

Short communication

Condom Use and Number of Sexual Partners among Secondary School Female Students in an Urban City of Cameroon

Tarkang E E^{1*}

^{1*}HIV/AIDS Prevention Research Network, Cameroon (HIVPREC), PO Box 36, Commonwealth Avenue, Kumba, Cameroon

Abstract

Background: Although some studies in Cameroon have addressed the issue of condom use and multiple sexual partners separately, the association between multiple sexual partnership and condom use is limited.

Objectives: This study examines information on the association between condom use and number of sexual partners among female students in an urban city of Cameroon. **Methods:** A descriptive cross-sectional design was adopted, using a self-administered questionnaire to collect data from a probability sample of 210 female students. Statistics were calculated using SPSS version 20 software program. **Results:** About 56.2% were sexually active, some of whom had multiple sexual partners. Condom use was low. Condom use was significantly negatively associated with multiple sexual partners, with respondents reporting multiple sexual partners less likely to use condoms. **Conclusion:** The proportion of female students who engage in multiple sexual partners without using condoms are at risk of HIV transmission. Sexuality education and a friendly environment for condom availability are key in addressing the risky sexual behaviours of female students.

Key words: Cameroon, condom use, HIV/AIDS, multiple sexual partners, secondary school female students

Introduction

Many Cameroonian youth engage in risky sexual behaviours, such as having multiple sexual partners or having unprotected sexual intercourse which may lead to HIV/AIDS. [1] Juveniles in Cameroon aged 15-24 comprised 21.5% of the total population and the estimated HIV/AIDS prevalence rate in this group was 9.1% in 2005. [2] Heterosexual transmission of HIV accounts for about 90% of new infections in Cameroon. [3]

Infidelity which immediately translates into multiple sexual partners has been documented as a key medium through which HIV/AIDS spreads. [4] However, correct and consistent condom use has been acknowledged as providing as much as 94% reduction in the risk of HIV transmission. [5] Despite this reality, the prevalence of condom use among female youths in Cameroon is still low and inconsistent, [6] and many adolescents in Cameroon are engaging in multiple sexual partners. [7]

In Cameroon there is limited evidence on how multiple sexual partners influence condom use among adolescents. In this study it was hypothesized that having multiple sexual partners encourages condom use during sex among high school female students in Urban Cameroon.

Methods

A descriptive cross-sectional design was adopted in this study. A self-administered questionnaire comprising items regarding socio-demographic characteristics and items relating to number of sexual partners; and condom use, was used to collect data from 210 female students selected through disproportional stratified simple random sampling method from three senior secondary schools in Limbe urban

city situated in the South West Region of Cameroon during normal class periods with the permission of the principals and the co-operation of the teachers concerned. The sample size of the study was determined using a single population proportion formula. [8]

The questionnaire was pretested on 10 students who did not participate in the actual study to clarify instructions and to ascertain reliability and validity. [9] Data were collected during the first term of 2012, and were analysed using SPSS version 20 software program at the 0.05 significant levels.

Results

Most students, 194 (92.4%) were 16-24 years old. Most, 192 (92.3%) were single and all were senior secondary school students. All were female students (Table 1).

Table 1 Demographic characteristics

Characteristics	Frequency	Percentage
* Age group		
- 11 - 15	16/210	7.6
- 16 - 24	194/210	92.4
* Marital Status		
- single	192/208	92.3
- others	16/208	7.7

Denominators may vary due to missing values

*Correspondence: Elvis E Tarkang; Email: ebeyang1@yahoo.com

The perceived benefit of using condoms to prevent HIV/AIDS was quite high. Most of the respondents 155 (79.5%) agreed that correct and consistent condom use can prevent HIV/AIDS. A total of 113 respondents (56.2%) reported being sexually active. Of these, 36 (35.3%) reported having had multiple sexual partners in the last one year, while 14 (13.6%) reported having multiple concurrent sexual partners during the study period. The prevalence of condom use at first sexual intercourse among the sexually active respondents was low, 43 (39.1%) (Table 2).

Students who had multiple sexual partners in the past one year, 10 (28.6%) were less likely to have used condoms during first sex than those with single partners, 27 (43.2%) ($X^2=147.5$; $df=6$; $p=0.000$) (Table 3).

The prevalence of condom use at most recent sexual intercourse was also low, 55 (48.7%) (Table 2). Students who had multiple sexual partners in the past one year, 17 (47.2%) were less likely to have used condoms during most recent sex than those with single partners, 37 (48.7%) ($X^2=141.6$; $df=6$; $p=0.000$) (Table 3).

The prevalence of consistent condom use was also low, 31 (27.4%) (Table 2). Students who had multiple sexual partners in the past one year, 8 (23.5%) were less likely to have used condoms consistently than those with single partners 22 (28.2%) ($X^2=138.3$; $df=12$; $p=0.000$) (Table 3). In the same vein students who had multiple concurrent sexual partners during the study period, 1 (10%) were less likely to have used condoms consistently than those with single partners 30 (29.1%) ($X^2=106.00$; $df=12$; $p=0.000$).

Table 2 Perceived benefit of condom use, and number of sexual partners

Items	Frequency	%	CI
* Sexual experience (n=201)			
- yes	113	56.2	49.3 – 62.9
- No	88	43.8	37.1 – 50.7
* Regularity of condom use (n=113)			
- Always	31	27.4	20.1 – 36.3
- Most of the time	34	30.1	22.4 – 39.1
- Seldom	19	16.8	11.0 – 24.8
- Never	29	25.7	18.5 – 34.4
* Correct and consistent condom use can prevent HIV/AIDS (n=195)			
- Agree	155	79.5	73.3 – 84.6
- Disagree	40	20.5	15.4 – 26.7
* Condom use during first sexual encounter (n=110)			
- Yes	43	39.1	30.5 – 48.4
- No	67	60.9	51.6 – 69.5
* Condom use during last sexual encounter (n=113)			
- Yes	55	48.7	39.6 – 57.8
- No	58	51.3	42.1 – 60.5
* Ever use condom during sexual encounter (n=102)			
- Yes	77	75.5	66.3 – 82.8
- No	25	24.5	17.2 – 33.7
* Number of sexual partners in the past one year (n=102)			
- More than one	36	35.3	26.7 – 44.9
- One or none	66	64.7	55.1 – 73.3
* Number of concurrent sexual partners at present (n=103)			
- More than one	14	13.6	8.3 – 21.5
- One or none	89	86.4	78.5 – 91.7

Table 3 Association between condom use and number of sexual partners

Variable	Condom use	P-value*
* Number of sexual partners in the past one year		
	Condom use at first sex	
	Yes	
	N (%)	
- More than one	10 (28.6)	0.000
- One	27 (43.2)	
* Number of sexual partners in the past one year		
	Condom use at last sex	
	Yes	
	N (%)	
- More than one	17 (47.2)	0.000
- One	37 (48.7)	
* Number of sexual partners in the past one year		
	Consistent condom use	
	Yes	
	N (%)	
- More than one	8 (23.5)	0.000
- One	22 (28.2)	
* Number of concurrent sexual partners at present		
- More than one	1 (10.0)	0.000
- One or none	30 (29.1)	
* Based on Pearson Chi-Square test		

Discussion

The majority of the respondents were among the age group hardest hit by HIV/AIDS. [10] Single persons are predisposed to sexual temptations which might increase their vulnerability to STIs and HIV/AIDS. [11] Gender inequality places women at a greater risk of being infected by HIV/AIDS. Women and young girls lack power over their bodies, and their sexual lives, social and economic inequalities increase their vulnerability for contracting and living with HIV/AIDS. [12]

Despite the fact that correct and consistent condom use prevents HIV/AIDS successfully, [5] a significant proportion of female students in Limbe city remains at risk of contracting HIV/AIDS, as evident in this study which indicates that 60.9% of the sexually active female students did use condoms during their first sexual intercourse; 51.3% did not use condoms during their last sexual intercourse; 72.6% were not using condoms consistently; 35.3% reported having sex with multiple partners in the last twelve months, and 13.6% reported having sex with multiple partners during the study period.

The number of sexual partners is an important indicator of sexual risk behaviour particularly with respect to contracting HIV/AIDS. Having multiple concurrent sexual partners with low condom use are among the key drivers of HIV infection in Africa. Having multiple sexual partners might

promote the rapid transmission of HIV within and across sexual networks, especially in cases of multiple overlapping concurrent partners. [4]

Condom use during first sexual encounter might increase the likelihood of using condoms in subsequent sexual encounters. Majority of the sexually active female learners in the current study did not use condoms during their first sexual encounters. This might explain why majority of them did not also use condoms during their last sexual encounters, and also explains why consistent condom use was also low. The low level of condom use as revealed in this study may be attributed to lack of exposure to sensitization messages such as the condom social marketing program. This may be due to gender and cultural norms regarding access to information, communication and sensitization. The low condom use indicates that efforts to promote condom use among female learners in Limbe Urban City of Cameroon have been less successful.

Of particular concern is the finding that female students in Cameroon, who reported having multiple sexual partners in the past one year and concurrently, were less likely to have used condoms than those with single partners. Multiple sexual partners and concurrency are risk factors for HIV transmission. [13] It is therefore of concern that having had more than one sexual partner was associated with non-use of condoms. Therefore the hypothesis that having multiple sexual partners encourages condom use during sex among

high school female students in Urban Cameroon was rejected.

This study found evidence of significant associations between multiple sexual partners and condom use among female students in Limbe Urban City of Cameroon, with a pattern of declining condom use with increasing number of sexual partners. This result is in disagreement with that obtained in Tanzania, whereby condom use was found to be independent of multiple sexual partners [14], and that obtained in Angola, whereby youths with multiple sexual partners were consistent condom users. [15] This disparity may be due to cultural background differences in relation to sexual activity among these three countries and the knowledge differentials about transmission and prevention of HIV/AIDS and sexual risk behaviours between Cameroon and Angola.

More efforts are needed to promote safer sexual practices and condom use among female students in Limbe, Cameroon. Specific interventions should focus upon improving the decision-making skills, communication skills and goal-setting skills of female students in Limbe Urban City of Cameroon. There is the need for comprehensive HIV prevention programming built on a human rights framework, prioritising access to complete and accurate information, promoting an environment free from stigma and discrimination, empowering individuals to make and negotiate their own choices, and addressing the social, political and economic factors that put women at risk. Successful HIV prevention programs should focus on reducing the gender inequality that drives new infections and empowers women to make free and informed decisions about their sexual and romantic relationships. There is also the need to empower adolescent girls by increasing their knowledge about sexuality and HIV/AIDS.

This study had several limitations. Some important variables including religion, education level, condom type, frequency of sexual intercourse and socio-economic status, that could explain the relationship between multiple sexual partners and condom use were not included in the study. The sample size was small and as such the findings can not be generalised. This study was conducted in predominantly Christian area of Cameroon. Different results may be obtained if the study is conducted on predominantly Muslim or male students. In addition, because most of the items in the questionnaire elicit self-reported information on sensitive issues such as condom use and HIV/AIDS, the respondents might have been biased in responding to these items. However assurance of confidentiality and anonymity might have minimised the problem.

Author's contributions

EET designed the study, performed the statistical analysis, directed the field work, drafted and approved the final manuscript.

Competing interests

The author declares that he has no competing interests.

References

1. Arcand JL, Wouabe ED. Teacher training and HIV/AIDS prevention in West Africa: Regression discontinuity design evidence from the Cameroon. *Health Economics*, 2010; 19: 36-54.
2. UNFPA. Country profiles for population and reproductive health: policy developments and indicators, Cameroon, 2005; 26-27. From: http://www.unfpa.org/upload/lib_pub_file/524_filename_country_profiles_2005.pdf (accessed on 14/01/2013)
3. Fonjong L, Fostering women's participation in development through non-governmental efforts in Cameroon. *J. Royal Geogr. Soc.*, 2001; 167(3):223-234.
4. Ford K, Sohn W, Lepkowski. J. *American adolescents: sexual mixing patterns, bridge partners and concurrency.* *Sex Trans Dis*, 2002; 29:13-19.
5. Holmes KK, Levine R, Weaver M. Effectiveness of condoms in preventing sexually transmitted infection. *Bulletin of the World Health Organization*, 2004; 82:454-461.
6. WHO. Treat 3 million by 2005: Summary country profile for HIV/AIDS treatment Scale-up, Cameroon, 2005. From: http://www.who.int/hiv/HIVCP_MR.pdf.
7. Kongnyuy EJ, Soskolne V, Adler B. Hormonal contraception, sexual behaviour and HIV prevalence among women in Cameroon. *BMC Women's Health*, 2008; 8(19):1-6.
8. Levy SL, Lemeshow S. *Sampling of populations: Methods and applications.* 3rd edition. New York, 1999. John Wiley & Sons.
9. Bless C, Higson-Smith C. *Fundamentals of social research methods: an African perspective.* 3rd edition, 2000. JUTA.
10. USAID. *Country health statistical report, Cameroon.* Masimax Resource Inc, John Snow Inc, ORC Macro & Insight Systems Corporation, 2008; Washington DC.
11. Karukuza NW, Bob EC. *Susceptibility and vulnerability to HIV/AIDS among the fishing communities in Uganda: a case of Lake Kioga.* A paper presented to the international conference on HIV/AIDS and food and nutrition security, April 14-16 2005. Durban, South Africa.
12. UNAIDS. *Women and HIV/AIDS. Best practice collection.* Geneva: UNAIDS point of view October 1997.
13. Doherty IA, Shiboski S, Ellen JM, Adimora AA, Padian NS. Sexual bridging socially and over time: a simulation model exploring the relative effects of mixing and concurrency on viral sexually transmitted infection transmission. *Sex Transm Dis*, 2006; 33:368-73.
14. Exavery A, Lutambi AM, Mubyazi GM, Kweka K, Mbaruku G, Masanja H. Multiple sexual partners and condom use among 10-19 year-olds in four districts in Tanzania: what do we learn? *BMC Public Health*, 2011; 11:490.
15. Prata N, Vahidnia F, Fraser A. Gender and relationship differences among 15-24 - year-olds in Angola. *International Family Planning Perspectives*, 2005; 31:192-199.