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Research Article

KNOWLEDGE AND ATTITUDE OF COLLEGE STUDENTS TOWARDS HIV/AIDS IN ETHIOPIA

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ABSTRACT

HIV/AIDS is a major health problem. Students of higher education are more at risk of HIV. Insufficient knowledge, less favorable attitudes and risky sexual practices are the major hindrances to prevent the spread of HIV. This study was aimed to assess knowledge, attitude and practices towards HIV prevention among college students of Gondar, Ethiopia. Institutional based cross-sectional study was conducted among 355 study participants from April to June, 2018. A simple random sampling technique was used to select study participants; data was coded by Epi info software and analyzed using SPSS 20 version software. From 355 students, 347 (97.7%) had knowledgeable towards HIV prevention, the majority 352 (99.2%) had favorable attitude towards HIV/AIDS prevention and 65 (18.3%) had good practices towards HIV prevention at p= 0.001 significance levels.

Keyword: Attitude, HIV, AIDS, Gondar, students.

INTRODUCTION

Acquired immunodeficiency syndrome (AIDS) caused by human immunodeficiency virus (HIV) is a major health problem in the world (Mulu *et al.*, 2014; Nubed and Akoachere, 2016). The major mode of transmission of HIV/AIDS worldwide is heterosexual contacts particularly in

developing countries, other routes of transmission include transfusion of infected blood and blood products, occupational transmission, prenatal transfusion and others. In Ethiopia, the first cases were reported in 1984 from Addis Ababa, the capital of Ethiopia (Mohammed *et al.*, 2015). Globally,

36.7 million people were having HIV at the end of 2016. According to data from Centers for Disease Control in Ethiopia, estimated progression of the HIV/AIDS pandemic (Maimaiti *et al.*, 2010; Platten *et al.*, 2014; WHO, 2016).

A study in 2007 in Gondar, sexual contact with commercial sex worker or non-regular partner was reported by 16.7% of the students, 58.5% used condom, 96.6% reported unprotected sex; unsafe blood transfusion, contaminated needles and mother to child transmissions was common ways of HIV transmission. Over 82% demanded screening for HIV as a precondition for marriage (Andargie *et al.*, 2007).

MATERIALS AND METHODS

Sampling technique

The sample size is calculated using single proportion formula taking the following assumption: Prevalence of knowledge of HIV/AIDS=45.7% (taken from previous study). Attitude of HIV/AIDS=82.8%, practice of HIV/AIDS=41.7% (1), 95% confidence level and 5% degree of precision=margin of error (0.05) 5%, $Z_{\alpha/2}$ —the standard normal value at 95% confidence level (1.96), the final sample size =355. A simple random sampling technique was used to select students from the three colleges. Data was collected using a pre-tested and self-administered questionnaire. The questionnaire included socio-demographic, knowledge, attitude and practice questions.

Data processing

A quantitative data analysis technique such as descriptive and summary statistics was used to present the finding. The data was entered, cleaned, analyzed and coded by Epi-info software through SPSS software.

national adult HIV prevalence rate was 3.2 in urban and 1.2 in rural areas. The youths are at the epicenter for preventing the

Ethical clearance

The study was ethically approved by research ethical committee of college of medicine and health sciences of Gondar University. Written consent, after explanation about the study, was obtained from the participants. Confidentiality of results was also maintained and respondent were given freedom to refuse their participation at any stage of the study.

RESULTS AND DISCUSSION

More than half of respondents 196 (55.2%) were female students. The mean age and standard deviation of the respondents was 20.86 (2.247 ± SD). Out of total respondents 117 (33%) were second year students. 318 (89.6%) were single and 29 (8.2%) were married (Table 1). In this study 97.7% of respondents had good knowledge about HIV. Abstinence, faithfulness to one's partner, free discussion about sex related issue, not sharing needle, syringe and razor and correct and consistent use of condom as a means of HIV prevention methods were responded by 342 (96.3%), 341 (96.1%), 302 (85.1%), 339 (95.5%), 300 (84.5%) of students respectively. HIV/AIDS can be transmitted from mother-to-child 253 (71.3%), is transmitted through sexual intercourse 348 (98%) were reported by students. Regarding attitude towards prevention of HIV, 99.2% had favorable attitude. About 349 (98.3%) were HIV preventable, 300 (84.5%) thought condom can protect from HIV, 170 (47.9%) interested to use condom and 330 (93%) agreed to stay abstinence until marriage. 340 (95.8%) agreed to be faithful with one friends, 271(76.3%) discussed about condom with partners, parents

or neighbors, and also 330 (93%) multiple sexual partners, increases the chance of acquiring the virus. Regarding to practices towards HIV prevention unfortunately 18.3% of respondents had good HIV prevention practices. Sixty four (18%) of the respondents used condom during sexual intercourse and 37 (21.7%) during sexual intercourse with causal partner, 311 (87.6%) knew voluntary counseling and testing, 263 (74.1%) knew HIV status (Table 2).

Table 1. Socio-demographic characteristics of respondent (n=355) Gondar, Ethiopia.

Variables	Frequency	%
Male	156	44.8
Female	196	55.2
Age		
15-19	92	25.9
20-24	236	66.5
25-30	27	7.6
Year		
1	114	32.1
2	117	33.0
3	111	31.3
4	13	3.7
Marital status		
Single	318	89.6
Married	29	8.2
Divorced	7	2.0
Widowed	1	0.3
Residence		
Rural	91	25.6
Urban	264	74.4
Monthly Income		
< 50	189	53.2
≥ 500	166	46.8

The study showed that 97.7% had good knowledge, 99.2% had favorable attitude and 18.3% had good practice. It showed that 97.7% knew about HIV. This finding was higher than studies in china 74.5% (9), In Arabic emirate 61% (Haroun *et al.*, 2016) students are knowledgeable. On the other hand this finding is higher to studies in Ethiopia, Bahir Dar of 45.7%. This study showed 99.2% had favorable attitude towards prevention of HIV as compared to 33.3%, in china, 82.8% in Bahir Dar and 65.5% in Addis Ababa. The majority of respondents believed that students are very important to prevent HIV and it is possible to prevent HIV transmission, 18.3% had good practice towards HIV, while in Bahir Dar it was 41.7% (Maimaiti *et al.*, 2010; Regassa and Kedir, 2011; Mulu *et al.*, 2014).

Table 2. Variables on knowledge, attitude and practices in students towards HIV/AIDS.

Variable	Knowledge		Attitude		Practice	
	Good	Poor	Favorable	Unfavorable	Good	Poor
Male	156	3	157	2	40	119
Female	191	5	195	1	25	171
Age						
15-19	91	1	92	0	12	80
20-24	231	5	234	2	45	191
25-30	25	2	26	1	8	19
Rural	88	3	91	0	13	78

Urban	259	5	261	3	52	212
Year of study						
1	111	3	113	1	15	99
2	113	4	117	0	24	93
3	110	1	109	2	24	87
4	13	0	13	0	2	11
Single	311	7	315	3	51	267
Married	28	1	29	0	8	21
Divorced	7	0	7	0	5	2
Widowed	1	0	1	0	1	0
Monthly income						
< 500	183	6	186	3	37	152
≥500	164	2	166	0	28	138

CONCLUSION

Based on our study finding the knowledge, attitude and practice of HIV prevention indicate that the majority of the students had good knowledge and some students had misconceptions about HIV/AIDS transmission way and had a favorable attitude with compared to other studies and the assessment of practice towards HIV/AIDS prevention revealed that the majority of the students had poor practice.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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REFERENCES

- Andargie G, Kassu A, Moges F, Kebede Y, Gedefaw M, Wale F, et al. (2007). Brief communication: low prevalence of HIV infection, and knowledge, attitude and practice on HIV/AIDS among high school students in Gondar, Northwest Ethiopia. *Ethiopian J Health Development*. 21:179-182.
- Haroun D, El Saleh O, Wood L, Mechli R, Al Marzouqi N, Anouti S (2016). Assessing knowledge of and attitudes to HIV/AIDS among university students in the United Arab Emirates. *PloS one*. 11: e0149920.
- Maimaiti N, Shamsuddin K, Abdurahim A, Tohti N, Maimaiti R. (2010). Knowledge, attitude and practice

regarding HIV/AIDS among university students in Xinjiang. *Global J Health Science*. 2:51.

- Mohammed A, Tefera T, Ahmed M. (2015). Knowledge, attitude and practice on HIV/AIDS prevention among Batu Terara preparatory school students in Goba Town, Bale Zone, Southeast Ethiopia. *Primary Health Care*. 5(192): 1-6. Doi: 10.4172/2167-1079.1000192.
- Mulu W, Abera B, Yimer M. (2014). Knowledge, attitude and practices on HIV/AIDS among students of Bahir Dar University. *Sci J Pub Health*. 2:78-86.
- Nubed CK, Akoachere J-FTK. (2016). Knowledge, attitudes and practices regarding HIV/AIDS among senior secondary school students in Fako Division, South West Region, Cameroon. *BMC Public Health*. 16 (847): 1-10. doi.org/10.1186/s12889-016-3516-9.
- Platten M, Pham HN, Nguyen HV (2014). Knowledge of HIV and factors associated with attitudes towards HIV among final-year medical students at Hanoi medical university in Vietnam. *BMC Public Health*. 14 (265): 1-14. doi: 10.1186/1471-2458-14-265.
- Regassa N, Kedir S. (2011). Attitudes and practices on HIV preventions among students of higher education institutions in Ethiopia: the case of Addis Ababa University. *Educ Res*. 2: 828-840.
- WHO (2016). Global Health Observatory (GHO) data, 2016. Child mortality and causes of death, WHO, Geneva.