

Assessment of Reproductive Health Service Utilization and Associated Factors Among Adolescents (15-19 Years Old) in Goba Town, Southeast Ethiopia

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Abstract: Background: More than a quarter of the world's population is between the ages of 10 and 24, with 86% living in less developed countries. These young people are tomorrow's parents. The reproductive and sexual health decisions they make today will affect the health and wellbeing of their communities and of their countries for decades to come. Objective: To assess reproductive health service utilization and associated factors among adolescents (15-19 years old) in Goba town. Methods: A community based cross-sectional study design was conducted in Goba town to assess reproductive health service utilization and associated factors among adolescents (15-19 years old). A Structured and pre tested interviewer based questionnaire was used to collect the data. Data was checked for completeness, cleaned manually, and entered in to SPSS version 16.0 for further analysis. Binary and multiple logistic regression analysis were carried out to examine the existence of association between the outcome variables and selected predictor variables. Statistical significance was declared at $P \leq 0.05$. The strength of association was interpreted using the adjusted odd ratio and 95% confidence interval (CI). Result: Among those who had sexual intercourse, 150 (71.4%) utilized family planning service and out of all adolescents, 266 (67.3%) utilized voluntary counseling and testing (VCT) service. About 71.9% of sexually experienced adolescents utilized VCT service. The odds of family planning (FP) service utilization among those adolescents who have discussed with their sexual partner were 3 times higher than their counterparts (AOR=3.62(0.155, 0.843). Adolescents who had discussed with peer groups or friends were 2 times more likely to utilize VCT service than their counterparts (AOR=2.046(1.035, 4.403)). Whereas those adolescents who had discussed with health workers were 4 times more likely to utilize VCT service than their counterparts [AOR=4.48(0.201, 0.999 Conclusion: In general, it was found that the majority of adolescents were utilizing family planning and VCT services. Adolescents who have discussed with their sexual partner were more likely to utilize FP service and adolescents who had discussed with peer groups or friends and health workers were more likely to utilize VCT service than their counterparts.

Keywords: Reproductive Health, Service Utilization, Associated Factors, Adolescents (15-19 Years Old)

1. Introduction

Reproductive health is a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity, in all matters related to reproductive system and to its functions and process (1). Adolescent and reproductive

health is a global public health concern. This is because of adolescent sexual activity has increased in many countries around the world in the last two decades and at increasingly younger ages (2). Adolescent is described as a period of

increased risk taking because adolescents are susceptible to behavioral problems during puberty (3,4,5). Approximately 1.2 billion adolescents live the world, of which nearly 900 million are in developing countries. Several countries in Sub-Saharan Africa (SSA) including Ethiopia have large and increasing adolescent populations that exceed those from other parts of the world. Adolescents in Ethiopia were estimated to be 19.3% of the total population. The fact that they have a large and significant share of the world's population, make it important to address their problem (6,7,8). Most adolescents engage in early and unplanned sexual activity, which incurs the risk of unintended pregnancies and of transmission of sexual infections. The consequences have social, economic and physical health ramifications like illegal abortion, dropping out from school, out of wedlock births as well as contracting sexually transmitted diseases (STD's) and HIV (7). In addition, the global estimates indicate that every year about 3 million adolescents (one in every eight sexually active adolescents) are infected with Sexually Transmitted disease (STD); and that the highest rate of Chlamydia are among 15-19 years old, mainly adolescent women (10). In many developing countries, more than half of all new HIV infections are among young people 15-24 (11). Early sexual debut and prevalence of STIs in Africa are seen as some of the factors driving the spread of HIV infections. The WHO estimates indicate that STI rates are highest in Sub Saharan Africa with 69 million new cases per year in a population of 269 million adults aged 15-49 years (12).

Adolescent pregnancy occurs in all societies, although the extent and consequences vary from place to place. According to World Health Organization (WHO) estimates, in the year 2007 slightly more than 10% of all births worldwide were to girls in late adolescence (15-19 years old) (13,14). Over 90% of births among girls in late adolescence occur in developing countries such as Ethiopia. Many sexually active unmarried young women experience a pregnancy, which is both unplanned and unwanted. A study in Ethiopia in the year 2000 showed that more than half of all births to women under the age of 15 (i.e. those in early adolescence), and more than one in three births to women aged 15-24 were unintended (15). As a research conducted in Zambia among youth aged between 18 and 24 years with the aim of assessing utilization of VCT services indicated, only 16.3% of respondents utilized VCT service. In addition, the reasons for not utilizing VCT service listed by the respondents were; was not in a hurry, study purpose and lack of confidentiality (16,17). Few studies have indicated that some gaps about VCT. For instance, a study was conducted in Kenya among university students to analyze uptake in HIV voluntary counseling and testing services. The findings of this study showed that 76% of students utilized VCT service (16,17). As a research conducted in Malawi revealed, the utilization of family planning service among adolescents were 41%, and major reasons for not utilizing the service mentioned by adolescents were; not ready for family planning, have little child and not married (17). According to EDHS 2011, contraceptive use among married women of

15-19 years old for Oromia region was 26.2% with 0.2% utilization of permanent method, 2.2% and 3.4% utilization of IUD and implant respectively. And injectable was the mostly used (18.8%) (17). Therefore, there is concerted effort by many countries to reach the adolescent with reproductive health services and though little has been achieved, a lot more need to be done to reach a good threshold to get rid of reproductive health problems adolescents. Ethiopia is among the countries a lot of effort is going on in the area of reproductive health service delivery. The purpose of this study was to assess reproductive health service utilization and associated factors among adolescents (15-19 years old) in Goba Town, Southeast Ethiopia.

2. Methods and Materials

The study was conducted in Goba Town Bale zone, Oromia region located at 446km from Addis Ababa in the south east Ethiopia. The town has a total area of 1619.38 square kilometers. It has population of 35,540 out of which 17971 are males and 17569 are females. The population density of the town is 21.95 people per square kilometer and house hold size of 4.2 people per household. The town has one hospital and one health center (Goba Town administrative office Goba town profile document 2006 E.C). The study was conducted from Miazia 25-29/2006 E.C (May, 03-May, 07, 2014). A community based cross-sectional study design was conducted. This study was conducted with all adolescents (15-19 years old) in Goba Town. However, the study population was included Adolescents (15-19 years old) who were selected by systematic random sampling in the selected Keble of Goba town and those adolescents who lived in the study area for less than 6 months prior to the study period. Sample was determined by using the sample size formula for single proportion at $z_{\alpha/2}$ value of 1.96, margin error of 5% and proportion of 50%. The sample size was calculated as follows; Multi stage sampling was used. First, from the two Keble's, the East Keble of Goba town was selected using lottery method. Lottery method was also used to select the first household, and then the systematic random sampling method was applied to identify the next household to be included. To apply systematic random sampling, sampling interval was calculated ($K=3830/403=10$). The sampling technique considered there is at least one adolescent present per household. In case of more than one eligible participant in the household, the lottery method was used to select one. In households in which adolescents will not be at home, but if it is known that, there are adolescents eligible for the study, the interviewers had revisited the household at three different time intervals, and if the interviewers fail to meet the adolescent, the household was excluded from the study and was replaced by the next household in clockwise direction. A Structured and pre tested questionnaire was used to collect the data. The questionnaire was adapted from different relevant literatures and comprised of questions for assessing socio demographic and other variables. The data collectors were four in number. They were graduate students of midwifery and nursing

department. Structured Interview was used as a technique of data collection. A pre-test was conducted in 10% of the sample population in west Keble of Goba town on Miazia 20, 2006 E.C to assess reliability of data collection instruments. Based on the pre- test result, corrective measures were taken on the questionnaire. Before data collection, we have given training for data collectors on data collection technique and the questions so that they can have a common sense on all questions. The data collectors had clearly explained all the questions for the respondents until they understood it thoroughly. In order to assure the completeness of questionnaire, the collected was checked daily during data collection. Data was checked for completeness, cleaned manually, and entered in to SPSS version 16.0 for further analysis. Frequencies were used to summarize descriptive statistics of the data. Text, tables and graphs were used for data presentation. Binary and multiple logistic regression analysis were carried out to assess the existence of association between the outcome variables and selected predictor variables. Statistical significance was declared at $P \leq 0.05$. The strength of association was interpreted using the adjusted odds ratio and 95% CI.

Letter of ethical clearance was obtained from Madawalabu University College of medicine and health science CBE office. Formal letter of cooperation was written from Madawalabu University to Goba town administration. Data collectors had explained the purpose of the study and obtained verbal consent from the respondent. For respondents who are below 18 years old, consent was obtained from their parents. Response of participants was anonymous and confidential. The results of this study were disseminated to Madawalabu University College of medicine and health science CBE office in both hard and soft copies. The findings were also given to health office of Goba town in soft copy and hard copy to act on the identified factors associated with reproductive health service utilization among adolescents. Efforts were made to publish this study.

3. Result

3.1. Socio-Demographic Characteristics of the Respondents

Complete data were available for 397 adolescents out of 403 sampled households, yielding a response rate of 98.00%. The mean age of adolescents was 17.39(SD \pm 1.40). More than half of adolescents 227(57.20%) were females and 342(86.60%) were single. Oromo (52.10%) and Amhara (34.8%) constitute the major ethnic group. Around 221(55.70%) were Orthodox Christian. 302(75.80%) of adolescents were registered in school where as 209(52.10%) had at least secondary education. About 194(48.90%) of respondents' mother were in the age between 40-49 years with mean age of 44.23(SD \pm 7.7) years. Around 164(41.30%) respondents' mother had no formal education moreover 160(40.30%) had primary education. The majority of participants (66.80%) were living with both parents (Table 1).

Table 1. Socio-demographic characteristics of respondents, Goba town, Southeast Ethiopia, April, 2014.

Variables	Frequency	Percent
Sex		
Male	170	42.80
Female	227	57.20
Age		
15-16	117	29.50
17-19	280	70.50
Ethnicity		
Oromo	207	52.10
Amhara	138	34.80
Tigrie	32	8.10
others*	20	5.00
Marital status		
Single	342	86.10
Married	47	11.80
Divorced	5	1.30
Widowed	3	0.80
Religion		
Orthodox	221	55.70
Muslim	119	30.00
Catholic	16	4.00
Protestant	38	9.60
other**	3	0.80
Schooling status		
In school	301	75.80
Out of school	96	24.20
Occupational status (n=96)		
Farmer	9	9.40
Housewife	18	18.80
Merchant	18	18.80
Daily laborer	31	32.30
Others***	20	20.80
Educational status of the respondent		
no formal education	27	6.80
Primary education	161	40.60
Secondary education and above	209	52.60
Age of mother		
30-39	118	29.70
40-49	194	48.90
50-59	59	14.90
>=60	26	6.50
Mother's educational status		
No formal education	164	41.30
Primary education	160	40.30
Secondary education and above	73	18.40
Co residence with both parents		
Yes	265	66.80
No	132	33.20

*Gurage, wolayta**waqe feta ***jobless, prostitute, lottery ticket sellers

3.2. Sexual History of Adolescents

Around 182(45.80%) of respondents have ever communicated about reproductive health issues with their parents. In addition to this, 241(60.70%) of the study participants describe their parents monitoring on them as high. Out of the total participants 233(58.70%) have had sexual

partner, and 209(52.60%) have had sexual intercourse. Among those who had sexual partner, the greater number of respondents, 158(67.80%) had one sexual partner. Out of those who had sexual intercourse, 156(74.30%) had romantic relation with their sexual partners. Among those who had sexual intercourse, 178(84.80%) had sexual intercourse in the past 12 months, and 117(65.70%) had sexual intercourse more than once with the same partner. When the relationship of the respondents to their last sexual partner was examined, the majority of the partners 117(65.70%) stayed in their last sexual relation for more than 6 months (Table 2).

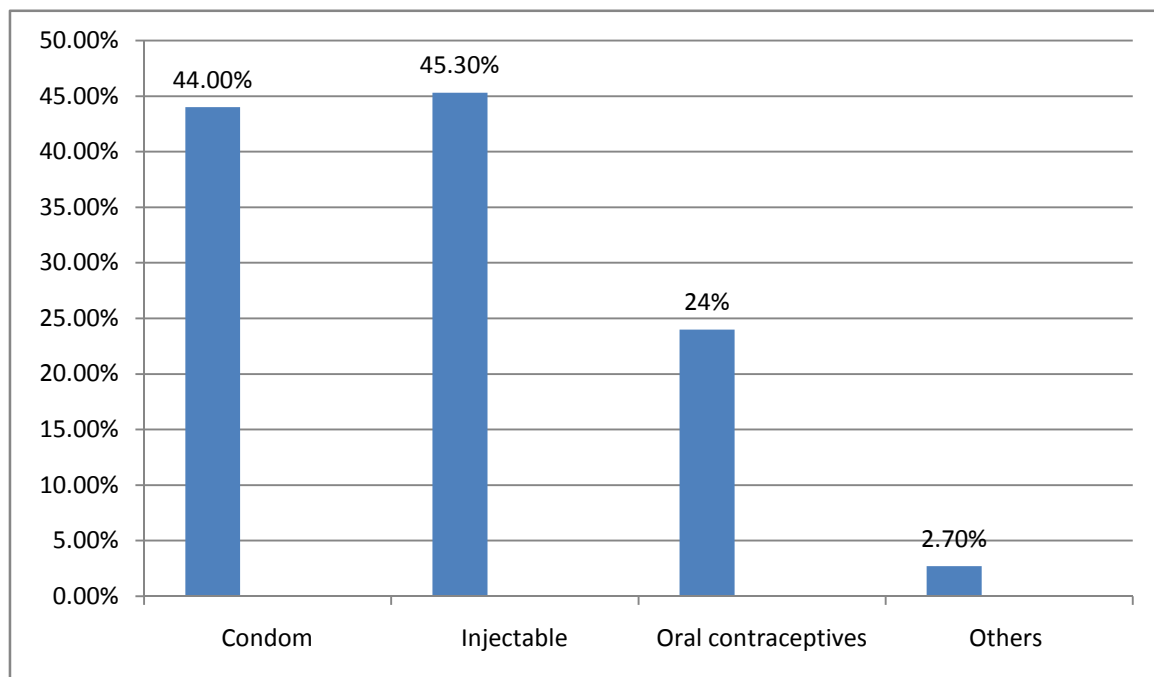
Table 2. Sexual history of respondents, Goba town, southeast Ethiopia, April, 2014.

Variable	Frequency	Percent
Ever had sexual partner		
Yes	233	58.70
No	164	41.30
Number of sexual partner (n=233)		
One	158	67.80
Two and above	75	32.20
Ever had sexual intercourse		
Yes	210	52.90
No	187	47.10
Ever had sexual intercourse within the last 12 months (n=210)		
Yes	178	84.80
No	32	15.20
Amount of sexual intercourse (n=178)		

Variable	Frequency	Percent
Once	28	15.70
More than once with the same partner	117	65.70
More than once with different partner	83	18.50
Romantic relationship (n=210)		
Yes	156	74.30
No	54	25.70
Duration of last sexual relationship (n=233)		
1-6 months	99	42.50
Above 6 months	134	57.50

3.3. Family Planning Service Utilization

About 366 (92.20%) of the respondents had heard about family planning service, and 290 (73.00%) had discussed the service. Most of the respondents, 189(65.20%), discussed the service with their peer group/friends whereas 94(32.40%) discussed with their sexual partners. Among those who had sexual intercourse, 150 (71.40%) utilized family planning service with different individuals. The most frequently used family planning methods were the condom and injectable each constituted 66 (44.00%) and 68 (45.30%) respectively. Fear of being detected, 29 (48.30%) and dislike judgmental attitude of health workers, 23 (21.70%), were the main reasons for not utilizing family planning service. Most users preferred hospital, 62 (41.20%) at the same time, 44 (29.30%) preferred health centers to get family planning method.



NB: the percentages cannot sum up to 100% because multiple responses were possible.

Figure 1. Type of family planning services utilized by adolescents in Goba town, southeast Ethiopia, April, 2014.

3.4. Factors Associated with Family Planning Service Utilization

On binary logistic regression analysis, factors like educational status, parental communication, discussion on family planning services and having romantic relation were found to be significantly associated with the utilization family

planning service.

To control the effect of confounding, multiple logistic regression analysis was done. The odds of FP service utilization among those adolescents who have discussed with their sexual partner were 4 times higher than their counterparts (AOR=3.62(0.155, 0.843) (Table 3).

3.5. Voluntary Counseling and Testing Service Utilization

Out of the total respondents, 372(93.70%) had heard about VCT service. Half of the respondents (50.60%) perceived themselves as being at risk of contracting HIV, and out of all adolescents, 266 (67.30%) utilized VCT service. About 71.90% of sexually experienced participants utilized VCT service and out of those who utilized VCT service females occupy higher

percentage (57.50%) than males. Hospital was the most frequent health institution where most participants went to get VCT service that is mentioned by 138 (51.90%), While others, 71 (26.70%) obtained the service from health center. The main reasons for not utilizing VCT service listed by adolescents were embarrassment and self/partner trust with a percentage of 46.60% and 44.30% respectively (Table4).

Table 3. Binary and Multiple logistic regression analysis of factors associated with family planning service utilization, Goba town, Southeast Ethiopia, April, 2014.

Variable	FP service utilization		Crude OR (95%CI)	Adjusted OR (95%CI)
	Yes	No		
Age				
15-16	14(66.70%)	7(33.30%)	1.00	
17-19	136(72.0%)	53(28.0%)	1.283(0.491,3.355)	
Schooling status				
In schooling	103(75.2%)	34(24.8%)	0.597(0.322,1.105)	
Out of school	47(64.4%)	26(35.6%)	1.00	
Educational status				
No formal education	12(54.5%)	10(45.5%)	1.00	1.00
Primary education	49(64.5%)	27(35.5%)	0.661(0.253,1.730)	0.638(0.19,2.141)
Secondary education and above	89(79.5%)	23(20.5%)	0.310(0.119,0.807)	0.348(0.106,1.144)
Mothers' educational status				
No formal education	66(69.5%)	29(30.5%)	1.00	
Primary education	61(77.2%)	18(22.8%)	0.672(0.339,1.33)	
Secondary education and above	23(63.9%)	13(36.6%)	1.286(0.573,2.886)	
Co residence with both parents				
Yes	79(71.2%)	32(28.8%)	1.027(0.564,1.87)	
No	71(71.7%)	28(28.3%)	1.00	
Parental communication about RH issues				
Yes	96(82.8%)	20(17.2%)	0.281(0.150,0.529)	0.620(0.287,1.339)
No	54(57.4%)	40(42.6%)	1.00	1.00
Parental monitoring				
High	61(66.3%)	31(33.7%)	1.00	
Low	89(75.4%)	29(24.6%)	0.641(0.351,1.171)	
Ever discussed about the service with Family/relatives				
Yes	13(86.7%)	2(13.3%)	0.528(0.114,2.446)	
No	127(77.4%)	37(22.6%)	1.00	
Peer group/friends				
Yes	81(73%)	30(27%)	2.428(1.073,5.496)	1.836(0.742,4.539)
No	59(86.8%)	9(3.2%)	1.00	1.00
Sexual partner				
Yes	80(87.9%)	11(12.1%)	3.95(0.136,0.639)	3.62(0.155,0.843)
No	60(68.2%)	28(31.8%)	1.00	1.00
Teacher				
Yes	22(78.6%)	6(21.4%)	1.104(0.432,2.817)	
No	118(78.1%)	33(21.9%)	1.00	
Health worker				
Yes	31(91.2%)	3(8.8%)	0.537(0.242,1.194)	
No	109(75.2%)	36(24.8%)	1.00	
Number of sexual partner				
1	96(69.6%)	42(30.4%)	1.288(0.675,2.458)	
>=2	53(74.6%)	18(25.4%)	1.00	
Amount of sexual intercourse				
Once	21(75%)	7(25%)	1.00	
More than once with the same partner	82(70.1%)	35(29.9%)	1.280(0.499,3.286)	
More than once with different partner	28(84.8%)	5(15.2%)	0.536(0.149,1.926)	
Having romantic relation				
Yes	119(76.3%)	37(23.7%)	1.092(0.218,0.806)	1.092(0.460,2.596)
No	31(57.4%)	23(42.6%)	1.00	
Duration of last sexual relationship				
1-6 months	68(71.6%)	27(28.4%)	1.00	
Above six months	82(71.3%)	33(28.7%)	1.014(0.555,1.850)	

Table 4. VCT service utilization and related information of adolescents, Goba town, Southeast Ethiopia, April, 2014.

Variable	Frequency	Percent
Heard about VCT		
Yes	372	93.70
No	25	6.30
Perceived risk towards HIV		
Yes	201	50.60
No	196	40.40
Ever utilized VCT service		
Male	113	42.48
Female	153	57.50
Ever utilized VCT service based on sexual history (n=266)		
Sexually experienced	151	56.77
Sexually inexperienced	115	43.23
Place where VCT service was obtained		
Hospital	138	34.80
Health center	71	17.90
School	50	12.60

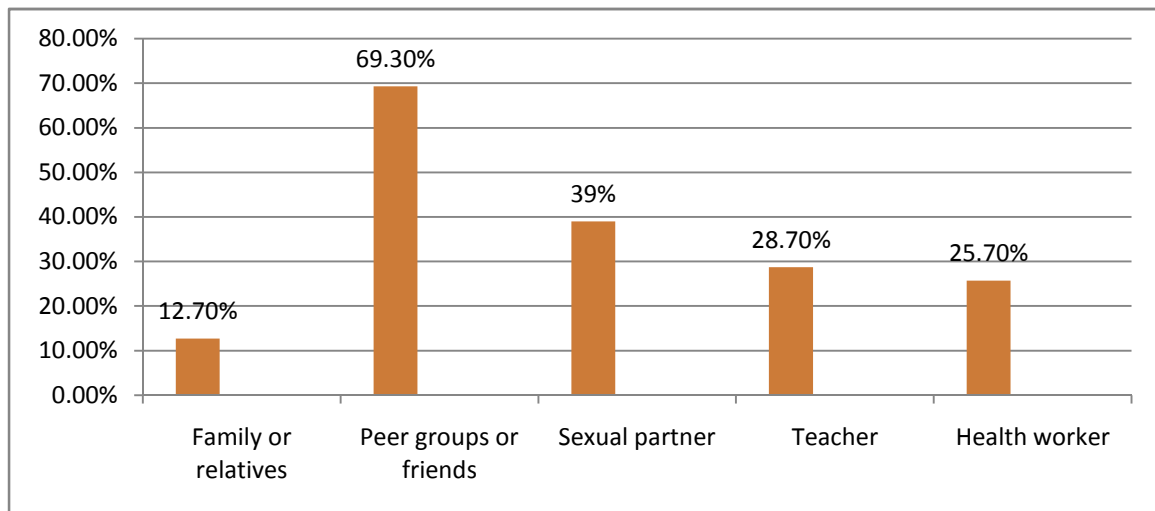
Variable	Frequency	Percent
Others*	7	1.80
Reason for not using VCT service ⁺		
Self/partner trust	58	44.30
Embarrassment	61	46.60
others**	13	9.90

*Marie stops, blood bank **had no sexual intercourse

⁺The percentages cannot sum up to 100% because multiple responses were possible

3.6. Discussion on VCT Service

A large number of respondents, 300(75.60%) had discussed VCT service with different individuals. The greater number of respondents, 208 (69.30%), discussed the service with their peers/friends followed by with their sexual partner 117(39%) (figure1).



NB: the percentages cannot be sum up to 100% because multiple response were possible

Figure 2. discussion about VCT service by adolescents with different individuals in Goba town, southeast Ethiopia, April, 2014.

3.7. Factors Associated with VCT Service Utilization

On binary logistic regression analysis, factors such as age, educational status of the respondent, mother's educational status, discussion on VCT service with peer groups/friends and health worker, having ever had sexual partner and having ever had sexual intercourse were found to be significantly associated with VCT service utilization. Out of variables that were entered to multiple logistic regression analysis,

discussion with peer groups/friends and health workers were factors associated with VCT service utilization. Adolescents who had discussed with peer groups or friends were 2 times more likely to utilize VCT service than their counterparts [AOR=2.046(1.035, 4.403)]. Whereas those adolescents who had discussed with health workers were 4 times more likely to utilize VCT service than their counterparts [AOR=4.48(0.201, 0.999)](Table 5).

Table 5. Binary and Multiple logistic regression analysis of factors associated with VCT service utilization, Goba town, Southeast Ethiopia, April, 2014.

Variable	VCT service utilization		Crude OR (95%CI)	Adjusted OR (95%CI)
	Yes	No		
Sex				
Male	113(66.5%)	57(33.5%)	1.00	
Female	153(67.4%)	74(32.6%)	0.959(0.628,1.463)	
Age				
15-16	68(58.1%)	49(41.9%)	1.00	1.00
17-19	198(70.7%)	82(29.3%)	0.575(0.367,0.900)	0.841(0.392,1.806)
Schooling status				

Variable	VCT service utilization		Crude OR (95%CI)	Adjusted OR (95%CI)
	Yes	No		
In schooling	202(67.1%)	99(32.9%)	0.980(0.602,1.596)	
Out of school	64(66.7%)	32(33.3%)	1.00	
Educational status				
No formal education	12(44.4)	15(55.6%)	1.00	1.00
Primary education	96(59.6%)	65(40.4%)	0.542(0.238,1.232)	0.59(0.149,2.237)
Secondary education and above	158(75.6%)	51(24.4%)	0.258(0.113,0.588)	0.436(0.114,1.67)
Mothers' educational status				
No formal education	102(62.25)	62(37.8%)	1.00	1.00
Primary education	117(73.1%)	43(26.9%)	0.605(0.378,0.968)	0.765(0.394,1.485)
Secondary education and above	47(64.4%)	26(35.6%)	0.910(0.513,1.615)	1.206(0.549,2.645)
Co residence with both parents				
Yes	176(66.4%)	89(33.6%)	1.084(0.694,1.693)	
No	90(68.2%)	42(31.8%)	1.00	
Parental communication about RH issues				
Yes	127(69.8%)	55(30.2%)	0.792(0.519,1.208)	
No	139(64.7%)	76(35.3%)	1.00	
Parental monitoring				
High	157(65.1%)	84(34.9%)	1.00	
Low	109(69.9%)	47(30.1%)	0.806(0.523,1.242)	
Ever discussed about the service with Family/relatives				
Yes	31(81.6%)	7(18.4%)	0.744(0.312,1.774)	
No	201(76.7%)	61(23.3%)	1.00	
Peer group/friends				
Yes	153(73.6%)	55(26.4%)	2.185(1.126,4.238)	2.046(1.035,4.403)
No	79(85.9%)	13(14.1%)	1.00	1.00
Sexual partner				
Yes	96(82.1%)	21(17.9%)	0.633(0.355,1.127)	
No	136(74.3%)	47(25.7%)	1.00	
Teacher				
Yes	65(75.6%)	21(24.4%)	1.148(0.637,2.069)	
No	167(78%)	47(22%)	1.00	
Health worker				
Yes	68(88.3%)	9(11.7%)	4.68(0.173,0.784)	4.48(0.201,0.999)
No	164(73.5%)	59(26.5%)	1.00	1.00
Ever had sexual partner				
Yes	167(71.7%)	66(28.3%)	0.602(0.394,0.919)	1.36(0.457,4.405)
No	99(60.4%)	65(39.6%)	1.00	1.00
Ever had sexual intercourse				
Yes	151(71.9%)	59(28.1%)	0.624(0.410,0.951)	0.59(0.201,1.732)
No	115(61.5%)	72(38.5%)	1.00	1.00
Perception of risk towards HIV/AIDS				
Yes	134(66.7%)	67(33.3%)	1.031(0.679,1.567)	
No	132(67.3%)	64(32.7%)	1.00	

4. Discussion

The adolescent reproductive health program is one of the priority components of the health extension program. The program is designed to focus on the production of healthy adolescents that will effectively succeed the present generation (18). This community-based study assessed the patterns of family planning and VCT service utilization and associated factors is important to evaluate the progress towards addressing reproductive health problems of adolescents. Family planning service utilization is an essential element of RH service that plays a pivotal role in preventing

adolescents from different health and health related problems that have a negative impact on the overall aspects of adolescents' health status. This study revealed that the utilization of family planning service among adolescents was 71.40%, which was almost similar with a finding in Gondar (79.10%) (19). However, this finding does not go in line with a finding in jimma (17.6%) and machakel district (lower than 16%) (20,21). This could be explained as the study in jimma focused on both sexually experienced and inexperienced adolescents, nevertheless this study firmly focused on sexually experienced adolescents. Urbanization might be a reason for a different finding in machakel district since the

study in machakel was conducted on adolescents live in rural areas. Educational status could also be the possible reason in addition to urbanization given that 18.9% of adolescents in machakel had no formal education that was higher than a finding in this study, which was around 6.80% (21). Around 52.9% of adolescents in this study experienced sexual intercourse. Sexual intercourse during adolescence is normal but experiencing without caution is a risk for different reproductive health problems. In this study, out those who experienced sexual intercourse, 28.60% did not use any modern contraception, which is an indicative of these groups of adolescents were vulnerable to different reproductive health problems like unwanted pregnancy, out of wedlock birth, HIV STDs and unsafe abortion. A study conducted in Gondar showed discussion about RH services with different individuals was significantly and independently associated with RH service utilization (19). Similarly, in this study discussion about family planning with peer groups/friends and sexual partner and discussion about VCT with peer group/friend and health worker were found to be significantly associated with VCT and family planning service utilization. In this study adolescents ever discussed with their sexual partners were 4 times more likely to utilize FP service than their counterparts [AOR=3.62(0.155, 0.843)]. In addition to this, those adolescents who had discussed with health workers were 4 times more likely to utilize VCT service than their counterparts [AOR=4.48(0.201, 0.999)]. This could be justified as discussion about RH services with different individuals allows adolescents to exchange information that facilitate learning and assist them to have further understanding about RH services and avoid misapprehensions in this area. Educational status has an effect on RH services utilization known that education helps to have adequate awareness and understanding about health related topics including RH services. This was divulged by a study conducted in Gondar, which showed that 90.00% and 81.10% of adolescents with secondary education and above utilized family planning and VCT services respectively (19). Likewise, in our study 89.00% and 75.60% of adolescents with secondary education and above utilized family planning and VCT services respectively. On the contrary, adolescents with no formal education were less likely to utilize the RH services as evidenced by only 34.20% and 44.80% of adolescents in Gondar as well as around 12.00% and 44.40% of adolescents in this study utilized family planning and VCT service respectively (20,21,22). Most of our respondents prefer governmental health institutions to get family planning service: 41.20% preferred hospital and 29.30% health center. The same is true for VCT service utilization in which 51.90% and 26.70% get the service from health institutions. The explanation for this could be the services in governmental health institutions are given without payment. Various studies have shown low utilization of VCT service particularly in developing countries. This study tried to look into the level and associated factors of VCT utilization by adolescents in Goba town. The finding of this study showed that utilization of VCT service among adolescents was 67.30%. This result is

not in line with findings in Debre markos (58.50%), Zambia (16.30%) and Kenya (76%) (22, 23, 24, 25, 26). Difference in the composition of study subjects could be the reason for the different findings in Kenya, the study in Kenya was conducted among university students who might have better awareness about HIV and importance of utilizing VCT service. The rationale for the different finding in Debre markos might be; the study in Debre Markos focused on uptake of VCT service in the past twelve months, which in turn could be a reason for lower percentage VCT service utilization. Respondent's characteristic might be a reason for the dissimilar finding in Zambia where 25.80% of respondents mentioned that they had not been involved in risky behaviors that might be a reason for not utilizing the service (27, 28, 29, 30, 31).

5. Conclusion

In general, it was found that the majority of adolescents were utilizing family planning and VCT services. From the family planning methods injectable was the mostly used contraception method among adolescents. Even though majority of adolescents were utilizing FP and VCT services, limited number of adolescents who experienced sexual intercourse did not utilize either FP or VCT services, which could make them vulnerable for different RH problems. For most of adolescents, fear of being detected was the main reason for not utilizing FP service. Furthermore, embarrassment followed by self or partner trust were the two major reasons for not utilizing VCT service. Many of the adolescents had discussed with peer groups/friends and health workers about FP and VCT services respectively. Additionally, adolescents who have discussed with their sexual partner were more likely to utilize FP service and Adolescents who had discussed with peer groups or friends and health workers were more likely to utilize VCT service than their counterparts.

Author's Contributions

BGG, have made substantial contributions to beginning and design, collection of data, analysis and interpretation of data and in drafting the manuscripts and correcting the comment given by the advisors.

AT involved in revising the research paper and the manuscript critically for important intellectual context and approval of the final version to be published and participated in its design and coordination. He participated in the approval and funding process, participated in the design of the study participated in its design and coordination.

NBY, involved in revising the research paper and the manuscript critically for important intellectual context and approval of the final version to be published and participated in its design and coordination,

AAG had greater contribution in reviewing the manuscript English and topography. And helped to draft the manuscript.

YYA had greater contribution in reviewing the manuscript English and topography. And helped to draft the manuscript.

AWH and MKA had greater contribution in reviewing the

manuscript English and topography. And helped to draft the manuscript.

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