

## Brief communication

# High-risk sexual behavior and pattern of condom utilization of the Gondar Collage of Medical Sciences (GCMS) Students, North-west Ethiopia

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### Abstract

Human Immuno Deficiency Virus/Acquired Immuno Deficiency Syndrome (HIV/AIDS) is unique in its devastating impact on the social, economic and demographic development. This study was conducted to assess College students' 'knowledge' about condom distribution, high-risk behavior and pattern of condom utilization. A cross-sectional study was done among 383 students of GCMS. Data were collected using a pre-tested self-administered questionnaire. Out of 383 students 214 (56.1%) were sexually active. Among the sexually active students, 37.1% reported ever use of condom. Consistent condom use was reported only by 6.4%. Sexual contact with commercial sex workers was reported by 7.8% of them. Consistent use of condom regardless of partner characteristics should be encouraged among students. [*Ethiop.J.Health Dev.* 2002;16(3):335-338]

### Introduction

HIV/AIDS is regarded primarily as a serious health crisis. Estimates in 1991 predicted that in Sub-Saharan Africa by the end of the decade, 9 million people would be infected and 5 million would die a three-fold underestimation. There is now compelling evidence that the trend in HIV infection will have a profound impact on future rates of infant, child and maternal mortality, life expectancy and increasingly diverse at the national, provincial and community levels, reflecting the great variety of social, economic and cultural circumstances which create, enlarge and maintain the potential for exposure to HIV (2).

It is now almost 17 years since HIV/AIDS epidemic started in Ethiopia (3). At the end of 1993, it was estimated that there were half a million people with AIDS and this number is expected to grow to more than 5 million by the year 2005. The effect of HIV/AIDS on the health care system, which is inadequate to handle the traditional health problems, could not be negligible (4).

Confirmed average antibody positivity rates for HIV-1 ranging between 3.4% and 20% were found in low risk (scholarship winners), and high-risk females (female practicing multipartner sexual contacts) population groups, respectively (5). The HIV/AIDS and other STD's Prevention and Control Team unit of the Ministry of Health (MOH) estimates that HIV adult prevalence is in the range of 6-9% with 2-3 million infected persons in the country. The MOH analysis also shows the HIV adult prevalence is much higher in urban than rural areas (2).

Promotion of behavioral change and control of sexually transmitted diseases (STD) are known to be effective against HIV transmission at the community level and should be strongly supported to limit the spread of the HIV epidemic in Ethiopia. The peak prevalence for HIV prevalence in the age group 25-29 may indicate that the epidemic is still a recent one (6). The objective of this study was then to assess knowledge, attitude, practices & behavior (KAPB) towards HIV/AIDS, high-risk sexual behavior and pattern (trends) of condom utilization among Gondar College of Medical Sciences students.

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### Methods

A cross sectional study was conducted in October-November 1999 at Gondar College of Medical Sciences. Gondar College of Medical

Sciences (GCMS) consists of various categories of field of studies; including medical, health officers, nursing (clinical, public health, midwifery), and environmental health-and laboratory technicians. The following assumptions were made to determine the minimum sample size required for the study: a 50% proportion of condom use among the GCMS students, a 95% confidence interval and a  $\pm 5\%$  deviation from the true proportion (margin of error). Thus, total of 384 students were included in the sample.

The allocation of students to different categories was based on the willingness of the students to participate in the study. Three hundred and eighty three students volunteered to participate in the study.

The data collection instrument used was a pretested standardized questionnaire. It consisted of questions related to socio-demographic background of the respondent, high-risk behavior like sexual contact with commercial sex worker or non-regular partners, history of STD in the past 12 months, knowledge whether they know where condoms are available and practice questions on the use of condom and frequency of use.

The questionnaires were filled anonymously and before lecture hours. No identity was attached to

**Table 1: Distribution of respondents according to their ever use of condom by Category, GCMS students, December 1999.**

Category	Yes (#/%)	No (#/%)	$\chi^2$ (yat)	d.f	P-value
Medicine	3 (4.3)	67 (95.7)	85.98	3	0.0001
Nursing	16 (45.7)	19 (54.3)			
Environmental Health	30 (38.0)	49 (62.0)			
Health Officer	31 (100)	0 (0)			
<b>Condom ever use</b>					

the questionnaires and the data were handled confidentially. Students were informed on the purpose of the study and the consent of the students was taken. The study got ethical clearance from the Ethical Clearance Committee of Gondar College of medical sciences.

Data was entered in to and cleaned using EPI info version 6.0 statistical software. Analysis was made using appropriate statistical methods. Descriptive and analytic methods are employed in the presentation and analysis of data.

### Results

The mean ( $\pm$  SD) age of the students was 21.5 ( $\pm$  3.7) years. The majority of the respondents were males (85.6%) and unmarried (94.6%). Out of 383 students, 215 (56.1%) were sexually active. Among the sexually active students, 80 students (37.1%) ever used condom (Table 1). Among those who reported condom use, only 6.4% have used condom regularly and 5.1% used more than half of the time. The condom utilization pattern among the students showed ever use of condom by health officer and nursing students is significantly higher than the medical or environmental health students. There is a significant association between the categories of students and their condom use ( $\chi^2 = 85.89$ , d.f.=3,  $P < 0.0001$ ).

Having knowledge about the distribution of condom is claimed by 281 (73.4%) of the students. The highest knowledge on distribution of condom was observed among health officer students 42/45 (93.3%) followed by medical reported by 31 (8.1%) students (Table 2). The highest reported being among the health officer

students 100/135 (74.1%) and the least observed among the nursing students 44/68 (64.7%) ( $\chi^2 = 12.45$ , d.f. = 3,  $P < 0.006$ ). Contact with commercial sex worker (CSW), was among medicine students 19/31 (60.3%) and the least among medicine students 3/70 (4.3%). The condom use rate among students who had contact with CSW was 61.9%. Thirty students (7.8%) reported history of sexually transmitted infection in the past 12 months. The distribution among the categories showed that 28.6% nursing students, 38.3% of the health officers students and 6.3% of the environmental health students reported history of sexually transmitted infection in the past 12 months.

Table 2: Distribution of respondents with history of contact with commercial sex worker by category, GCMS December 1999.

Category	Contact with Commercial sex workers				d.f	P-value
	Yes # (%)	No # (%)	$\chi^2$			
Medicine	3 (4.3)	67 (95.7)	65.5	3	0.0001	
Nursing	4 (11.4)	31 (88.6)				
Environmental Technician	5 (6.3)	74 (95.7)				
Health officer	19 (16.3)	12 (38.7)				

### Discussion

In this study an attempt has been made to assess knowledge and behavior related to HIV/AIDS of students of Gondar College of Medical Sciences. Similar surveys were done previously using similar questionnaire, which would help in comparing this study findings with the previous one in order to assess the pattern of the distribution of the various variables. In this study among the surveyed students, 215 (56.1%) are sexually active which constituted a considerable proportion of the students. In the previous study done in 1993, 49% of the students were engaged in sexual intercourse (7).

The condom use rate among those sexually active students is 47.8% in 1997 (7) and higher than the one reported in 1993, which is 33%. In the study done among Addis Ababa youth a condom use rate of 16-48% was found (8-9). A condom use rate of 27.6% was reported among the out-of

school youth in Awassa town (10). In this study among those who reported condom use only 6.4% used it regularly and only 5.1% used it more than half of the time. This inconsistent use of condom put the students at high risk for acquiring STIs including HIV/AIDS.

Sex with commercial sex workers is reported in 31 (7.7%) students, which is much lower than the finding in the previous survey that showed a 53% contact with CSW in 1997 (7) and 22% in 1993 (11). In the studies among the Addis Ababa youth, sex with non-regular partner showed a wide fluctuation from 22.6% to 83% (9-10). Among high school students in kola Duba, 9.3% had sex with CSW in the six months period and 11.5% had reported STD (12). While the out-of school youth of Awassa reported 4% history of contact with CSW 6 months and 11.5% of STD (10). Condom use among GCMS students who had sex with nonregular partner was 61.2%, which puts these

students at a higher risk of acquiring sexually transmitted diseases including HIV/AIDS.

Knowledge on condom distribution is significantly higher among the health officer students. This could be explained by the fact that the health officer students have a longer exposure to clinical practice before joining the College. The usual finding is that rarely does knowledge correlates with practice. In study done in Bahr Dar among out-of-school youth, knowledge scores were better than attitude and practice scores (13). In this study also the highest proportion of health officer students (60.3%) have had contact with commercial sex workers. Of course, as the overall condom use rate for students who had contact with CSW is 61.9%, the risk of acquiring STIs & possibly HIV/AIDS is significantly higher for all groups of students with a higher risk among health officers students. Consistent use of condom is much lower which put all students including the health officer students who reported the highest condom use rate at risk for STIs.

Based on the findings of the study the following recommendations are forwarded: consistent use of condom on all encounters; students should be instructed on premarital abstinence and in high-risk contacts, and persistent condom use should be strictly adhered. To design a strategy to narrow the gap between knowledge and practice further detailed research is recommended.

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