Assessment of youths' knowledge on the use of condom for HIV/AIDS prevention in the North West region of Cameroon

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ABSTRACT: Introduction: Youth represent the group at highest risk for HIV infection because they engage in risky sexual behaviours such as unprotected sexual intercourse which put them at risk of acquiring HIV/AIDS infection. A multistage cross sectional study was carried out to evaluate the extent of knowledge of youths on the use of condom to prevent HIV/AIDS in the North West Region of Cameroon. Method: The study was carried out on 1,120 (690 females and 430 males) students aged 15-24 years who consented to participate in the study from April to June, 2014. The participants were randomly selected with 40 from each of the 28 schools in all the seven divisions of the North West Region. A questionnaire to assess the knowledge of the study population on the use of condom for HIV/AIDS prevention was developed and pretested to 100 students in one of the non-participating schools. Statistical analysis was done using the SPSS version 20 statistical package. Results: The majority of students (81%) were very knowledgeable about HIV/AIDS transmission and condom use as prevention methods (87%). Although the majority of students knew that the use of the condom can prevent HIV/AIDS transmission, 68.5% said that they will be embarrassed buying condoms. The study revealed that 51.7% had never been taught how to use the condom, while 72.7% had never used condoms during sexual intercourse. There was a good number (67.2%) who believed that promoting condom use is promoting sex. Conclusion: The lack of knowledge on HIV prevention methods and the high level of misconception, pose a need to intensify the education programmes on HIV/AIDS prevention methods.
Key words: Cameroon; Condom; HIV/AIDS; Knowledge; Prevention; Youth.

INTRODUCTION

Acquired Immunodeficiency Syndrome disease is caused by the Human Immunodeficiency Virus and unprotected sexual intercourse is a major risk factor that increases a person's chance of contracting the disease. HIV/AIDs can be transmitted through unprotected sexual intercourse, blood transfusion and the use of unsterilized infected object. Various programs have been developed for the fight against HIV/AIDs based on campaign to create awareness which could reduce HIV/AIDs prevalence through behaviour change. The disease is found worldwide with a very high prevalence rate in sub-Saharan Africa and 4.3% for Cameroon following the 2011 demographic health survey. There has been much campaign on the use of condom to reduce the risk of infection. Also the use of antiretroviral drug is an adopted policy as well as HIV/AIDS relief programs used to promote the health of HIV/AIDS patients.

Knowledge is an important pre-requisite for HIV/AIDS prevention through behaviour change. Most national programmes have put a great deal of effort into the information, education, communication" campaigns, which aim at increasing knowledge about HIV, the behaviours that spread it and the ways it can be avoided. Many programmes have had a great deal of success in imparting this information. Indicators of knowledge are beginning to register high levels of correct knowledge. But behind this knowledge often lurks misinformation or misconceptions which influence the way people behave (UNAIDS, 2000).

Hiv/Aids Situation In Cameroon

In Cameroon, there are six new infections per hour, approximately 141 per day, 4,276 every month, and 51,315 per year. (Cameroon MOH; CNLS/GTC, 2010; Cameroon Operational Plan Report FY, 2012). According to the Cameroon Demographic and Health Survey and Multiple Indicators Cluster Surveys (DHS-MICS) conducted by the "National Institute of Statistics" (NIS), in collaboration with the Ministry of Public Health in 2011, 4.3% of adults age 15-49 are HIV-positive. Presently following the World Bank indicator survey (2012), the percentage has

increased from 4.3% to 5.4%. According to that survey, HIV prevalence is almost twice as high among women (5.6%) than men (2.9%), and among these women, 4.6% are living in urban areas compared with 6.4% in rural areas. HIV prevalence is highest in the South Region (7.2%), followed by the East Region, (6.3%), and North West Region (6.3%). HIV prevalence is lowest in Extreme North Region (1.2%) and North Region (2.4%). Still in the survey, 2.1% of young people aged 15-24 are HIV-positive. Among young women, HIV prevalence is slightly higher in those living in urban areas (2.9%) than those living in rural areas (2.6%).

Condom Use And Hiv/Aids

Condom has been and it is still an integral part of HIV preventive measures worldwide and many countries have designed programs that encourage people to use them (Versteeg and Murray, 2008). Despite this concerted effort, many people do not use condoms consistently (UNAIDS, 2008). Condoms were shown to be over 90% effective in preventing pregnancy, the transmission of HIV and other sexually transmitted diseases (Stammers, 2005). Sexual transmission of HIV occurs when infected semen, vaginal, or other body fluids contact mucosal surfaces, such as the male urethra, the vagina, or cervix (Centre for Disease prevention and Control, 2002). According to the Centre for Disease Control & Prevention (CDC), a number of carefully conducted studies, employing rigorous methods and measures, have demonstrated that consistent condom use is highly effective in preventing HIV transmission (CDC, 2002). In a two-year study of sero-discordant couples (in which one partner was HIV-positive and one was HIV-negative), no uninfected partner became infected among couples using condoms correctly and consistently at every act of vaginal or anal sex versus 10% of those using condoms inconsistently (CDC, 1999). In a similar two-year study, 2% of uninfected partners who used condoms consistently became HIV-infected versus 12% among those who used condoms inconsistently or not at all. A recent study of declining HIV prevalence in Uganda found no evidence that abstinence or monogamy had contributed to the decline. Findings identified the increased use of condoms in casual relationships as important in Uganda's declining HIV infection rates (Wawer *et al*, 2005). Several studies done among discordant couples who engaged in regular sexual activity also support this finding (Weller and Davis 2003; Macaluso et al, 2003).

According to UNAIDS, knowledge of the effectiveness of condoms in preventing HIV transmission is high in most countries; however many people still fail to use them consistently especially those who engage in high risk sexual practices.

Youth represent the group at highest risk for HIV infection (UNAIDS, 2010). Many Cameroonian youths engage in risky sexual behaviours which have led to the high transmission of HIV/AIDS and many other sexually transmissible infections (Arcand, 2010; Mosoko, 2009). The estimated HIV/AIDS prevalence rate in Cameroon showed that youths are at the centre of the global HIV/AIDS pandemic. They are the world's greatest hope in the struggle against this fatal disease. There is also poor response rate in the implementation of preventive measures. Therefore, there is a need for new strategies to inform the youthful population of the need for HIV/AIDS prevention. The main aim of this study was to assess the knowledge of youths, on the use of condom as a means of HIV/AIDs prevention in the North West Region of Cameroon.

Knowledge gained from the current study will be used to make recommendations regarding HIV/AIDS that could enable Cameroon's policies makers in the implementation of strategies and programmes to help reduce the prevalence of HIV/AIDS among youths in the North West Region and Cameroon as a whole. The findings of the current study also provide a basis for implementing responsible sexual behaviour programmes in schools and could serve to review the current health behaviour programmes. This in turn will enable the development of a more reality-based integrated programme to meet the total health needs of secondary school learners and adolescents in the North West Region.

MATERIALS AND METHODS

The study was conducted among students in all the seven divisions of the North West Region of Cameroon. The divisions were; Boyo, Bui, Donga-Mantung, Menchum, Mezam, Momo and Ngo-ketunjia division. A multistage cross-sectional, descriptive study design was used where data was collected at a point in time. All the students aged 15-24 were sampled from some selected secondary schools in the seven divisions of the North West region of Cameroon. According to Kasiulevicius et al, (2006), the required sample size was calculated using the formula for estimating a single population proportion for a cross-sectional survey.

Where, $\mathbf{n_o}$ is the required minimum sample size, **Z** is a standard score corresponding to 95% Confidence level, and is thus equal to 1.96, **p** is the

$$n_o = \frac{Z^2 pq}{e^2}$$

proportion of awareness, but the information is not available, and so 50% (0.5) was assumed to get the possible maximum sample size, **e** is the margin of error and is taken to be 5% (0.05). Due to multistage nature of the study a design effect of 2.76 was considered and non-response rate was taken at 10% (Kasiulevicius et al, (2006). Therefore, $n_o = [(1.962)^2 \times (0.5)^2 / (0.05)^2] \times 2.76 + n_o$ (10%) =1,120. Accordingly, the final sample size was 1,120 subjects. The questionnaire was adapted from "Illustrative Questionnaire for Interview Surveys with Young People" (Cleland John, 2004). The divisions represent the primary sampling frame; the subdivisions represent the secondary sampling frame and schools, the tertiary sampling frame.

Data for this study was collected during the period from April to May, 2014. Semi-Structured Questionnaires (SSQ) were developed and pre-tested in one of the non-participating schools and the result was not included in the analysis of main result. The questionnaire was made up of three sections; Demographic and Knowledge on condom use. The questionnaires were distributed to 1,120 students in 28 secondary schools in the North West Region of Cameroon during normal class periods with the permission of the principals and the co-operation of the teachers concerned. Prior to data entry, a data coding guide was prepared with each variable assigned a specific code. This was to facilitate data entry and to also reduce error. Data entry using unique identifiers was done and cross-checked for entry error and range checks. Data entry was done using Epi info vista 3.5.3 for windows and the analysis, was done using the Statistical Package for Social Science (SPSS).

ETHICAL APPROVAL

Restricted access to the information collected and coding of the questionnaire was strictly observed. Approval was sought from the University of Buea, Faculty of Health Science Institutional Review Board, for Scientific and Ethical issues. Research authorization was given by the regional delegate of Public Health of the North West Region. Informed consent was obtained and signed by subjects; meanwhile assent was sought from parents of those subjects below 20 years of age.

RESULTS

Condom use and HIV prevention

There was generally a high level of awareness (87.0%) that correct use of the condom during sex can lower the risk of getting HIV/AIDs (Table 1). Respondents in the age group 20-24 were more knowledgeable (88.2%) than those aged 15-19 (85.5%) (P=0.002).Only 22.8% and 44.0% of age group 15-19 and 20-24 respectively reported to have ever used a condom in their life time. It was observed that none of the female participants had ever used a female condom and majority of them had never seen the female condom before.

A comparison between respondent's sexual life and condom use (Figure 1 shows), show that some respondents were more likely not to use condoms than other (P=0.001). Mezam division had the highest percentage of youths who have had sex (48.8%) as well as the highest number who have used condom (37.7%). For each of the division, those who had sex without condom were more than those who used condoms during sexual intercourse. The difference was statistically significant (P=0.001). The practice of sex without using condoms was highest in Ndonga-Mantung and Boyo divisions.

DISCUSSION

Women and young girls lack power over their bodies, and their sexual lives, social and economic inequalities increase their vulnerability to contracting and living with HIV/AIDS. Women might therefore find it difficult to demand condom use, as they become subordinates or dependent of mainly older men; women are also biologically prone to infection, and HIV is more easily transmitted from men to women than the reverse. Knowledge about the female condom was highly deficient because none of the respondents had ever seen one, let alone used them.

The level knowledge that the male condom exists and can prevent HIV if correctly and consistently used was high. However, the majority of respondents had not been taught on how to correctly use the male condom. This is supported by a study carried out in by Enowbeyang Tarkang among high school females, on Knowledge of correct and consistent condom use in 2013, which showed that only 27.4% reported to have used condom consistently. While 58.3% of males reported having been taught to use the condom, only 38.3% of females were aware of proper use of the condom and this difference was highly significant (P=0.001). Overall, the knowledge on correct condom use was 48.3% which is below the national strategy level for the fight against HIV/AIDS (70%).

The low knowledge of correct condom use by school students as reported in this study is in agreement with the report of the study by Prata et al, (2006), among first year university students in Mozambique. Most of them did not know that once a condom is used, it cannot be reused; that a new condom should be used each time a couple

has sex and it must be used from start to finish in order to protect against pregnancy and HIV/AIDS. Some did not even know that the condom does expire or that wrong usage of condom can reduce its effectiveness in preventing HIV/AIDS transmission during sexual intercourse. Knowing how to correctly use condoms and using them consistently during sex are among the major actions necessary for the prevention of sexual transmission of HIV. There is therefore a dire need to educate the youth on correct condom usage in the North West Region and Cameroon at large. Interventions designed to enhance beliefs, perceptions and skills related to condom use could be expected to reduce the number of unprotected sexual encounters among sexually active adolescents.

It was observed that only 22.8% and 44.0% of those 15-19 and 20-24 respectively reported to have used a condom before. The finding that 29% and 67.1% of those 15-19 and 20-24 years respectively reported to have had sexual intercourse before, indicating that 7% of adolescents and 23.1% of young adults had unprotected sex was worrisome. Young adults therefore practiced risky sexual behaviour more when compared with adolescents. A possible explanation is that those 15-19 years are more adventurous tending to engage in more casual and experimental sex. This is supported in a similar study carried out in Northern Uganda by Nambaty Diana (2006) on condom use, where only 40% of youths reported to have used condom in the last 12 month.

Generally, the low level of the use of condom may also be due to the fact that youths feel embarrassed buying condoms. Risky sexual behaviour was detected across the divisions of the North West region and notably in Boyo and Ndonga-mantung divisions. Such information should be exploited by the Ministry of Health and these areas targeted for proper education on HIV/AIDS transmission. It is important to recognise the fact that the religious beliefs of individuals prevent the use of condom and in such cases, education on the practice of abstinence is vital to prevent HIV/AIDS transmission.

Appendix: Result (Tables and charts)

Table 1: Knowledge on condom use for HIV prevention

VARIABLE	Responses	FEMALE (%)	MALE (%)	ALL	AGE GROUP	
					15-19	20-24
Using condom correctly during sex can lower the risk of getting HIV/AIDs	Yes	82.4	91.5	87.0	85.5	88.2
	No	9.0	7.0	8.0	7.9	10.5
	Don't know	8.7	1.4	5.1	6.6	1.3
Would you be embarrassed buying or using a condom	Yes	34.3	28.6	31.5	32.1	32.4
	No	49.9	65.2	57.6	54.5	63.5
	Don't know	15.8	6.2	11.0	13.4	4.1
Have you been formally taught on how to use a condom before	Yes	38.3	58.3	48.3	46.3	44.7
	No	58.6	39.9	49.3	51.5	51.3
	Don't know	3.2	1.4	2.3	2.3	3.9
Have you ever used a condom before?	Yes	21.0	33.5	27.3	22.8	44.0
	No	77.5	64.1	70.8	75.5	53.3
	Don't know	1.5	2.4	2.0	1.7	2.7
There is a female condom which can help decrease a woman's chance of getting HIV virus	Yes	66.2	78.9	72.6	70.4	75.0
	No	7.9	11.7	9.8	9.2	10.5
	Don't know	25.9	9.4	17.7	20.4	14.5
Is it essential to use a condom with a new sex partner	Yes	60.6	71.4	66.0	64.1	68.4
	No	12.2	12.2	12.2	11.4	17.1
	Don't know	27.2	16.4	21.8	24.5	14.5

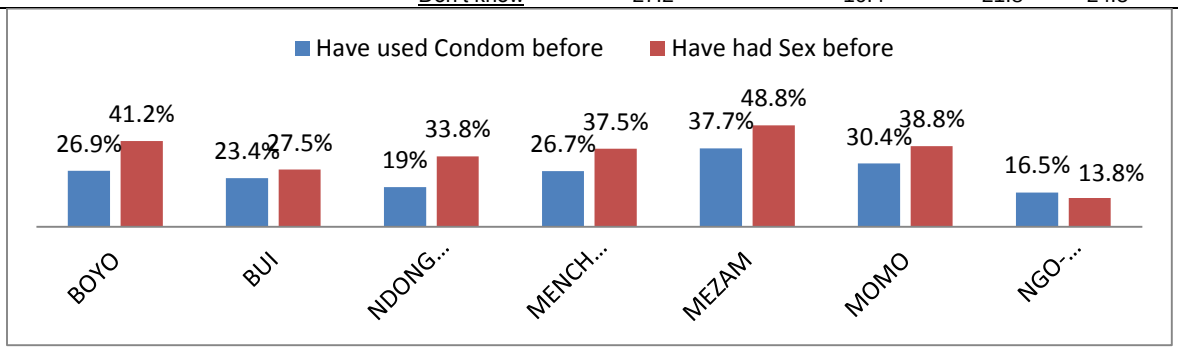
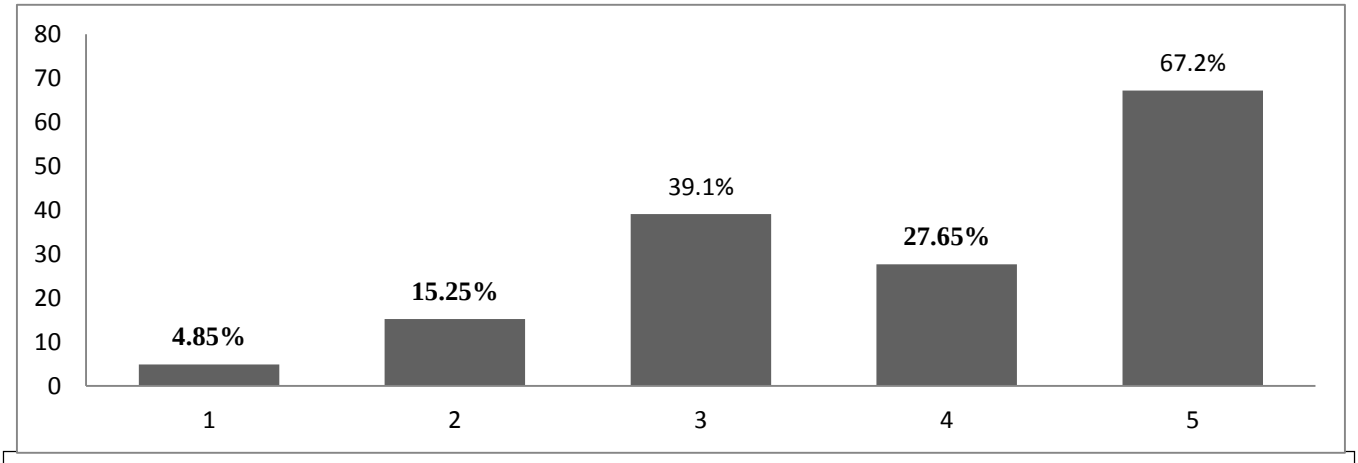


Figure 1: Comparison of having sex and using condom

Table 2: Respondent's misconception on condom use by sex and age groups

VARIABLE	Responses	FEMALE (%)	MALE (%)	AGE GROUP 15-19	AGE GROUP 20-24
A condom can be used more than once	Yes	5.0	4.7	5.2	2.7
	No	80.7	91.5	83.3	94.7
	Don't know	14.3	3.8	11.5	2.7
A woman cannot get HIV if she has sex during her menstrual period	Yes	12.7	17.8	14.7	14.5
	No	54.0	58.7	55.5	57.9
	Don't know	33.2	23.5	29.8	27.6
If a person carries condom, it means that person has a lot of casual sex	Yes	40.1	38.1	39.0	41.3
	No	34.6	43.8	36.5	48.0
	Don't know	25.3	18.1	24.4	10.7
Instruction saying condom reduces the risk of HIV is a lie	Yes	31.7	23.6	29.2	25.0
	No	51.7	67.9	56.9	64.5
	Don't know	16.6	8.5	14.0	10.5
Promoting condom use is the same as promoting sex	Yes	69.0	65.4	66.9	72.0
	No	17.1	25.6	20.2	21.3
	Don't know	13.9	9.0	12.8	6.7



1 = A condom can be used more than once
2 = A woman cannot get HIV if she has sex during her menstrual period
3 = If a person carries condom, it means that person has a lot of casual sex
4 = Instruction saying condom reduces the risk of HIV is a lie
5 = Promoting condom use is the same as promoting sex

Figure 2: Respondents misconception on condom use

Table 3: Responses on condom use as a means of HIV/AIDS prevention

	VARIABLE	YES (%)	NO	Don't know
1	"Using condom during sex can lower the risk of getting AIDs"	87.0	8.0	5.1
2	A Condom can be used more than once	4.85	86.1	9.05
3	Do you think condom is expensive?	33.5	65.0	1.5
4	Do you think condoms are easily available?	70.4	18.5	11.1
5	Would you be embarrassed buying or using a condom?	31.5	57.6	11.0
6	Have you been taught on how to use a condom before?	48.3	49.3	2.3
7	Have you ever bought a condom?	17.1	70.2	12.7
8	Have you ever used a condom before?	27.3	70.8	2.0
9	Would you be embarrassed suggesting condom use to your partner?	64.1	30.0	5.9
10	There is a female condom that can help decrease a woman's chance of getting HIV.	72.6	9.8	17.7
11	Have you ever had sex without condom?	15.5	65.0	19.5
12	Promoting condom use is the same as promoting sex.	67.2	21.35	11.5
13	If a person carries a condom, it means he/she has a lot of casual sex.	39.1	39.2	21.7
14	Instruction saying condoms reduce the risk of AIDS is a lie	27.65	59.8	12.5
15	Is it essential to use a condom with new sex partners?	66.0	12.2	21.8
16	A woman cannot get HIV if she has sex during her period.	15.25	56.35	28.5

CONCLUSION

From the results obtained in this study, the following conclusions were arrived at:
The prevalence of youth who knew that healthy carriers of HIV exist was 81.45%.
A good number of respondents (87%) knew that consistent and correct use of condoms protect one from acquiring HIV.
On condom use, 51.7% of respondents had never been taught how to use it.
With regard to misconception about condom usage, 67.2% believed that promoting condom use is promoting sex; 39.1% attributed the possession of condoms to practice of regular casual sex.
On assessing risky sexual behaviour, 34.5% of respondents had sex before, while only 25.8% had used the condom.
The following recommendations were made from the study:
The Ministry of Secondary Education should incorporate sex education into the secondary school curriculum.
Principal of schools should encourage parents during PTA meetings to discuss matters of HIV transmission and prevention with their children.
Mass media campaigns to promote abstinence, delaying sexual debut and consistent condom use should be intensified nationwide in order to educate youths on adopting healthy sexual behaviour.

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