



Utilization and Factors Affecting Adolescents and Youth Friendly Reproductive Health Services among Secondary School Students in Hadiya Zone, Southern Nations, Nationalities and Peoples Region, Ethiopia

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Abstract

Background: Ethiopia has over 21 million young people and they account for approximately 22% of the total population. However, youth often lack basic reproductive health knowledge and access to affordable and confidential health services. This study assesses factors affecting adolescents and youths friendly reproductive health service utilization among high school students in Hadiya zone, Ethiopia.

Methods: Institution-based cross-sectional study design was employed to collect data from a total of eight secondary schools in Hadiya zone by using self-administered questionnaire from a sample of 702 students. Data was coded, cleaned and entered into Epi-info version 3.1 and analysed by using SPSS Version 20.0. Frequency, proportions and percentages was computed to describe the study variables. Binary and multivariate logistic regression analysis with a confidence level of 95% was computed to determine the relationship among variables with a significance level of less than 5%.

Results: The utilization level of adolescents and youth friendly reproductive health service was only 38.5%. Youths with a good knowledge of the type of adolescents and youth friendly reproductive health services were more likely to utilize the service than their counterparts [AOR=1.68 (95% C.I.:1.06-2.65)] and those respondents who believed that youth friendly services can improve youth's health were more likely to utilize the service than their counterparts [AOR=2.02 (95% C.I.:1.16-3.52)].

Conclusions: The utilization level of adolescent and youth friendly reproductive health service was very low; and youths unaware of a type of AYFRH services, and those who don't believe that AYFRH services can improve youth's health were less likely to utilize AYFRH services. Therefore, it needs a great effort and attention of all the concerned bodies to design and implement appropriate adolescents and youth reproductive health information, education and communication strategies in schools to influence the knowledge, attitudes and practice of youths to increase the service utilization.

Keywords: AYFRH service utilization; Adolescents; Youth

Abbreviations: HIV: Human Immunodeficiency virus; AIDS: Acquired Immunodeficiency Syndrome; STIs: Sexually Transmitted Infections; AYFRH: Adolescent and Youth Friendly Reproductive Health; ANC: Antenatal care; VCT: Voluntary Counseling and Testing; SNNPR: Southern Nations, Nationalities, and Peoples Region

Introduction

Around the world, young people are growing up in an environment of dynamic change. For some, this complexity provides opportunity and choice; for others, it means a struggle for survival. The period of adolescence is, however, a life phase in which young people are particularly vulnerable to health risks, especially those related to sexuality and reproduction. The most common youth problems related to sexuality and reproductive health include: HIV/AIDS, unwanted pregnancy, unsafe abortion, early marriage and teenage pregnancy, sexually transmitted infections and poor nutrition [1].

Seventy-eight percent of the 1.5 billion young people in the world live in the developing world. Ethiopia has over 21 million young people and they account for approximately 22% of the total population. Youth tend to be less informed, less experienced, and less comfortable in accessing reproductive health services than adults. Youth often lack basic reproductive health knowledge and access to affordable and confidential health services. Also, most youth do not feel comfortable in discussing reproductive health issues with their parents [2].

Some studies on parents, teachers and health personnel indicated that they are unprepared to discuss sexuality with adolescents, often because they feel uncomfortable or overworked, or because they disapprove of young people who express an interest in sexuality. In the past, much reproductive health programs and services are focused on married couples and adults, ignoring the needs of sexually active and sexually non-active adolescents [3].

Despite many combined partnership efforts, most sub-Sahara African countries are still facing significant challenges of adolescents and youth sexual and reproductive health service utilizations. According to study conducted in Kenya, long queues, unfavorable working hours, mixing out of school youth and the school going youth and lack of

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money negatively affected utilization of youth friendly reproductive health services [4-6].

A study in Nigeria indicated that about a quarter of adolescent experience sexual intercourse but only 10.7% of them had ever tested for HIV/AIDS. Furthermore, of 25.5% who admitted to have experienced sexual intercourse, only about two-thirds used condom in their last sexual intercourse. The same study showed that about a third of study population did not see anything wrong with pre-marital sex because they perceived it as normal, simply fun or that it does not matter [7,8].

The limited capacity of health sectors to provide youth friendly service with inconvenient hours or location, unfriendly staff, and lack of privacy are among the main reasons many adolescents and young adults give for not using reproductive health services. Moreover, parents, care givers, and community members have limited knowledge to discuss about reproductive health services with adolescents. It is believed that a limited access and utilization of adolescent and youth friendly reproductive health services contribute to high rates of maternal mortality and morbidity due to abortion, fistula and other pregnancy-related complications [9-11].

A school-based study conducted in East Gojam, Ethiopia, showed that among sexually active youths, only 21% and 13% of them have ever used contraceptives and condoms, respectively. On the other hand, among the sexually active female adolescents, 43% of them had ever been pregnant, and of which about 15% had a history of abortion. In another study conducted in Asebe Teferi, Ethiopia, the reason why youths do not use adolescents and youth friendly reproductive health services was prolonged waiting for the service(73.4%), and service inconsistency (58.3%), respectively [12,13].

It is important to create a supportive environment that would positively influence the knowledge, attitude, perceptions, skills and behavior of adolescents towards the utilization of reproductive health services. Therefore, the major contribution of this study is to examine and indicate the major factors that determine adolescents and youth friendly reproductive health services among secondary school students.

Methods

Study design and period

Institution based cross-sectional study design was employed to identify factors determining youth friendly reproductive health service utilization among secondary school students in Hadiya zone, Southern Nations, Nationalities and Peoples Region, Ethiopia. The study was conducted from April 25 to August 5-2016.

Study area

The study was conducted in Hadiya zone, which is one of the 14 zones and 4 special woredas in the Southern nations, nationalities and peoples region, Ethiopia. The zone has 10 woredas and 1 town administration. According to the 2007 housing and population census estimations, the zone has total population of 1,502,232 of which 743,154 males and 759,087 females. Hossana town is located 232 km away from Addis Ababa and 194 km from Hawassa. There are a total of 42 secondary schools (35 governmental and 7 private) in the zone.

Source population: All adolescents and youths attending their secondary schools at both the governmental and private schools in Hadiya zone were taken as source population.

Study population: Sample of adolescents and youths among the source populations attending their secondary schools in the zone.

Eligibility criteria

Inclusion criteria: All students who are 15-24 years old attending their secondary schools at both the governmental and private schools both governmental and private secondary schools in the zone were included in the study.

Exclusion criteria: The youths who are below 15 years or above 24 years old and those who are seriously ill at time of data collection were excluded.

Sampling techniques and sample size

Sample size determination: The sample size was determined using a single population proportion formula. The formula was used to estimate the minimum possible sample size required for the study.

Reproductive health services utilization level by youths is 29.4%; so $p=29.4\%$ (0.294), this was taken from the previous study conducted on reproductive health needs and service utilization among youths in west Badawacho woreda, Hadiya zone, Ethiopia, 2014. Considering 95% CI (1.96), and 5% marginal error (0.05), 10% non-response rate, and design effect 2; a sample of 702 students were included in this study.

Sampling techniques and procedure: A multi-stage sampling technique was employed to select the final sample. The stages were divided into primary stage and secondary stage. In the primary stage, schools were divided into urban secondary schools and semi-urban secondary schools and taken as strata. In the secondary stage, strata of grades were selected and a simple random sampling technique was employed to select grades for the data collection. Then a proportional sample of students was determined from each grade for the final data collection process and the students were selected from each grade by using simple random sampling technique.

Data collection techniques and instruments: A carefully designed, pretested and revised structured questionnaire was used to collect quantitative data. The questionnaire was developed after the revision of relevant literatures and previous studies. Self-administered data collection technique was employed to gather quantitative data.

Data processing and analysis: Data was coded, cleaned and entered into Epi-info Version 3.5.3 and then transported to SPSS Version 20 for the analysis. Frequency, percentages, proportions, odds ratios, and logistic regression were computed. Adjusted odds ratios with the 95% confidence interval and p-value of less than 0.05 were considered to decide significant association between the outcome and the independent variables.

Data quality management: The questionnaire was initially prepared in English, and then was translated to Amharic. Then the Amharic version was translated back to English in order to check for any inconsistencies or distortion in meanings. Data collection tool was pretested in similar setting but out of schools that are included in the sample and the results were used to review the questionnaire and corrections were made before the actual data collection. Two days' trainings for four data collectors and two supervisors were given on the objectives of the study and data collection techniques. Strict supervision of the data collection process was carried out at the field level by two supervisors and investigators meanwhile any inconsistencies and errors were checked and solved immediately.

Study variables

Dependent variable: Adolescents and youth friendly reproductive health service utilization.

Independent variables: Socio-demographic factors, sexual and reproductive health behaviors, and health care system factors.

Ethical considerations: Ethical clearance was obtained from Hossana College of health sciences. Official permission was granted from the zonal education department, woreda education office and school administration. Moreover, an informed written consent and assent were obtained from each study subject depending on the participant's capability to consent.

Results

Socio-demographic characteristics of the study subjects: Of the total 702 sample size, 634 secondary school students were found valid

and included in the analysis and the overall response rate was 90.3%. The median age of the study subjects (students who were 15-24 years old) was 19, and the mean age of the study subjects was 18.82 years (± 1.93) SD. Out of 634 study participants, 346(54.6%) were male students, 242(38.2%) grade 11th, 203(30.0%) grade 9th, and the rest 93(14.7%) and 96(15.1%) were 10th and 12th grade students, respectively. The majority of students 574(90.5%) were from Hadiya ethnic groups, and 430(67.8%) were protestant religion followers. Most of the students 413(65.1%) were living with their parents. Out of 634 respondents, 600(94.6%) of them were single (Table 1).

Sexual behavior of the study participants: Among the total 634 secondary school students, 145(22.9%) of them ever had sexual

Variables		Number	Percentage (%)
Age	15-19	411	64.8
	20-24	223	35.2
Mean age and SD		18.82(1.93)	
Sex	Male	346	54.6
	Female	288	45.4
Grade	9 th	203	32.0
	10 th	93	14.7
	11 th	242	38.2
Religion	12 th	96	15.1
	Orthodox	115	18.1
	Catholic	44	6.9
	Protestant	430	67.8
Ethnicity	Muslim	45	7.1
	Hadiya	574	90.5
	Kembata	23	3.6
	Gurage	18	2.8
	Silite	7	1.1
	Wolayita	1	0.2
Parents permanent residence	Other (Amhara,Oromo)	11	1.7
	Urban	272	42.9
Your current residence	Rural	362	57.1
	Urban with family	230	36.3
	Urban house rent	215	33.9
Live with parents	Coming from rural daily	189	29.8
	No	221	34.9
Marital status	Yes	413	65.1
	Single	600	94.6
	Married	27	4.3
	Divorced	3	0.5
Father's occupation	Widowed	4	0.6
	Farmer	383	60.4
	Civil servant	128	20.2
	Merchant	81	12.8
	Driver	17	2.7
	Daily laborer	16	2.5
Mother's occupation	Other	9	1.4
	House wife	495	78.1
	Civil servant	53	8.4
	Merchant	63	9.9
	Daily laborer	3	.5
	Maid	13	2.1
	Other	7	1.1

Mother's level of education	Illiterate	266	42.0
	Read and write	75	11.8
	Primary education(grade 1-6)	114	18.0
	Junior secondary(grade 7-8)	74	11.7
	Secondary education(9-12)	60	9.5
	Higher education (12+)	45	7.1
Father's level of education	Illiterate	173	27.3
	Read and write	93	14.7
	Primary education(grade 1-6)	83	13.1
	Junior secondary(grade 7-8)	91	14.4
	Secondary education(9-12)	71	11.2
	Higher education (12+)	123	19.4
Parents monthly income	Less than 1750	409	64.5
	1751-6500	220	34.7
	6501 and above	5	0.8
Mean		1709.62(± 1525.51)	
Have you had your own income	No	578	91.2
	Yes	56	8.8
Your monthly income (n=56)	Less than 280	36	64.3
	281-700	16	28.6
	701 and above	4	7.1
Mean		282.61(± 231.64)	

Table 1: Socio-demographic characteristics of students attending secondary schools in Hadiya zone, SNNPR, Ethiopia, August 2016.

intercourse. The mean age of the first sexual intercourse was 16.68(± 2.32) SD years. Love relationship 96(66.2%) and peer influences 61(42.1%) were the most important factors that influenced them for the first sexual intercourse. Out of those who had first sexual intercourse, 48(33.1%) faced sexual and reproductive health problems, such as unwanted pregnancy 27(56.2%), abortion 11(22.9%), and sexually transmitted infections 10(20.8%). On the other hand, among those students who had first sexual intercourse, 21(14.5%) had children.

Source of information and respondents belief on youth friendly services: Out of the total number of respondents, 291(45.9%) had information about the availability of the services in the nearby facility and the most important sources of information were peers 159(54.6%), parents 79(27.1%), and mass media 22(7.6%). Moreover, 145(49.8%) and 121(41.6%) reported that the services are found in the health facilities which were nearby, and around a short round walking distance less than 30 minutes from their home, respectively. Most of the respondents, 498(78.5%) had knowledge about various types of adolescents and youth friendly reproductive health services. VCT 343(68.9%), and contraception and or condom 321(64.5%) were the most known and utilized services by the study subjects. On the other hand, about 455(71.8%) respondents believed that adolescents and youth friendly reproductive health services are necessary for the improvement of youths' health.

Utilization status of adolescents and youth friendly reproductive health services: In this study, only 244(38.5%) of secondary school youths ever utilized adolescents and youth friendly reproductive health services. And 390(61.5%) hadn't ever utilized any youth friendly reproductive health services. Mass media messages 173(70.9%), advice from others 76(31.1%), illness of close relative 21(8.6%) and death of close relative 23(9.4%) were the most important factors that influenced the study participants to utilize the services. On the other hand, for the majority, 270(69.2%) lack of knowledge about youth friendly reproductive health services was the main reason for not using the services (Table 2).

This study revealed that majority of the service users 127(52.1%) was

Variables	Frequency	Percent
Ever had sexual intercourse		
No	489	77.1
Yes	145	22.9
Influencing factors for the 1st sexual intercourse (n=145)		
Alcohol	19	13.1
Substances	11	7.6
Peer influence	61	42.1
Love relationship	96	66.2
Others(By force)	6	4.1
Faced sexual and reproductive health problems after the 1st sexual intercourse(n=145)		
No	97	66.9
Yes	48	33.1
Type of problems faced (n=48)		
Pregnancy	27	56.3
Abortion	11	22.9
STI	10	20.8
Have you had treatment for the reproductive health problem (n=48)		
No	18	37.5
Yes	30	62.5
Do you have children (n=145)		
No	124	85.5
yes	21	14.5
Had information about health facility that provide AYFRH services out of the school (n=634)		
No	353	54.1
Yes	281	45.9
How far is the facility? (n=291)		
Near, short walking distance	145	49.8
30 minutes round walking distance	121	41.6
Far, 1hour & above round walking distance	25	8.6
Source of information about AYFRH services (n=291)		
Parents	79	27.1
Peers	159	54.6
Teacher	16	5.5

Notice boards	5	1.7
Mass media	22	7.6
Services known and utilized (n=498)		
Contraception and or condom	321	64.5
VCT	343	68.9
STIs prevention	166	33.3
Treatment of STIs	134	26.9
Care of young pregnant & ANC	106	21.3
Pregnancy test	104	20.9
Others(counseling service)	20	4.0
Do you think AYFRH services can improve youths' health		
No	49	7.7
Yes	455	71.8
I don't know	130	20.5
Factors that influenced you to utilize AYFRH services (n=244)		
Mass-media messages	173	70.9
Advice from others	76	31.1
Illness of close relative due to HIV or STI	21	8.6
Death of close relative due to HIV, STI or abortion	23	9.4
Reasons that hinders you from using the service (n=390)		
Religious matters	108	27.7
Cultural matters	77	19.7
I don't know the use	270	69.2
Have you ever visited health facility but missed the service you required?		
No	531	83.8
Yes	103	16.2

Table 2: Sexual and reproductive health behaviors of the students attending secondary schools in Hadiya zone, SNNPR, Ethiopia, August 2016.

satisfied with the service delivery and hospitalities (Figure 1). However, in this study it was observed that 103(16.2%) missed the service after some times of the utilization of the services. The most reported reasons for the missed opportunity to utilize the service was the inconvenience of the service delivery time, long queue, lack of money for the service, and privacy (Figure 2).

Factors associated with the utilization of adolescents and youth friendly services: In the bivariate logistic regression analyses, history of sexual intercourse, had children, ever encountered sexual and reproductive health problems, source of information about youth friendly reproductive health services, respondents' knowledge of VCT as a type of youth friendly reproductive health services, a belief that adolescent and youth friendly reproductive health (AYFRH) services can improve youths' health, respondents' knowledge about the availability of adolescents and youth friendly reproductive health services out of school settings and respondents ever visited service facility; but missed the service were associated with the utilization of youth friendly reproductive health services. But in multivariate analysis six variables such as history of sexual intercourse, ever encountered sexual and reproductive health problems, respondents' knowledge of VCT as a type of adolescents and youth friendly reproductive health services, respondents belief that youth friendly reproductive health services can improve youths' health, respondents' knowledge about the availability of adolescents and youth friendly reproductive health services out of the school setting, and respondents ever visited facility; but missed the service were associated with AYFRH services utilization (Table 3).

According to the multivariable analysis, youths with a good knowledge of the type of adolescents and youth friendly reproductive health services were 1.68 times more likely to utilize AYFRH service

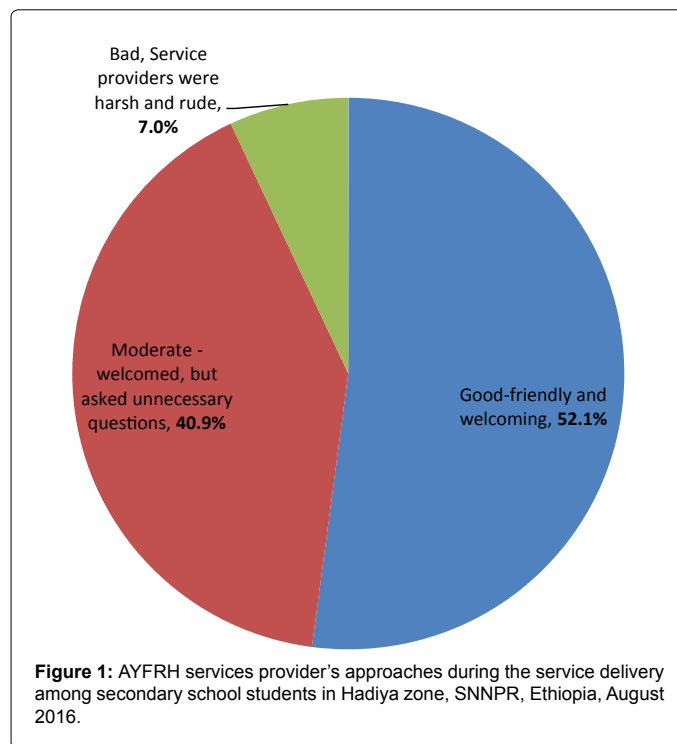


Figure 1: AYFRH services provider's approaches during the service delivery among secondary school students in Hadiya zone, SNNPR, Ethiopia, August 2016.

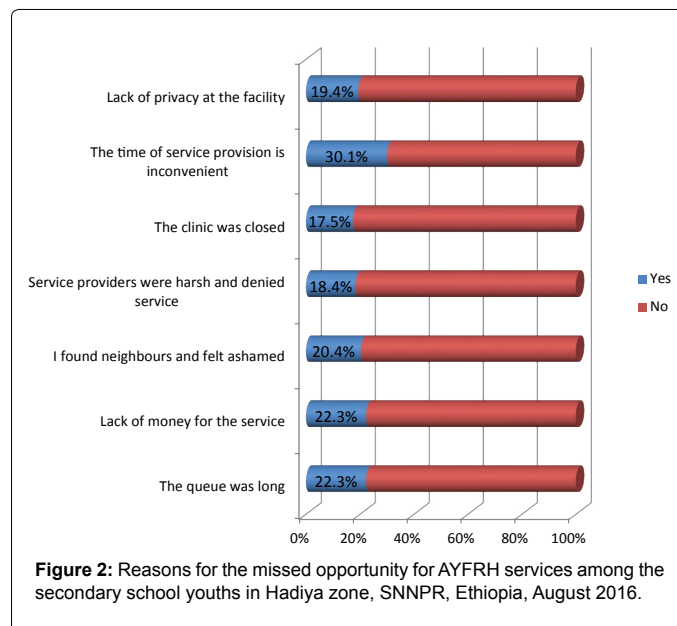


Figure 2: Reasons for the missed opportunity for AYFRH services among the secondary school youths in Hadiya zone, SNNPR, Ethiopia, August 2016.

than their counterparts [AOR=1.68 (95% C.I.:1.06-2.65)]. Respondents who believed that AYFRH services can improve youths' health were two times more likely to utilize the service than their counterparts [AOR=2.02 (95% C.I.:1.16-3.52)]. Those youths who know about the availability of youth friendly reproductive health services in their school were five times more likely to utilize the service than those who didn't know [AOR=4.96 (95% C.I.:2.74-8.96)].

On the other hand respondents who never had sexual intercourse were 86.2% less likely to utilize reproductive health services than those who ever had sexual intercourse (AOR= 0.148 (95% C.I.: 0.015- 0.415)).

Variable		Utilized AYFRH services		COR (95% CI)	AOR (95% CI)	PV
		No n (%)	Yes n (%)			
Ever had sexual intercourse	No	322(65.8)	167(34.2)	0.52(0.43,0.62) 1.00	0.148(0.015,0.415) 1.00	0.000
	Yes	68(46.9)	77(53.1)			
Have children	No	60(48.4)	64(51.6)	0.66(0.25,1.69) 1.00	0.37(0.11,1.24) 1.00	0.106
	Yes	8(38.1)	13(61.9)			
Ever encountered sexual and reproductive health problems	No	17(35.4)	31(64.6)	0.57(0.37,0.89) 1.00	0.156(0.05,0.41) 1.00	0.002
	Yes	51(52.6)	46(47.4)			
Source of information for youth friendly reproductive health services	Parents	42(53.2)	37(46.8)	1.00	1.00	0.542 0.631 0.733 0.612
	Peers	70(44.0)	89(66.0)	0.88(0.34,2.27)	0.58(0.19, 1.77)	
	Teacher	8(50.0)	8(50.0)	1.27(0.52,3.10)	0.82(0.28,2.33)	
	Notice board	2(40.0)	3(60.0)	1.00(0.28,3.62)	0.44(0.10,1.90)	
	Mass media	11(50.0)	11(50.0)	1.50(0.21,10.8)	1.14(0.14,9.03)	
Respondents' knowledge of VCT as a type of service offered in YFRHS facility	No	79(50.9)	76(49.1)	1.00 1.45(0.99,2.12)	1.00 1.68(1.06, 2.65)	0.026
	Yes	206(60.0)	137(40.0)			
Respondents belief that youth friendly reproductive health services can improve youth's health	No	36(73.5)	13(24.5)	1.00	1.00	0.013 0.725
	Yes	252(55.4)	203(44.6)	2.94(1.86,4.64)	2.02 (1.16, 3.52)	
	I don't know	102(78.5)	28(21.5)	1.32(0.62,2.81)	1.17(0.48,2.86)	
Respondents knowledge of the availability of AYFRH service out of their school	No	115(40.9)	166(59.1)	1.00	1.00	0.000
	Yes	275(77.9)	78(22.1)	6.92(4.16,11.5)	4.96(2.74, 8.96)	
Respondents ever visited AYFRH service facility; but missed the service	No	43(42.2)	59(57.8)	1.00	1.00	0.037
	Yes	347(65.3)	184(34.7)	0.39(0.25,0.60)	0.58 (0.35, 0.97)	

Table 3: Factors associated with AYFRH services utilization among secondary school students in Hadiya zone, SNNPR, Ethiopia, August 2016.

Similarly, youths who never encountered any sexual and reproductive health problems were 84.4% less likely to utilize AYFRH services than those who ever encountered sexual and reproductive health problems [AOR=0.156 (95% C.I:0.05-0.48)]. In this study, it was found that those respondents who had ever visited the facility, but missed the service were 42% less likely to utilize AYFRH services than their counterparts (AOR=0.58 (95% C.I: 0.35-0.97)).

Discussion

This study showed that the utilization level of adolescents and youth friendly reproductive health services was 38.5%. This finding was low when compared with the studies conducted in Mekelle (69.1%), Harar (64%), Addis Ababa (42.9%), and in Awabel district (41%). But, it was higher when compared with study conducted in West Badawacho district (29.4%), and in Bahir Dar (32%) [6,13-17]. This might be due to differences in the availability and accessibility of youth friendly reproductive health facilities or the availability of youth centers, and/or difference in individual /personal characteristics of the study participants. The most chosen service received by the study participants in this study was counseling service (60.2%) followed by contraceptives (40.2%) and VCT services (40.2%). This finding was in line with the study finding conducted in Kenya, but different from the study done in Nigeria in which family planning was the most chosen type of AYFRH service [5,18]. This might be due to some socio-cultural variations across the study areas.

In this study, it was found that one of the most reported reasons by the students for the missed opportunity to utilize the service was the inconvenience of the service delivery time (30.1%). This findings was supported with the study conducted in Addis Ababa, Awabel, Gondar and Bahir Dar that the most important barrier in utilizing reproductive health services was inconvenient hours, so this needs an improvement by the service providers [14-16,18,19] Youths who know a type of AYFRH services were 1.68 times more likely to utilize the AYFRH service than their counterparts. This finding was supported by many other studies conducted in Harar town, Addis Ababa, Mekelle and Kenya, except the study conducted in Asela town, which was in opposite with this study finding [13,15,17,20,21]. Those youths who had information about the availability of adolescents and youth friendly reproductive health

service facility out of their school were five times more likely to utilize the service than those who didn't know and this finding was in line with a study conducted in Kenya [20]. From this it can be predicted that as youths become more familiar with the service settings as well as a type of services offered, they will freely decide to what type of the service they have to use and why, when and where to use.

In this study, it was found that those respondents who never had sexual intercourse were 86.2% less likely to utilize reproductive health services than those who ever had sexual intercourse and this finding was supported by a study done at Awabel district [14]. On the other hand, youths who never encountered any sexual and reproductive health problems were 84.4% less likely to utilize AYFRH services than those who ever encountered any sexual and reproductive health problems and this was supported by the study conducted in Bahir Dar town [16]. This might be because those students who ever had sexual intercourse might need further relevant service to avoid the risk and consequences of sexual vulnerability. In this study, it was found that those respondents who had ever visited the facility, but missed the service required were 42% less likely to utilize AYFRH services than their counterparts. However, this study is institution based and didn't consider adolescents and youths out of school. Consequently, it is difficult to generalize the findings to similar population out of school.

Conclusion

This study showed that the level of adolescent and youth friendly reproductive health service utilization was only about two third. Moreover, youths unaware of a type of AYFRH services, and those who don't believe that AYFRH services can improve youth's health were less likely to utilize AYFRH services. Therefore, it needs a great effort and attention of all the concerned bodies to design and implement appropriate adolescents and youth reproductive health information, education and communication strategies in schools to influence the knowledge, attitudes and practice of youths to increase the service utilization.

Declarations

Competing interests

The authors declare that they have no competing interests.

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Hossana college of Health Sciences funded the study in that the college established a research committee to approve a research topic, participate in research design of the study and data collection. The college also funded for data collection tools and presented lap top for data entry, analysis and presentations of the study findings.

Author's contributions

SK and BB wrote a proposal and participated in data collection and analysis. YH and SY drafted the paper and revised a subsequent draft of the paper. DH participated in data collection, analysed the data and prepared the paper for publication. All authors read and approved the final manuscript.

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