#### **EDUCATION**

# Knowledge, Attitude, and Practices of Jimma Teacher Training College Students Toward Risky Sexual Behaviors, Jimma, Ethiopia



Yonas Tesfaye, BSc, MSc, and Liyew Agenagnew, BSc, MSc

#### **ABSTRACT**

**Background:** College students represent the huge section of teenagers in Ethiopia, and a growing number of them practice unsafe sex and hence face unwanted sexual health outcomes. Despite this, little has been explored about the college students' knowledge, attitude, and practice toward risky sexual behaviors (RSBs) in the study area. Therefore, this study aimed to assess the knowledge, attitude, and the practice of Jimma teacher training college students toward RSBs, Jimma town, southwest Ethiopia, in 2018.

**Methods:** An institution-based quantitative cross-sectional study was conducted. Data were collected through a pretested, structured, and self-administered questionnaire. A total of 395 respondents were selected using a simple random sampling technique. The collected data were checked manually for completeness and consistency, entered into Epi-data, version 3.1, data entry software, and exported to SPSS, version 20, statistical software for analysis. Descriptive statistics were used to summarize the outcome and explanatory variables.

Results: Among the total 360 respondents, 140 (38.9%) had poor knowledge of RSBs. The majority 78 (36.6%) of the respondents described radio as their main source of information about RSBs. More than three-quarters, 163 (76.6%) respondents define practicing oral and/or anal sex as RSBs and 194 (91%) reported sexually transmitted infections including HIV/AIDS as the main consequence of RSBs. This study also revealed 156 (43.4%) participants had an unfavorable attitude toward RSBs. 60 (16.7%) participants disagree with the idea that condoms prevent HIV/AIDS and nearly all respondents (340 [94.5%]) agreed homosexuality brings sexual risks. Among those who had sexual experience, 83 (32.4%) had 2 or more sexual partners, more than two-third (176 [68.8%]) had sexual practice after drinking alcohol, and 90 (35.1%) participants reported they did not use a condom when they had sex.

Conclusion: A significant percentage of the students have poor knowledge, attitude, and practice toward RSBs. Tesfaye Y, Agenagnew L. Knowledge, Attitude, and Practices of Jimma Teacher Training College Students Toward Risky Sexual Behaviors, Jimma, Ethiopia. Sex Med 2020;8:554–564.

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Key Words: Unsafe Sexual Practice; Premarital Sex; STIs; Multiple Sexual Partners; Unprotected Sex

#### INTRODUCTION

Sexuality is an integral element of human life in general and an essential component of healthy development for young people. Moreover, sexual behavior is inextricably bound to both physical and mental health in adolescence.<sup>1</sup>

Risky sexual behavior (RSB) can be displayed in different ways, ranging from a large number of sexual partners, or engaging in risky sexual activities, to sexual intercourse under the influence of

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Department of Psychiatry, Jimma University, Jimma, Ethiopia

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substances such as alcohol or cocaine. Risky sexual practices include having sex at an early age, having multiple sexual partners, having sex without a condom, engaging in sex with older partners, having sex with commercial sex workers, and consumption of alcohol and illicit drugs.<sup>2–7</sup>

The World Health Organization reported in 2011 that unsafe sex stood second among the top 10 risk factors in the global burden of all diseases caused around the world. As a result, in the transition phase of growth from childhood to adulthood, rapid reproductive maturity will be evident, which could result in early and non-marital sexual activity, most of it being unsafe, with the reluctance to use contraceptives and exposing them to all its consequences, such as unwanted pregnancy, abortion, and sexually transmitted diseases (STDs) including HIV/AIDS. 8–12

Adolescence is a critical developmental period when many youths begin to define and clarify their sexual values and start experimenting with sexual behaviors. Most of these youths are students and they are also at high risk for unsafe sexual behaviors and problems like HIV/AIDS or sexually transmitted infection (STI), unwanted pregnancy, abortion, poor school performance, high school dropout rate, psychosocial problems, conduct disorder, divorce, and economic problems. <sup>13,14</sup>

For most youth, college life represents a shift toward greater independence from one's own home setting and provides an opportunity for new friendships, several opportunities to experience sexual relationships, and due to the lack of youth-friendly recreational facilities exposes them to traits of sensation seeking, impulsivity, curiosity, use of substances, and resorting to different RSBs. <sup>15–17</sup>

Preliminary reports and evidence showed that risky behaviors among university students, which might have been acquired through the period of campus life, are increasing at an alarming rate. This may be because of the acquired independence or a result of being away from parental control, which are factors that often characterize such a setting. Moreover, many risk factors are fueling the spread of HIV and STIs among this group in particular. The response has, however, been fragmented in higher education institutions. <sup>18–21</sup>

An Ethiopian demographic health survey of 2011 indicated that the prevalence of HIV and STDs among the age group of 15–24 years was associated with RSBs. Although different strategies have been implemented so far to combat the effect of risky sexual practices on youth, which mainly targeted curative-based interventions, the problem remains a great challenge in developing countries including Ethiopia. 22

One study revealed that most of the higher education students get involved in a range of maladaptive high-risk extracurricular activities like alcohol use, and substance and sexual abuse.<sup>23</sup>

Students at higher educational institutions are considered to be fully aware of HIV/AIDS risks/preventive mechanisms and reproductive health issues; as a result, they are neglected when it comes to reproductive health interventions. Nevertheless, practical observation and existing research findings show that for many campus students the opposite appears to be true. <sup>24–26</sup> Unless age-appropriate and institution-targeted interventions are implemented, young people may continue to engage in behaviors that place them at greater risk of HIV infection, STIs, and unwanted pregnancy. <sup>6,27</sup>

In the era of HIV/AIDS and reproductive health problems, it is crucial to understand the knowledge, attitude, and practice of youths regarding sexual activities in order to inform policies and programs that help protect them. Sexual behavior and reproductive health of youth in developing countries have attracted considerable attention over the last 15 years. However, a large proportion of the population in these countries is affected by HIV/AIDS and reproductive health problems. The sexual

behavior of youth is important not only because of the possible reproductive outcomes but also because of the fact that RSB is associated with STIs; thus, exploring the knowledge, attitude, and practice of young students at college will offer an insight toward a possible direction of designing intervention strategies to mitigate the problem.<sup>28,29</sup>

As far as the investigator's level of research, little has been explored about the knowledge, attitude, and practice of college students toward RSBs in the study setting and the context of higher education institutions in Ethiopia in general. This indicates that the topic still needs robust data. Therefore, the findings of this study will serve as the baseline for the study area, because the major segment of the country's population involves adolescents and they are at higher risk for negative reproductive health consequences. Hence, addressing the knowledge, attitude, and practice of RSBs in this population is very vital and essential for evidence-based interventions.

# MATERIALS AND METHODS

# Study Area and Period

The study was conducted in Jimma teacher training college. The college is found in Jimma town, which is in Oromia regional state located at about 352 km far away from the capital city, Addis Ababa. The college was established in 1961 as a teacher training institution and upgraded as a teacher training college in 1988. The college provides training for 3 years at the diploma level. A total of 2,287 (1,348 male and 939 female) regular students were enrolled in 4 colleges, namely natural science college (comprising mathematics, physics, biology, and chemistry), social science (geography, civics, and history), language (Afan Oromo, Amharic, and English), and sport science with physical health education discipline during the 2017—2018 academic year. The study was conducted from April 10 to 30, 2018.

# Study Design

A descriptive quantitative cross-sectional study design was used for this study.

#### Population

# Source of Populations

All regular undergraduate Jimma teacher training college students who were enrolled in the 2017–2018 academic calendar were included.

#### Study Populations

All sampled regular undergraduate Jimma teacher training college students who were enrolled in the 2017—2018 academic calendar were prospective participants in this study.

#### Sample Size Determination

The sample size was computed through a single population proportion formula,  $n=(Z\alpha/2)^2$  P  $(1-p)/d^2$ , by assuming the students' knowledge, attitude, and practice toward RSB rate as 50%, with a 5% margin of error and 95% CI of certainty  $(\alpha=0.05)$ ; accordingly,  $n=(1.96)^2\times0.5(1-0.5)/(0.05)^2=384.^{30}$  Since the total population was less than 10,000, finite population correction formula was used to get the desired sample size, nf=n/(1+n/N). Hence,  $nf=384/(1+384/2,287)=329.^{31}$  Finally, with the addition of a 10% nonresponse rate, the total sample size equals 362.

# Sampling Procedure

A stratified random sampling technique was used to select the study participants. All 11 departments in 4 colleges were included in the study and then the study participants were selected proportionally from each department and year of study using a simple random sampling lottery method by considering the students' enrollment register, obtained from the college registrar office, as a frame. Accordingly, there were a total of 1,078 students in natural science (in a total of 4 departments), 847 in social science (a total of 3 departments), 230 in language (a total of 3 departments), and 123 (1 department) in sport science. The total sample size was then divided proportionally according to the number of students in the faculty, and finally according to the number of departments and year of study. A total of 171 students from natural science, 134 from social science, 36 from language, and 21 from sports science were thus included in the study.

# Operational/Term Definitions

Good knowledge: when the respondents correctly answered more than 60% of the questions about knowledge of RSBs.

Favorable attitude: when the respondents correctly answered more than 60% of the questions about attitude toward RSBs.

Good practice: when the respondents correctly answered more than 60% of the questions about practice toward RSBs.

Premarital sex: engaging in sexual intercourse before marriage. RSB: in this study, this includes sexual intercourse at an early age (<18 years), having multiple sexual partners, unprotected/inconsistent condom use, sex with commercial sex workers, and sex after the use of substances.

Substance: includes alcohol, Khat (locally available stimulant leaf), and tobacco.

## **Data Collection Instruments and Procedures**

Data were collected through structured, pretested, and self-administered questionnaires. The tool was developed by reviewing various literatures on similar topics. The questionnaire included questions related to sociodemographics, and

knowledge, attitude, and practice of students toward RSBs. It was prepared in English and then translated into the local languages Amharic and Afan Oromo by 2 independent bilingual translators of each language respectively, and back-translated to English by 2 independent expert translators of the languages to ensure its consistency. Finally, the Amharic and Afan Oromo's versions of the questionnaires were used to collect the data based on the respondent's language preference.

#### **Data Quality Assurance**

Regular supervision was carried out by the data collection supervisors to ensure that all necessary data were properly collected. On each day of data collection, the filled questionnaires were checked manually first for completeness and consistency and then the collected data were processed and entered onto a computer twice. The pretest was conducted on 5% of the final sample size on Rift Valley University College students to identify impending problems on data collection tools. The reliability test was conducted with a Cronbach alpha value of 0.84, and test-retest reliability was performed with a coefficient of 0.81. The validity of the questionnaire was ensured by comparing its items with previous similar studies and by matching them with the stated objectives as well as with face validity tests performed by 3 independent experts on the field.

# Data Processing and Analysis

The collected data were cleaned, coded, and entered into EpiData data entry software, version 3.1 (JM Lauritsen, Denmark) and exported to SPSS statistical software, version 20 (SPSS Inc, Chicago, IL) for analysis. Descriptive statistics were used to summarize the dependent and independent variables. Finally, the obtained results were presented through text narration and tables.

#### **Ethical Consideration**

The study proposal was reviewed and approved by the Institutional Review Board of Jimma University; before data collection, an official letter of support was written to the college. Written consent for participation was obtained from the participants after explaining the purpose of the study. This study was conducted in accordance with the Declaration of Helsinki.

# **RESULTS**

A total of 360 completed questionnaires were obtained from the respondents with a response rate of 99.4%.

# Sociodemographic Characteristics of the Study Participants

Among the total number of respondents, 203 (56.4%) were male students and 197 (54.8%) were between the age of 18 and 21 years. 170 (47.1%) respondents were from the natural

science college and 141 (39.1%) were first year students. 249 (69.2%) respondents were from the Oromo ethnic group, 324 (90%) were single, and 125 (34.8%) protestants, and almost two-thirds of the sample 240 (66.6%) were reported no habit of discussing sexual issues with their family (Table 1).

# Knowledge of Participants Regarding RSBs

The majority of study participants 213 (59.1%) knew about RSBs. 163 (76.6%) respondents defined anal and oral sex as RSB followed by 149 (70.0%) participants considering unprotected sex (sex without using a condom) as RSB. Radio was the main source of knowledge for 78 (36.6%) participants, followed by television 67 (31.4%). 194 (91%) of the participants considered STIs including HIV as the risk factor of RSBs followed by 189 (88.7%) of them who classified unwanted pregnancy also as the risk factor. Having one sexual partner was reported as a self-protective measure against RSBs by 157 (73.7%) respondents followed by 124 (58.2%) of them reporting abstinence from sex as a means of self-protection. 218 (60.5%) study participants reported sexual intercourse as the main route of transmission of STDs followed by 146 (40.6%) participants considering sharing of sharp materials. The results of the analysis showed that 140 (38.9%) students have poor knowledge and 220 (61.1%) have good knowledge about RSBs (Table 2).

# Attitude of the Participants Toward RSBs

The majority of the study participants 173 (48.1%) agreed that condoms reduce sexual pleasure. 187 (51.9%) of them disagreed with the possibility of discussing sexual issues with parents. 200 (55.5%) respondents disagreed to the notion that there is no danger of HIV/AIDS following skin to skin contact during sex. Out of the total respondents, 148 (41.1%) did not consider that exposure to substances abuse like cigarette, alcohol, hashish, and Khat would lead to RSBs and 52 (14.5%) respondents were neutral whether it is necessary for academic institutions to discuss issues regarding RSBs. 340 (94.5%) respondents believed that homosexuality may cause sexual risks. The study results revealed that 156 (43.4%) and 204 (56.6%) students have unfavorable and favorable attitudes toward RSBs, respectively (Table 3).

#### Practice of the Participants Toward RSBs

Among the study participants, 256 (71.1%) were engaged in sexual intercourse, 62 (24.2%) had sex before the age of 18 years, and 83 (32.4%) had 2 or more sexual partners. 176 (68.8%) and 118 (46.1%) participants had a history of having sex after alcohol and Khat use, respectively. 66 (25.8%) respondents practiced oral and 39 (15.2%) practiced anal sex. Among those who had a history of sex, 90 (35.1%) respondents had sex without a condom. Among those who tested for pregnancy, 14 (21.5%)

**Table 1.** Sociodemographic characteristics of Jimma teacher training college students toward risky sexual behaviors, Jimma town, Oromia region, southwest Ethiopia, May 2018

Variables	Characteristics	Frequency	Percentage
Sex	Male	203	56.4
	Female	157	43.6
Age	18-21 y	197	54.8
	22-25 y	125	34.7
	Above 25 y	38	10.5
College	Natural science	170	47.1
	Social science	134	37.1
	Sport science	21	5.8
	Language	36	10.0
Year of study	First Year	141	39.1
, ,	Second Year	114	31.7
	Third Year	105	29.2
Ethnicity	Oromo	249	69.2
Lerimercy	Amhara	43	11.9
	Dawro	20	5.6
	Kefa	36	10.0
	Others*	12	3.3
Marital status	Single	324	90.0
Maritar Status	Married	30	8.3
	Divorced	4	1.1
	Widowed	2	0.6
Religion	Protestant	125	34.8
Religion	Orthodox	102	28.4
	Muslim	114	31.6
	Catholic	16	0.ار 4.4
	Others <sup>†</sup>	3	
Place of			0.8
residence	Family house	98	27.2
	Relative's house	55	15.2
	Rental house	197	54.8
	Others	10	2.8
Father's educational status	Illiterate	93	25.8
	Elementary	184	51.2
	High school	52	14.4
	College and above	31	8.6
Mother's educational status	Illiterate	126	35.0
	Elementary	163	45.3
	High school	47	13.1
	College and above	24	6.6
Sexual issues discussed with family	Yes	240	66.6
	No	120	33.4

<sup>\*</sup>Other ethnicities include Tigre, Yem, and Silte.

<sup>&</sup>lt;sup>†</sup>Other religions include Wake Feta and atheists.

**Table 2.** Knowledge of Jimma teacher training college students toward risky sexual behaviors, Jimma town, Oromia region, southwest Ethiopia, May 2018

S. No	Variables	Characteristics	Frequency	Percentage
1	Do you know risky sexual behaviors?	Yes	213	59.1
		No	147	40.9
		Total	360	100
2	How do you define risky sexual behavior(s)?*	Having sex before marriage	95	44.6
		Sex with commercial sex workers	101	47.4
		Sexual practice after taking alcohol, Khat, or other drugs	114	53.5
		Sexual practice with incomparable age partner	56	26.3
		Sexual practice with multiple partners	145	68.1
		Unprotected sex (sex without using a condom)	149	70.0
		Sexual practice like anal and/or oral sex	163	76.6
		Total	213	100
3	From where do you get information about risky sexual behaviors?*	Radio	78	36.6
		Television	67	31.4
		Health institution	38	17.8
		Friends	44	20.6
		Parents	22	10.3
		Total	213	100
4	What is the risk of risky sexual behaviors?*	Unwanted pregnancy	189	88.7
		Abortion	147	69.0
		Social stigma	124	57.4
		STIs including HIV/AIDS	194	91.0
		Total	213	100
5	Knowledge of self-protection measures from risky sexual behaviors*	Having one sexual partner	142	66.7
		By using a condom during sexual intercourse	157	73.7
		By abstaining from sex	124	58.2
		By isolating oneself	59	27.7
		By using emergency contraceptive	68	31.9
		Total	213	100
6	What are the routes of transmission of STIs?*	Sexual intercourse	218	60.5
		Blood transfusion	123	34.1
		Sharing sharp materials	146	40.6
		Sharing clothes	84	23.4
		Infected mother to child	102	28.4
		Kissing	65	18.1
		Total	360	100

STIs = sexually transmitted infections.

showed positive results. And among all those who tested for HIV, 28 (13%) turned out to be HIV positive cases. The findings of this study therefore revealed that a total of 250 (69.5%) study participants practiced RSBs (Table 4).

# **DISCUSSION**

The study findings revealed that significant number of study participants have poor knowledge regarding RSB; similarly,

<sup>\*</sup>More than one response is possible.

**Table 3.** Attitude of Jimma teacher training college students toward risky sexual behaviors, Jimma town, Oromia region, southwest Ethiopia, May 2018

		Agree		Disagree		Neutral	
S. No	Statement	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	A girl can remain a virgin until marriage	119	33.1	170	47.2	71	19.7
2	Do you think condoms prevent HIV/ AIDS?	287	79.7	60	16.7	13	3.6
3	Condom reduces sexual pleasures	173	48.1	157	43.6	30	8.3
4	It is possible to talk with parents about sexual matter	148	41.2	187	51.9	25	6.9
5	There is no danger of HIV/AIDS in skin to skin contact during sex	148	41.1	200	55.5	12	3.4
6	Girls do not use a condom because they trust their partner	123	34.1	217	60.3	20	5.6
7	Substance abuse like cigarette, Khat, alcohol, hashish exposes one to risky sexual behaviors	194	53.9	148	41.1	18	5.0
8	I feel it is not necessary to use a condom during anal sex	42	11.7	304	84.4	14	3.9
9	I feel academic institutions must discuss issues regarding risky sexual behaviors	219	60.8	89	24.7	52	14.5
10	I think watching/reading pornographic materials can contribute to risky sexual practices	256	71.1	69	19.1	35	9.8
11	Do you think adolescents are more vulnerable to risky sexual behaviors?	234	65.0	112	31.1	14	3.9
12	Do you think homosexuality causes sexual risk?	340	94.5	15	4.1	5	1.4

nearly half of the respondents have an unfavorable attitude toward RSB and more than two-thirds of the students who participated in the study practiced RSB.

The study revealed 213 (59.1%) participants knew about RSBs; this is lower than a study conducted in Mizan-Tepi University students in which 93% of the study participants knew about RSBs. <sup>32</sup> A possible explanation for the disparity could be university students have better access to various information and youth-friendly reproductive health services than college students in Ethiopia. Similarly, the results of this study yielded lower values compared to a study conducted in Bangladesh in which 79% of the participants were familiar with RSBs. <sup>33</sup> However, our results are encouraging compared to a study conducted in Jabalpur district in India, in which more than half of the participants did not know about RSBs. <sup>34</sup>

It was also found that the majority 163 (76.6%) of the respondents defined RSB as practicing anal and oral sex followed by unprotected sex (sex without using a condom) suggested by 149 (70.0%) participants; this finding is in line with the results of a study conducted in Jimma University Community High School, in which the majority of students reported sexual

practices like anal and oral sex and unprotected sex as RSBs.<sup>35</sup> Similarly, a study in the United States also showed anal/oral sexual intercourse or vaginal intercourse without a condom as RSB.<sup>36</sup> Another U.S. study indicates participants were considered not using a condom during sexual intercourse and having intercourse under the influence of alcohol as RSBs.<sup>37</sup>

In this study, radio was the main source of the participants' sexual knowledge 78 (36.6%) followed by television 67 (31.4%); these were the major available mass media communication strategies that the local community used. These findings were similar to those reported by a study performed in 4 sub-Saharan African countries in which mass media were the most commonly used source of sexually related information. Differently, a study in Zambia revealed that 31% of the participants used magazines (pamphlets) as their main source of information about sexual matter. A similar study in Turkey University students showed that the majority of the respondents received information about reproductive health issues via books, newspapers, magazines (79.3%), and radio/television (61.6%). Another study carried out in Udupi Taluk, India showed that the most common source of sexually related information was through school, teachers, friends, and media including

**Table 4.** Practice of Jimma teacher training college students toward risky sexual behaviors, Jimma town, Oromia region, southwest Ethiopia, May 2018

S. No	Variables	Characterstics	Response	Frequency	Percentage
1	Have you ever had sex?		Yes	256	71.1
	·		No	104	28.9
			Total	360	100
2	If yes, how old is your sexual partner?		17—20 y	57	22.2
			21–24 y	99	38.7
			Above 24 y	80	31.3
			I do not know	20	7.8
			Total	256	100
3	What was the job of your sexual partner?		Student	167	65.2
			Driver	18	7.1
			Teacher	12	4.7
			Merchant	53	20.7
			Others	б	2.3
			Total	256	100
4	Did you ever have sex within the past month?		Yes	84	32.8
	·		No	172	67.2
			Total	256	100
5	If yes, how old were you when you had sex for the first time?		Below 18 y	62	24.2
			19—22 y	130	50.8
			Above 23 y	54	21.1
			I do not remember	10	3.9
			Total	256	100
6	How many times did you have sex in the past month?		Less than 3 times	211	82.4
			3 or more times	41	16.0
			l do not know	4	1.6
			Total	256	100
7	How many sexual partners did you have?		1	141	50.1
			2 and above	83	32.4
			I do not remember	32	12.5
			Total	256	100
8	With whom do you have sex?*		With my girl/boyfriends	139	54.3
			With an unknown person	62	24.2
			With commercial sex workers	25	9.8
			With my spouse	30	11.7
			Total	256	100
9	Did you ever indulge in sexual practice after taking	alcohol	Yes	176	68.8
			No	80	31.2
		Khat	Yes	118	46.1
			No	138	53.9
		other drugs	Yes	21	91.8
			No	235	8.2
			Total	256	100
10	Which type of sexual practices have you practiced in the past?*		Vaginal	151	59.0
	· · ·		Oral	66	25.8

(continued)

Table 4. Continued

S. No	Variables	Characterstics	Response	Frequency	Percentage
			Anal	39	15.2
			Total	256	100
12	Did you use a condom when you had sex?		Yes	166	64.9
			No	90	35.1
			Total	256	100
13	If yes, how often?		Always	67	40.4
			Occasionally	81	31.7
			Rarely	18	10.9
			Total	166	100
14	Have you tested for the following?	HIV	Yes	215	59.7
			No	145	40.3
			Total	360	100
		Pregnancy	Yes	65	41.4
			No	92	58.6
			Total	157	100
		Other STIs	Yes	64	25.0
			No	192	75.0
			Total	256	100
15	What was the result of the test?	HIV	Positive	28	13
			Negative	187	87
			Total	215	100
		Pregnancy	Positive	14	21.5
		- ·	Negative	51	78.5
			Total	65	100
		Other STIs	Positive	11	17.2
			Negative	53	82.8
			Total	64	100
16	Do you view pornographic materials?		Yes	98	18.9
			No	262	81.2
			Total	360	100

 $\mathsf{STIs} = \mathsf{sexually} \ \mathsf{transmitted} \ \mathsf{infections}.$ 

Other STIs include gonorrhea, syphilis, chancroid, and genital herpes.

Khat is a local stimulant drug.

Other drugs include cannabis/hashish, inhalants like benzene, and hookah/shisha.

radio, television, newspaper, and magazines.<sup>41</sup> A study in Malaysia also revealed that 77.3% of the students identified the Internet as the main source of information.<sup>42</sup>

A majority 218 (60.5%) of the study participants reported sexual intercourse as the main route of transmission of STDs followed by the sharing of sharp materials 146 (40.6%); a similar finding was reported from the study performed in Jabalpur, India.<sup>34</sup> The study conducted in India's Udupi Taluk reported sharing of injections/needles and unprotected sexual intercourse as the main routes of STD transmissions.<sup>41</sup> The Bangladesh study also considered sharing contaminated needles and sexual intercourse as the main routes of STD transmission.<sup>33</sup>

This study revealed that about 156 (43.4%) students have unfavorable attitudes toward RSB; this is in line with the study

done in Jimma Community School in which 45% of the participants demonstrated an unfavorable attitude toward RSBs. The proportion here is much higher compared to that obtained in the study on regular students of Mizan-Tepi University in which 29% of study participants had an unfavorable attitude toward RSB. The disparity arises because university students are more familiar with various youth-friendly reproductive health services than college students in Ethiopia.

A majority of the study participants 173 (48.1%) agreed that condom reduces sexual pleasure; similarly, the study in USA confirmed that many participants believe protective measures reduce sexual pleasure.<sup>43</sup>

Most respondents of this study 187 (51.9%) disagree with the habit of discussing sexual issues with their parents; similarly, the

<sup>\*</sup>More than one response is possible.

U.S. study proved that it is challenging to discuss sexual content with parents.<sup>44</sup>

A majority 340 (94.5%) of the participants agreed that homosexuality causes sexual risks; however, in contrast, the study in China revealed that 41.8% reported that homosexuality does not result in sexual risks. <sup>45</sup> This disparity could be explained by the differences in sexual culture between the 2 countries.

The majority of study participants 256 (71.1%) had had sex; similarly, 68% of undergraduate students in Jigjiga University, 46 51% of private college students in Bahir Dar City, and 39% of undergraduate students at Addis Ababa University 47 reported sexual experiences. This proportion is much lower when compared with a study among undergraduate students in Sri Lanka (21.2%). 48

Most respondents 130 (50.8%) had their first sexual experience between the ages 19 and 22 years; this is in line with the study conducted among private college students in Bahir Dar City in which 52.4% of the participants had their first sexual encounter after the age of 18 years. Similar findings were also reported from undergraduate students at Addis Ababa University, in which the mean age at the first sexual intercourse was 17.6 (±1.9), <sup>47</sup> and Jimma University students. <sup>50</sup>

In this study, 83 (32.4%) respondents had more than one sexual partner; this inference is in line with studies conducted among private college students in Bahir Dar City (in which 45% of the participants had more than 1 sexual partner), <sup>49</sup> Bahir Dar University students (48.5%), <sup>51</sup> and Haramaya University students (44.8%). <sup>9</sup>

176 (68.8%) and 118 (46.1%) study respondents had sex after alcohol and Khat use, respectively; similar findings were reported from a study on out-of-school participants in Addis Ababa<sup>52</sup> and Haramaya University students.<sup>9</sup>

A majority 262 (81.2%) of participants in our study confirmed that they had never viewed pornographic materials; this finding is in line with a study carried out in Humera high school in which 61% of the participants did not watch pornographic materials.<sup>53</sup> However, contrary results were reported in the study done in Bahir Dar University in which 65% of the respondents did watch pornographic materials.<sup>51</sup> This disparity occurred because university students had to live in a dormitory and were vulnerable to peer pressure.

#### CONCLUSION

In this study, a significant number of study participants were reported to have poor knowledge and unfavorable attitude toward RSB. Furthermore, the majority of the respondents engaged in the practice of RSBs. Therefore, the findings of this study will help the college administrative bodies to take necessary measures to fill the gaps and further help researchers to conduct studies on the prevalence of RSBs and associated factors and to explore the effect

of reproductive health education interventions in improving students' knowledge, attitude, and practice of RSBs. Besides, the findings of this study also give insight to policymakers, planners, and those working in higher education institutions to develop appropriate methods to provide reproductive health information and to create awareness regarding RSBs.

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Corresponding Author: Yonas Tesfaye, BSc, MSc, Department of Psychiatry, Jimma University, PO Box 378, Jimma, Ethiopia. Tel: +251910107507; Fax: +251471111450; E-mail: yonastesfaye71@yahoo.com

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#### STATEMENT OF AUTHORSHIP

#### Category 1

- (a) Conception and Design
  Yonas Tesfaye; Liyew Agenagnew
- (b) Acquisition of Data Yonas Tesfaye; Liyew Agenagnew
- (c) Analysis and Interpretation of Data Yonas Tesfaye

#### Category 2

- (a) Drafting the Article Yonas Tesfaye
- (b) Revising It for Intellectual Content Liyew Agenagnew

#### Category 3

(a) Final Approval of the Completed Article Yonas Tesfaye; Liyew Agenagnew

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