

Kenyan University Undergraduate Students' HIV Risk Behaviour in and Knowledge in Counties Bordering Lake Victoria

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Abstract: HIV&AIDS knowledge has been associated with low risk behaviour and subsequent low HIV infection. The university environment provides fertile grounds for high sexual risk behaviour. HIV Prevention efforts in Kenyan universities do not seem to go hand-in hand with the students' risk behaviour. A large number of young students are ignorant, highly mobile, sexually active and vulnerable to HIV. This study sought to examine the level of HIV Risk Behaviour of the students in relation to their HIV knowledge. Four universities (Rongo University College, Great Lakes University of Kisumu (GLUK), Jaramogi Oginga Odinga University of Science and Technology(JOUST) and Maseno were purposively selected while 384 students were selected using non-proportional quota sampling. Associational research design was used. Primary data was collected from 384 respondents using questionnaires and personal interview schedules while secondary data was sourced from government documents. Data analysis was done using the Statistical Package for Social Scientists (SPSS) version 19.0 for windows and Excel computer programmes. The Pearson chi-square result $\{X^2(384,5df) = 7.859, p=0.143\}$, at $\alpha=0.05$ showed that there was association between the variables. It was concluded that the HIV&AIDS curriculum mainstreaming knowledge is related to low risk behaviour. It was recommended that Kenyan Universities reemphasize HIV&AIDS Education policy.

Keywords: HIV&AIDS Knowledge, Kenya, HIV-Risk Behaviour, Universities, Counties- bordering-Lake Victoria.

I. INTRODUCTION

HIV and AIDS still remain substantial health challenges in human history with harsh realities still on in Sub Saharan Africa (World AIDS Day Report 2014) ^[1]. World AIDS Day Report (2015) ^[2] highlighted that sexual behaviour risk is increasing hence the need to intensify support for behaviour change efforts. In Africa, HIV and AIDS still have a strong grip and education has the power to break that grip as indicated by UNESCO, (2004) ^[3]. UNAIDS (2012) ^[4] has also cited curriculum efforts to fight HIV as having always been a tool for expanded HIV and AIDS response in universities in sub-Saharan Africa. The university environment provides fertile grounds for high sexual risk behaviour (Adefuye *et al.*, 2009) ^[5]. The Global AIDS Response Progress Reporting (GARPR) of July 2015^[6], has indicated that ending the global AIDS epidemic by 2030 will require an integrated “*smart scale-up approach*”; and through it, the world would avert 18 million new infections and 11.2 million AIDS-related deaths.

The problem in the study was to find out the level of relationship between HIV risk behaviour and HIV&AIDS knowledge of Kenyan university undergraduate students in counties bordering Lake Victoria with national high HIV prevalence. To justify the study, education is said to be one of the best “social vaccines” against AIDS (Nzioka *et al.*, 2007) ^[7]. Republic of Kenya (2014) ^[8] has underscored “intensifying prevention efforts to priority Geographies and populations” such as university undergraduates for the achievement of Vision 2030. The objective of the study was to examine the level of HIV Risk Behaviour of the undergraduate students in relation to their knowledge of HIV and AIDS.

2. METHODOLOGY

The study was carried out in universities found in the counties bordering Lake Victoria in Kenya. These included; Maseno University and The Great Lakes University of Kisumu (GLUK) in Kisumu county, Jaramogi Oginga Odinga University of Science and Technology (JOOUST) in Siaya County and Rongo University College in Homa Bay county. The study adopted descriptive and associational research design basing on the measurable indicators as indicated in Table 1;

Table 1: Research Designs for the Proposed Study on Undergraduate Students in Kenya in the Counties Bordering Lake Victoria

Specific Objective	Measurable Variables (Indicators)	Research Design
Examine the level of HIV Risk Behaviour of the undergraduate students in relation to their knowledge of the HIV/ AIDS Students' HIV Knowledge	<ul style="list-style-type: none"> • Non condom use • Multiple sexual partners without knowing their HIV status • Early debut of sex • Non -attendance of VCT/ No HIV status knowledge of self or partner • Sex for gain • Correct mention of Five HIV Prevention methods 	<ul style="list-style-type: none"> • Descriptive and Associational

Source: Author's Research (2016)

Purposive sampling techniques were employed to select four university cluster sites and quota sampling for the number of students studied in each university. Systematic random sampling technique (every 5th student) was used to identify the actual students to fill in the questionnaires. The Key Informants and Focus Group Discussants were purposively selected. The Key Informants were individuals best placed in the university institutions to provide in-depth information on the variables of interest to the study. The population (N) of the undergraduate students in the four universities combined is more than 10, 000. Enrollment in each of the studied universities was; GLUK, 2500, Maseno, 18272, JOOUST, 25000 and Rongo University College, 5000 (Commission for University Education, 2015)^[9]. The sample size for the study (n) was therefore calculated using the formula proposed by Fisher, Laing and Stoeckel which is quoted in Mugenda and Mugenda (1999)^[10] for use in reproductive health and other social surveys. It produces a desired sample size of 384: The sample size for the study (n) was therefore calculated using;

$$n = z^2 pq / d^2$$

Where *n* is the desired sample size if the target population > 10,000

z is the standard normal deviate at the required confidence level i.e. 1.96

p is the proportion in the target population estimated to have the characteristic

(Assume 50% if unknown)

q = 1-*p* (i.e. 0.5) and

d is the level of statistical significance or Alpha

Data collection tools and data analysis procedures are as summarized on table 2. Focus Group Discussions (FGD) were composed of about ten students in the four universities while Key informants' Interviews (KII) involved four academic registrars, four ACU coordinators or Deans of Students from the studied universities. The Pearson chi-square of association was used to determine the level and strength of variable relationship.

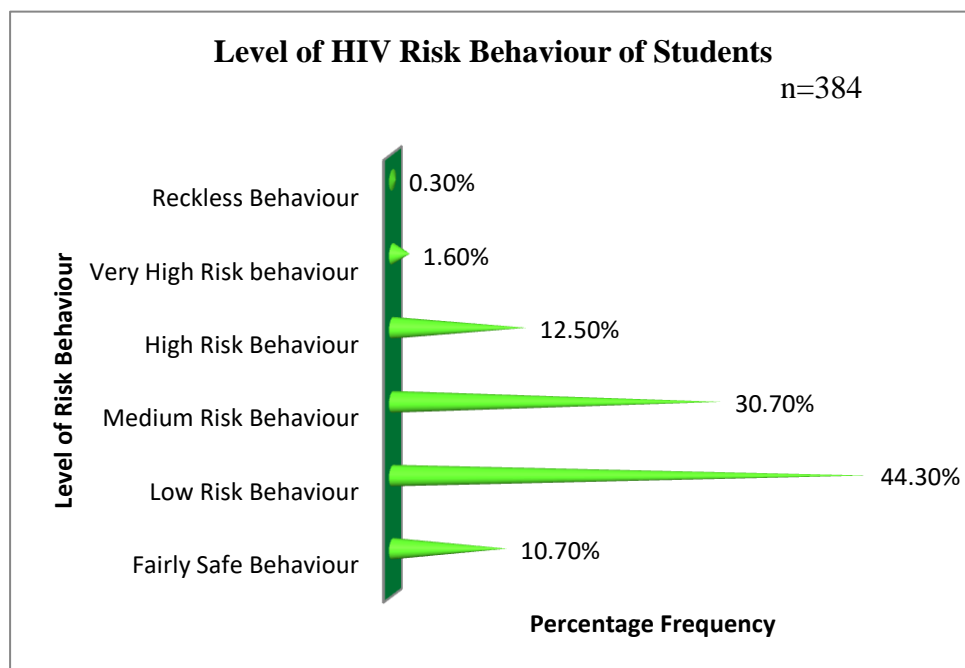
Table 2: Summary of Data Analysis of Undergraduate Students in Kenya

Specific Objective	Indicators	Method of Analysis
Examine the level of HIV Risk Behaviour of the undergraduate students in relation to their knowledge of the HIV and AIDS	<ul style="list-style-type: none"> • Non condom use • Multiple sexual partners without knowing their HIV status • Early debut of sex • Non -attendance of VCT/ No HIV status knowledge of self or partner • Sex for gain • Relevant questions on research tool on HIV prevention methods 	<ul style="list-style-type: none"> • Descriptive Statistics • Pearson Chi square Test of association

Source: Author's Research (2016)

3. RESULTS AND DISCUSSIONS

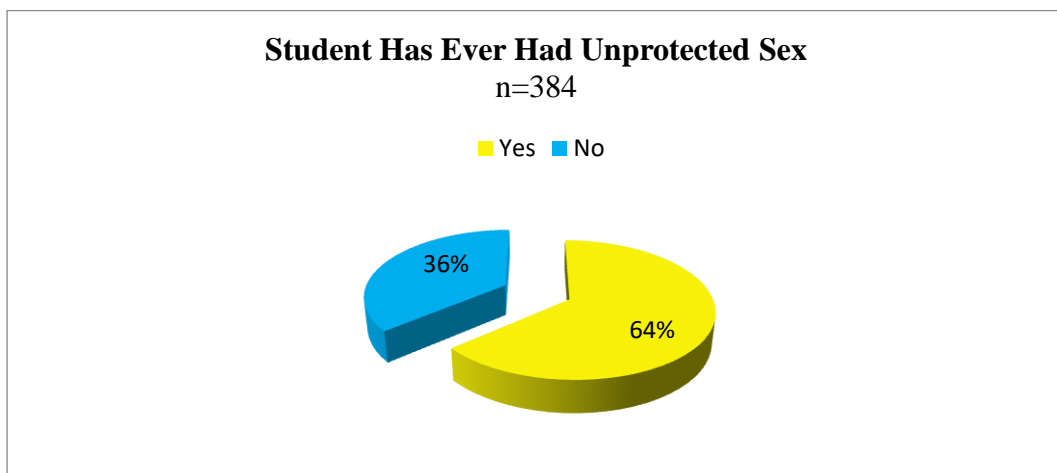
The results $\{X^2(384,5df) = 7.859, p=0.143\}$, at $\alpha=0.05$ showed that there is a fair association between the students HIV risk behaviour and their HIV knowledge. The strength of the association was measured using the Phi / Cramer's v. which also showed a fair relationship (14.3%), $p=0.164$ in a 2-sided test. This was in agreement with findings in the literature reviewed. The descriptive statistics which confirm the association in percentages is given figure 2 below;



Source: Field Data, (2015)

Figure 2: Undergraduate Students' Level of Risk Behaviour in Kenyan Universities in counties Bordering Lake Victoria

The following results were found in the study of students risk behaviour on; unprotected sexual contact, extra Marital Sex without a condom, sex without a condom with a CSW guaranteed as a 'safe good', been too Drunk to Remember Using a Condom when Having Sex, having sex without a condom but only used it half way through or towards the end, more sex partners in the period of a month and not used a condom in each case and early sex debut. Likewise, multiple sex partners and no knowledge of own and sex partner's HIV status, sex with commercial sex workers (CSW) without protection, cross-generational sex and unprotected anal sex, the sharing of piercing tools, sex under the influence of alcohol and drugs and sex for gains and fees. They are depicted on the following figures 3 and 4.



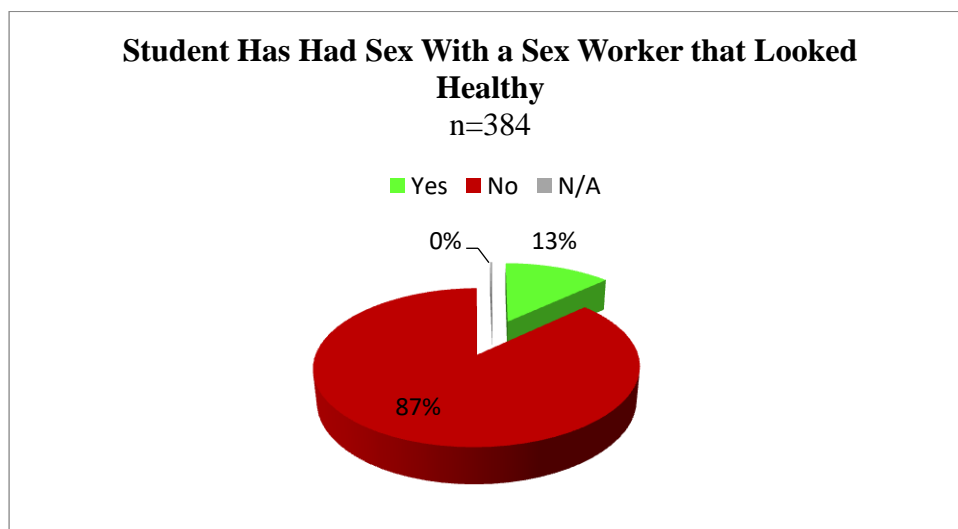
Source: Field Data, 2015

Figure 3: Student Has Ever Had Unprotected Sex in Kenyan Universities in counties Bordering Lake Victoria

22% of the respondents confessed to having had extra marital sex without a condom, 12% had had sex with commercial sex worker (CSW) without a condom, 13% had been too drunk to remember using a condom while having sex while 14% admitted to have had one or more sex partners in the period of one month and failed to use the condom in each case.

Twenty-four (24%) confessed that they had first engaged in sex between the ages of 16 years and 18 years, while the majority of 35% said that, for them, it had happened after they had attained the age of 18 years. Nine percent (9%) claimed they did not know at which age they first had intercourse. Probably at an age they were too young to remember, while 2% were still virgins. Having multiple partners is one of the risk factors to contracting HIV, especially where condoms are not always used.

The study found that 19.3% of the students had had multiple sexual partners in the same month while 79.4% had not. Knowing one's own status, as well as the HIV status of one's partner (s) can help a student take actions to avoid getting HIV infected. In the study, it was found that up to 37% of the students did not know their partners' HIV status, while 62% claimed that they did. 22% of the students did not even know their own HIV status. This could surely encourage reckless sexual behaviour. The majority of 78%, however, knew their own sero-status. It was also shown that at least 13% of the students in the study had experimented with anal sex, 27% of the students had engaged in sexual intercourse with a person at least 20 years older than them, while 13% had experienced intimate relations with commercial sex workers as indicated in figure 4.



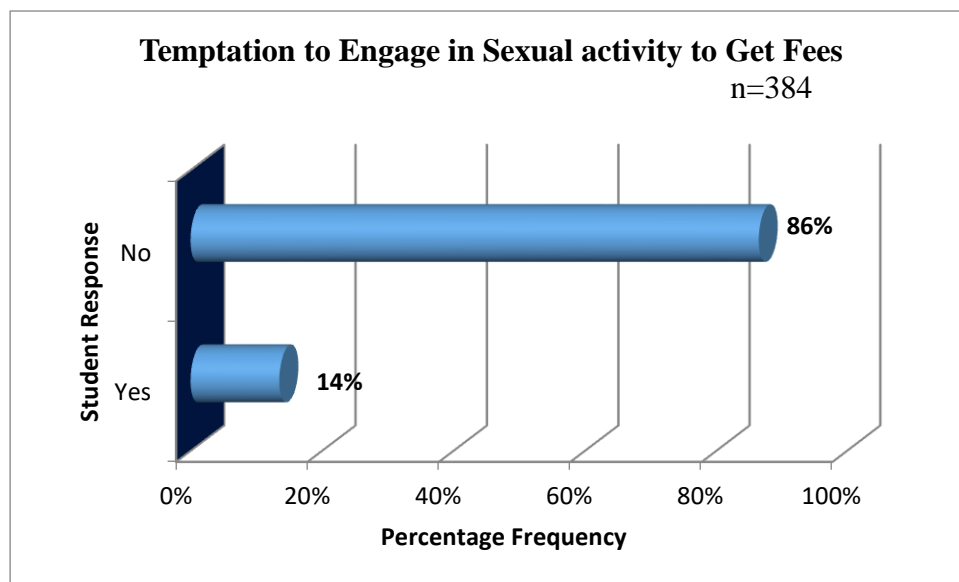
Source: Field Data, 2015

Figure 4: Undergraduate Student Having Sexual Activity with a Sex worker that looked healthy in Kenyan Universities in counties Bordering Lake Victoria

Students reportedly went even further; not only had they visited CSWs, but 9.6% confessed to visiting them regularly. Up to 14% admitted that they had ever had a casual sex partner. Focus Group Discussants expounded more on the same. Some of them said; “There is sex for fun in our university.....casual sex is very rampant during orientation week” (Discussants). Alcohol, drug use and sharing of sharp needles are all practices that put one at risk of HIV infection. The study revealed that up to 30% of the students had shared piercing needles with a friend. This is a relatively high proportion of almost one third placing them at risk of contracting HIV. In most likelihood, the sharing of the needles may have been for injecting drug use.

It was also found that close to one third (31%) of the students in the study drink alcohol or use other intoxicating substances. Seventeen percent (17%) admitted to having had sexual relations while under the influence of alcohol. Another 3% said that they did not know whether or not they had actually had relations while intoxicated. It is a possibility that these are the ones too ashamed to admit having engaged in such reckless behaviour. Related to sex for favours is the phenomenon of sex for fees, which is linked to the economic status of the students. The study found that up to 14% of the student had been tempted to engage in sex just for the sake of having their tuition fees as indicated on figure 5.

Data on the students’ HIV knowledge was captured on the student’s questionnaire and the results were cross-tabulated with the behaviour data then tested by the Pearson chi-square to show the level of association between the two variables in the study objective.



Source: Field Data, 2015

Figure 5: Undergraduate Students Having Been Tempted to engage in Sex for Fees in Kenya Universities in Counties Bordering Lake Victoria.

4. CONCLUSION

The results $\{X^2(384,5df) = 7.859\}$, at $\alpha=0.05$ showed that there is a fairly significant association between the Kenyan university undergraduate students’ HIV risk behaviour and their HIV knowledge in the counties bordering Lake Victoria. The association found in the study depended on the type of HIV and AIDS mainstreaming programmes and approaches in the studied universities. In the views held by Gaffari (2013) ^[11], Ochieng (2013) ^[12] and Farma, *et al*, (2014) ^[13] educational programs designed based on the Health Belief Model have significant impact on reducing risk behaviour. This is a new gap that calls for further research and careful attention by the Kenyan Commission for University Education (CUE) and other university HIV&AIDS mainstreaming planners and policy implementers.

The findings pertaining to HIV knowledge and HIV Risk behaviour are congruent with literature that points to a change in behaviour arising from a change in knowledge; the study by Ghaffari *et al*, (2013) ^[11], for instance, demonstrating the effectiveness of educational intervention was seen in an increase of knowledge that resulted in improved attitudes of students leading to an increase in the desired physical behaviour.

In summary, these findings show that a clear association was found between the two variables in the study. It concludes that HIV and AIDS mainstreamed education contributes to the knowledge which in turn helps reduce HIV risk behaviour of the studied undergraduate students. The relation is moderated by socio-demographic and socio-cultural factors which were also investigated in the study.

RECOMMENDATION

It was recommended that the Kenyan Commission for University Education (CUE) could revamp policy on HIV and AIDS curriculum mainstreaming practices in Kenyan universities to help stem students' risky behaviour and to reduce HIV infection. The mainstreaming should target first years so that the information guides their HIV Perception and Behaviour for the remainder of their years in the university and for longer retention of the HIV and AIDS knowledge. Due to the ever rising numbers of student numbers, the HIV&AIDS common courses should go on-line with a well implemented E-platform.

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