



Original Investigation

Sexual Risky Behaviours among the Youth in Kenya

Magu Dennis G¹, Wanzala Peter W², Mutugi Marion W³, Ndahi L Peter W³

¹Jomo Kenyatta University of Agriculture and Technology (JKUAT)

²Centre for Public Health Research (CPHR)/KEMRI

³Institute of Tropical Medicine and Infectious Diseases, Jomo Kenyatta University of Agriculture and Technology (JKUAT)

Abstract

Youth accounted for approximately 50% of new HIV infections across the globe. Lack of condom use is associated with the HIV/STI risks. SSA have majority of the youth with multiple partners during the previous 12 months. Though since 2000, condom use has increased by 10%. A cross sectional study was conducted during the month of August 2011 to February 2012. Various statistical packages were used such as chi square and multivariate analysis. There was significant relationship between gender and condom use at the Universities $P < 0.001$ in both male and female. Multivariate analysis showed that gender was a significant control variable when explaining the variability of condom use younger age group only. To help students make informed sexual decisions various partners must be involved to broaden their clinical and educational efforts. It is essential that youth receive HIV education on condoms accessibility and clean needles and have access to health services. University students are the basis of the future and represent the hope for an HIV/AIDS free generation. Condom use barriers and challenges among the youth need to be emphasized. Supportive environment to ensure youth can access HIV services. Mobilizing the institution of learning to become a vehicle for a HIV prevention. Mainstreaming HIV/STI prevention and care into other sectors. Youth can be reached through clubs, religious groups, sports, workplaces and the media. Opening dialogue on sensitive issues, adults and young people need to work together on the issues of sexuality, sexual health education and gender roles. Youth should involve in the campaigns to fight HIV and substance abuse.

Keywords: sexual risk, youth, AIDS, HIV prevention

(Rec.Date: Jun 01, 2012 - Accept Date: Jun 28, 2012)

Corresponding Author:

Dennis G. Magu(MSc) Lecturer/Researcher

Jomo Kenyatta University of Agriculture and Technology (JKUAT),

P.O. Box 2168 -00202, Mobile no: +254 0722 574388

E-mail: magudennis@gmail.com

Introduction

The expectation to attend higher education is influenced by a complex set of factors, including family, peers and schools. As educational opportunities expand in less-developed countries, the expectation of the youth to attend Universities is important because educational aspirations have been linked to educational attainment. Access to Universities' education is particularly important in less-developed countries where resources are scarce. As educational opportunities expand in developing countries, it is important to understand the forces that influence youth's education and to understand how these forces interlink at the Universities. Youth are the foundation of a society, their energy; inventiveness, character and orientation define the pace of development of a nation. Globally, youth 15-24 years accounted for 45% of new HIV infections [1]. Research has documented the fact that substance use and not using condoms are the most important indicators associated with the risk of becoming infected with STI both among the youth [2,3].

Researchers have found both a high prevalence of STI in addition to early onset of sexual activity without protection [4] and youth underestimated their risks of acquiring HIV. Many youth experimented with alcohol and abused other substances. This behavior compromised their judgment and increased their chances of engaging in risky sex. The limited published data on HIV/STI risky behaviors among University students in Africa and indeed in much of Kenya, has resulted in youth being sidelined by HIV prevention efforts, most of which are directed at high school and out of school youth who are considered to be at high risk of HIV infection.

Challenge of growing up in a society where opportunity has been eroded by widespread institutional collapse and Ministry of higher education has limited data on substance abuse, HIV/STI among the youth in Kenyan Universities from which recommendations can be developed. Data from the study suggests practical interventions and strategies towards reducing HIV/STI among the youth in Kenyan Universities.

Sexual risky related behaviors

Based on data from 2005–2009, 47% of men and 32% of women aged 15–24 years in SSA reported to have sex with multiple partners during the previous 12 months claimed to have used condoms at their last intercourse. Since 2000, condom use has increased by 10% among young women in 11 of 22 countries based and among young men in 11 of 17 countries based on trend data [3]. Women play a more proactive role in sex negotiations [5] found that better sexual communication predicted condom use self-efficacy in a sample of women. Research has revealed

that communication about condom use, especially with first partners, was a significant predictor of condom use [6]. In the present study, boys had greater condom use self-efficacy than girls. Frequency of intercourse has been found to be positively associated with condom use self-efficacy [7] and relationship duration has been negatively associated with condom use self-efficacy [8]. In addition, the association between age and condom use self-efficacy may be moderated by sexual experience, which increases with age [7].

Where condoms were generally available, limited distribution systems had made access problematic [9]. The few government outlets available tended to be widely dispersed and private sector sources were frequently limited to urban areas, resulting in uneven availability throughout countries. There has been no donor-government-private sector coordination or streamlining of condom supply and distribution systems, resulting in a system breakdown. Many youth face difficulties obtaining condoms because of the cost and limited accessibility. Condoms have not been made sufficiently available in places of young people such as Universities. Negative beliefs about condoms are significantly associated with less frequent condom use in various populations. Reducing negative condom beliefs may help towards reducing sexual risk and identifying significant correlates would inform us about what can be done to better promote condom use [10]. Men may be the ones to actually experience physical discomfort and have more negative condom beliefs than women. Studies on gender differences in condom use have shown that women have greater condom use self-efficacy than men [11] although a few studies have found no gender differences [12] and a few have found that men have greater condom use self-efficacy [13,14] although men have behavioral control over condom use, self-efficacy in women may reflect the ability to communicate about safe sex behaviors and convince their partners to use a condom [15].

Research has revealed that a female's perception of condom use self-efficacy may rely more on her ability to effectively and convincingly communicate the desire to use a condom. Another study has suggested that communication about condom use, especially with first partners, was a significant predictor of condom use [6].

Frequency of sexual intercourse has been found to be positively associated with condom use self-efficacy [7] and relationship duration has been negatively associated with condom use self-efficacy [8]. In addition, the association between age and condom use self-efficacy may be moderated by sexual experience, which increases with age [7].

It was revealed that where condoms were available, limited distribution systems made them inaccessible [9]. There has been no donor-government-private sector coordination or streamlining of condom supply and distribution systems, in Kenya resulting in a system breakdown and wasted resources. University students face limited condoms accessibility due to cost considering they have not been made sufficiently available at the institutions. In this study, some of the constructs such as knowledge, self-efficacy and norms were drawn from major theories of behavioral change (information-motivation-behavior skills model).

The theory of reasoned action have been shown to predict HIV risk reduction [16,17]. Based on data from 2005–2009, 47% of men and 32% of women aged 15–24 years in SSA reported to have had used condoms with multiple partners during sex the previous 12 months. Since 2000, condom use has increased by 10% among young women in 11 of 22 countries and among young men in 11 of 17 countries based on trend data [3].

Gender differences have shown that women have greater condom use self-efficacy than men [18,11] although a few studies have found no gender differences [12]. Women play a more proactive role in sex negotiations [19] found that better sexual communication predicted condom use self-efficacy in a sample of women.

Frequency of intercourse has been found to be positively associated with condom use self-efficacy [7] and relationship duration has been negatively associated with condom use [8]. In addition, the association between age and condom use may be moderated by sexual experience, which increases with age [7]. Studies have found that negative beliefs about condoms are significantly associated with less frequent condom use in various populations [20,10]. Reducing negative condom beliefs may help towards reducing sexual risk and identifying significant correlates would inform about what can be done to better promote condom use.

Men may be the ones to actually experience physical discomfort such as erection problems and loss of sensation [21] men may have more negative condom beliefs than women and differential correlates of negative condom beliefs could be found between men and women.

Materials and Methods

The Study Area

The study was conducted among students in main and constituent campuses of Kenyan Universities namely Egerton, Maseno, Kenyatta, Jomo Kenyatta University of Agriculture and Technology, Moi University, Mt Kenya University, Kimathi and Narok Constituent College Universities.

Study Design

A cross-sectional descriptive study design was used where data was collected at one point time.

Study population

All the students were selected from Kenyan Universities.

Sampling

Sample Size Determination

The required sample size was calculated using the formula of estimating a single population proportion for a cross-sectional survey.

$$n = [Z\alpha/2 \sqrt{p(1-p)} / d]^2$$

Where, **n** is the required minimum sample size,

$Z\alpha/2$ is a standard score corresponding to 95% CI, and is thus equal to 1.96,

p is the proportion of substance abuse, since information in Kenyan Universities was not available, 50%(0.5) was assumed to get the possible maximum sample size,

d is the margin of error and was taken to be 5% (0.05).

Due to multistage nature of the study a design effect 2.76 was considered and non-response rate assumed to be 10%.

$$n = [1.962 \times 0.5(0.5)/0.052] \times 2.76 + n(10\%) = 1167$$

Accordingly, the final sample size was 1167 subjects.

Inclusion criteria

All the students in the selected Universities in Kenya aged 18 -25 years.

All the students in their 4th year in the Universities.

Informed consent.

Communication in English or Kiswahili.

Exclusion criteria

Refusal to give informed consent.

First, Second, Third Years and post graduate students

Below 18 or above 24 years.

Sampling method

A list of all Kenyan Universities was obtained from the Commission of Higher Education in Kenya. Stratification of Universities and constituent Colleges was from the seven public mother Universities which have resident student population, Constituent College university or Private. Randomization was done from each of the stratum into two categories (urban or rural). Using the above criteria six universities namely; Maseno, Kenyatta, Jomo Kenyatta University of Agriculture and Technology, Moi, Mt Kenya University, Kimathi and Narok Constituent College universities were randomized. Probability proportional to size sampling (PPS) was used. Sampling was based on PPS to the enrolment size on the Universities in Kenya by noting the total population. Selection for each University was done using PPS strategy to proportionately allocate 1167 questionnaires. Systematic random sampling was used to administer questionnaires to the subjects.

Ethical considerations

Restricted access to the information collected and coding of questionnaires was observed. The researcher linked up with the University's administration to be granted permission to collect data. Approval was sought from KEMRI SSC, NRC for Scientific and Ethical issues respectively. That formed the basis for a clearance to the Universities by the Ministry of High Education and Technology. Informed consent was obtained and signed by subjects. Absolute confidentiality was not guaranteed as records could be reviewed by Study Investigator or Ethics Committee at KEMRI. University's administration conveyed and sensitized the students through memorandums and posters about the study. Subjects were requested to avail for an interview at a place that one felt comfortable. Interviews were in private, code identification and personal information from the interview were not released without written permission from the subjects as abuse of some substances is illegal. Consent forms and questionnaires were kept under key and lock to ensure high level of confidentiality and privacy.

Subject's participation was voluntary and could refuse to participate or withdraw. However the results were for formulating policies for improvement of quality of education among students in

Kenyan Universities. There was no cost to subjects for participating in this study. Dissemination of results was in form of power point presentation that was done in all selected Universities.

Data collection

University's administration granted permission to collect data from consenting students. Questionnaires were anonymous and distributed publicly to the participants. Subjects were requested to avail for an interview at a place that they felt comfortable. The main issues such as reproductive health, substance abuse and HIV/STI risky behaviors were addressed. Focused Group Discussion (Appendix 11) for the youth and Key Informants Interview (Appendix 11) were performed addressing issues of substance abuse and HIV/STI sexual risky behaviors. Semi-Structured Questionnaires (SSQ) (Appendix 1) were developed and pre-tested in one University but were not included in the analysis of results. After pre-testing the necessary modifications were made in the questionnaires which were administered after prior consent of the subjects. Three research assistant were trained on how to administer the questionnaire.

Data entry, cleaning, analysis and Management

Data entry using unique identifiers were done in duplicate for validation (double entry) and cross-checked for entry error and range checks. Data Analysis was done using SPSS version 12.0 for windows. Qualitative data typed into MS Word exported to NVivo version for coding and analysis based on themes (thematic analysis) and described. Descriptive statistics was obtained for different quantitative variables. Frequencies and percentages were used to present categorical variables. Descriptive statistics including mean, standard deviation, frequency distribution and proportions were done for different groups i.e. sex behavioural practices, age and level of education. Categorical variables were compared using Chi square test.

Results

Table 1. Associations between gender, sexual behaviors and condom use (N=1167)

Sexual behaviors/condom use ^c	Male vs. female ^b	
	Adjusted OR (95% CI)	p-Value
Sexual orientation		
Heterosexual	1.00	
Homosexual	0.27 (0.07–1.06)	0.060
Bisexual	0.60 (0.21–1.75)	0.352
Age of first sexual activity		
<18 years	1.00	
≥18 years	0.72 (0.40–1.30)	0.275
Methods to prevent STIs		
No method used	1.00	
Condom	5.10 (2.14–12.16)	0.0002**
Number of sexual partners during lifetime		
One	1.00	
Two or three	0.93 (0.48–1.78)	0.820
Four or more	1.75 (0.77–3.97)	0.181
Have sex during past 12 months		
No	1.00	
Yes	0.56 (0.28–1.13)	0.103
Number of sex partners during past 12 months		
One	1.00	
Two or more	1.16 (0.55–2.45)	0.702
Yes	1.70 (0.35–8.40)	0.513
^a Multiple logistic regression with adjustment for demographic variables (age, sex) was used to determine the associations between gender, sexual behaviors and condom use.		
^b Independent variable was gender.		
^c Dependent variables were sexual behaviors and condom use.		
Methods to prevent STIs (0 for no method used and 1 for condom), number of sexual partners during lifetime (0 for one, 1 for two or three, and 2 for four or more), have sex during past 12 months (0 for no and 1 for yes), number of sex partners during past 12 months (0 for one and 1 for two or more)		
** $p < 0.01$.		

Discussion

There was significant relationship between gender condom use at the Universities $P=0.0002$. These results are consistent with [22] most sexuality studies have focused on vaginal intercourse. A study found that 66% continued to engage in either sex-related or drug-related risky sexual behavior even after they were aware of being HIV status and 42% admitted to having engaged in both types of risk behavior [17].

Conclusions

The study provided a more comprehensive understanding of youth sexual risky behaviors. Students perceived condom use beneficial, more prevalent and more acceptable for prevention of HIV/STI. To help students make informed sexual decisions, parents, health care professionals and other educators must broaden their clinical and educational efforts to include and counseling and education about condom use. Sociocultural factors make youth vulnerable and programming for youth ought to reflect this reality. It is essential that youth receive HIV education on condoms accessibility and clean needles and have access to health services. Therefore, all young people need information on the risks of sexual transmission and means of protection, even if the region is not currently experiencing a sexually driven epidemic. University students are the basis of the future and represent the hope for an HIV/AIDS free generation.

Recommendations

Creating a supportive environment by implementing policies that ensure youth can access HIV and reproductive health education and services i.e VCT. Youth act more responsibly and develop self-esteem when offered good role models, affirming relationships and safe environments. Mobilizing the institution of learning to become a vehicle for a comprehensive prevention and care program for youth in Universities. Mainstreaming HIV/STI prevention and care into other sectors. Youth can be reached through clubs, religious groups, sports, workplaces and the media. Opening dialogue on sensitive issues, adults and young people need to work together on the issues of sexuality, sexual health education and gender roles. Mobilization of the youth, people and communities should be involved in the campaigns to fight HIV and substance abuse. Youth are increasingly being recognized as a key resource for changing the course of the HIV epidemic. Their understanding of life is developed both with and among their peers. Friends shape young people's understanding of social relationships and the acquisition of negotiation. It is critical that

there be monitoring and evaluation of interventions in order to assist key partners, leaders, administrators and policy makers in formulating decisions.

Acknowledgments

The Thesis saw the light of the day due to God's power who provided me with the energy and am profoundly grateful to him for his mercy and grace. My sincere gratitude to Prof. Mutugi from Jomo Kenyatta University of Agriculture and Technology (JKUAT) for her motivation, expertise, availability and inspiration that added tremendously to the quality of this work. I am also thankful for the excellent example she has provided as a successful scholar and Professor. My hearty thanks go to Dr. Ndahi from JKUAT for her inestimable guidance, integrity and encouragement towards academic insights suggestions and research creativity without which I would not have achieved this success. Thanks for the inspiring unconditional support from Dr. Wanzala from Kenya Medical Research Institute (KEMRI) patience and commitment to scientific inquiry and academic pedagogy provided me the necessary scientific tools. Acknowledged are the University administrations in the 6 universities involved in the survey, other resource persons in the universities, including student leaders, mobilisers, key Informants, FGD participants and other resource persons.

References

1. UNAIDS(2008). Report on the global AIDS epidemic. <http://www.unaids.org/en/dataanalysis/epidemiology/2008reportontheglobalaidsepidemic/> (DA. 30.07.2012)
2. Malow RM, Devieux J, Jennings T, Lucenko BA, Kalichman, SC. Substance abusing adolescents at varying levels of HIV risk: Psychosocial characteristics, drug use and sexual behavior. J Subst Abuse. 2001;13(1-2):103-17.
3. UNICEF(2010).Progress for children: achieving the MDGs with equity. New York, UNICEF.
4. UNICEF and WHO (2010)Young People and HIV/AIDS: Opportunity in crisis. Progress for children: Achieving the MDGs with equity. New York, UNICEF
5. Carter JA, McNair LD, Corbin WR, Williams M. Gender differences related to heterosexual condom use: the influence of negotiation styles. J Sex Marital Ther. 1999;25(3):217-25.
6. Beaudoin CEHIV prevention in sub-Saharan Africa: a multilevel analysis of message frames and their social determinants. Health Promot Int. 2007;22(3):198-206.
7. Heinrich LB. Contraceptive self-efficacy in college women. J Adolesc Health. 1993;14(4):269-76.

8. Raj A, Pollack RH. Factors predicting high-risk sexual behavior in heterosexual college females. *J Sex Marital Ther.* 1995;21(3):213-24.
9. Population Council (2001). Open forum on condom promotion and dual protection”, meeting report .Washington, D.C. Population Council.
1. 10.St. Lawrence, Janet S, Reitman D, Jefferson KW, Alleyne E, Brasfield TL, Shirley A. Factor structure and validation of an adolescent version of the Condom Attitudes Scale: an instrument for measuring adolescents’ attitudes toward condoms. *Psychol Assess* 1994;6:352–9.
10. Parsons JT, Halkitis PN, Bimbi D, Borkowski T. Perceptions of the benefits and costs associated with condom use and unprotected sex among late adolescent college students. *J Adolesc.* 2000;23(4):377-91.
11. Reis J, Stephens YD. A discriminant analysis of young adults’ knowledge of the human papillomavirus and self-efficacy of condom use. *Journal of Psychology and Human Sexuality.* 1998;10:71–91.
12. Carroll L. Gender, knowledge about AIDS, reported behavioral change, and the sexual behavior of college students. *J Am Coll Health.* 1991;40(1):5-12.
13. Farmer MA, Meston CM. Predictors of condom use self-efficacy in an ethnically diverse university sample. *Arch Sex Behav.* 2006;35(3):313-26.
14. Treise D, Weigold MF. AIDS public service announcements: effects of fear and repetition on predictors of condom use. *Health Mark Q.* 2001;18(3-4):39-61.
15. Fisher JD, Fisher WA. Changing AIDS-risk behavior. *Psychol Bull.* 1992;111(3):455-74.
16. Ajzen I, Fishbein M. *Understanding Attitudes and Predicting Social Behavior.* Prentice Hall Inc, Englewood Cliffs, New Jersey, 1980.
17. Dekin B. Gender differences in HIV-related self-reported knowledge, attitudes, and behaviors among college students. *Am J Prev Med.* 1996;12(4 Suppl):61-6.
18. Sterk CE, Klein H, Elifson KW. Perceived condom use self-efficacy among at-risk women. *AIDS Behav.* 2003;7(2):175-82.
19. Boone TL, Lefkowitz ES. Safer sex and the Health Belief Model: Considering the contributions of peer norms and socialization factors. *J Psychol Hum Sex.* 2004;16:51-68.
20. Basuki E, Wolffers I, Devillé W, Erlaini N, Luhpuri D, Hargono R, Maskuri N, Suesen N, van Beelen N. Reasons for not using condoms among female sex workers in Indonesia. *AIDS Educ Prev.* 2002;14(2):102-16.
21. Newcomer S, Baldwin W. Demographics of adolescent sexual behavior, contraception, pregnancy, and STDs. *J Sch Health.* 1992;62(7):5-70.