Sexual and risky sexual behaviors experience of Wolkite University students Central Ethiopia-Descriptive cross-sectional study

CURRENT STATUS: UNDER REVIEW

Kifle Lamade  getkifl2@gmail.com
Wolkite University
Corresponding Author

Teklemichael Gebru Tesfaye
Wolkite University

Admas Berhanu
Wolkite University

Membere W/tsadik
Wolkite University

DOI:
10.21203/rs.2.12702/v1

SUBJECT AREAS
Epidemiology   Health Economics & Outcomes Research

KEYWORDS
HIV/AIDS Comprehensive knowledge, Risky sexual behavior, Wolkite University
Abstract

Background

The risky behaviors of youngsters or youths may further be worsened by the logic that university students are too many in number, lack facilities for sexual and reproductive health services and live away from their parents and free from parental control. To tackle the issue, evidence based intervention like improved access for youth’s friendly reproductive health services is crucial. In Ethiopia, despite the fact that much has been said about sexual and related issues of higher institution students, the assessment of the problem is not widely covered and search for solutions is mostly after the problem become deep-rooted. So, the purpose of this study was to assess the level of risky sexual behaviors among Wolkite University (one of the public higher institute) students.

Methods

A facility based cross-sectional study was employed using Cluster sampling to identify 1,123 students’ from each college, departments & sections of the colleges in the University, list of clusters (groups) was established with area of study and year of study. To select these clusters, list of cumulative frequencies of number of students was calculated. The total sample size was divided proportionately to the selected clusters and to both sexes (male and female). Accordingly, males and females were selected based on percentages calculated. Finally, a systematic sampling method was applied to select males and females from the cluster selected for the study after dividing the cluster in to male and female groups.

Result

In this emerging university ever use of substance reportedly was somewhat higher than a quarter, 28.7% (322) from a total of 1123 students. Among students reported ever use of substances, alcohol consumption was the predominant one, 157(14.0%), followed by khat,
Conclusion and recommendation

The institute needs substantial progress in availing youth friendly reproductive health services as huge number of the youngsters, 225(20%) had risky sexual behavior and currently 7(1.5%) were HIV positive. Moreover, services for youths should be friendly and available with skillful professionals. This can be realized through the effort of tremendous stakeholders in the compound and elsewhere in the country like ministry of education/health or non-governmental organizations.

Background

The global interactions of societies are subjected to adapt and demonstrate various cultural values that are introduced from different countries which are expected more simply shared or accessed by campus students. To this end, the general orientations under development may be that people tend to be so materialist, and selfish. As well stated by experts, society is one of the three pillars of SDG that means investment in adolescent health is also essential to achieve the 17 SDGs and their 169 targets, each of which relates to adolescent development, health or well-being directly or indirectly. To achieve this, improved access for youth’s friendly reproductive health services for youngsters is crucial [1].

In Sub-Saharan Africa, it was reviewed that 25% of 15-19 years old adolescents reported sex before age 15 and 20% commenced childbearing although the prevalence varies widely between countries. Female youth’s rate of condom use at last sex ranged from 26% in West Africa to 55% in both East and Southern Africa where as males rate of condom use at last sex ranged from 43% in West Africa to 72% in East Africa. The incidence of single sexual partnership was highest in East Africa (84% among females and 73% among males) and lowest in Central Africa (54% among females and 46% among males). In Africa the
The proportion of women aged 15–19 years who have had an unsafe abortion is higher than in any other region and half of all maternal deaths from unsafe abortion in Africa are in women under 25[2]. The youngsters are easy going for sexual relationship, which is unique referring the conservative culture that the Ethiopia society is having. Of course, there have been improvements in the policy and legal framework for adolescent and youth health and development, in the incidence and prevalence of HIV and STIs, and in the knowledge and attitudes towards AYSRH. However, besides limitation in scope, the AYSRH strategy was also challenged by lack of multisectoral collaboration, low stakeholder and youth involvement, inadequate resources, and persistent social and cultural barriers. As a result, limitations still exist and adolescents and youth continue to face particular challenges to their health and development [3].

In Ethiopia HIV/AIDS Knowledge of prevention which was defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner and the like showed that 24 percent of young women and 39 percent of young men 15-24 have knowledge about HIV prevention. Among both sexes, urban youth are more likely than rural youth to have knowledge about HIV prevention. The percentage of youth with knowledge about HIV prevention is lower among those age 15-17 than among older youth, especially for men [4].

Those universities which are found in countries with high HIV/AIDS prevalence, the vast majority of their students and staffs might have been infected with HIV [5]. In Ethiopia, sexual activity with all the associated risks such as STIs including HIV infection will sets on during adolescence period. Moreover, Ethiopia is among countries with highest HIV infection rate in the world. It is estimated that 20% of youth/adolescent population is found in the age group of 15–24 years, of which 2.9% is HIV infected[6-8].
Therefore, this research is expected to react deservedly for those cross cutting issues like HIV/AIDS, Youth and adolescents sexual and reproductive health status in general, abortion and drug or alcohol use of tremendous risky conditions in particular as these manifestations may be accelerated in type and magnitude in relation to increment in number of students of varied background so as to provide scientific and evidence based response at each level or depth of the entities found.

Statement of the problem

Adolescents and youths of today are 1.8 billion strong and form a quarter of the world’s population. They are shaping social and economic development, challenging social norms and values, and building the foundation of the world’s future. For millions of young people around the world, puberty brings not only changes to their bodies but also new vulnerabilities to human rights abuses, particularly in the arenas of sexuality, marriage and child bearing. The leading causes of mortality and morbidity among girls and young women aged 15-24 years in low and middle income countries are complications of pregnancy, unsafe abortion and childbirth. In 2011, 41 percent of all new HIV infections were among adolescents and youth: being both biologically and socially more vulnerable, of those living with HIV and AIDS, girls and young women outnumber young men by almost two to one [9].

These risky behaviors of youths may further be worsened by the fact that university students are too many in number, lack facilities for sexual and reproductive health services and live away from their parents and free from parental control. In addition, some are subjected to wide spread substance use and peer-pressure that aggravate the risky behaviors. The challenges that young people face and the decisions they make can have a tremendous impact on the quality and length of their lives as well as on the development of their personal and social environment. Thus, it is critically important to address youth
sexual behavior and to recognize many factors that affect young people’s behavior [10]. Despite this fact, little has been known about the pattern of risky sexual behavior in the context of higher education institutions in Ethiopia in general and not known at all in Wolkite University in particular. But, an assessment employed in Jimma in 2009 G.C showed that the mean age at first sexual intercourse was 17.7±2.7 years. Most, 75.6%, started sexual intercourse during secondary school. Among whoever had sex, 51.0% had sex in the last 12 months and 28.3% had multiple sexual partners. Consistent condom use with non-regular partner in the last 12 months was 69.1% [11]. To this end, this study was conducted to assess risky sexual behaviors among students of Wolkite University.

Methods

Study area and period

The study was conducted in Wolkite University (WKU) in January 2018 which was designed to investigate comprehensive knowledge on HIV and risky sexual behaviors in Ethiopia higher institutions. A cross-sectional study design was employed. All regular students whose age between 17-24 years were used as the source population, whereas students in the same category but selected for providing the data was used as the study population. Students who are in the age category of 17 up to 24 years irrespective of the batch, sex, and their origin/place of residence were included in the study. Non-regular students of the university and students who were unable to respond administered questioner due to illness were excluded from the study.

Sample size determination

The sample size for study was determined using single proportion population formula by Epi Info stat calc for sample size assuming: Proportion of youth female comprehensive knowledge 51% (as outcome variable), 95% confidence interval, 3% margin of error, design effect 2 and 90% expected response rate. Accordingly, the total sample size for the
study was 1,123 students.

Sampling technique and procedure

A simple sampling technique was employed. Moreover, probability proportional to size procedure was used to select the study units, thus: Of the colleges in the University, list of clusters (groups) were established with area of study and year of study. From the total clusters in each college, clusters were selected. To select these clusters list of cumulative frequencies of number of students were calculated. Then the total number of students were divided by the clusters to get the sampling interval. The first cluster was selected randomly. The total sample size was divided proportionately to the selected clusters and to both sexes (male and female). Accordingly, males and females were selected based on percentages calculated. Finally, a simple random sampling method was applied to select males and females from the cluster selected for the study after dividing the cluster in to male and female groups.

Data Collection Instruments

A pretested and structured self-administer questionnnaire was employed. This questionnaire was partly adapts from demographic and health survey, behavioral study survey and other relevant sources.

Data Quality Control

The questionnaire was prepared in English and data collectors are campus level students/teachers. Data collectors were trained on data collection process for 02 days. Both sexes of data collectors were participated in data collection to decrease embarrassment due to the nature of the questions. Daily based supervision for completeness and consistency during the field was implemented by the researchers. Moreover, the validity of the tools, procedure of the research, and the feeling of subjects, all were checked by a pilot study that was done at Wachamo University on 5% of the
actual sample size, the institution almost on similar status to the study subjects of this campus and few parts of tool was revised according to the pilot study.

Methods of Data Analysis

Analysis plan was developed by principal investigators. Numerator and denominator of key variables of the study were identified. Epi Info template was developed and data was entered using this statistical package. Analysis was done using SPSS version 20. Descriptive analysis was used to explain the findings.

Ethical Considerations

Ethical permission for the study was obtained from RCS Office of WKU. Written informed consent of the participants was taken from each participant. Participation of subjects was depend on their voluntariness and participants were informed the possibility that they can withdraw from the study at any stage of the interview without any precondition or explanation. Confidentiality of the participants were kept at all times. We did the interviews in an area with maximum privacy for the study respondents.

Results

Among the eligible ones, a response achieved by the assessment was from 1123 students, having a response rate of 95%. The mean age of the study subjects was around 20 years with a standard deviation of about 1.78 years.

Socio-demographic information

The dominant number of the students’ accommodated in dormitory, 988(88%). On the other hand, majority of the students were males, 729(64.9%) and nearly all of the students, 1080(96.2%) were young people (Table 1).

Students and family background

This assessment revealed that about quarter of the students grow up in large cities (Addis Ababa and regional capitals), 281(25%) as can be disclosed below (Table 2).
Substance Use

In this emerging university ever use of substance reportedly was somewhat higher than a quarter, 28.7% (322) from a total of 1123 students. Among students reported ever use of substances, alcohol consumption was the predominant one, 157(14.0%), followed by khat, 57 (5.1%) as can be seen from summarized (Table 3) below.

Sexual practice

The mean age for the first sexual intercourse was 18 years with SD 2years. Moreover,9 (14.1) of the students started the first sexual intercourse at <=18 years. The commonest reason to delay sexual practice among the participants was religion, 476(42.4%) followed by fear of STI including HIV/AIDS. Moreover, 490(43.6%) of the students reportedly said that they would delay sexual contact till the intended period of marriage (Table 4 and 5).

Magnitude of induced Abortion

According to the assessment, 99(25.1%) of the female students reported that they had history of abortion but 295(74.9%) did not (Fig 2). All of these abortion cases were self-initiated/induced abortion ones.

Abortion frequency & reasons

Reportedly, maximum number of the female students, 58(5.2%) performed induced abortion and major reason was not to disturb educational activities (Table 5).

5.7 Risk of HIV infection and risky sexual behavior

Among the study participants 702(62.5%) had have knowledge on HIV/AIDS, however 236(21%) of the students experienced sexual intercourse. Among these, only 57(53.8%) always use condom.

The overall aggregated risky sexual behavior of the students was 225(20%) and currently 7(1.5%) of the students were HIV positive (Table 6).
Discussion

This assessment, which determined the risky sexual behaviors of the students based on varied several variables, was achieved with 1223 students. The study examined to what extent the students are found in risky situation regarding HIV/AIDS, premarital sexual, use of induced abortion, multiple sexual partnership, level of substance use and so on.

Sexual practice

The mean age of the first sexual exposer among the 236 students who started sexual act was about 18 years that was nearly the same to a study in Brazil, 19.8 for females and 20.4 for males[13], 17.47 in Turkish university[14], average age for sexual debut of 16 years in South Africa[17], and compared to Ethiopian university, it was exactly similar with 18.25 in Debremarkose university[24], Axum university, 18 years[26], and nearly equal with the mean age at first sexual intercourse in Jimma university of 17.7±2.7 years[25]. Moreover, the prevalence of sexual intercourse among the students, 21% [236] restated nearly similar result with a study in five universities of 29.71% [22], Jimma University, 267(26.9%) [25], and Axum university of 192(30.2%) [26]. But the magnitude or the prevalence of students ever had sexual intercourse 21% [236] was much lower in comparison with a study in Brazilian university of 69.7% for males and 48.4% for females [13], Turkish university of 33.8% students [15], 37% students in South Africa [17], in Mizan-Tepi, 41.9% students ever had sexual intercourse [23], in Debremarkos University, 282 (44.7%) students [24], and Axum university Shire campus of 60% students[27],

Risk of HIV infection and risky sexual behavior

The aggregated risky sexual behavior of the students, 225(20%) was almost similar to Axum university Shire campus 107(17%) students’ risky sexual behavior [26], but it was higher relative to Sri lanka prevalence of risky sexual behavior, 12.4% [18]. whereas
significantly lower than Kenya, 66% of students engaged in risky sexual behavior [20]. Regarding condom use, only 57(53.8%) of students in this study always used condom which was lowest while coming to Brazil, 80.4% of males and 74.8% females [13], in five Ethiopian universities, 73.4% of the students [22], Mizan-Tepi University, 60.5% of the students [23], and 69.1% among Jimma university students [25]. But the use of condom was higher compared to 37%, in Zambia University [19].

The multi-sexuality situation of the students, 180[76.2%], was convincingly higher than Turkish study of 59.3% [15]. Jimma University 28.3% of the students [25], Shire campus of Axum University, 112(64.4%) had multiple sexuality [27], in Markose university multiple sexual partner situation of 73(44.5) [24], and the result was by far higher than 27% in Mizan-Tepi university [23], among five Ethiopian universities, 281 (31.0%) of students who had multiple sexual partner [22], Zambia University 12% and 24% of females and males[19], and larger to Indian university, currently 7(1.5%) were HIV positive, In Indian, 0.07% of girls and 0.01% of boys were found to be HIV positive [16].

Substance use

The dominant finding of substance ever use in the assessment was alcohol consumption, 157(14.0%) of students consumed alcohol followed by khat, 57 (5.1%). This was very much lower than ever use of substance in five Ethiopian universities, 25.8% [22] and Botswana 816(42.1%) students consumed alcohol [21]

Conclusions

The findings of this study is expected to hold inputs for activities aimed at incorporating strategies and guidelines targeted to improve sexual orientation of youths or adolescents in the country as a whole and this campus in particular that could be taken as a reference at this crucial period of already launched and mid-term strategic plan of youths at minister level. The institute needs substantial progress in availing youth friendly
reproductive health services as huge number of the youngsters, 225(20%) had risky sexual behavior and currently 7(1.5%) were HIV positive.

Recommendation

Despite the need for consideration of multiple strategic approach for the improvement of sexual orientation or risky behavior of youngsters in this institute, it is pivotal to have behavioral change communication for its strong positive effect on informed decision making. Moreover, services for youths should be friendly and available with skillful professionals. This can be realized through the effort of tremendous stakeholders in the compound and elsewhere in the country like ministry of education/health or non-governmental organizations.

To bring improvement in the health of youngsters, these level managers may assess and strengthen student’s clinic service which should address youth friendly service packages through adequate resource allocation and monitoring and evaluation of services after strong commitment on information dissemination and communication.

Service area workers/health professionals should have huge responsibility in bringing fascinating changes minimizing risky behavior of youngsters, minimizing or eradication of abortions, and above all behavioral change communication and careful expansion of youth friendly sexual and reproductive health service. In addition, due emphasis has to be given for mass mobilization, monitoring and evaluation of youth’s program by arranging review meeting with respective offices & youth representatives.

The other most important point here for experts or any interested researchers at all levels is initiating further studies that include qualitative insight or attitude of care givers or quality package issues and associated factors of these situation.

Abbreviations
RSB: risky sexual behavior; WHO: World Health organization

Declarations

**Ethics approval and consent:**

Ethical approval was obtained from the institutional research ethics review committee of Wolkite University. Furthermore, verbal informed consent was obtained from each respondent before commencement of the interview. Respondents were assured of confidentiality of whatever information they will provided.

**Consent for publication**

Not applicable

**Availability of data and materials**

Please contact author for data requests

**Competing interests**

The author declare no conflict of interest with anybody

**Funding**

Not applicable

**Authors Contributions**

All authors have made substantial intellectual contributions to conception, design, and acquisition of data, analysis and interpretation of data to this study. They also have been involved in drafting the manuscript, approved the final manuscript and agreed to be accountable for all aspects of the work.

**Acknowledgements**

The authors would like to sincerely thank Wolkite University for covering field cost, data collectors, study participants and others who ever contributed for this work.

**References**
1. United Nations, Indicators of Sustainable Development: Guidelines and Methodologies, Second Edition, UN Sales Publication No.E.01.II.A.6 (New York, September 2001)

2. Odimegwu, et al; Regional differences in positive sexual behavior among youth in Sub-Saharan Africa. 2018. J. Biosoc. Science., Cambridge University Press; doi: 10.1017/S002193201800010X https://www.cambridge.org/core.

3. Federal democratic republic of Ethiopia, ministry of health: October 2016, National adolescent and youth health strategy 2016-2020: https://www.researchgate.net/publication/323525792

4. Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. Ethiopia Demographic and Health Survey 2016: Key Indicators Report. Addis Ababa, Ethiopia, and Rockville, Maryland, USA. CSA and ICF.

5. CSA (Central Statistical Agency) and ORC Macro: Ethiopia Demographic and Health Survey 2005. Addis Ababa, Ethiopia and Calverton, Maryland, USA: CSA and ORC Macro; 2006.

6. Association of African Universities: An HIV/AIDS Toolkit for Higher Education Institutions in Africa. Johannesburg, South Africa; 2004.

7. Disease prevention and control department, ministry of health, AIDS in Ethiopia. Fourth edition edition. 2002.

8. Federal Ministry of Health/National HIV/AIDS Prevention and Control Office: AIDS in Ethiopia; Sixth report. FHAPCO; 2006.

9. UNFPA/CPD Resolution on Young People and Adolescents, 2012 UNFPA Strategy on Adolescents and Youth; Diego Goldberg/Pixel Press/

10. Shane K. and Mishra V. (2008). Youth Reproductive and Sexual Health. DHS: Comparative Reports No. 19. Calverton, Maryland, USA: Macro International Inc.

11. Nigatu R. and Seman K. (2011). “Attitudes and practices on HIV preventions among
students of higher education institutions in Ethiopia,” *Educational Research*, vol. 2, no. 2, pp. 828-840

12. Federal Democratic Republic Of Ethiopia Ministry Of Health. 2016 National Adolescent And Youth Health Strategy (2016-2020)

https://www.researchgate.net/publication/323525792

13. Int J Gynaecol Obstet. 2010 Jul; 110(1): 43-6 doi: 10.1016/j.ijgo.2010.02.012. Epub 2010

14. Kothari, Monica T., Shanxiao Wang, Sara K. Head, and Noureddine Abderrahim. 2012. *Trends in Adolescent Reproductive and Sexual Behaviors. DHS Comparative Reports No.*

29. Calverton, Maryland, USA: ICF International.

15. Zehra Golbasi, Meral Kelleci Sexual experience and risky sexual behaviors of Turkish university students, 2015, Archives of Gynecology Obstetric

https://www.researchgate.net/publication/41409964

16. Maliye C, Garg BS. Adolescent health and adolescent health programs in India. J Mahatma Gandhi Inst Med Science 2017; 22:78-82.

17. Born, K.M., Wolvaardt, L. & McIntosh, E. (2015). Risky sexual behavior of university students: Perceptions and the effect of a sex education tool. *African Journal for Physical, Health Education, Recreation and Dance, 21*(2), 502-518

18. Perera and Abeysena. 2018. Prevalence and associated factors of risky sexual behaviors among undergraduate students in state universities of Western Province in Sri Lanka: a descriptive cross sectional study; Reproductive Health, BMC: https://doi.org/10.1186/s12978-018-0546-

19. Menon et al.; Risky Sexual Behavior among University Students *International STD Research & Reviews* 4(1): 1-7, 2016 SCIENCEDOMAIN internationalwww.sciencedomain.org

20. Dennis G et al; 2012 Sexual Risky Behaviors among the Youth in Kenya; Med-Science

21. Riva et al. 2018. Prevalence and predictors of alcohol and drug use among secondary
school students in Botswana: a cross-sectional study; *BMC Public Health* 2018**18**:1396: https://doi.org/10.1186/s12889-018-6263-2

22. Desalegn tigabu et al; Risky Sexual Behaviors and Predisposing Factors among Ethiopian University Students; 2012

23. Henok, et al., Knowledge, Attitude and Practice of Risky Sexual Behavior and Condom Utilization among Regular Students of Mizan-Tepi University, South West Ethiopia J Child Adolescent Behavior 2015,

24. Mamo et al; Prevalence and Associated Factors of Risky Sexual Behavior among Debremarkos University Regular Undergraduate Students, Debremarkos Town North West Ethiopia, 2016 Journal of Health, Medicine and Nursing www.iiste.org ISSN 2422-8419 Vol.33, 2016

25. Gurmesa Tura,Fessahaye Alemseged, and Sisay Dejene; Risky Sexual Behavior and Predisposing Factors among Students of Jimma University, Ethiopia: 2012 Ethiop J Health Sci. 2012 Nov; 22(3): 170-180

26. Lerebo W, Teferi KA, Fisseha HZ (2015) Substance Abuse and Predictors of Risky Sexual Behavior among Students in Axum University, Ethiopia. J Addict Res Ther 6: 206. doi:10.4172/2155-6105.1000206

27. Kebede et al.2018. Assessment of risky sexual behavior and practice among Aksum University students, Shire Campus, Shire Town, Tigray, Ethiopia, 2017; BMC Research Notes 11:88: https://doi.org/10.1186/s13104-018-3199

28. Abdu AS, Tesfaye MH, FeKecha HB (2017) Assessment of Risky Sexual Behaviour and Associated Factors Among Jimma University of Kitto Furdisa Campus Students, Jimma Town, Oromia Region, South West of Ethiopia, 2015. Prim Health Care 7:268. doi:10.4172/2167-1079.1000268

Tables
Table 1: The Socio-Demographic Characteristics of the sampled students in Wolkite University, n=1123, April 2018

| Variables               | Frequency |
|-------------------------|-----------|
| Sex of students         |           |
| Male                    | 729       |
| Female                  | 394       |
| Total                   | 1123      |
| Religion                |           |
| Orthodox                | 688       |
| Catholic                | 27        |
| Protestant              | 225       |
| Muslim                  | 170       |
| No religion             | 8         |
| Others                  | 5         |
| Total                   | 1123      |
| Age in years            |           |
| 10-19 years old         | 230       |
| 20-24 years old         | 850       |
| >=25 years old          | 43        |
| Total                   | 1123      |
| Your mother’s educational status: |     |
| Illiterate for modern education | 410     |
| Can read & write        | 311       |
| Grade 1-8               | 213       |
| Grade 9-12              | 99        |
| Grade 12+               | 90        |
| Total                   | 1123      |
| Your father’s educational status: | |
| Illiterate for modern education | 278     |
| Can read & write        | 331       |
| Grade 1-8               | 205       |
| Grade 9-12              | 105       |
| Grade 12+               | 204       |
| Total                   | 1123      |

Table 2: The background information of sampled students and their families in Wolkite University, n=1123, April 2018
| Variables                                | Frequency | Percent |
|-----------------------------------------|-----------|---------|
| Place of grow up                        |           |         |
| Addis Ababa                             | 163       |         |
| Regional capital                        | 118       |         |
| Zonal town                              | 144       |         |
| Wereda town                              | 310       |         |
| Other town                              | 47        |         |
| Rural                                   | 341       |         |
| Total                                   | 1123      |         |
| Place of grade completed from 1-8       |           |         |
| Public school                           | 932       |         |
| Private school                          | 176       |         |
| Others                                  | 15        |         |
| Total                                   | 1123      |         |
| Place of grade completed from 9-10      |           |         |
| Public schools                          | 866       |         |
| Private schools                         | 248       |         |
| Others                                  | 9         |         |
| Total                                   | 1123      |         |
| Place of completed from 11 & 12         |           |         |
| Public                                  | 866       |         |
| Private                                 | 248       |         |
| Others                                  | 9         |         |
| Total                                   | 1123      |         |
| Your parents or guardian residence:     |           |         |
| Addis Ababa                             | 132       |         |
| Regional Capital                        | 110       |         |
| Zonal capital                           | 185       |         |
| Wereda capital                           | 271       |         |
| other towns                             | 53        |         |
| Rural                                   | 372       |         |
| Total                                   | 1123      |         |
| Students’ academic year of study        |           |         |
| Year I                                  | 386       |         |
| Year II                                 | 313       |         |
| Year III                                | 295       |         |
| Year IV                                 | 85        |         |
| Year V                                  | 44        |         |
| Total                                   | 1123      |         |
| Student’s Current place of accommodation|           |         |
| Dormitory                               | 988       |         |
| Outside campus with parents             | 57        |         |
| Outside campus on rental                | 17        |         |
| Both dormitory & outside                | 61        |         |
| Total                                   | 1123      |         |
| Which group do you belong now?          |           |         |
| Non-Cafe                                | 262       |         |
| Cafe                                    | 861       |         |
| Total                                   | 1123      |         |

Table 3: Substance use among sampled students of Wolkite University, n=1123, April 2018
### Table 4: The first sexual practice at University level among sampled students of Wolkite University, n=1123, April 2018

| Variables                  | Frequency | Valid Percent |
|----------------------------|-----------|---------------|
| Sexual practice at University |           |               |
| First year                 | 43        | 3.8           |
| Second year                | 152       | 13.5          |
| Third year and above       | 41        | 3.7           |
| None                       | 887       | 79.0          |
| Total                      | 1123      | 100.0         |

### Table 5: The planned period and reasons to delay the sexual act among sampled students of Wolkite University, n=1123, April 2018

| Variables                  | Frequency | Valid Percent |
|----------------------------|-----------|---------------|
| Substance/Drug Users       |           |               |
| Smokers                    | 44        |               |
| Alcohol consumers          | 157       |               |
| Khat users                 | 57        |               |
| Hashish users              | 21        |               |
| Shisha users               | 15        |               |
| Drug users                 | 15        |               |
| Others                     | 13        |               |
| Total                      | 322       |               |
| Non users                  |           |               |
| No substance use           | 801       |               |
| Total                      | 1123      |               |
| Variables                                      | Frequency |
|------------------------------------------------|-----------|
| Reasons not to start sexual act               |           |
| Religious reason                              | 476       |
| Economic                                      | 111       |
| Lack of desire                                | 88        |
| Fear of STI/HIV                                | 148       |
| Other reason                                  | 64        |
| Total                                         | 887       |
| 99                                            | 236       |
| Total                                         | 1123      |
| Planned period to start sex?                  |           |
| After graduation                              | 117       |
| After marriage                                | 490       |
| I don’t know                                  | 230       |
| other undecided time                          | 50        |
| Total                                         | 887       |
| 99                                            | 236       |
| Total                                         | 1123      |

Table 6: Abortion frequency & reasons among sampled students of Wolkite University, n=1123, April 2018

| Variables                              | Frequency |
|----------------------------------------|-----------|
| Frequency of abortion practice         |           |
| One                                    | 58        |
| Two                                    | 22        |
| Three and above                        | 19        |
| Total                                  | 99        |
| No abortion                            | 295       |
| Total                                  | 394       |
Reasons for having an abortion

- Not to disturb education: 37
- Too young to bear child: 27
- Partner refusal of the pregnancy: 12
- Fear family and society: 12
- Violence/rape: 4
- Unplanned pregnancy: 1
- Unprotected sexual intercourse: 5
- Others: 1
- Total: 99

Table 7: Risk of HIV infection among sampled students of Wolkite University, n=1123, April 2018

| Variables                                             | Frequency | Perc |
|-------------------------------------------------------|-----------|------|
| Knowledge on HIV/AIDS                                 |           |      |
| Yes                                                   | 702       |      |
| No                                                    | 421       |      |
| Ever sexual intercourse                               |           |      |
| Yes                                                   | 236       |      |
| No                                                    | 887       |      |
| If yes, with whom did you first have sex?             |           |      |
| With boy/girl friend                                  | 114       |      |
| With teacher                                          | 30        |      |
| With husband/wife                                     | 12        |      |
| With outsider/outsider school/university              | 31        |      |
| Business man/woman                                    | 31        |      |
| With commercial sex worker                            | 9         |      |
| Others                                                | 9         |      |
| With how many persons had sexual experience so far    |           |      |
| 1                                                     | 56        |      |
| 2                                                     | 123       |      |
| 3                                                     | 56        |      |
| 4                                                     | 1         |      |
| Have you ever used condom?                            |           |      |
| yes                                                   | 106       |      |
| No                                                    | 130       |      |
| Did you use condom when you had sex at first time?    |           |      |
| yes                                                   | 64        |      |
| No                                                    | 42        |      |
| How frequently did you use condoms?                   |           |      |
| Always                                                | 57        |      |
| Occasionally                                          | 34        |      |
| Rarely                                                | 15        |      |
| Did you use condom during your last sexual act | Yes | 82 |
|-----------------------------------------------|-----|----|
|                                               | No  | 26 |
| Why did not use condom                         | Not easily accessible | 24 |
|                                               | Not comfortable | 41 |
|                                               | Partner objected | 18 |
|                                               | In hurry | 15 |
|                                               | Embarrassed to buy or ask for | 11 |
|                                               | Didn’t think it was necessary | 10 |
|                                               | others | 9 |
| Ever HIV test                                 | Yes | 504 |
|                                               | No | 619 |
| Knowing the HIV test status                   | Yes | 462 |
|                                               | No | 42 |
| Result                                        | Positive | 7 |
|                                               | Negative | 435 |
| Aggregated risky sexual behavior              | Yes | 225 |
|                                               | No | 898 |

**Figures**

**Figure 1**

**Figure 2. The Magnitude of induced Abortion among sampled students of Wolkite University, n=1123, April 2018**
