125 (21.22)	277 (26.56)
Knowledge of youth friendly services	167 (36.78)	132 (24.41)	299 (28.68)
Knowledge of HIV status	72 (15.86)	271 (46.01)	343 (32.89)
Use of condoms	63 (13.88)	61 (10.36)	124 (11.87)
Total	454 (100)	589 (100)	1043 (100)

Table 7 Relationship between Prevention Efforts Targeted at Adolescents and behavior change for HIV and AIDS prevention

Chi-square=8.14, df=3, P-value=0.04

Prevention efforts targeted at adolescents and behavior change for HIV and AIDS prevention

From table 7 the chi-square analysis yielded a P value of 0.04 which was less than 0.05, implying there was a significant relationship between Prevention efforts targeted at adolescents and behavior change for HIV and AIDS prevention. This is in line with the findings of a study carried out in Uganda by the Makerere Institute of Social Sciences in 2003. The study established that Uganda's success story in curbing the spread of HIV/AIDS was synonymous with the so called ABC approach to HIV and AIDS prevention (A-Abstain, Be faithful, C-Condom use). Indeed, HIV and AISD prevention methods if properly channeled to meet the needs of adolescents would help in behavior change among the adolescents for the prevention of HIV/AIDS in Kenya.

Conclusions

- a) There is a relationship between gender and behavior change for HIV/AIDS prevention among students. This can be explained by the fact that males have more sexual partners than females.
- b) HIV and AIDS prevention efforts such as youth friendly services, peer education and use of condoms have a significant influence on behavior change for HIV/AIDS prevention among students.
- There is no significant relationship between knowledge of HIV/AIDS prevention and behavior c) change for HIV/AIDS prevention among students. Despite having knowledge on HIV/AIDS prevention this did not stop the students from engaging in risky sexual behavior.

Recommendations

- > Guidance and counseling services should be strengthened in schools and should be well manned in schools to enhance behavior change for HIV/AIDS prevention among the students.
- Ministry of Health and Ministry of Education should target more male students in their sexual behavior change programmes.
- > Ministry of Health and Ministry of Education should jointly work towards availing more reading materials on HIV/AIDS and sexual behavior change.

Areas for Further Studies

- > This study has looked at "Factors Influencing Behavior Change for HIV/AIDS Prevention Amongst Students in Githunguri Division. A complimentary study to assess factors influencing the successful HIV/AIDS interventions among students should be carried out to develop a wider and more comprehensive framework on HIV/AIDS Intervention strategies among Students.
- > The above study should be replicated in other divisions other than Githunguri Division.
- > A study to assess the effectiveness of peer counseling and education in changing the attitude towards VCT services among students should also be conducted.

References

- Bennett, J., Schopink, D., and Ng'weshemi, J. (1997). HIV Prevention and AIDS Care in Africa. A District Level Approach. Amsterdam: Royal Tropical Institute.
- Global HIV Prevention Working Group (2003). Access to HIV Prevention: Closing the Gap. Geneva.
- Global HIV Prevention Working Group (2008). Bringing HIV Prevention to Scale: An Urgent Global Priority. Geneva
- Government of Kenya (2002). Central Bureau of Statistics, Analytical Report on Population Projections. Nairobi.
- Karuru, P. (2004). Factors Predisposing Adolescents to HIV/AIDS in Selected Secondary Schools of Kiambu District, Central Province, Kenya. Unpublished MPHE Thesis: Kenyatta University.
- Kaupeni, E., Craddock, S., Oppong, J., and Ghosh, J. (2004). HIV and AIDS in Africa: Beyond Epidemiology. Victoria: Blackwell.
- Kelly, M. (2000). Planning for Education in the Context of HIV/AIDS. UN UNESCO.
- Kenya Demographic and Health Survey (KDHS)(2008). Central Bureau of Statistics. Nairobi: Government Printing Press.
- Kenya Demographic and Health Survey (KDHS)(2003). Central Bureau of Statistics. Nairobi: Government Printing Press.
- Kenya Ministry of Health (2005). Adolescent Reproductive Health and Development Plan of Action (2005-2015). Ministry of health- Kenya and Ministry of Planning and National Development. Nairobi: Government Printing Press.
- Kenyatta University AIDS Control Unit (ACU) (2006). HIV/AIDS Policy. Nairobi KU HIV/AIDS Control Unit.
- K.I.E. (2001). Ministry of Education Science and Technology. Secondary Education Syllabus Vol. 1, Vol.2 and Vol. 3. Nairobi: K.I.E
- Macphail, C. and Campbell, C. (2001). Condom use among adolescents and young People in a Southern African township. South Africa.
- M.O.H. (2005). National Guidelines for the Provision of Adolescent Youth friendly Services (YSF) in Kenya. M.O.H. Division of Reproductive Health. Nairobi.
- Moloney, M. (2005). Counseling for HIV/AIDS. The Use of Counseling Skills for HIV/AIDS. Nairobi: Pauline's Publications Africa.
- Makerere Institute of Social Research (MISR), (2003). Focus Group Discussion on Socio-Cultural Factors Impacting On HIV/AIDS in Uganda. Kampala: MISR.
- Mugenda, O. and Mugenda, A. (1999). Research Methods. Quantitative and Qualitative Approaches. Nairobi: African Center for Technology Studies (ATCS).
- National AIDS Control Council, (NACC). (2000). The Kenya National HIV/AIDS Strategic Plan, 2000-2005. popular version. Nairobi: NACC.
- National AIDS Control Council (NACC, 2009). Kenya HIV Prevention, Response and Modes of Transmission Analysis. Nairobi. NACC.
- NASCOP. (2005). Kenya HIV/AIDS Data Booklet. NASCOP: Nairobi
- NASCOP. (2006). Kenya HIV/AIDS Data Booklet. NASCOP: Nairobi.
- NASCOP. (2007). Kenya HIV/AIDS Data Booklet. NASCOP: Nairobi.
- NASCOP. (2008). Kenya AIDS Indicator Survey (KAIS). NASCOP:Nairobi.

Plessis, G. (2003). HIV/AIDS and Social Research. Pretoria: University of South Africa: Mukleneuk.

- Polsky, B., and Clumeck, N. (1999). HIV and AIDS. London: Harcourt Publishers.
- Republic of Kenya. (1997). Ministry of health: Sessional Paper No. 4 of 1999 on AIDS in Kenya. Nairobi: Government Printing Press.
- Republic of Kenya. ((2005). AIDS in Kenya. **Trends, Interventions and Impact**. (7th Edition).NASCOP: Kenya.
- Tobijar, H. N. (2000). The Dignity of Human Sexuality and the AIDS Challenge. Nairobi: Kenya.
- Tuju, R. (1996). Understanding the challenge. Kenya, Nairobi: ACE Communications.
- UNAIDS. (2004). Report on the Global AIDS Epidemic (4th Global Report). Geneva: Arington.
- UNAIDS. (2006). Report on the Global AIDS Epidemic. Geneva: Arington
- UNAIDS. (2007). Report on the Global AIDS Epidemic. Geneva: Arington
- UNAIDS. (2008). Report on the Global AIDS Epidemic. Geneva: Arington