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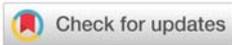
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Research Article

Knowledge level and associated factors about sexual and reproductive health rights among University of Gondar students, Gondar Ethiopia

Abstract

Background: Young peoples' knowledge on sexual and reproductive health rights (SRHRs) is essential in exercising these rights. Knowledge about SRHRs helps tackling of neglected issues, such as adolescent sexuality, gender based violence, and unsafe abortion. But little is known about the level of knowledge and the important predictors in the study area, therefore this study was done to fill this information gap.

Objective: This study aimed to assess knowledge about sexual and reproductive health rights and associated factors among undergraduate regular students in University of Gondar, 2018.

Result: A total of 827 students were included making the response rate 98.8%. The overall optimal knowledge level about SRHRs was 57.7% (95% CI 54.2-61.1). Being Muslim (AOR=0.33; 95% CI 0.18, 0.63), Urban resident (AOR=1.49; 95% CI 1.10, 2.01), Information and education faculty (AOR=0.45 95% CI 0.32, 0.65), availability of reproductive health service in the campus clinic (AOR=1.40; 95% CI 1.04, 1.89) were statistically significantly associated with having optimal knowledge level about SRHRs.

Conclusion: Large proportion of students do not have optimal knowledge about SRHRs. Factors such as religion, place where students come from, faculty, and availability of RH service in student's clinic had statistically significant association with SRHRs. To bridge this knowledge gap sexual and reproduction right education and RH service shall be available among all faculties giving emphasis for Muslims and students from rural areas.

Abbreviations

AOR: Adjusted Odds Ratio; CI: Confidence Interval; COR: Crude Odds Ratio; SPSS: Statistical Package for Social Sciences; SDG: Sustainable Development Goals; SRHRs: Sexual and Reproductive Health Rights

Introduction

Sexual and reproductive health rights (SRHRs) are right for all people to make choices on sexuality and reproduction: these include the right to define one's sexuality, choose one's partner, and receive confidential, respectful, and high-quality health services [1,2]. SRHRs also include twelve basic human rights which includes right to life, Liberty and security. Right related to health including SRH; Decide number and spacing of children; Consent to and equality in Marriage, privacy, equality and non-discrimination, protection from harmful practices,

right to be free from sexual and gender-based violence, freedom of having different opinion and expression, access to health education and Information; and Right to enjoy scientific progress [3].

Many women experience violence during pregnancy. The life time domestic sexual violence against women by husband or intimate partner ranges from 19.2% to 59% [4]. Date rape and sexual assault are seen among college campus students [5]. Gender-based violence which is both a human rights violation and a public health problem affects as many as one out of every three women [6].

High prevalence of unwanted pregnancies, forced childbearing, STI's, STD's, HIV, and unsafe abortions that depicts lack of knowledge about sexuality and reproductive health among adolescents are noted worldwide [7]. Adolescents account for 23% of the overall burden of disease because of pregnancy and childbirth [8].

Young people knowledge on sexual and reproductive rights are essential in exercising these rights and are included to Sustainable Development Goals (SDG) [9]. Knowledge about SRHRs helps tackling of neglected issues, such as adolescent sexuality, gender based violence, abortion, and diversity in sexual orientations and gender identities [2].

In a study conducted south Ethiopia 45.5% students lack knowledge about SRH rights [10], and 80% do not know the reproductive health services [11]. Knowledge about SRHRs and RH service are affected by negative behaviors and attitudes of healthcare workers [12], sex taboos [13,14] and SRH service related factors such as cost [13], providers attitude [15,16] and confidentiality [17-19]. Moreover age, residence, school attended at elementary [10,20], studying fields [21], prior SRH education/lectures [19], parental occupation and education [13,17,22], discussion of sexual issues with others [10,23], and source of information [10,13,17,20,24].

Even though there is a high burden of public health problems related to knowledge of SRHRs, studies are lacking in the study area. Therefore, this study was done to bridge the information gap by assessing knowledge level about SRHRs and associated factors among undergraduate regular students of University of Gondar.

Methods

Study setting, study population and sampling

Institution-based cross sectional study was conducted from March to April, 2018 at University of Gondar. University of Gondar was established in 1962 G.C as a Public Health College and Training Center.

Regular undergraduate students in University of Gondar were the population under study. Students were selected using simple random sampling technique from five randomly selected faculties after proportional allocation was done for each department in each faculty. The sample size was determined using the following assumptions: 54.1% knowledge on sexual and reproductive health right [10], 95% level of confidence, 5% of margin of error, design effect of 2, and 10% of non-response rate. Finally, a sample size of 840 was obtained.

Data collection and data quality control

A structured pre-tested self-administered questionnaire was used to collect the data. To maintain its consistency, the questionnaire was first prepared in English and translated into Amharic the local language. The tool was also checked for consistency statistically using Cronbach's alpha. Five data collectors and a supervisor were recruited for the activity. Training was given to data collectors and supervisors on the objective of the study, and confidentiality for two days. The tool has socio-demographic and academic characteristics; reproductive health service utilization and sexual experience; and questions for assessing knowledge level. Students who scored above the mean score in the knowledge questions were considered knowledgeable.

Data management and analysis procedure

Data were entered into Epi-info version 7 and exported to the Statistical Package for Social Sciences (SPSS) version 20 for further analysis. Both bivariable and multivariate logistic regression models were carried out to estimate the association. Variables with a p-value of less than 0.2 in the bi-variable analysis were entered into the multivariable logistic regression analysis. Both Crude Odds Ratio (COR) and Adjusted Odds Ratio (AOR) with their corresponding 95% confidence intervals were estimated. Finally variables with a p-value of less than 0.05 in the multivariable logistic regression model were considered as significantly associated with knowledge on sexual and reproductive health rights. Hosmer and Lemeshow goodness of fit was also tested.

Results

Socio-demographic characteristics of respondents

A total of 827 students were included making the response rate 98.8%. The mean age of respondents was 21.3 (SD±1.7) years and majority of them 699 (84.5%) are between ages 20 and 24 years. Males account 422 (51%), while 762 (92.1%) are single. Six hundred thirty four (76.7%) attend public elementary and high school. Nearly half 417(50.4%) are from health science faculty and 310 (37.5%) are third year students.

Nearly one third 262(31.7%) of respondent's fathers are able to read and write but have no formal education, while 394 (47.6%) are farmers. Two hundred sixty five (32%) and 455 (55%) of mothers are unable to read and write and house wives respectively (Table 1).

Sexual experience and RH service utilization

Of all, 182 (22%) had sexual experience and mean age at first sex was 18.5 (SD±2.1) years. Fifty nine (32.4%) start after they joined university, while 102 (56%) had more than one sexual partners in their life time. One hundred ninety (14.4%) say that it is not important to discuss SRH issues with parents, while 335 (40.5%) have never discussed about SRHRs with anyone in their life time. Among those who have discussed, 351 (42.4%) discuss with their friends.

Knowledge level of students

The average correct answers from the 24 knowledge questions were 15.46. A total of 466 students have answered above the mean score making the level of optimal knowledge on SRHRs 57.7% (95% CI 54.2-61.1). The level of optimal knowledge about SRHRs was 60.5% (95% CI 55.5-65.3) and 54.9% (95% CI 49.9-59.8) among female and male students respectively.

Factors affecting knowledge about SRHRs

After adjustment for possible confounding factors using multivariable logistic regression, religion, place where they come from, faculty and availability of RH service in student's clinic were found to be associated with optimal knowledge level about sexual and reproductive health rights.

Table 1: Socio-demographic and Academic Characteristics of University of Gondar Regular Undergraduate Students, 2018, N=827.

Variables	Frequency	Percentage (%)
Age		
≤19	104	12.6
20-24	699	84.5
≥25	24	2.9
Religion		
Orthodox Christians	691	83.6
Muslim	46	5.6
Others	90	10.9
Place come from		
Rural	386	46.7
Urban	441	53.3
Type of school attended (elementary and high school)		
Public	634	76.7
Private	119	14.4
Both	74	8.9
Faculty		
Health Science	417	50.4
Social Science	178	21.5
Law	38	4.6
Information and education	194	23.5
Year of study		
First year	154	18.6
Second year	196	23.7
Third year	310	37.5
Fourth year	167	20.2
Father Educational Status		
Unable to read and write	106	12.8
Able to read and write but no formal education	262	31.7
Primary Education	132	16.0
Secondary Education	92	11.1
Diploma	77	9.3
First Degree And Above	158	19.1
Father Occupational Status		
Governmental Employee	167	20.2
Private Employee	82	9.9
Trader	147	17.8
Farmer	394	47.6
Others*	37	4.5
Mother Educational status		
Unable to read and write	265	32
Able to read and write but no formal education	188	22.7
Primary Education	117	14.1
Secondary Education	102	12.3
Diploma	74	8.9
First Degree And Above	81	9.8
Mother Occupation status		
House Wife	455	55

Governmental Employee	98	11.9
Private Employee	38	4.6
Trader	85	10.3
Farmer	142	17.2
Others**	9	1.1
Have Ever Had Sex		
Yes	182	22
No	645	78
Age at First Sexual Intercourse		
<18	35	19.2
18-20	120	66
>20	27	14.8
When Start Sex		
Before joining university	123	67.6
After joining university	59	32.4
Number of Sexual Partners		
One	80	44
Two	44	24.2
Three and above	58	31.8

* **Father**- Dead (10) retired (1), personal business (20), religious teacher (4), no job (2).

****Mother**- dead (3), student (1), personal business (5).

The odds of having optimal SRHRs among Muslim student was decreased by 67% (AOR=0.33; 95% 0.18, 0.63) when compared to Orthodox Christian students. Students who came from urban areas were 1.49 (AOR=1.49; 95% 1.10, 2.01) times more likely to have optimal knowledge as compared to their counter parts. When compared to health science students those who study information technology and education had 55% (AOR=0.45 95% CI 0.32, 0.65) reduced odds of knowledge about sexual and reproductive health rights. Where there is RH service in the campus clinic the students' level of optimal knowledge was 1.4 (AOR=1.40; 95% CI 1.04, 1.89) times higher as compared to their counter parts (Table 2).

Discussion

The study have assessed knowledge level about sexual and reproductive health rights and associated factors among University of Gondar students. The level of optimal knowledge was found to be 57.7%. Factors such as religion, place where students come from, faculty, and availability of RH service in student's clinic was found to have significant association with optimal knowledge level about sexual and reproductive health rights.

The level of optimal knowledge in our study was consistent with other studies conducted in Wolaita Sodo University [10], and Pakistan [13]. But it was higher than two studies conducted in Nigeria [18,20]. The possible reason could be the difference in the study population that the studies from Nigeria are conducted on females and adolescents. The high proportion health science students in our study may also be the possible reason.

Table 2: Factors affecting the optimal knowledge level of SRHRs among Gondar University students 2018.

Variables	Good knowledge No (%)	Poor knowledge No (%)	COR (95% CI)	AOR (95% CI)
Sex				
Female	243 (60.45)	159 (39.55)	1.25(0.95, 1.66)	1.13(0.83, 1.52)
Male	223 (54.93)	183 (45.07)	1	1
Religion				
Orthodox	404 (59.76)	272 (40.24)	1	1
Muslim	17 (37.78)	28 (62.22)	0.41 (0.22, 0.76)	0.33(0.18, 0.63)*
Others	45 (51.72)	42 (48.28)	0.72 (0.46, 1.13)	0.66(0.41, 1.05)
Residence				
Urban	271 (62.59)	162 (37.41)	1.54 (1.17, 2.05)	1.49(1.10, 2.01)*
Rural	195 (52)	180 (48)	1	1
Faculty				
Health science	259(63.64)	148(36.36)	1	1
Social science	123(58.29)	88 (41.71)	0.80(0.57, 1.12)	0.77(0.54, 1.11)
Info. & Edu.	84(44.21)	106 (55.79)	0.45(0.32, 0.64)	0.45(0.32, 0.65)*
Ever discussed about RH with anyone				
Yes	295 (61.33)	186 (38.67)	1.45 (1.09, 1.92)	1.32 (0.99, 1.79)
No	171(52.29)	156 (47.71)	1	1
Availability of RH service in the campus clinic				
Yes	241 (62.76)	143 (37.24)	1.49 (1.13, 1.98)	1.40(1.04, 1.89)*
No	225 (53.07)	199 (46.93)	1	1

*p value < 0.05.

The odds of having optimal knowledge was reduced among Muslim students as compared to Orthodox Christians. This could be because in our study most of the students who discuss with friends, health professionals and teachers about SRHRs are Orthodox Christians.

Students from faculty of information and education have lower odds of optimal knowledge when compared with students from health science faculty. The result was also supported by another study conducted in Ethiopia [10]. In addition to their routine readings of the health sciences and reproductive health, students in health faculty learn about SRHRs in reproductive health course which makes them have a better knowledge.

Students who come from urban areas are more likely to have optimal knowledge about SRHRs than those who come from rural areas. This finding is in line with a study conducted in Wolaita Sodo University [10]. As evidenced from the Ethiopian demographic and health survey people from rural areas are less likely to read a newspaper, listened to the radio, or watched television; therefore their knowledge about SRHRs can be negatively affected [25].

The odds of having optimal knowledge about SRHRs among students whose campus clinic provide RH service was higher than their counter parts. In these settings students are more likely to get education about SRHRs while they visit the clinic for other RH services which boosts their knowledge.

This study shares the limitations of cross-sectional study design. In addition, since the outcome was based on self-reporting recall bias cannot be ruled out.

Conclusion

The study have assessed knowledge level and associated factors about sexual and reproductive health rights among University of Gondar students. Large proportion of students do not have optimal knowledge about SRHRs. Factors such as religion, place where students come from, faculty, and availability of RH service in student's clinic had statistically significant association with SRHRs. To bridge this knowledge gap, sexual and reproduction right education and RH service shall be available among all faculties giving emphasis for Muslims and students from rural areas.

Declarations

Ethical approval and consent to participate

Ethical clearance was obtained from the Ethical Review Board of the Institute of Public Health, University of Gondar. After the objective of the study was explained, verbal consent was obtained from each participant. Moreover, privacy and confidentiality of information was strictly guaranteed by all data collectors and investigators. Male and female students were interviewed separately to keep their confidentiality.

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Authors' Contributions

KYG, AGB, MMB and MKY have actively participated during Conception and design, acquisition of data, or analysis and interpretation of data. All authors read and approved the final version of the manuscript.

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