Original article

Survey of condom use among college students

Kidane Gebre Kidan, and Bereket Azeze[1]

Abstract: In June 1993, a condom use survey was done on 391 volunteer students in the Gondar College of Medical Sciences (GCMS). Of the 228 who were sexually active, 47.9% had used condoms at least 'once in the last six months preceding the survey. During the study period, condom use was reported by 84.9%, and 33.3% of the respondents who said they had contacted commercial sex workers were found positive with at least one of the Conventional sexually transmitted diseases. However, among 175 who claimed not to have sexual contact with commercial sex workers, only 64 (36.5%) used condom. Besides, the association of condom use with demographic factors and high risk sexual behaviours was analyzed. Age, sex and history of contact with commercial sex workers were shown to have statistically significant association. Eighty six students (54.5%) in the 20-24 age group and 18 students (27.7%) in the 15-19 age group used condoms. The proportion of male students using condom (46.5%) was higher than that of female students (1.3%). It is suggested that condoms should easily be made available to students and sex education be part of health education sessions. [Ethiop. J. Health Dev. 1995;9(1):7-11]

Introduction

The World Health Organization estimates that as of mid-1993 , over 13 million young people and adults have been infected with HIV since the start of the pandemic (I) .Alarming projections to the year 2000 anticipate that between 38 million and 110 million adults and more than 10 million children will be infected (2). The World Health Organization projects that 90 % of all new HIV infections will occur in developing countries by the year 2000 (1). To date, over 2 million HIV infected adults have developed AIDS, and most of them have died (1).

The prevalence of HIV in some African countries is now 20-30% among sexually active adults (3). In high prevalence countries of Africa such as Uganda, as many as one out of every three adults is infected. Out of the 13 million HIV infected people in the world, a million have occurred in sub-Saharan Africa (1), with approximately 80% of the risk being attributed to heterosexual transmission (4). In Ethiopia, a total of 11,927 AIDS cases were reported from January 1986 to March 1994 (5). The challenge facing national and international communities is to act speedily and effectively to block further spread of the pandemic and to minimize its impact. This pandemic warrants global mobilization and a study on sexual behaviour and the prevention of sexual risktaking behaviours.

So far, efforts to slow down the spread of HIV by changing sexual behaviour have been limited to messages directed not at everybody but only at particular risk or core groups such as drug users and commercial sex workers. Surveys in East and Central Africa have shown high levels of knowledge about AIDS, but this knowledge has had little impact on behaviour (6). For example, in Ghana, even though knowledge about the disease (its mode of , transmission and prevention) is reasonably high, especially in the urban areas, more than 80% in some studies, this knowledge "is not translated into practice as people still continue to be involved in high-risk behaviours such

as unprotected multiple-partnersexual contact (7).

[1]From the Department of Gynaecology and Obstetrics, Gondar College of Medical Sciences. P.O.Box 196, Gondar, Ethiopia

Table 1: **High risk sexual behaviour and condom use among college students of Gondar College of Medical Scieneces, 1993.**

Sexually active in the past six months		Condom Use	
No.	%	No.	%
Sex partner			
1 140	61.4	60	44.4
∃1 88	38.6	49	55.6
Sexual contact with CSW*			
Yes 53	23.2	45	84.9
No 175	76.8	64	36.5
Reported history of STD**			
Yes 12	5.3	4	33.3
No 216	94.7	105	48.6

* CSW = Commercial Sex Workers
** STD = Sexually Transmitted Disease

One of the behavioral changes or new practices suggested to stop further spread of HIV infection is condom use even if it does not completely eliminate the risk of transmission (8). The promotion of condom use during sexual intercourse has always been a problem, both for family planning reasons and for prevention of HIV infection. In a study done on knowledge levels and feelings of some people about condoms in Addis Ababa,

Ethiopia, in 1991, only 11% reported using condoms once or more than once in the past (9). In another study done in 1993 in the If village of Gorgora, Gondar Region, among 1 pupils in the local high school, 60% reported using condoms during sexual intercourse in the past (unpublished data, Department of Community Health, Gondar College of Medical Sciences).

In this survey, taking the students of the Gondar College of Medical Sciences as a study group, we examined possible factors that might pose as barriers against using condoms during high-risk sexual intercourse. A previous study in the same area showed 'that the knowledge that the students of Gondar College of Medical
Sciences had about AIDS was adequate and comparable with that of other college and high school students (10).

Methods

This study was conducted in June 1993 at the Gondar College of Medical Sciences. Out of a student population of 427, 391 volunteered to take part in the survey. A self administered questionnaire that had been pre-tested and prepared in English was distributed. The volunteers were briefed on how to fill the questionnaire with the utmost precision and honesty. To gain maximum cooperation, the questionnaires were designed in such a way that the identity of the participants would be kept confidential. The questionnaire was distributed among students by the investigators right before lectures simultaneously in their respective classrooms. Students sat separately and the filled questionnaire was collected on the spot.

The questionnaires included questions on age, sex, department, year and marital status, risk in sexual behaviours (number of partners, history of sexually transmitted disease, and sexual contact with commercial sex workers), frequency of condom use during the past six months, and knowledge of condom distribution and purchase locations in their area of residence.

From the data compiled, condom use in relation to cases of contacts with high risk groups, and demographic variables were tested (4 using x2 tests. EPI-INFO Version 5 (CDC, Atlanta GA) software program was used to process data.

Results

The mean age of the 391 volunteer students was 20 years (S.D. + 3). Of these participant 105 (26.8%) were sanitary, 122 (31.2%) nursing, and 164 (41.2%) medical students. The majority (81%) were male and of the total,
98.2% were not married.

Of the 228 who were sexually active, 140 (61.4%) had one partner and 88 (38.6%) had more than one partner. Besides, of the sexually active students, 53% had contacts with commercial sex workers and 12% had contracted sexually transmitted diseases in the six months preceding the study (Table 1).

Table 2: **Condom use by students of the Gondar College of Medical Scinces by age and sex, 1993.**

Sexually active	Condom use at least once in the past six months	

Age			
15-19	65	18	27.7
20-24	158	86	54.4
25-29	3	3	100
30-24	2	2	100
Sex			
Male	192	106	55.2
Female	36	3	8.3
Total	228	109	47.8

Of the 53 who had had contact with commercial sex workers and the 12 who had history of sexually transmitted diseases, 45 (84.9%) and 4 (33.3%), had used condoms, respectively.

One hundred and nine of the 228 students (47 .8 %) had used condoms at least once in the past six months (Table 2). A higher condom use by male participants 106 (46.5%) than female participants 3 (1.3 %) was observed .

Condom use was also analyzed in relation to the duration of stay in the College. Accordingly, a higher condom use was observed by the final year sanitary and nursing students, 22 (78.6%) and 14-(66.7%), respectively. However, this was not observed in the final year medical students, 11 (52.4%) (Table 3).

When questioned, the reasons given by 79 sexually active students for the low, and in some cases no use of condoms as protection against sexually transmitted diseases including AIDS included, unavailability 35 (44.3%), partner trust 34 (43%), shortage of condoms 6 (8%), and partner's disagreement 4 (5.1%). Also, the majority of the students {278/391 or 71.1%) did not know of condom distribution and purchase locations in their areas of residence.

Discussion

The HIV virus is spreading beyond the high-risk groups (11). The students of Gondar College of Medical Sl;:iences are likely to be labelled as low risk groups as they are believed to have good knowledge about the disease and methods of preventing it. Moreover, the nursing and medical

students have access to case studies of victims in their clinical practices. The sexual behavioral difference of this group, when compared with the
data collected from Gorgora high school students, is strikingly low. This supports the conclusions reached by studies done in East and Central Africa that little sexual behavioral changes are registered despite high levels of knowledge about AIDS and the HIV virus (6). Many of the female participants stated that they rarely negotiate with their male partners, and this was reflected by the low condom use when compared to their male counterparts. This is a common phenomenon since women in many countries are victims of repressive culture and male domination (13-15).

Table 3: **Condom use by category and level of education among of Gondar College of Medical Sciences students, 1993.**

Education program	Sexually active	Condom use	
		No	%
1st yr San.	2	10	45.5
2nd yr San.	28	22	78.6
1sr yr Nurs.	38	8	21.1
2nd yr Nurs.	25	7	28
3rd yr Nurs.	21	14	66.7
2nd yr Med.	18	8	44.4
3rd yr Med.	27	17	63
4th yr Med.	28	12	42.9
5th yr Med.	21	11	52.4
Total	228	109	47.8

San = Sanitary Nurs = Nursing Med = Medicine
* No 1st year medical students at GCMS

A higher condom use was observed as the years of training increased among the nursing and sanitary students in the survey, and this can be attributed to the better awareness acquired. However, our observations among the medical students showed no significant rise in its use, still

supporting the conclusions reached that, despite high level of knowledge about AIDS and HIV virus, little changes in sexual behaviour are observed.

In this study, even if the overall use of condoms is low, the number of condom users who have had contact with commercial sex workers is high (84.5%). This percentage is also high when compared with the data collected from randomly selected males between 15 and 49 years of age in the town of Jimma, whose mean year of education was 7.1, where it was found out that use was 24.4% (12). Since the poor bargaining position of the CSW in developing countries leaves them in a stale of conditioned helplessness to reject unprotected sex (13), this comparatively high percentage of condom use while in contact with commercial sex workers may show the origin of the idea of protected sex by a study group.

People have different reasons for not using condoms. The reasons vary from loss of pleasure or desire for skin contact to misconceptions about condoms (16). In our survey, the possible factors tested as barriers against condom use were unavailability of condoms, shortage, and the partners' disagreement on the matter.

The promiscuous sexual behaviour and overall low condom use rate of this study group is disturbing since it involves one of the productive age groups of the country's population as they are responsible to promoting health in the future. The negative effects on the economy that such behaviour entails can easily be predicted. It is estimated that the indirect costs, costs which arise from the loss of members of a society due to AIDS, is
between 65 and 75 percent of the total costs, i.e., indirect cost plus direct cost (actual expenses incurred in dealing with the disease). And 90 percent of the indirect cost will be accounted for by premature death (17). In order to alleviate problems such as low condom use due to unavailability as stated, it is suggested that condoms should be made easily available to every student, i.e. , distribution should not be only in family planning clinics but also through dormitory proctors, class representatives and in the students' tea-rooms. Group discussions on the subject of safe sex should be included with health education sessions.

It was tried to use proctors and peer group leaders as media for condom distribution after this survey was made, and most of the students took the condoms. But since a second survey has not yet been made, the actual use cannot be commented upon. Studies of the same nature need to be conducted in the other 9 medical colleges in Ethiopia.

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