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Knowledge of Sexually Transmitted Disease and Barriers to Seeking Sexual and Reproductive Health Care among Chercher High School Students

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Abstract

Insufficient knowledge about Sexually Transmitted Infections and issues around sexual and reproductive health services are among the major barriers to successfully prevent the disease among adolescent populations in the world. The objective of the study was to assess knowledge of adolescents about STIs and identify the barriers to seek sexual and reproductive health service among Chercher high school regular students in west Hararge zone Oromiya region from February-March 2014. Institutional based cross sectional study design was used. A simple random sampling procedure was used to randomly select students across the sections. Data were collected using a pre tested self-administered questionnaire. Odds ratio with 95% CI was employed to test the association between variables and multiple logistic regressions was used to control for the possible confounders. Only (17.5%) of the participants were knowledgeable. Respondents who aged 10-14 were 61% less likely to be knowledgeable (AOR=0.39, 95% CI=0.17-0.91). Students whose fathers were either merchant or NGO employer were about 78% less likely to have knowledge [AOR=0.22, 95% CI 0.10-0.51]. Knowledge about sexually transmitted disease was very low. Therefore strengthening of information, education and communication on the issue was recommended.

Keywords: Sexually transmitted disease; Barriers; Reproductive health care

Introduction

Sexually transmitted infections are any type of disease that spread primarily by sexual contact during Vaginal, anal and oral sex and are a major global cause of acute morbidity and mortality with medical and psychological penalties of men, women and infants. There are over 30 bacterial, viral and parasitic microorganisms that have been identified that can be transmitted sexually [1]. STIs are rarely transmitted by fomites, food flies, or casual contact which indicates that at least one sexual partner is always infected [2].

STIs are major public health problem that affect mostly young people in the world. Over the time there is a fluctuation of the problems related with STIs [3]. Knowing STIs and its burden is important for planning appropriate interventions. Adolescents are disproportionately affected by the reproductive health morbidity [4]. According to the World Health Organization at least 33% of all women seeking hospital care for abortion complications are under the age of 20 years [2]. More than half of all new HIV infections in Africa in 2008 were among young persons aged 14-25 years with the worst in young women [5].

The magnitude of STI problems and its complications is far higher for developing countries. For instance, the prevalence of curable STIs among the adult population in Sub-Saharan Africa and Western Europe and North American is quite different. In developing countries, STIs are one of the five major causes of the death of adult population group. Early engagement in sexual intercourse increases the chance of contracting STIs. Data from Europe indicates that the average age of first sexual intercourse has decreased over the recent years, but still most adolescents reporting sexual activity before the age of 16 years [6]. An early onset of sexual activity not only increases the probability of having various sexual partners, it also increases the chances of acquiring a sexually transmitted infection [7].

Level of knowledge about STI and barriers to seek health care among high school students were not well addressed. Therefore, this study was tried to address adolescent knowledge and the barriers of sexual and reproductive health care seeking behaviours among the vulnerable groups especially high school students [8]. The result of this study would help school community, policy makers, health program planners and other organizations to get a clear idea on problems related to adolescents sexual behaviour and design a program to alleviate the problem in the study area in particular and in areas with similar setting elsewhere in the country in general.

Methods and Materials

Study area and period

The study was conducted in Chercher high school in West Hararge from August 2013-June 2014. West Hararge Administrative Zone is one of the 18 zones in Oromia regional State. It lies in the South East part of the country sharing boundaries with Somali and Afar Regional State to the North, with Bale Zone to the South, East Hararge Zone to the East, and Arsi Zone and East Showa Zone to the west. It covers an area of 17,230 km^2. Administratively West Hararge Zone is subdivided to 11 districts within which there are 290 peasant association and 20

rural towns. In west Hararge administrative Zone, there are 6 urban towns having administrative city Council. Chiro the zonal capital is located at 333 km from Addis Ababa on the main road to Harar. There are two district Hospitals in the zone called Chiro Hospital, Gelemso hospital and 64 public health centers. 32 high schools are found in the Zone where as only one high school is finding in the capital town.

Study design and sampling

An institution based cross sectional quantitative design was used to collect data among high school students. The sample size was determined using the following assumptions (Level of significance of the population was taken to be 95%, Zα/2=1.96). A 5% margin of error (d=0.05) and proportion of 41% [9]. Considering non response rate of 10% the final sample size was 409. The source populations were all regular students of Chercher high school from grades 9-12 for the academic year of 2013/2014. Simple random sampling was used to include each study participants.

Data collection and analysis

An anonymous structured self-administered questionnaire was prepared after reviewing relevant literature and a standard questionnaire adopted from WHO. The questionnaire was prepared in English and then translated to Afaan Oromo and Amharic and then back to English by two different individuals with good command of the two languages, which is helpful in keeping the consistency of the questions. In order to identify the clarity of questions and their sensitiveness as well, pre-testing was done on 10% of the sample size at Kuni high school with similar status with Chercher high school. Five data collectors were recruited from Rift Valley University. Training was given to them prior to actual data collection. Confidentiality was maintained by making different sexes to respond in different rooms, reminding students not to write their names and put questionnaire in a box after they completed. To make them to respond freely the school community members were not be allowed to come to the hall. All data was checked for completeness, accuracy, clarity and consistency by the principal investigator. After data collection each questionnaire was checked for completeness and coded. Data were cleaned, entered and explored for outliers and missing values using SPSS version 20. Descriptive statistics like frequency tables, graphs were used to describe the study variables. Bivariate binary logistic regression analysis was used to see the existence of association between dependent and independent variables. 95% CI and p-value less than 0.05 were used as cut of point to see their level of statistical significance.

Ethical clearance

Before starting data collection, letter of support was obtained from Haramaya University, College of Health and Medical Sciences. The facilitator assured that the participation was private, confidential and the information collected was used only for study purpose. Their name were not be written on the questionnaire, their participation was voluntary. Consent was obtained from respondents who are aged greater than 18 and for those who were below 18, from the most nearest family or the guardian and for whom it was difficult to get family or guardian, consent was obtained from the director of the school as well assent was obtained for those aged 15-18.

Results

Socio-demographic characteristics

A total of 401 participants aged 10-19 years actually involved in the study giving a response rate of 98.04%.

Variables	Knowledge of STIs (n=401)			
	Yes	No	COR (95% CI)	AOR (95 CI)*
Age				
10-14	12	35	1	-
15-19	58	296	0.57 (0.28, 1.17)	0.39 (0.17, 0.91)**
Sex				
Male	41	211	1	-
Female	29	120	1.24 (0.74, 2.10)	1.69 (0.87, 3.29)
Religion				
Orthodox	21	140	1	-
Muslims	28	149	1.25 (0.68, 2.31)	1.09 (0.51, 2.31)
Protestant	21	42	3.33 (1.66, 6.69)	4.11 (1.72, 9.83)**
Ethnicity				
Oromo	47	243	1	-
Amhara	11	72	0.79 (0.389, 1.602)	2.11 (0.84, 5.32)
Other	12	16	3.88 (1.723, 8.726)	18.89 (5.77, 61.87)**
Father occupation				
Farmer	45	145	1	-
Gov't employer	14	84	0.59 (0.30, 1.14)	0.59 (0.22, 1.21)
Other	15	102	0.52 (0.27, 0.99)	0.22 (0.096, 0.51)
Friend as source of Info				
Yes	11	33	1	-
No	59	298	0.59 (0.0284, 1.242)	0.22 (0.08, 0.57)**
Family as source of Info				
Yes	22	41	1	-
No	48	290	0.31 (0.17, 0.56)	0.13 (0.05, 0.30)**
Teacher as source of Info				
Yes	23	72	1	-
No	47	259	0.57 (0.324, 0.997)	0.17 (0.07, 0.39)**

*Adjusted for socio demographic characteristics and some reproductive behaviours; **P-value<0.05

Table 1: Results of multiple logistic regression analysis of STIs knowledge by selected socio demographic characteristics among high school adolescents.

Variables	Has one or more barriers to seek SRH care services (n=401)			
	Yes	No	COR (95% CI)	AOR (95 CI)*
Age				
10-14	31	16	1	-
15-19	185	169	0.57 (0.298, 1.07)	0.07 (0.18, 1.08)
Sex				
Male	111	141	1	-
Female	105	44	3.03 (1.97, 4.66)	2.68 (1.56, 4.60)**
Religion				
Orthodox	99	62	1	-
Muslim	87	90	0.61 (0.393, 0.93)	0.99 (0.47, 2.09)
Protestant	30	33	0.57 (0.316, 1.03)	4.25 (1.74, 10.40)**
Living with whom				
Family	144	96	1	-
Class mates	30	52	0.39 (0.229, 0.65)	0.38 (0.19, 0.75)**
Relatives	30	25	0.80 (0.443, 1.44)	0.56 (0.27, 1.15)
Other	12	12	0.67 (0.288, 1.55)	1.09 (0.40, 2.99)
Father occupation				
Farmer	97	89	1	-
Government employer	65	33	2.15 (1.291, 3.57)	1.75 (0.92, 3.33)
Other	62	55	1.229 (0.773, 1.95)	0.77 (0.43, 1.39)
Television as source of Info				
Yes	55	37	1	-
No	161	148	0.73 (0.46, 1.17)	3.37 (1.28, 8.88)**
Family as source of Info				
Yes	27	36	1	-
No	189	149	1.69 (0.98, 2.91)	2.24 (1.11, 4.53)**
Is availability the cause for not seeking HCS				
Yes	59	13	1	-
No	157	172	0.2 (0.11, 0.38)	0.17 (0.08, 0.35)**

*Adjusted for socio demographic characteristics and some reproductive behaviours; **P-value<0.05

Table 2: Results of multiple logistic regression analysis of adolescents who had barriers by selected socio demographic characteristics.

Three hundred fifty four (88.3%) of the respondents were in the age range of 15-19 years while 47 (12.7%) were in 10-14 years of age. The mean age of the respondents was 16.53 years (+1.382 SD). Majority 72.3% were Oromo and 20.7 were Amhara, 43.9% were Muslims and 40.4% were Christians.

Knowledge of STIs, mode of transmission, prevention and misconceptions about STIs

About 71 (17.5) of the respondents were knowledgeable about STIs of which 354 (88.3%) know AIDS, but 24 of them never heard about that. Three hundred and seventy (92.3%) know that STs are transmitted from person to person while 31 (7.7%) of them claimed the infections are not transmitted. Three hundred and three (75.6%) of them knew unprotected sexual intercourse is the major mode of STI transmission while 98 (24.44%) claim other modes of transmission. Of the total respondents 157 (39.2%) of them know that consistent condom use and having one faithful and uninfected partner are the two major methods of STI preventions. The result of multiple logistic regression analysis showed that Respondents who aged 10-14 were 61% less likely to be knowledgeable (AOR=0.39, 95% CI=0.17-0.91). Protestant followers were about 4 times knowledgeable than orthodox Christians [AOR=4.114, 95% CI 1.72, 9.83]. Students whose fathers were either merchant or NGO employer were about 78% less likely to have knowledge [AOR=0.22, 95% CI=0.10-0.51]. Respondents who didn't use friend as source of STI and SRH information were about 78% less likely to be knowledgeable than who use their friends [AOR=0.22, 95% CI=0.08-0.57]. Those who didn't use family and teachers as source were also 87% and 83% less likely to be knowledgeable than who used [AOR=0.13, 95% CI 0.05 (0.30, 0.17) and 95% CI (0.07, 0.39) respectively. But a variable like sex and Mather occupation has no effect on knowledge (Table 1).

Barriers to seek sexual and reproductive health care services

Two hundred and twenty one (55.1%) of the participants did not visit health institution to seek SRH care services because of different factors. The result of multiple logistic regressions analysis shows that respondents who were protestant were about 5 times to have barriers [AOR=4.252, 95% CI=1.738, 10.402] and those not using Television as source of information were about 3 times to have barrier than others [AOR=3.37 95% CI=1.28-8.88] (Table 2).

Discussion

This study tried to assess the knowledge of the respondents and barriers associated. Accordingly 71 (17.5%) of the respondents are knowledgeable. This finding was lower when compared to a survey report on adolescent knowledge about STIs in high schools of Addis Ababa [10] and of the country. In Addis Ababa high schools survey the Knowledge of respondents was 17.9%. This variation might be because of the cultural variations and media influence of the two areas.

Respondents who didn't get information from their family and teachers were 30% and 56% less likely to have knowledge. This finding showed Family and school teachers have significant role to give information on sexuality for the students. Respondents who didn't visit health institution to seek sexual and reproductive health were about 38% less likely to have knowledge. This finding was coincided with the preference of adolescents [10]. This study found out that majority 97 (24%) of the respondents get information from their family. This finding was different from the findings in Addis Ababa high schools

where mass media was found to be the major source of information. This could be attributed to the extensive availability of the media and publications in Addis Ababa.

An important finding in this study was that 24 study participants haven't ever heard about the diseases. Majority of the respondents have identified correctly the major types of STIs such as HIV/AIDS (88.4%), Syphilis 66.4%, and gonorrhea 65.4% which was lower than the findings from Nekemte [11]. This might be due to high concern of the teachers and school community towards STI. Students who had fearing to discuss on STI and SRH issues were about two times more to have barriers to seek SRH care services. This result agreed with the study conducted in Addis Ababa high schools.

The study also showed that Level of education, Parental education, mother occupation, using of Television as information source have no association with the barriers to seek sexual and reproductive health care seeking.

Conclusion and Recommendation

Knowledge of sexually transmitted was very small which could lead to risk of acquiring sexually transmitted infection. Even though many have ever heard about sexually transmitted disease their knowledge about the disease was low. The major sources of information for adolescent on sexually transmitted disease and sexual and reproductive issue were school teachers, Television programs and family. SRH care service seeking in the high school needs improvement. There were major personal and systemic barriers to seek sexual and reproductive health care services that need the attention of all.

The following possible recommendations were forwarded:

- Provision of adolescent friendly services;
- Strengthening of I.E.C on sexually transmitted diseases to enhance their level of awareness on sexually transmitted disease by involving parents, religious & community leaders and other organizations;
- Encouraging adolescents' peer education on sexually transmitted disease and sexual and reproductive issue both at the school & family level;
- Establish adolescent friendly school health services & different clubs such as AAC which can include other STI services.

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