



College Students' Knowledge about Comprehensive Sexuality Education at Nekemte College of Teachers' Education and Its Implication to Students' Risky Sexual Behavior

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Abstract

The main objective of this study was to investigate the knowledge of college students about comprehensive sexuality education in Nekemte College of teachers' education. It specifically attempted to examine the difference among college students in their knowledge about comprehensive sexuality education in terms of sex and year of study. The participants of the study were 294 college students enrolled in three batches (freshman, second year, and graduating students). Equal number of participants from the three batches, 98 from each batch was included, which were selected from 1092 total population using Sloven's formula. Stratified random sampling method was used to select the respondents from each stratum. Data was collected using a 30-items Likert type scale questionnaire. Descriptive statistics, independent sample t-test, and one way ANOVA were used in the analysis. The finding indicated the knowledge of college students about comprehensive sexuality education was slightly moderate. The result of the study also indicated that statistically significant difference was observed between male and female of college students in their knowledge of comprehensive sexuality education. Moreover, statistically significant difference was also observed among college students in their knowledge of comprehensive sexuality education in terms of years of study. Designing well organized extracurricular programs to maximize students' knowledge, giving special consideration to females and freshman students in providing sexuality education, teachers' commitment to teach sexuality education, and ministry of education has to design the curriculum for this education are the recommendations suggested.

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INTRODUCTION

Sexuality education is a broad term used to describe education about human sexual anatomy, sexual reproduction, sexual intercourse, and other aspects of human sexual behavior. Collins (2008) cited in (Eko et al., 2013) argued that sexuality education encompasses education about all aspects of

sexuality including information about family planning, reproduction, body image, sexual orientation, sexual pleasure, values, decision making, communication, dating, relationships, sexually transmitted infections, and how to avoid them, and birth control methods.

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Comprehensive sexuality education is sexuality education that encompasses education about all aspects of one's sexuality including information about family planning, reproduction (fertilization, conception, and development of embryo and fetus, through to child birth), plus information about all aspects of one's sexuality including: body image, sexual orientation, sexual pleasure, values, decision making, communication, dating, relationships, sexually transmitted infections and how to avoid them, and birth control methods (Jeanette De La Mare (2011). Studies show that comprehensive sexuality education has great potential to provide young people with the necessary information about their bodies and sexuality, to reduce misinformation, shame and anxiety, and to improve their abilities to make safe and informed choices about their sexual and reproductive health (Boonstra, 2011; UNFPA, 2015). There is growing evidence that good quality comprehensive sexuality education has positive effects on sexual knowledge, attitudes, communication skills and certain sexual behaviors (UNESCO, 2009).

On the other side other studies showed that poor knowledge of sexual and reproductive health services, peer pressure, substance use, low economic conditions, and poor supervision by parents are factors which can lead to risky sexual practices (Victoria, 2005) cited in (Achenef et al, 2017).

Risky sexual behavior is a behavior that increases susceptibility of an individual to problems related to sexuality and reproductive health. They include having sex at an early age, having multiple sexual partners, having sex while under the influence of alcohol or drugs and unprotected sexual behaviors (Aweke, Bogale, & Hadgu; 2018). Risky sexual practices increase the likelihood of sexually transmitted infections, unintended pregnancies and unsafe abortion (Achenef et al., 2017).

Regarding the knowledge of young people about sexuality education, a great number of studies have been conducted. College students of Marshall University achieved an average

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score of 83% on the sexual knowledge test (Martin & Mak, 2013). Li et al (2017) also found out Chinese college students having high knowledge of sexual and reproductive health were less likely to report having experience of unwanted pregnancy or abortion. Similarly, Omale (2015) indicated secondary school students in Dekina Local Government area of Kogi state have positive perception and attitude towards sexuality education.

Contrary, to this, Castora (2005) found the University of Central Florida Undergraduate Students' Knowledge about sexual issues is insufficient. The same study indicates high levels of knowledge about sexual issues did not provide a positive correlation with low levels of risky sexual behavior. Furthermore, according to Moore & Rosenthal (1993), in spite of the high levels of knowledge, young people do not appear to be applying that knowledge to their sexual behavior.

Ethiopia is a developing country with a demographic profile dominated by young population within the ages of 15–24, constituting one third of the total population (Ethiopian Population Census 2008 report). So ensuring their health and future is vital to the nation. Ethiopia has made progress in improving youth's health; yet, young women still suffer high rates of maternal injury and death due to childbirth without skilled assistance and unsafe abortion (Tesso et al., 2012).

In most African context, sex education is seen as a taboo to be talked about. Adolescents are not allowed to have access to sexual health information because the society has the perception such exposure will corrupt the child and he or she may likely be a victim of early sexual intercourse (Eco et al., 2013).

Adolescents and young people in Ethiopia are generally at an increased risk of sexual and reproductive health related problems. According to Nekemte Family Planning and Guidance Association, there is an increasingly high risky sexual behaviors registered in the study area for the last two consecutive years.

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For the 2nd half of the year (January to June) of 2017, there were 450 referrals of abortions, and related risky cases registered. In the same way, for the 2nd half of the year (January to June) of 2018, similar 606 cases were registered. Of these cases in each year, more than 50% were adolescents from university and colleges especially, Nekemte College of Teachers' Education (Nekemte Family Planning and Guidance Association, 2018 Annual Report). In addition, as the data from Nekemte College of Teachers' Education clinic reveals, in 2017, five students and in 2018 seven students came to use emergency contraceptive. In 2018 also one female, a victim of sexually transmitted disease was referred to the nearby hospital. Some of the behaviors and challenges can be attributed to the lack of information, service providers' biases against this section of the population, and low level of awareness on sexuality education.

In light of this premise, there is, therefore, a need for examining college students' knowledge about comprehensive sexuality education and work on risky sexual behaviors that follow. Therefore, the purpose of this study is to investigate the knowledge of college students about comprehensive sexuality education in Nekemte college of teachers' education and work on the recommendations suggested in order to minimize risky sexual behaviors.

MATERIALS AND METHODS

Study Design

Descriptive survey design is employed to carry out the study. Best and Kahn (1999) and Sharman (2000) briefly described the relevance of this method for such study. Creswell (2009) further explained the rationale for using survey design for this kind of study. Surveys are often used because researchers can gather accurate information about large number of people using a small sample (Kothari, 2004).

Study Site

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The study was conducted in Nekemte College of teachers' education, western Oromia, Ethiopia.

Study Period

The study was conducted from September 2018 to April 2019.

Population of the Study and Sampling Technique

There were total population of 1092 students enrolled in the three batches; freshman, second year, and graduating students in Nekemte College of teachers' education in 2018/19 academic year. Using Sloven's formula ($n = N / (1 + Ne^2)$), (where, n=number of samples, N= total population, e= error tolerance) 294 students were selected as samples on the basis of 0.05 confidence level (Dapudong, 2014). Stratified random sampling method was used in selecting the respondents.

Inclusion and Exclusion Criteria

The study included all regular 1st year, 2nd year, and 3rd year students whose ages between 15 and 30 years, but those students who had awareness and training on comprehensive sexuality education were excluded from the study.

Data Gathering Instrument

Data was collected using Knowledge scale questionnaire. The questionnaire was developed by the researcher and it contains 30 items. The validity of the scale was checked by 5 experts from biology background, one assistant professor, and four masters' degree holders. To judge the face validity of the instrument, experts were asked to review for the grammar, organization, appropriateness, and logical flow. The experts were given instruction to review and evaluate each item against the criteria given.

To check the content validity of the instrument, experts were asked to review the content relevance of the items according to the instruction given. They were asked to rate each

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item using a 4-point scale (1= not relevant; 2=somewhat relevant; 3=quite relevant; 4=highly relevant). From their response to each item, an item content validity index (I-CVI) was calculated. Accordingly, items which got I-CVI less than 0.78 were cancelled (Schilling et al., 2007; Polit & Beck, 2006; Lynn, 1986) cited in (Adugna, 2015).

The final reliability coefficient for the questionnaire was found to be .824 Cronbach Alpha. The questionnaire consists of a set of equal number of positive and negative statements. Thus, 15 positive and 15 negative with degree of agreement ranging from strongly agree to strongly disagree were prepared. For the positive statements, the items were structured on the basis of Likert's five point scale with 1=strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree. The values are reversed for the negative items.

Statistical Data Analysis

Quantitative data analysis was undertaken using SPSS (Statistical Package for the Social Sciences) version 20. Descriptive statistics, independent t-test, and one way ANOVA were used in the analysis. Descriptive statistics was used for demographic variables, and for the

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mean score of the knowledge scale; t-test was used to know whether there exist significant differences between the mean score of the two groups of sex (Female and Male) at .05 significance level; and One way ANOVA) was used to know whether there is a significant difference in the knowledge about sexuality education among the three batches (Freshman, Second year, Graduating students) at .05 significance level.

RESULTS

Demographic Characteristics of Participants

Table 1 presents summary of participants' background characteristics. The study consists of 50% male and 50% female. Regarding the age of respondents, most of the participants (60.2%) were those who are 21-25 years old. Participants having the age category of 15-20 were the second (37.76), while those whose age category is in 26-30 years were the least (2.04%). The other demographic characteristics indicated in the below table is, year of study. Regarding year of study of the respondents, equal number of participants from each year that is freshman, second year, and graduating class were participated (33.33 % each).

Table 1: Summary of Demographic Characteristics of Participants.

	Variables	N	%
Sex	Male	147	50
	Female	147	50
Age in year	15-20	111	37.76
	21-25	177	60.2
	26-30	6	2.04
Year of Study	Freshman	98	33.33
	Second year	98	33.33
	Graduating class	98	33.33

Descriptive Statistics of the Study Variables

As indicated in Table 2 below, the mean score of respondents on the knowledge scale ranges

increasingly from freshman to second year to graduating students in ascending order. That means freshman students scored the lowest, while graduating students the highest.

Table 2: Descriptive Statistics of the Study Variable.

	N	Mean	Std. Deviation	Minimum	Maximum
freshman	98	95.2449	10.29569	70.00	126.00
second year	98	100.4490	7.24266	84.00	117.00
Graduating students	98	102.5204	10.91035	77.00	130.00
Total	294	99.4048	10.06308	70.00	130.00

Knowledge of Students about Comprehensive Sexuality Education

As Table 3 presents, the mean score of the respondents on the knowledge scale is 99.41± 10.06 out of 150 or 3.31 out of 5, which shows the knowledge of college students about comprehensive sexuality education was slightly

moderate. The minimum knowledge score is 70 (2.33 out of 5) and the maximum is 130 (4.33 out of 5).

Table 3: Students' Knowledge about Comprehensive Sexuality Education

Variable	N	No of Items	Minimum	Maximum	Mean	Std. Deviation
Knowledge of Students	294	30	70.00	130.00	99.41	10.06

Knowledge of Students as a Function of Sex

Independent t-test was conducted to identify whether college students' knowledge about sexuality education differ in terms of gender. As

indicated in Table 4 below, it can be observed that college students' knowledge of sexuality education ($t(292) = 3.135$, $p = .002 < 0.05$) showed significant difference in terms of sex.

Table 4: College Students' Knowledge about Comprehensive Sexuality Education in terms of Sex

Gender	N	Mean	SD	df	t	P
Male	147	101.22	10.43	292	3.135	.002
Female	147	97.59	9.37			

Knowledge of College Students as a Function of Year of Study

One way ANOVA was performed to determine whether there is statistically significant difference among college students in their knowledge about comprehensive sexuality education in terms of year of study. Table 5 below presents knowledge of college students

about sexuality education ($F(2, 291) = 14.887$, $p = 0.000 < 0.05$) showed statistically significant difference in terms of year of study. To identify which categories of participants significantly differ, a post hoc tests also called post hoc comparison was performed.

Table 5: College Students' Knowledge about Comprehensive Sexuality Education in terms of Year of Study

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2754.007	2	1377.003	14.887	.000
Within Groups	26916.827	291	92.498		
Total	29670.833	293			

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Post-hoc test using Tukey HSD was performed to identify in which group this significant difference lies. As it can be seen from Table 6 below, statistically significant difference was observed between freshman and second year students in their knowledge of comprehensive sexuality education. That is the mean score of second year college students (M=100.44) is

greater than the mean score of freshman students (M= 95.24). Another statistically significant difference observed was between freshman and graduating students. That is graduating students are more knowledgeable (M=102.52) on comprehensive sexuality education than freshman students (M=95.24).

Table 6: Post-Hock Tests of Knowledge of College Students in terms of Year of Study.

(I)Year of study of Respondents	(J) Year of Study of Respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Freshman	Second year	-5.20408*	1.37394	0.001	-8.4408	-1.9674
	Graduating Students	-7.27551*	1.37394	0.000	-10.5122	-4.0388
Second year	Freshman	5.20408*	1.37394	0.001	1.9674	8.4408
	Graduating Students	-2.07143	1.37394	0.289	-5.3081	1.1653
Graduating Students	Freshman	7.27551*	1.37394	0.000	4.0388	10.5122
	Second year	2.07143	1.37394	0.289	-1.1653	5.3081

*. The mean difference is significant at the 0.05 level.

DISCUSSION

This study was aimed at examining the knowledge of college students about sexuality education in Nekemte college of teachers' education. The descriptive statistics of this study indicated that respondents' mean score on knowledge of comprehensive sexuality education was slightly above average. In line with this finding, Castora (2005) found that university students' knowledge about sexual issues is insufficient. In the same way, Mutha et al (2014) reported Commerce College students in Mumbai showed less than satisfactory knowledge about sexuality and related concepts. Moreover, the present study is consistent with Synovitz et al (2002) who found college students in a southern state scored a mean score of 55.39 % on sexual knowledge test. Inconsistent with the present study, college students of Marshall University achieved an average score of 83% on the sexual knowledge test (Martin & Mak, 2013). Li et al (2017) also found Chinese college students having high level knowledge sexual and reproductive health were less likely to

report having experience of unwanted pregnancy or abortion. Another finding by Omale (2015) also indicated secondary school students in Dekina Local government area of Kogi state have positive perception and attitude towards sexuality education.

The present study attempted to examine whether there is statistically significant difference between college students on their knowledge of comprehensive sexuality education in terms of sex. Independent t-test was used for this analysis. The result of the study has shown significant difference on knowledge of comprehensive sexuality education as a function of sex. Consistent with this study, Mutha (2014) concluded commerce college students in Mumbai especially females lacked basic information about sexuality and related concepts when compared to males. On the other hand, Synovitz et al (2002) found that females scored significantly higher on the knowledge test than did males. Other studies also revealed significant differences between male and female. (Keller, 1959) cited in (Martin & Mak, 2013) suggested that male college

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students were more knowledgeable about human sexuality than female college students. However, Gunderson and McCary, 1980; Woods and Mandetta, 1975 cited in the same source found that female college students were more knowledgeable than male college students. Contrary to the present study, college students of Marshall University showed no statistical significant differences between males and females to their sexual knowledge test scores (Martin & Mak, 2013).

The result of this study revealed that the knowledge of college students about comprehensive sexuality education showed statistically significant difference in terms of year of study. One way ANOVA was used for this analysis. The statistically significant difference observed was between freshman and second year students. The other statistically significant difference observed in knowledge of students about comprehensive sexuality education in terms of years of study was between freshman and graduating students. However, no statistical significant difference was observed between second year and graduating students. This statistical significant difference might be due to students' exposure to extracurricular activities about sexuality education and some courses that might add little concept to students' sexuality knowledge through their stay in the college. This study is in line with Synovitz et al (2002) who found sexuality knowledge increased with each year in college. Contrary to the present finding, Martin & Mak (2013) revealed that there were no statistical significant differences in sexual knowledge between younger and older students or their stay in college.

CONCLUSIONS

This study tried to investigate the knowledge of college students about comprehensive sexuality education in Nekemte College of teachers' education. It was designed to answer the following research questions.

What is the extent of knowledge of college students' about sexuality education?

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Is there statistically significant difference in knowledge of students about sexuality education due to their sex?

Are there statistically significant differences in knowledge of students about sexuality education among freshman, 2nd year, and graduating students?

In order to answer these questions, the literature was critically reviewed and survey research method was employed. The respondents of the study were 98 students from each of the three batches. The data was gathered through questionnaire. The collected data was then analyzed through quantitative approaches. The data collected through questionnaire was analyzed using descriptive statistics like mean, standard deviation. Moreover, inferential statistics such as independent sample t-test, and one way ANOVA were also employed revealing the following results.

The mean score of the respondents on knowledge scale was slightly moderate. The descriptive statistics analysis of the study indicated that freshman students scoring the lowest mean score, second year students the next, and graduating students the highest on the knowledge scale. A statistically significant difference was observed between male and female students in their knowledge about comprehensive sexuality education. Male respondents were observed to score higher than female respondents. The finding of this study has shown statistically significant differences among college students in their knowledge about comprehensive sexuality education in terms of years of study. The statistical significant difference observed was between freshman and second year students as well as between freshman and graduating students while there was no statistical significant difference observed between second year and graduating students. In line with the findings and conclusions drawn, the following recommendations were suggested.

To maximize the knowledge of students about comprehensive sexuality education, the

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college needs to design a well-organized extracurricular program on sexuality issues and equip students with the fundamental knowledge.

Female students need special consideration as there are gender stereotype that might limit their knowledge about sexuality issues and thereby may lead them to risky sexual behaviors.

The college has also to give due attention to freshman college students in providing education through extra-curricular activities as soon as their admission before they be engaged in to risky sexual behaviors as a result of lack of knowledge on the issue.

Teachers should be committed to teach sexuality issues without any reservation in a regular course where there are such topics and also through integration when such topics are not directly stated in the regular course. The ministry of education has to design the curriculum for this education from the lower to upper grades.

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