



Research Article

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Sexual and Reproductive Health Services Utilization and Associated Factors Among University Students, Northwest Ethiopia: Cross Sectional Study



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Abstract

Introduction: Students in higher institutions of learning are exposed to diverse sexual and reproductive health problems, such as unintended pregnancies, Human Immuno Virus/Aquired Immuno Deficiency Syndrome, sexually transmitted infections, and unsafe abortions. Despite diverse efforts to improve student use of sexual and reproductive health services, there is still limited evidence on the level of university student use of the available sexual and reproductive health services at university set-ups. Therefore, this study aimed to assess sexual and reproductive health service utilization and associated factors among undergraduate university students in northwest Ethiopia.

Methods: An institution based cross-sectional study was conducted on undergraduate students at the University of Gondar in 2014. Data were collected using a pretested, structured, and self-administered questionnaire on 874 students selected by the multistage sampling technique. Data were entered and analyzed using SPSS version 20 statistical software, while Bivariable and Multivariable logistic regression models were used to identify factors associated with the outcome variable.

Results: The prevalence of sexual and reproductive health service utilization was 62.3%, at a 95%CI (54.1%, 68.7%). Students who discussed SRH issues with families [AOR=4.5 (CI: 2.42, 10.27)], lived in rural areas [AOR=1.60, 95% (CI: 1.22, 2.16)], had better knowledge of SRH services [AOR=1.38 (95% CI: 1.94, 2.03)], and had high risk perception for HIV infection [(AOR=1.80, 95% CI (1.58, 1.10))] were significantly associated with sexual and reproductive health service utilization.

Conclusion: Sexual and reproductive health service utilization in the study area was found to be moderate. Factors like prior discussions of sexual and reproductive health issues, lived in rural areas, knowledge of sexual and reproductive health, level of risk perception for HIV/AIDS were found to be associated with sexual and reproductive health services utilization. Therefore, interventions focused on such factors are recommended.

Keywords: Sexual Reproductive Health services; Utilization; University students; Ethiopia

Abbreviation: AIDS: Acquired Immune Deficient Syndrome; AOR: Adjusted Odds Ratio; CMHS: College of Medicine and Health Sciences; COR: Crude Odds Ratio; COCs: Combined Oral Contraceptives; ECs: Emergency Contraceptives; HCT: HIV Counseling and Testing, HIV: Human Immune Deficient Virus; IEC: Information Education and Communication; IPH: Institute of Public Health, SD: Standard Deviation; SRH: Sexual and Reproductive Health; STIs: Sexually Transmitted Infections; UoG: University of Gondar; VCT: Voluntary Counseling and Testing; WHO: World Health Organization

Introduction

The proportion of the youth is increasing tremendously on the globe [1,2]. Young people aged 10-24 years comprise over 27% of the world's population [1]. The majority of them live in

developing countries [3], where HIV/AIDS and other sexual and reproductive health problems are widespread [1,2]. Globally, 15 million adolescents experience unwanted pregnancies each

year [4,5]. According to the World Health Organization (WHO) report, nearly half of the induced abortions took place under unsafe conditions [4], and nearly all unsafe abortions (98%) occur in developing countries [6]. Moreover, half of the new HIV infections are observed in the 15-24 age groups [7]. Each year, one in 20 adolescents suffers from STIs other than HIV [8,9].

In Ethiopia, adolescents and young people aged 10 to 24 years comprise about 30% of the population [10]. These people are disadvantaged in terms of having access to sexual and reproductive health information and services [10-13]. Gender inequality, sexual coercion, early sexual debut, unwanted/unplanned pregnancy, adolescent pregnancy, abortion, sexually transmitted infections, and HIV/AIDS are the major youth sexual and reproductive problems in Ethiopia [11,12]. Several factors operating at individual, peer, family, school, and community levels fuel the sexual and reproductive health problems of youth in Ethiopia [9,14].

The majority of Ethiopian university students fall under the youth age group (15-24 years); thus, they are sexually active, and engage in mainly risky sexual behaviors [15]. Risky behaviors among undergraduate students may be aggravated by factors like decreased parental control, peer pressure, economic problems, and lack of youth friendly services [15]. Risky behaviors, particularly the consumption of alcohol, cigarette smoking, or the use of illicit drugs have been shown to be associated with increased risks of sexual intercourse, multiple sexual partners, and low rates of condom use [15,16]. The youth in universities usually lack access to information and health care services regarding sexual and reproductive health [15,16]. Also, are characterized by low sexual and reproductive health service utilization due to feelings of discomfort or fear of being seen by others at health care delivery points, and the embarrassment of seeking reproductive health services [16,17]. As a result, increasing access and utilization of health care relating to sexual and reproductive health, especially for the youth are high priority policy objectives in many countries [17]. Moreover, the provision of SRH services in universities is thought to be very effective in the prevention of students from developing various risky sexual behaviors and health related problems [18].

A study conducted in Kwa Zulu, Natal, showed that even though the majority of students indicated to have awareness of VCT as an HIV/AIDS prevention method, only 37.9% utilized the services, whereas 43.9% utilized free condoms, 4.8% wellness Programs; 2% Peer Education Programs and 0.6% ART [19]. Another study conducted on Kenyan university students demonstrated that 76% somehow used the condom; only 18% of the males and 14% of the females confirmed to have used it every time they had sex; 89% had risk perception for HIV infection; 28% tested for HIV [20].

An Ethiopian study conducted at Medawolabou University showed that 80.5% of the study participants had used at least one reproductive health service [18]. Another study in Harar town

of Ethiopia showed 64% of the respondents used at least one reproductive health service at the time of the survey [21]. A study at Debre Markos University showed SRH/VCT service utilization was 58.5% among students [22]. Previous studies showed that VCT/SRH discussions with health care providers [22], information on health related services [19,21], age, educational status, and occupation were some of the factors associated with sexual and reproductive health service utilization among young students [12].

Although exposed to any SRH problems, university student are on transformation to adulthood [15,19,20]. They also are on the process of building their academic and social carrier. As such, they are filled with lots of ambition. On top of that, what makes higher institution students different from the other youth is that they are confined to separate campuses, usually away from parents; they don't know where to go to get the services they need and have no money as well as time to go out for SRH services [23]. Although Ethiopia has developed a national youth policy in 2004, more effort is expected to satisfy the reproductive health care needs of university students [11]. Moreover, little has been explored about SRH service utilization and its associated factors in the context of Ethiopian Universities in general and the University of Gondar in particular. Therefore, this study was conducted to assess the SRH service utilization and associated factors among University of Gondar students.

Materials and Methods

Study design and setup

An institution based cross sectional study was conducted at the University of Gondar between May and June 2014. The University of Gondar is one of the 31 public universities in Ethiopia with more than 60 postgraduate and 30 undergraduate programs. According to the university registrar, more than twenty-five thousand students were enrolled by the 2014 academic year. The university has 5 campuses, namely the College of Medicine and Health Sciences (CMHS), Maraki, Tewodros, Fasil, and Tsega, with various colleges. Female students accounted nearly 50 % of the total University enrollment. The University has five student clinics located in each of the campuses. In addition, there are Reproductive Health and Anti-HIV/AIDS clubs that aim at creating awareness on sexual and reproductive health issues among students.

Source and study population

All regular undergraduates were the source population, and all undergraduate students available during the study were the study population. All regular second year and above undergraduate students were included. Undergraduate students who were seriously ill and unable to respond to the questions as well as weekend and post-graduate students were excluded.

Sample size and sampling procedure

The sample size (884) was obtained by using the assumption that SRH service utilization of university students was 50% at

a 95% CI (as there has been no such investigation in the study setting), margin of error 5%, design effect of 2, and non response rate 10%. Since the university has campuses, we allocated the sample to each campus using the multi-stage sampling procedure. Firstly, out of the 7 colleges and faculties in the university, 4 faculties were selected by the lottery method. Then, the simple random sampling technique was used to select 3-4 departments from each faculty. Then, proportional samples were allocated to each faculty considering the student population. Finally, all students in the selected departments were invited to participate.

Data Collection Tools, Analysis, and Quality Assurance

A structured and pre-tested questionnaire prepared in English and translated to the local language (Amharic) and then back to English was used for data collection. Three supervisors and ten data collectors participated in the process. After recruitment of data collectors and supervisors, a one-day intensive training was provided on the aim of the study, how to collect data, and clarification of the questionnaire before the actual task.

Data processing and analysis

The filled questionnaire was checked for completeness, cleaned manually, coded, and entered into EPI info version 3.5.3 statistical software and exported to SPSS windows version 20 for further analysis. Frequencies, proportions and summary statistics were used to describe the study population in relation to relevant variables and presented using tables and figures. The Bivariate analysis was employed primarily to check which variables had associations with the dependent variable. Then variables found to have p-values of less than 0.05 were entered the Multiple Logistic regression for controlling the possible effects of confounders. Finally, variables which had significant

associations are identified on the basis of the Adjusted Odds Ratio (AOR) with a 95%CI and at aP-value of 0.05.

Data quality control

Data quality was assured by pre-testing the questionnaire on 42(5%) students in one department which was later excluded from the actual study. Training was given to data collectors and supervisors before the actual data collection day. The overall supervision was carried out by the chief investigators. The questions were reviewed and checked for completeness and consistency by supervisors and the principal investigator every day and necessary feedback was offered to data collectors in the next morning.

Ethical considerations

Ethical clearance was obtained from the Institutional Review Board of the University of Gondar after describing the purpose and objective of the study, and verbal & written consent was obtained from each study participant. Participants were also informed that participation would be voluntary and that they could withdraw at any time they were not comfortable with the questionnaire. In order to maintain confidentiality, the information was gathered throughout with the exclusion of names as identifications by interviewing them separately.

Results

Socio-demographic characteristics

The response rate of this study was 98.9% (874/884). More than half (56.1%) of the participants were female. The mean age of the respondents was 21year (SD=1.98), and 476 (54.5%) of them were below or equal to 20 years of age. With regard to their religion and ethnicity, 636 (72.8%) were Orthodox Christians, and 489 (55.9%) Amhara by ethnicity. The majority (97.5%) of the students lived on the university campuses, (Table1).

Table 1: Socio-demographic characteristics of the respondents (n=874), university of Gondar, Ethiopia, 2014.

Variable	Frequency	Percent
Sex		
Male	384	43.9
Female	490	56.1
Age category		
<=20 years	476	54.5
21-24	347	39.7
>=25	51	5.8
Current Students Residence		
In Campus	852	97.5
Out of campus	22	2.5
Faculty of Students		
CMHS	209	23.9
Maraki	192	22
Tewodros	249	28.5
Fasil	224	25.6

Year of Study		
Year two	359	41.1
Year three	346	39.6
Year four	159	18.2
Year five	10	1.1
Marital Status		
Not married	801	91.6
Ever married	73	2.4
Religion		
Orthodox	636	72.8
Muslim	97	11.1
Protestant	115	13.2
Others	26	2.9
Ethnicity		
Amhara	489	55.9
Oromo	146	16.7
Tigre	102	11.7
Guragie	63	7.2
Others	74	8.5
Family Residence		
Rural	324	37.1
Urban	550	62.9
Mother's Education		
Unable read and write	248	28.4
Read & write	250	28.6
Primary	124	12.2
Secondary and above	252	28.8
Father's Education		
Unable read and write	124	14.2
Read & write	293	33.5
Primary	123	14.1
Secondary and above	334	38.2

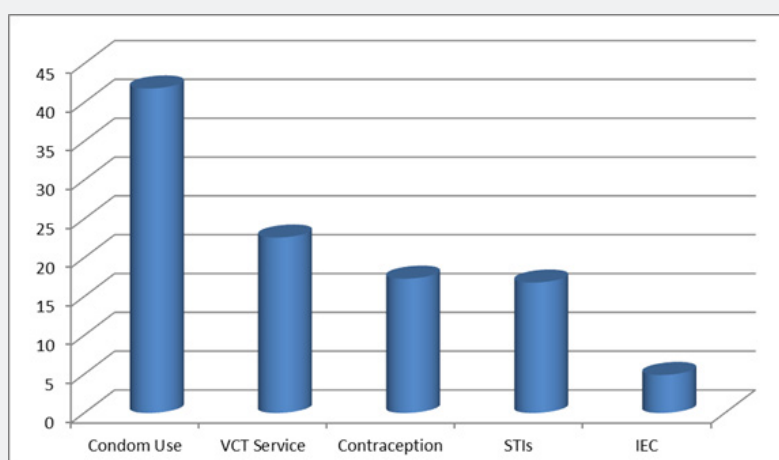


Figure 1: Common reasons why students visit the university SRH clinic, June 2014.

SRH service utilization and related characteristics

All of the respondents were asked whether they had ever visited the university clinic or not, and more than half, 544 (62.3%) 95%CI (54.1%, 68.7%), said they visited the clinic for different reasons in the past one year. The main reasons for visiting the clinics were getting condoms, VCT service, contraception, STIs management, and Information Education and Communication (IEC) services from 220(40.4%), 119(21.8%), 91(16.7%), 88(16.1%), and 26(4.9%), respectively (Figure1).

Sexual and reproductive health knowledge

Out of the total participants, 774 (90.4%) had heard about SRH issues. The major sources of SRH information were the radio for 567 (37.9%), followed by television for 515(34.4%), posters for 256(17.1%), and magazines for 160(10.6%). The majority, 777(88.9%), of the participants reported they had already heard about STIs, and 671(37.0%), 572(31.6%), and 569(31.4%) mentioned dysurea, genital ulcer, and genital discharge as the

major symptoms for their visits, respectively. Regarding the methods they preferred for the prevention of HIV/AIDS, more than three-fourths, 759(36.0%), pointed out abstinence, while 696(33.0%) and 653(31.0%) chose faithfulness and condom use, respectively (Table2).

Sexual and reproductive health related practices

Regarding their previous sexual practice, 219(25.1%) had sexual intercourse, of whom 214(97.7%) started before they joined the university, and 44(20.4%) used the condom. More than half of them, 141(64.4%), started sex with their boy/girlfriends, and the mean age at first sex was 18 years (SD+2.2). Only 35 (16.0%) and 30(14.0%) of the sexually active students had HIV counseling and testing (HCT) and STI screening and treatment services in that order. One hundred-sixty five (18.9%) were sexually active during the last 12 months, of whom 81(49.1%) had more than one sexual partners, and 95(57.6%) used condoms during sex. Of all the respondents, 376(43.0%) had high risk perception for HIV infection (Table 2).

Table 2: SRH knowledge and practice among students of University of Gondar, 2014.

Variable	Frequency	Percentage
Ever Heard of SRH 857		
Yes	774	90.4
No	83	9.6
Source of SRH Information 1498		
Television	515	34.4
Radio	567	37.9
Posters	256	17.1
Magazine	160	10.6
Ever Heard of Sties 874		
Yes	777	88.9
No	97	11.1
Know STI Symptoms 1812		
Dysuria	671	37
Genital discharge	569	31.4
Genital ulcer	572	31.6
Know Contraceptive Methods 2406		
ECPs	572	23.8
COCs	584	24.3
Condoms	686	28.5
Loop	564	23.4
Know HIV Prevention Methods 2108		
Abstinence	759	36
Faithfulness	696	33
Condom use	653	31
Ever had Sexual Intercourse 874		
Yes	219	25.1
No	655	74.9
School Level at First Sex 219		

University	5	2
High school	117	54
Secondary school	57	26
Primary school	40	18
First Sexual Partner 219		
Boy/ girl friend	141	64.4
Teacher	23	10.5
Husband/wife	31	14.2
	7	3.2
Outside School or University		
Business man/woman	13	5.9
Commercial sex worker	4	1.8
Sexual Intercourse Within 12 Months 874		
Yes	165	18.9
No	709	81.1
Use of Condom in the Last 12 Months 165		
Yes	95	57.6
No	70	42.4

Factors associated with SRH service utilization

Bivariable and Multivariable Logistic regression models were employed to determine factors associated with sexual and reproductive health service utilization (variables with p-value of <0.05). Students who had prior discussions on sexual and reproductive health issues had 4.5 times higher odds of utilization of sexual and reproductive health services [AOR=4.5

(CI: 2.42, 10.27)] than those who had not. In addition, students from rural areas were about 1.6 times [AOR = 1.6, 95% (CI: 1.22, 2.16)] more likely to utilize reproductive health services than those from urban areas. Those who had good knowledge of SRH [AOR= 1.38 (CI: 1.94, 2.03)] and high risk perception for HIV infection [(AOR=1.80, CI (1.58,1.10)] were also found to have significant associations with sexual and reproductive health service utilization (Table 3).

Table 3: Showing factors associated with SRH service utilization among UoG students.

Variables	SRH Service Use		COR(95% CI)	AOR(95%CI)	
	Yes	No			
Age	15-19	39	25	2.63(1.23, 5.61)	0.44(0.18,1.02)
	20-24	469	290	2.72(1.52, 4.90)	0.43(0.22, 1.82)
	≥25	19	32	1	1
Sex	Male	237	147	1.11(0.85, 1.46)	0.80(0.58, 1.14)
	Female	290	200	1	
Residence(students)	In campus	513	339	0.87(0.36, 2.08)	1.21(0.47, 3.11)
	Outside campus	14	8	1	
Faculty of students	CMHS	111	98	1.00(0.69, 1.46)	1.19(0.77 ,1.84)
	Social sciences	131	60	1.93(1.29, 2.88)	0.69(0.38, 1.97)
	Business &economics	166	83	1.77(1.22, 2.56)	0.63(0.40, 1.00)
	Technology	119	105	1	1
Marital status	Un married	482	319	0.94(0.58, 1.54)	0.94(0.55, 1.58)
	Ever married	45	28	1	1
Year of study	Year two	228	131	1.23(0.85, 1.789)	1.05(0.65, 1.67)
	Year three	200	146	0.97(0.67, 1.41)	1.22(0.78, 1.88)
	Year four and above	99	70	1	1

SRH knowledge	knowledgeable	78	63	1.28(0.89, 1.84)	1.38(1.94, 2.03)**
	Poor Knowledge	449	284	1	1
Family residence	Rural	194	130	0.97(0.74, 1.29)	1.60(1.22, 2.35)**
	Urban	333	217	1	1
Mother's education	Unable read and write	163	85	1.44(1.00, 2.07)	0.78(0.44, 1.39)
	Read and write	153	97	1.18(0.83, 1.69)	1.00(0.61, 1.67)
	1-8 th grade	67	57	0.88(0.57, 1.36)	1.14(0.70, 1.86)
	9-12 th grade	144	108	1	1
Fathers education	Unable read and write	80	44	1.31(0.86, 2.01)	0.77(0.40, 1.43)
	Read and write	192	101	1.37(0.99, 1.90)	0.78(0.46, 0.31)
	1-8 th grade	61	62	0.71(0.47, 1.08)	1.45(0.88, 2.38)
	9-12 th grade	194	140	1	1
Family income	High	52	42	0.72(0.43, 1.21)	1.35(0.776, 2.89)
	Middle	377	248	0.88(0.62, 1.27)	1.18(0.75,1.67)
	Low	98	57	1	1
SRH Discussion	Yes	118	10	5.41 (3.82, 11.38)	4.50 (2.42, 10.27)*
	No	123	52	1	1
Risk Perception towards HIV/AIDS	Yes	237	147	1.46(1.11, 1.85)	1.80(1.58, 1.10)*
	No	290	200	1	1

Discussion

This study showed the prevalence and factors associated with sexual and reproductive health service utilization among university students. The level of SRH service utilization was found to be 62.3%, with 95%CI (54.1%,68.7%). The result is similar with that of a study conducted in Harrar (64.0%) [21]. The level of SRH service utilization in this study was higher than those of studies conducted in Nepal (9.2 %) [23], Bahir Dar (32.0%) [24], and Jimma (34.7%) [25]. The possible justification for the different findings could be the presence of discrepancies in the study setups. For instance, if we compare the current study with those of Nepal and Bahir Dar, the study conducted in Nepal was on secondary school students and the Bahir Dar study was on high school students, while this study was on university students. University students may have better knowledge regarding SRH issues and the places they get the services are likely to be more accessible compared to secondary and high school students. Since the study in Jimma took place in 2004 and ours in 2014, there is a time gap of ten years between the two works which might have brought about differences not only in participant awareness but also in the availability and accessibility of services, resulting in variations in the two findings.

Our finding is lower than that of a study conducted in Medawolabo university (80.5%) [18]. The possible justification could be the difference in the proportion of sexually active participants in the two studies. In the Medawolabo study, 40.3% of the study participants were sexually active during the time of the study compared to 18.9% in this study. Sexually

active students use SRH services more frequently because they need condoms, family planning services, and STIs diagnosis and management.

Students from rural areas were about 1.6 times [AOR=1.6, 95% (CI: 1.22, 2.16)] more likely to utilize reproductive health services than those from urban areas. The possible justification might be that most students from rural areas may practice sex for the first time on the campuses, and need help about SRH issues from campus clinics, whereas students from urban areas may practice sex earlier (had history of previous SRH service use) and they might not seek help from the student clinics that is, they may go to other SRH clinics out of university campus.

Students who had discussions on sexual and reproductive health issues were 4.5 times more likely to utilize sexual and reproductive health services [AOR = 4.5 (CI: 2.42, 10.27)] compared to those who had not. This is in agreement with studies conducted in Jimma [25] and Medawolaboue [18]. The possible reason might be that having discussions on SRH issues may build student confidence and help them to expose their SRH health concerns, get information from where they get services and are thus more likely to use services.

Participants who had enough knowledge on SRH services were more likely to utilize the services compared to those who had poor knowledge. This finding is in line with those of studies conducted in Debre Markos [22], Harrar [21], and Jimma [25]. Enough knowledge about SRH services could increase SRH service utilization may be the possible explanation for the finding.

Students who had a high level of risk perception for HIV/AIDS were found to have significant associations with sexual and reproductive health service utilization. This finding is supported by those of studies conducted in Debre Markos [22], Harrar [21], and Jimma [25]. The possible explanation may be that having a high level of risk perception for HIV/AIDS might push students to know their HIV status and seek VCT services which increases their SRH service utilization.

Conclusion

Sexual and reproductive health service utilization in the study area was found to be moderate. Factors like prior discussions on sexual and reproductive health issues, rural life, knowledge of SRH, and level of risk perception for HIV/AIDS were associated with sexual and reproductive health service utilization. Therefore, concerned bodies are called upon to work on the factors identified. Causality could not be ascertained due to the cross-sectional nature of the study. In addition, the result can only be generalizable to university students. Therefore, we highly recommend further studies on out of school and in school youth, including university students.

Declarations

Ethics approval and consent to participate

Ethical clearance was obtained from the institutional review board (IRB) of Institute of Public Health, University of Gondar. Permission was obtained from each college Authorities. Informed consent was obtained from each study subjects. Respondents were also informed about their right to refuse or discontinue participation at any time. Information was recorded anonymously to maintain respondent's confidentiality and privacy.

Availability of data and material

All the dataset supporting the conclusions of this article are included within the article.

Competing interests

The authors declare that they have no conflicts of interest in this work.

Authors' Contributions

AA, AK, GAT, KE, TB, YAH and TA were involved in study conception, design, coordination, data collection, data analysis, interpretation, and write up. YAH was involved in data analysis, write up and prepared the manuscript. All authors read and approved the final manuscript.

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References

1. (2013) UN, World population prospects: the 2012 revision. World population prospects, Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, New York, USA.
2. www.un.org/esa/population/publications/wpp2008/wpp2008_highlights.pdf
3. <http://www.prb.org/pdf12/status-reportyouth-subsaharan-Africa.pdf>
4. Shah I, Áhman E (2010) Unsafe abortion in 2008: global and regional levels and trends. *Reprod Health Matters* 18(36): 90-101.
5. Institute G (2012) Making abortion services accessible in the wake of legal reforms: a framework and six case studies. Guttmacher Institute, New York, USA.
6. Ahman E, Shah I (2011) Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2003. In: (5th edn), Sexual and reproductive health.
7. UNAIDS (2011) Securing the future today: synthesis of strategic information on HIV and young people. Joint United Nations Programme on HIV/AIDS, Geneva, Switzerland.
8. WHO (2006) Joint United Nations Programme on HIV/AIDS, AIDS epidemic update, December 2006, 2007. World Health Organization, Geneva, Switzerland.
9. Marston C, King E (2006) Factors that shape young people's sexual behaviour: a systematic review. *The Lancet* 368(9547): 1581-1586.
10. (2012) CSA, 2007 Population and Housing Census of Ethiopia.
11. MOH (2010) National Adolescent and Youth Reproductive Health Strategy 2010. Federal Democratic Republic of Ethiopia, Ethiopia.
12. Jima A (2012) Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Unmarried Women of Reproductive Age in Adama, Ethiopia. *Health Science Journal, Ethiopia*.
13. Feleke SA, Koye DN, Demssie AF, Mengesha ZB (2013) Reproductive health service utilization and associated factors among adolescents (15-19 years old) in Gondar town, Northwest Ethiopia. *BMC Health Serv Res* 13: 294.
14. Viner RM, Ozer EM, Denny S, Marmot M, Resnick M, et al. (2012) Adolescence and the social determinants of health. *Lancet* 379(9826): 1641-1652.
15. Taffa N (1998) Sexual activity of out of school youth, and their knowledge and attitude about STDs and HIV/AIDS in Southern Ethiopia. *Ethiopia* 17: 72.
16. Kelly MJ (2001) Challenging the challenger: understanding and expanding the response of universities in Africa to HIV/AIDS. A synthesis report for the Working Group on Higher Education Association for the Development of Education in Africa [ADEA], p.82.
17. EFDRE, MOH (2015) The Federal Democratic Republic of Ethiopia Ministry of Health, Health Sector Transformation Plan.
18. Mengistu TS (2013) Risks for STIs/HIV infection among Madawalabu University students, Southeast Ethiopia: a cross sectional study. *Reproductive health* 10(1): 38.
19. Ndabarora E, Mchunu G (2014) Factors that influence utilisation of HIV/AIDS prevention methods among university students residing at a selected university campus. *SAHARA J* 11(1): 202-210.
20. Adam MB, Mutungi M (2006) Sexual risk behavior among Kenyan university students. *Journal of the Arizona-Nevada Academy of Science* 39(2): 91-98.

21. Motuma A (2016) Utilization of youth friendly services and associated factors among youth in Harar town, east Ethiopia: a mixed method study. BMC Health Services Research 16(1): 272.
22. Tsegay G, Edris M, Meseret S (2013) Assessment of voluntary counseling and testing service utilization and associated factors among Debre Markos University Students, North West Ethiopia: a cross-sectional survey in 2011. BMC public health 13(1): 243.
23. Bam K (2015) Perceived sexual and reproductive health needs and service utilization among higher secondary school students in urban Nepal. American Journal of Public Health Research 3(2): 36-45.
24. Abebe M, Awoke W (2014) Utilization of Youth Reproductive Health Services and Associated Factors among High School Students in Bahir Dar, Amhara Regional State, Ethiopia. Open Journal of Epidemiology.
25. Tegegn A, Gelaw Y (2009) Adolescent reproductive health services in Jimma city: accessibility and utilization. Ethiopian Journal of Health Sciences 19(2).



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