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Appraisal of Knowledge, Attitudes and Practices of Secondary School Students Regarding HIV and AIDS in Kuria East Sub-County, Kenya

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ABSTRACT

HIV and AIDS continue to be a heavy burden to most individuals, families and countries especially in the developing countries. Empowerment of the youth regarding HIV and AIDS can have a lifelong influence on their behaviour as individuals, their families and their communities. Youths when equipped with proper knowledge early in life, change of attitude and practices will be inevitable. The main objective for the study was to determine the current knowledge, attitudes and practices of secondary school students regarding HIV and AIDS in Kuria-Sub County, Kenya. Descriptive survey using a self-administered structured questionnaire was used to collect data from 354 students who were randomly selected from 6 schools out of 11 schools. The participants composed of 54% boys and 46% girls. Data was analysed using SPSS Version 17.0. The results show that students' level of knowledge was high at an average score of 16.96 (73%), the average positive attitude of students was 10.50 (55.26%) while negative attitude standing at 8.50 (44.73%). The average acceptable practice was 4.62(46.2%) both towards people with HIV and towards the disease itself for behavior change. Approximately 5.38 (53.8%) of students still take the risk to expose themselves to HIV and AIDS regardless of year of study. There is need to intensify and broaden HIV education among primary schools and secondary schools, enhance HIV counselling in secondary schools on effects of stigmatisation, increase mass media campaigns against HIV specifically among secondary school students. Further consider distribution of condoms to secondary schools and the community, conduct frequent evaluation of the behaviour change programs. HIV youth programs in Kenya should focus on the attitudes and practices of the youth in order to change the picture of the whole youth population.

Keywords: knowledge, attitudes, practices, sexual education, schools, HIV/AIDS

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INTRODUCTION

Human Immunodeficiency Virus (HIV) is the cause of Acquired Immune Deficiency Syndrome (AIDS) together leads to devastation of individuals infected and affected. According to World Health Organization (WHO), HIV remains one greatest health challenge especially among young generation¹ Empowerment of school going youths regarding HIV and AIDS can have a lifelong influence on their behavior as individuals, families and communities. Youths form the backbone of each country, yet their behavior and practices do not reflect their role towards securing the future generation.² Further underscores the need for youths especially students empowerment as the surest means of curbing the spread of HIV and AIDS epidemic in Africa the epicenter of HIV infections in the world. Youth empowerment is only possible if we understand the current circumstances surrounding the youths in terms of knowledge, attitude, and practices, and how to engage youths to foster change amongst them.³

According to most recent World Youth Datasheet⁴ in Africa the youth aged between 10-24 years are 344 million, which makes up 31% of the total African population. Kenya has a youth population of 14 million which makes 32% of total population⁴. According to⁵ school-going youths forms the most vulnerable group to HIV/AIDS. Recent reports indicate that 1.4 - 1.8 million people live with HIV and AIDS, and that 7.1- 8.5% of adults living with HIV and AIDS are adults aged 15-49 years. It is heart breaking to know that 50% of PLWHA are youths aged between 15-24 years and 130,000 - 180,000 children aged 0-14 years of age are living with HIV and AIDS.^{6,7} Although recent trends of HIV prevalence seems to be receding in Kenya, high levels of HIV/ AIDS incidences among the youth creates the norm in most developing countries such as South Africa with high prevalence rate of 18.8%.⁷ The youth infections are a tribute to increased incidences of early sexual activities among the youths of even lower than 10 years of age⁸ Research studies by⁹; Tyndale et al., 2007³⁸, approximately 60% of Kenya's population is less than 20 years old and forms the larger portion infected with HIV and AIDS both in rural and urban settings. Reports from¹⁰ indicates that HIV prevalence rate in urban areas is estimated at 9.6 % compared to 4.6 % in rural areas. Evidently the pandemic is not going away, but changing strategies and settling every day.

It is noteworthy, in Kenya according to the National AIDS and STI Control Program (NASCOP) survey of 2012¹¹, Migori County ranks 4th with 13.5% after Homa- Bay County with the highest HIV prevalence of 27, 1% against the national HIV prevalence of 8% among female and 4.3% in male. The prevalence varies with gender, with women having a higher prevalence compared to men. Migori County has a new infection rate of 3,800 cases being

reported in 2011 only ¹¹. According to statistics in the county approximately 70,000 people live with HIV and 68% of those who seek VCT services for testing are positive, despite the low turn up in VCT centres. According to the health policy framework, Kenya aims to cut new infection by 50% by the end of 2015 National AIDS Control Council. Ministry of Health: Estimated Prevalence for youth. Republic of Kenya 2008. Despite of the available statistics, Kuria Sub-County information on HIV /AIDS is still scant and not comprehensive enough for a clear picture of the region.

Furthermore, it is widely advocated that before initiation of any preventive program, a feasibility study on participants' level of knowledge and attitude needs to be assessed for effective implementation of the HIV and AIDS education program. Based on a recent study on HIV education program in Kenya, ³ amplifies the significance of prior assessment of most appropriate means of communication to youths and students who have unique needs and other socio-cultural differences compared to general population. According to ¹² in a study on knowledge, attitude and practices of high school students, found that despite having adequate level of knowledge on HIV transmission, majority of youths do not apply the knowledge before they get involved in risky behaviors. Further they identified a set of misconceptions about condom use and utility among students ¹² Similar findings on knowledge and attitudes have been reported in Ghana, South Africa, Nigeria and Kenya, have also affirmed that knowledge does not change the negative attitude towards those already affected¹³⁻¹⁷. Despite increased accessibility to HIV information through the media, and health services, the level of knowledge among students cannot be assumed to be enough to protect them from contracting HIV. Researchers ^{3,5,18} suggest that youth friendly services, change of communication and presentation of knowledge materials to the youths may be the way to go to access the youths both in schools and outside schools.

Nonetheless, the opposite is being observed in general youth population through high levels of early pregnancies, abortions, school dropout and rape cases, all these predisposes the young person to HIV infections at a tender age as reported by several studies ^{3, 19, 20}. Research has shown that between 37- 47% of youths in secondary schools have had unprotected sexual intercourse without a condom or protection. ^{21, 22} In a study done in Siaya in Kenya on the actual HIV education program delivery in secondary schools²³ established that students and their teachers are ill equipped to handle the education requirement, compounded by lack of time for the subject. Similarly⁸ asserts that the sex education integrated in one religious subject is not adequate to cover HIV content, which has no proper time allocation.

In another study done in high schools in Eastern Province of Kenya ⁹ found that there was a profound negative attitude among students on the use of the available VCT services,

especially those within the school premises. Despite the high percentages youths who want to use VCT services as shown in studies in Uganda and Kenya at 90% and 75% respectively²⁴. And in a more recently study in Kenya among youth in the slums, use of VCT services is determinedly other factors beyond the youth's control, for instance the prevailing poverty level and the social circumstances in the community³

In a comparative study done in Kenya and Sweden by¹⁷ found that youth and adolescent in rural schools/communities in Kenya had no access to information or preventive services. This prompted the implementation of sex education in Kenyan schools proposal to be considered seriously. However distribution of health services in Kenya including VCT and reproductive health services is still not evenly distributed in Kenya, mainly influenced by socio-cultural, financial and environmental factors beyond policy makers and communities.^{3, 5, 18}

Despite the approval of HIV/AIDS Education Policy in 2000, under the Ministry of Education authorizing the integration of HIV/AIDS into the education curriculum for both primary and secondary school programs²⁵ and revision of the HIV education policy in 2006.²⁶ The progress has been marred with lack of support especially in remote areas and lack of commitment.^{8, 23} Although the program aimed at instilling quality education, information, testing, treatment and supporting the infected and affected within the learning environment²⁷, majority of the students do not utilize the information in schools and services offered due to personal preferences.^{18, 23} With the aforementioned, there is need for appraisal of the program, relevancy of the available schools and knowledge gaps between the teachers and learners and even the practices of students.

Nevertheless, there are debates on the effectiveness of school based HIV and AIDS education programs that are intended to influence students' knowledge regarding HIV and AIDS, yet knowledge-only programs have scant influence on youth's behaviour.^{2, 28} According to²⁷, education is the only missile with powers to eradicate the spread of HIV and AIDs, education passed through schools have the potential to change the current trend of prevalence and incidence rates among the youths. Education is the key weapon to empower women and girls, young men to say no and mean it for change in practices, attitude and behaviour as highlighted in several studies.^{3, 5, 27}

Assessment of the current knowledge, attitudes and practices of students forms a baseline step towards formulation of comprehensive strategies towards the prevention and implementation of new programs, which are youth friendly and community sustainable.⁵ Despite numerous KAP surveys in the country on HIV, and approval of HIV/AIDS curriculum in 2000 by the Ministry of Education in Kenya, the high prevalence and incidence rates of HIV/AIDS clearly indicate that constant evaluation of the youth's behaviour,

knowledge and attitude is outstanding. Behaviour change requires continuity of learning and practicing of less risky behaviours, and this requires a long term program involving youth participation and contribution towards the goal of behaviour change. The researcher therefore believes that episodic evaluation of the current level of knowledge, attitude and practices, of students/youths after being exposed to various intervention programs in primary school, media or even from churches and campaigns against HIV and AIDS is necessary. The purpose of the study was to determine the current knowledge, attitude and practices of secondary school students regarding HIV and AIDS in Kuria Sub-county. The study was based on the Health Belief Model (HBM) as the theoretical framework²⁹, which asserts that an individual will take certain preventive measures after being aware that they are susceptible to the disease, or being at risk of contracting HIV and AIDS or any other threatening chronic condition.

MATERIALS AND METHOD

A quantitative, descriptive survey research design was used to collect and analyze data on the current knowledge, attitude and practices of secondary school students regarding HIV and AIDS. Knowledge, Attitude and Practices (KAP) survey for years has emerged to be the most preferred mode of establishing baseline information for situations where much information is still missing. Despite that the KAP surveys were developed to assist in implementation of Family planning programs and utilization, KAP has been extensively used in studies on adherence, alcohol and tobacco utilization, and remerged strongly with the onset of HIV and AIDS preventive programs. This has advocated the use of KAP survey in schools and education institutions to establish baseline information and expected outcomes³⁰.

The study was conducted in Kuria East constituency in Migori County situated in Nyanza region of Kenya. Kuria Sub-County has total population of approximately 256,086 people and covers approx.581sq KM³¹ The constituency has 11 public secondary schools with a total student population of 1,857. The student enrolment in this constituency was 1,054 boys and 803 girls in the year 2008. It is from this student population that the sample of 366 students was drawn for this study.

Stratified random sampling was used to categorize the schools into mixed sex schools (where both male and female students study together in the same environment) or single schools (Boys only schools, and Girls only schools). In each category two schools were selected randomly from the list in that category. Thus a total of 6 schools out of 11 secondary schools participated in the study. The schools were distributed as follows: One boy school, the only one in the district, two girl schools and three mixed secondary schools. The sample was

determined using Slovin's formula. $n = N/I + Ne^2$ where N is the target population, $e=0.05$ or **5% error**, and n is the sample size, a study sample of 366 was derived from it.³²

Data collection was done through the use of a structured questionnaire standardized for KAPS surveys. A likert scale was used to grade the responses accordingly. The questionnaire had three sections on knowledge, attitudes and practices, the questionnaire covered content on transmission modes had four parts namely: Section A, B, C and D, covering demographic data of the participants, current knowledge, on the transmission modes, attitudes towards people infected and affected by HIV and AIDS and the ability of one adopting preventive practices.

A pilot study was conducted in June 2008 in a mixed school in Nandi County, with similar characteristics of students in the study, where 30 students across the forms participated giving 10% of the study population (Burn & Groves, 2005). The data from the pilot study was used to establish the reliability of the questionnaire using the Cronbach alpha coefficient for knowledge, attitude and practices which were within the acceptable level above ³³. Ethical considerations and approval was sort from the ethical and research committee of University of Eastern Africa, Baraton and Ministry of Education, Science and Technology. Prior to commencement of the study, permission from District Education Officer and District Commissioner was obtained in time. Participants' privacy and confidentiality was highly upheld, and consent forms were dully signed by each respondent and each school head teacher gave both written and verbal consent to conduct the study in respective schools.

RESULTS AND DISCUSSION

Demographic Findings

Out of 366 questionnaires distributed, 354 were completed successfully yielding a representative percentage of 96.7%. In terms of gender, 191(54%) of the students were boys, while 163(46%) were girls. The age aspect of the participants, were between 12 years and 29 years with the median age being 16years. At the time of study, 31.9% were students in form one, 23.4% in form two; 26.3% in form three and 18.4% forth four.

Knowledge on the Transmission, Prevention and Treatment of HIV

A total of 354 students responded and the level of their knowledge is summed up. The highest numbers of students (118 or 33.3%) are in the top category of knowledge ²¹⁻²³ indicating adequate knowledge. Nevertheless, a total of 4 students could answer less than ten items correctly. Table 1: indicate chi-square analysis of the responses from student on aspects on knowledge on HIV and AIDS across the four forms, indicating the p value and the level of significance in specific questions in regard to knowledge.

The average score was 16.96 (73%). It can clearly be seen that the students' level of

knowledge is adequate and spreads across the three aspects of the pandemic: disease facts, transmission, and prevention of new infections.

There were no significant differences between the responses of students across levels of study analyzed question by question. However specific questions reflected levels of exposure and conscious judgment of individual students and level of form they were in for instance B5 (sharing a toilet with HIV patient is a known method of spreading the disease) and B21(One can get infected through a mosquito, lice, jiggers bites) chi-square value of 16.40, 16.68 respectively P- value 0.05. Knowledge can never be perfect thus the incorrect responses of 5.98 on average (26.04%) is still important, especially in Kenya and any other country in the sub-Saharan region.

Attitudes towards HIV amongst students towards HIV and Persons with HIV/AIDS

Table 2: Indicates Chi-Square analysis of student's attitude towards HIV and people with HIV and how students feel about being infected with HIV/AIDS, the result also indicates the significance of their responses to specific questions.

An average positive attitude of 10.50 (55.26%) was found with negative attitude of 8.50 (44.73%). Majority of the students were in 6-10 scores (181) and that of 11-15 score being (167). There was significance difference in a number of questions among students based on their forms of studies. These include C1 (AIDS patients should be isolated Chi-S 14.05: P = 0.05), C8 (I will have sex no matter what others say about it. Chi- S 12.83: P=0.05), C16 (Voluntary testing for HIV and C18 (Airing radio programs to students, Chi- S 15.99: P= 0.05).

Practices of Students towards the Prevention of HIV and AIDS

Table 3: Indicates chi-square analysis on Practices of students from I-IV and the risk behaviors they are involved in and their behavior towards prevention of HIV and towards people infected with HIV.

The average acceptable practices of students across the forms were 4.62(46.2%) both towards people with HIV and towards the disease and self for behavior change 5.38 (53.8%) of students still take risk to expose themselves to HIV by changing their sexual habits or using a condom as a protective measure against HIV. Majority of the students were in the score of 0-5 being (247) and the rest were in the score of 6-10 being (107). There was significance in the response of students on whether they have taken care of a relative with HIV/AIDS Chi- S 17.98 P= 0.001, on the other hand asked if they will disclose their status to a family member, the responses were significant with a Chi-S 13.25 P= 0.05, similarly involvement of students in risky behavior and sexual activities were both significant and had a Chi-S 17.15 and 15.65, P=0.05 respectively.

Table 1: Chi Square Analysis on Practice of students towards HIV/AIDS in form I to IV

Statements of practices	χ^2	P-value	Significance
Have you ever taken care of a relative who is suffering from HIV/AIDS?	17.98	0.01	S
If yes were you willing to take care of the person with AIDS?	8.27	0.05	NS
Have you ever been tested for HIV?	6.29	0.05	NS
Would you like to go for HIV test if you have not gone?	4.63	0.05	NS
Would you like someone else to know your HIV status?	2.69	0.05	NS
Would you like your HIV status kept as a secret to your family member?	13.25	0.05	S
Have you ever engaged in any risky behavior which can expose you to getting HIV?	17.15	0.05	S
Have you been involved in any sexual activity?	15.62	0.05	S
Do you use a condom every time you have sexual intercourse?	5.84	0.05	NS
Is the use of the condom an effective way of protecting you from getting HIV?	10.91	0.05	NS

KEY: NS= Not Significant; S= Significant

Table 2: Chi-Square Analysis on Attitude of Students towards HIV/AIDS in Form I o IV

Statements of attitudes	χ^2	P- value	Significance
HIV/AIDS patients should be isolated	14.05	0.05	S
Condom utilization should be promoted in school to prevent the transmission of HIV/AIDS	10.25	0.05	NS
I would like to teach my friends about HIV/AIDS	3.16	0.05	NS
I am afraid of getting infected by HIV.	6.89	0.05	NS
I think one cannot get HIV infection after one sexual encounter with an infected person.	5.45	0.05	NS
It is important to put to an end both female and male circumcision to reduce the spread of HIV.	10.58	0.05	NS
I think the best way to avoid getting infected is not to have sex at all.	1.17	0.05	NS
I will have sex no matter what others say about.	12.83	0.05	S
I will use a condom every time I have sex with a man/ woman.	5.71	0.05	NS
I don't know how to use a condom.	3.92	0.05	NS
People infected with HIV/AIDS should not have sex.	7.28	0.05	NS
People with HIV should be admitted in the hospital for proper care.	6.43	0.05	NS
Am less likely than most people to get HIV.	2.56	0.05	NS
I would rather get other diseases than AIDS/HIV.	5.92	0.05	NS
It is important that students learn about AIDS in family life education classes.	9.50	0.05	NS

If a free blood test was available to see if I have HI Virus. I would take it.	15.96	0.05	S
I have heard enough about HIV/AIDS and don't want to hear any more about it.	3.86	0.05	NS
Radio programs on HIV/AIDS should be aired more often to students.	15.99	0.05	S
People with HIV/AIDS are already dead they should not be given ARVS or any treatment.	5.60	0.05	NS

KEY: NS= Not Significant; S= Significant

Table 3: Chi Square Analysis on Practice of students towards HIV/AIDS in form I to IV

	Statements of practices	χ^2	P-value	Significance
1	Have you ever taken care of a relative who is suffering from HIV/AIDS?	17.98	0.01	S
2	If yes were you willing to take care of the person with AIDS?	8.27	0.05	NS
3	Have you ever been tested for HIV?	6.29	0.05	NS
4	Would you like to go for HIV test if you have not gone?	4.63	0.05	NS
5	Would you like someone else to know your HIV status?	2.69	0.05	NS
6	Would you like your HIV status kept as a secret to your family member?	13.25	0.05	S
7	Have you ever engaged in any risky behavior which can expose you to getting HIV?	17.15	0.05	S
8	Have you been involved in any sexual activity?	15.62	0.05	S
9	Do you use a condom every time you have sexual intercourse?	5.84	0.05	NS
10	Is the use of the condom an effective way of protecting you from getting HIV?	10.91	0.05	NS

KEY: NS= Not Significant; S= Significant

In the light of the results of this study it is evident that the knowledge of the students based on the correct responses is adequate on the facts of the disease, disease transmission and preventive measures at 73%. However the students' positive attitudes and acceptable behaviors are not showing any positive aspect of controlling the pandemic with average positive attitude and acceptable practice being 55.26% and 46.2% respectively. Thus the HIV youth programs in Kenya should focus on the attitudes and practices of the youths in order to change the picture of the whole youth population. The programs on HIV in schools should focus on female students who are the majority affected group and face multitudes of social challenges like early pregnancy, rape and early marriage ⁹.

Other studies which have been carried out in various parts of the African continent especially in the Sub-Saharan region, which is considered the epicenter of HIV and AIDS pandemic. Literature from research studies on knowledge, attitude and practices of students in Nigeria and Ghana respectively ^{13,14} concluded that the level of knowledge of the youths can be high, but this does not mean that knowledge can protect one from getting infected with HIV. Further ³⁴ concludes that student's attitude towards adopting a positive behavior change is still wanting and more still towards PLWHA. Research findings further indicate that knowledge alone cannot change attitude and nevertheless behavior especially among the youths ¹⁵⁻¹⁷. More efforts are required with diversity to curb the spread of HIV and AIDS among the youths and the entire community.

Despite the fact that HIV and AIDS campaigns are aimed at disseminating information and creating awareness among participants, ³⁵ argues that knowledge does not reflect behavior change or a positive attitude. Knowledge for years has been the key indicator of evaluating behavior, but it has been found wanting especially among the youths, as it does not correspond positively to their sexual behaviors.³⁶ Similarly in another study by ³⁷ indicates that most adolescents underestimate their risky chances of contracting HIV infection. They found that 25% of youths were not aware of the risk confronting them daily. On the contrary they indicate that majority of adolescents who have discussed HIV and AIDS through peer communication increase knowledge and HIV attitude change. Interaction between youths from different environment and socio-economic backgrounds can be of importance to behavior change and have a chance of reducing stigma and guilt feeling among the youths, both in school and community levels. Similarly ²³ remain positive that conscious decisions by the youths in the right environment will be the turning point in the prevention of HIV and AIDS in Kenya.

The attitude of students being at an average of 55.26%, majority of the students who showed a positive attitude were in the score of 6-10 (181) which clearly shows that the attitude is

negative to majority of the students and the youths. Living in ignorance and fear of being HIV positive make most youths fail to go for testing²³ There is need to increase peer counselling and education groups among the youths in order to plant a positive attitude which will grow as they advance in their academics and disseminating their duties as citizens.^{8, 23, 36} Findings in this study clearly show that the practices of students in this constituency require a lot of actions from all corners of stakeholders. In particular actions towards prevention and health promotion to curb the spread of HIV and AID, initiation of new HIV campaign strategies to sensitize students on preventive measures available and their effectiveness in curbing down the prevalence and incidences of HIV among the youths in the community. In a study done in Machakos in Kenya indicate that youths especially students are prone to infection even from the time of birth,²⁷ thus prevention of mother to child transmission and continuous screening of adolescents should be a continuous process and not a one-time episode.^{8, 36} Behaviour change among the youths in schools is majorly complicated with lack of support and seriousness in the implementation of sex education in all levels of education, poverty and resistance from religious leaders and community leaders. In a study done on sex education and sexual behaviour in Kenyan schools, the curriculum implementation is still partial and only in small portions, both teachers and students don't have adequate time and resources to ensure comprehensive coverage of the content⁸. In a nutshell, students will not abstain and remain faithful to one partner, but they need to be understood in respect to their socioeconomic environment and be guided to make a conscious decision about their sexual activities and take appropriate actions,²³ concur with the finding of this study, that youths can only change when they have both objective and actual realities about their HIV and AIDS status and prevention.

Also established from the findings in this study is mass media form an integral means of reaching the largest population within the shortest time possible. However media information should not be left uncontrolled, it should be screened, cleaned for the respective age groups³. The information should be enriched, revised more often based on well packaged facts for the whole population especially the youths who forms the largest portion of the population. It is a fact that once enlightened, these young people compared to adults, will constitute a redoubtable force towards a positive behaviour change in the effort to halt the destructive spread of HIV and AIDS in Kenya. They would tend to adopt safe and informed practices early in life, remove the strong stigma that still cloaks HIV and AIDS' victims in Kuria- Sub County and in Kenya.

CONCLUSION

In the light of the results, multisectoral efforts should be intensified focusing on HIV and

AIDS education as part of the campaign against HIV. The Kenyan national and county governments should consider continuity of HIV and AIDS curriculum in secondary schools and not only in one subject but all subjects, to ensure that students have adequate knowledge, attitude and practices on HIV and AIDS. Collaborations should not only be in education and health, rather should involve all stakeholders in the community, ensure constant supply and distribution of condoms, prevention of mother to child, avail VCT services to secondary schools and retrain teachers to handle HIV and AIDS curriculum materials. Youths have a right to health which needs to be protected and taken seriously.

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AUTHORS CONTRIBUTION

IM conceptualized the study, collected data and analysed data, under the supervision of JO and FA. JO proof read and checked the format of the article and amended the corrections. Final manuscript was cross checked by FA and confirmed by IM and JO.

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