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Knowledge of reproductive health rights and its associated factors among Wolkite University undergraduate students, Wolkite, southern Ethiopia

Original Article

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Abstract: **Objective:** Reproductive health (RH) rights are the rights of all persons, regardless of age, sex, or other traits, and they have the freedom to make decisions about their sexuality and RH. However, there is limited information about Ethiopians' understanding of RH rights. Because little is known about the degree of knowledge and relevant predictors in the study area, this study was carried out to fill in the gaps.

Methods: An institution-based cross-sectional study was conducted from 3 January to 25 January 2021 G.C to determine the knowledge level of RH rights and its associated factors among Wolkite University undergraduate medical students. The minimum estimated sample size was computed by using the simple population proportion formula of 95% confidence interval (CI), with 5% of marginal error, which was 318 students. The students were stratified based on their academic year and department. Each student was selected from each department by using the simple random sampling method based on their ID numbers. Data were collected by using a pre-tested, structured self-administered questionnaire. Epi Info version 3.5.1 was used for data coding, entering, and cleaning, and then the data were exported to Statistical Package for Social Sciences (SPSS) version 23 for advanced analysis. The associated factors were identified by performing analysis for bivariate and multivariate logistic regression analyses.

Results: More than half (56.33%) of the participants were knowledgeable about reproductive and sexual rights and participated in RH clubs (adjusted odds ratio [AOR]: 2.94, 95% CI: 1.46, 5.91). The paternal educational level (AOR: 2.89, 95% CI: 1.34, 5.65) had an association with the knowledge of reproductive health rights.

Conclusions: The students' knowledge regarding reproductive and sexual rights was found to be little. The Ethiopia Ministry of Education has to include reproductive and sexual rights in the curriculum of high school and higher institution studies.

Keywords: *knowledge • reproductive health • rights • Wolkite University*

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1. Introduction

Reproductive health (RH) is concerned with human sexuality and reproductive processes, functions, and systems at all stages of life and implies that people are capable of "having a responsible, satisfying, and safe sex life," as well as the ability to reproduce and the freedom to decide if, when, and how often to reproduce.[1]

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It is a global concern, but it is of particular importance to women during their reproductive years. Men, on the other hand, have distinct RH needs and control over some RH issues.[2]

In International Conference on Population and Development (ICPD) in Cairo 1994, 12 reproductive and sexual rights are described as follows: the right to life, right to liberty and security, right to equality and to be free from all forms of discrimination, right to privacy, right to freedom of thought, right to information and education, right to choose whether or not to marry found and plan family, right to decide whether or when to have children, right to health care and health protection, right to benefit from scientific progresses, right to freedom of assembly and political participation, and right to be free from torture and ill treatment.[3]

People have the freedom to create one's own sexuality decisions as long as they respect the rights of others. The ability of youth to protect themselves from undesirable reproductive results depends on their understanding of such rights. The knowledge of RH rights among young people is critical for exercising these rights, and it is included in the Sustainable Development Goals (SDG).[4]

Unwanted pregnancies, coerced childbearing, sexually transmitted infections (STIs), sexually transmitted diseases (STDs), human immunodeficiency virus (HIV), and unsafe abortions are all common among adolescents around the world, demonstrating a lack of awareness about sexuality and RH.[5]

During pregnancy, many women are subjected to violence. Gender-based violence, which is both a human rights violation and a public health hazard, impacts as many as 1 in every 3 women.[6]

Frequent cases of sexual rights abuses are being publicized in communication channels, but only a small number of cases are brought to the legal system, which confirms an increase in such offenses. The percentage of girls and boys who have been sexually abused in 19 nations ranges from 7% to 34% for girls and 3% to 29% for boys. Suicidal ideation among victims is exacerbated by a history of sexual, physical, and emotional abuse as youngsters.[4]

Millions of adolescents' lives are jeopardized around the world because they lack the knowledge, abilities, health services, and care they require to navigate during adolescence stage sexual development and for delaying sexual intercourse till they are mature enough physically and socially and capable of making well-informed, responsible decisions.[2]

Young people confront a wide range of obstacles when it comes to their RH rights, and the issues that matter most to them differ substantially depending on their cultural and geographical circumstances. Puberty, coerced early marriage, a lack of options, undesired pregnancy, early childbearing, the spread of HIV/acquired immunodeficiency syndromes (AIDS) and other STIs, and female genital mutilation are among the topics addressed.[4]

Child bearing begins at an early age in Ethiopia, with adolescent girls and young women accounting for 45% of all births. Young girls are also more exposed to sexual violence and commercial sex work. As a result, teenagers have become the principal victims of the HIV/AIDS epidemic that has swept the country, as indicated by the high number of new HIV infections among young people under the age of 25 years.[7] As a result, the goal of this study was to determine the level of awareness regarding RH rights and the factors that influence them among students at Wolkite University in southwest Ethiopia.

2. Methods

2.1. Study setting

The research was carried out at Wolkite University among undergraduate students from January 3 to 25 January 2021 G.C. Wolkite University is a 3rd-generation higher education school that was founded in 2012 G.C. The university lies in the Southern Nations, Nationalities, and People's Region, in the Gurage Zone, which is located in the south at a distance of 170 km from Addis Ababa (Ethiopia's capital) and 240.2 km from Hawassa, a city in the South Nations, Nationalities, and People's Region (SNNPR). It is located in Gubre subcity, which is 15 km away from Wolkite town on the road from Wolkite to Butajira town. Wolkite University has about 7 colleges and more than 45 departments.

2.2. Study design and population

An institution-based cross-sectional study was conducted among Wolkite University undergraduate students, southwest Ethiopia. All Wolkite University students were the source population, and the selected undergraduate Wolkite University students were the study population. Second-year and above undergraduate Wolkite University students were included in the study. Students who were severely ill and with disability were excluded from the study.

2.3. Study sample size and sampling techniques

The sample size was calculated by using the single population proportion formula by considering the following assumption. The prevalence of knowledge about RH right was 54.5%,[8] with confidence interval (CI)

95% and marginal error 5%, and the population was normally distributed. The *Z* value was 1.96, which resulted in a sample size of 318**.** Since the source population is less than 10,000, the reduction formula was used, yielding 289. The total sample size was 318, after accounting for a 10% non-respondent rate. Three colleges were selected randomly, namely, College of Social Sciences, Natural and Computational Sciences, and Medicine and Health Sciences. The students were stratified based on their departments among Wolkite University undergraduate students of the selected colleges in 2020 G.C. Each department and year of study received a proportional sample size allocation. Using simple random sampling techniques based on their ID number, a total of 318 undergraduate students were selected.

2.4. Operational definition

2.4.1. Knowledge of RH rights

Students with scores above the 64.5% of the knowledge assessment questions were considered knowledgeable about RH rights, and those who scored below 64.5% were not knowledgeable about RH rights.[9]

2.4.2. RH service utilization

Students who received at least one of RH services, such as health education, family planning services, voluntary HIV testing, STI prevention services, were considered to utilize RH services, and those who did not receive any services listed above were consider not utilizing RH services.[10]

2.4.3. Sexual experience

The students who had at least 1 sexual contact with a friend in the past were considered sexual experienced, and those who did not have any sexual contact with friends were considered as sexually not experienced.[11]

2.4.4. Youth RH needs

The need for information and education regarding sexual reproductive health (SRH) among young people includes physical and biological development, emotional maturation, boy–girl relationships, sex decision-making, adoption of contraceptive methods, pregnancy alternatives, and sexual and contraception negotiation.[12]

2.4.5. Ever had SRH information

The students who have had SRH information on at least 2 SRH issues in the last 12 months were considered.[13]

2.5. Measurements

The data were gathered using self-administered structured questionnaires that had been pre-tested. It was prepared in English after reviewing different published articles. The questionnaires were administered for the students to collect data on students' socioeconomic, RH, and knowledge about RH rights. Quality of data was controlled by continuously checking the completeness of the questionnaires. Prior to the research, to ensure clarity, wordings, and logical order of the questions, a pre-test was conducted among 5% of the sample population of Wolkite University Institute of Technology students. The appropriate changes were made. Furthermore, the supervisors and principal investigator supervised the whole data collection procedure and verified the completed questionnaires every day for completeness, accuracy, and timely revisions.

2.6. Data processing and analysis

Epi Info version 3.5.1 was used to code, clean, and input the data. The data were then transferred to Statistical Package for Social Sciences (SPSS) version 23 for further analysis. The data had been described using descriptive statistics, such as graphs, charts, tables, and statements. The connection between outcome and explanatory variables was investigated using bivariate and multivariate logistic regression analyses. The variables with a *P* value of <0.25 were added to the multivariate logistic regression model. An attempt was made to ensure if the necessary assumptions for using multivariate logistic regression were met. To check for goodness of fit, the Hosmer–Lemeshow goodness-of-fit test with a large *P* value ($P > 0.05$) was used. The effects of multi-collinearity and confounding were investigated. The variables that did not have multi-collinearity were evaluated using the multivariate model. In the final model, only variables with a *P* value <0.05 were included. Finally, the association between explanatory variables and knowledge of RH rights was evaluated using an odds ratio and a 95% CI.

3. Result

3.1. Sociodemographic factors

The survey enlisted the participation of 300 respondents, yielding a 94.3% response rate. The respondents were between the ages of 20 and 30 years, with a median age of 23 years. More than half of those polled (71%) were of 20–23 years. Male students constituted 172 (57.3%) of the total, with 128 orthodox religious adherents (42.7%) (Table 1).

Variables	Frequency	Percentage, %
Age, years		
20-24	213	71.0
25-30	87	29.0
Sex		
Male	172	57.3
Female	128	42.7
Religion		
Orthodox	128	42.7
Muslim	106	35.3
Protestant	54	18.0
Others*	12	4.0
Ethnicity		
Amhara	86	28.7
Oromo	80	26.6
Guraghe	64	21.3
Sidama	54	18.0
Others*	16	5.3
Residence		
Urban	170	56.7
Rural	130	43.3
Type of primary school		
Public	155	51.7
Private	97	32.3
Both	48	16.0

Note: *Adventist, Waqafata; **Hadiya, Silte, Kembata.

Table 1. Distribution of socio-demographic characteristics of respondents, Wolkite University, January 3-25 2021.

3.2. SRH service utilization

Forty (13%) of the 300 respondents did not believe it was vital to discuss sexual concerns with parents, while 212 (70.6%) had not discussed the issue with anyone else; 253 (84.1%) of those who had discussed sexual matters did so with their friends, 11 (3.7%) discussed sexual issues with their school teachers, and only 2 (6%) discussed with their mother. Of the total 300 respondents, only 107 (35.7%) of the respondents were members of RH clubs and only 24.3% have ever used RH services in their lives. Around one-third of the respondents (37.1%) were unaware that the campus student clinic-provided RH services.

For information on reproductive and sexual issues, around half of the respondents (48.8%) cited their peers as a source of information, 45.2% health personnel, and 43.5% the media. Thirty-one percent and twenty-eight percent cited school teachers and parents, respectively, while only 0.95% cited university campus clinics as sources of information.

3.3. Knowledge of RH rights

Respondents were asked 24 questions to determine their degree of awareness of RH rights, and they were divided into 2 groups depending on their score in relation to the mean score, which was determined to be 65.4%. Among those students, around half, 169 (56.3%), of the respondents were found to be knowledgeable about RH rights, while substantial proportions 131 (43.7%) of the respondents were not (Figure 1).

3.4. Associated factors of knowledge level of RH rights

To determine the associated factors of the knowledge level of RH rights, we used the bivariate logistic regression analysis to select factors with a *P* value of 0.25. Eight selected variables were entered into multivariate logistic regression, mainly 2 explanatory variables: participation in the RH club in school and the paternal educational level were found to have significant and an independent effect on knowledge of RH rights.

Students who participated in RH clubs were 3 times more likely to be knowledgeable than those who did not (adjusted odds ratio [AOR]: 2.94, 95% CI: 1.46, 5.91). Students whose father was educated and completed college or university were 2.9 times more likely to be knowledgeable than those whose father was not educated (AOR: 2.89, 95% CI: 1.34, 5.65) (Table 2).

4. Discussion

Sustainable Development Goals will be met by enhancing RH rights among adult students, but they will not be met without expanding access to RH rights. However, Ethiopian society, particularly the youth, is subjected to

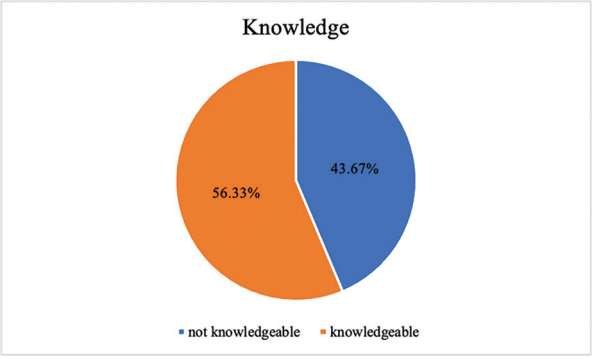


Figure 1. Knowledge level of Reproductive Health Rights among wolkite university Students January 3-25, 2021G.C, Wolkite Ethiopia.

Variables	COR	AOR at 95% CI
Area of student come		
Urban	1.66[1.049, 2.65]	1.23[0.54, 2.829]
Rural	1	1
School type		
Public	1	1
Private	1.52[0.72-2.34]	1.27[0.48, 3.363]
Both	1.12[1.03-3.61]	0.69[0.29, 1.68]
Rh club participation in school		
Yes	2.14[1.24-3.59]	2.94[1.46, 5.91] *
No	1	1
Rh services utilizations		
Yes	1.62[1.06-2.618]	1.21[0.61, 2.37]
No	1	1
Time sex started		
Elementary and high school	2.35[1.01-5.47]	0.54[0.27, 1.42]
Preparatory school	4.69[1.6-8.92]	1.71[0.21, 3.62]
University	1	1
Paternal educational level		
Not educated	1	1
Primary education	2.203[1.12-4.32]	0.83[071, 1.06]
Secondary education	2.48[1.34-4.62]	1.52[0.45, 2.34]
College or university	2.73[1.01-4.79]	2.89[1.34, 5.65]*
Maternal educational level		
Not educated	1	1
Primary education	1.16[0.626-2.15]	0.99[0.388, 2.92]
Secondary education	1.82[0.98-3.35]	1.662[0.89, 3.63]
College or university	1.97[0.96-3.09]	0.93[0.421, 1.93]
Discuss about sex with some one		
Yes	2.54[0.77, 5.31]	2.49[089, 543]
No	1	1

Table 2. Distribution of associated factors for knowledge of reproductive health rights among Wolkite university students, wolkite Ethiopia January 3-25, 2021.

many forms of sexual abuse and violations of reproductive rights, which have a negative impact on their life, and the majority of young people have limited understanding of RH rights. They have no idea how serious their infractions are, and they have no idea where to turn for legal or social help. As a result, the goal of this study was to determine the level of awareness about RH rights and the factors that influence them among Wolkite University students.

Around half of the respondents (56.33%) were knowledgeable, whereas a significant proportion (43.67%) were not, which is insufficient. Because they are university students, an educated portion of the population who are expected to tackle community problems, their knowledge level is lower than expected. This is consistent with the study conducted in Welayta Sodo University students, Adet Tana Haik college students, and Gondar University students in Ethiopia.[14–16] But the knowledge of found in our study is higher than that in the study conducted in metropolitan Tehran.[17] The variation might be due to difference in age sociodemographic, culture, and time variation.

Of 300 students, 192 (64%) of the respondents did accept that a married woman has the right to limit the number of her children according to her desire without her husband's consent, and 108 (36%) did not accept. While 56% were unaware that regardless of her husband's inclinations, a married woman has the freedom to refuse sex. This result was lower than that of a study conducted in the United States among 904 sexually active 14- to 26-year-old clients of 2 family planning clinics, in which 8-9% and 15–19% of the participants believed they never have the right to make their own decisions about sexual activity and contraception, respectively.[18] This mismatch could be attributable to differences in culture and norms between the 2 populations.

The use of RH services has a favorable impact on understanding about RH rights. Students who were members of a school-based RH club were more likely to be knowledgeable than those who were not. This conclusion is in line with the study conducted in Welayta Sodo University in Ethiopia, where participants of RH clubs had more inclination toward reproductive and sexual rights.[14] The possible explanation can be that participation in the RH club in the school is a good means for sharing knowledge, attitude, and practice with their peer freely by using arts like drama. When people talk about RH services, they are more likely to acquire accurate information, which has a direct impact on their awareness of RH rights.

Students' understanding of RH rights is greatly influenced by their family educational background. In this study, those students whose paternal educational level is college and above were more knowledgeable than students with an illiterate father. This conclusion is supported by a study of Adet Tana Haik college students in Ethiopia. It states that students whose

mother's educational level is high school and above were more knowledgeable than their counterparts.[15] This might be that educated family had a good discussion with their children about sexual and RH issues freely. Hence, it can increase students' knowledge about RH rights.

Strength of study

This study uses a number of questions to assess respondents' knowledge.

5. Conclusions

The respondents' knowledge of RH rights is determined to be insufficient. Knowledge of RH rights was positively correlated with the paternal education level and participation in RH clubs.

Authors' contribution

SJ designed the project, developed the proposal, involved in data analysis and interpretation of the result, and drafted the manuscript. KN involved in proposal development, supervision, data analysis, interpretation of results, and approval of the final version of the manuscript. ED involved in proposal development, supervision, data analysis, interpretation of results, and approval of the final version of the manuscript. KA involved in proposal development, supervision, data analysis, interpretation of results, and approval of the final version of the manuscript. YM involved in proposal development, supervision, data analysis, interpretation of results, and approval of the final version of the manuscript.

Limitations

Since the study was cross-sectional, it does not show a causal effect and does not assess students' attitude about reproductive rights, which might have affected the knowledge of students about RH rights.

Recommendation

Based on the result we have obtained, Wolkite University should prepare sessions for information and sexuality education. It should also focus on bolstering RH clubs and encourage students to join them and use the campus clinic's services. The Ethiopian Ministry of Education should include sex education, including reproductive and sexual rights, in the curriculum of primary, secondary, and higher education institutions.

Researchers were recommended about SRH at the community at large.

Availability of data

On reasonable request, the corresponding author can provide the full data set and supplementary materials related to this study.

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Ethics approval

The Institutional Research Ethics Board (IRB) Office of Wolkite University's College of Medicine and Health Sciences granted ethical permission. Following approval, an official letter from the Department of Midwifery was sent to each college and subsequently to the appropriate department. After confirming the confidentiality of responses and gaining oral consent from the study participants, data were gathered.

Conflicts of interest

All contributing authors declare no conflicts of interest.

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