ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OFALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

YOUTH FRIENDLY SERVICE UTILIZATION AND ASSOCIATED FACTORS AMONG PREPARATORY SCHOOL STUDENTS IN SODO TOWN, SOUTHERN NATIONS, NATIONALITIES AND PEOPLES REGION, ETHIOPIA

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Approval by the Board of Examiners

This thesis by Natnael Atnafu is accepted in its present form by the board of Examiners as satisfying thesis requirement for the degree of Master of Science in maternal and reproductive health nursing

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Abstract

Background: Youth is a period of life in which an individual passes from significant physiological, psychological and social changes that expose them at high risk of reproductive health problems. Even though, there were several strategies approved to solve reproductive health problems of young people including international conference on population development, they still face with unsafe abortion, unintended pregnancy, sexually transmitted infections, acquired human immune deficiency syndrome, lack of provision of condoms and unmet need of family planning.

Objective: To assess youth friendly service utilization and factor among preparatory schools students in Sodo Town, Southern Nations, Nationalities, and Peoples Region, Ethiopia 2017.

Methods: An institutional based cross-sectional study was conducted among preparatory school students in Sodo Town. Stratified sampling technique was used based on the type of school they had attended. Proportional allocation was done to both government and private schools and to each grade to select 398 respondents. The data was entered with Epi-data version 3.1 and analyzed using SPSS version 22. Descriptive statistics was done and result presented with tables and graphs based on the nature of the variables. Bivariate and multivariate logistic regression was done .The candidate variables with p-value<0.25 in Bivariate analysis were moved to multivariate analysis to identify their significance with dependent variables and those p-Value < 0.05 were taken as independent factors affecting youth friendly service utilization.

Result: Out of the total respondents 40.6% reported that they have ever used YFRHS service in the past twelve months. Youth friendly service utilization was significantly associated with sex(AOR:2.106,95%CI:1.115,2.529),pocket money(AOR:0.60,95%CI:0.379,0.949) and using school as a source of information(AOR=0.589,95%CI:0.372,0.933).

Conclusion and recommendation: Youth friendly service utilization among preparatory school students in Sodo town was low. Factors like sex, pocket money and school as a source of information were predictors of youth friendly service utilization. Awareness creations on YFRHS and service dimension have to be enhanced.

Key Words: Youth friendly Service, Utilization, Sodo Town, Ethiopia.

List of Acronyms and Abbreviations

AIDS Acquired Immune Deficiency Syndrome

EDHS Ethiopian Demography Health Survey

HIV Human Immune- Deficiency Virus

IEC Information, Education and Communication

NGO Non-Governmental Organization

RH Reproductive Health

RHS Reproductive Health Service

SN NPR Southern, Nations, Nationalities and Peoples Region

SPSS Statistical Package for Social Science

SRH Sexual and Reproductive Health

STD Sexually Transmitted Disease

STI Sexually Transmitted Infection

VCT Voluntary Counseling and testing

WHO World Health Organization

YFRHS Youth friendly Reproductive Health Service

1. Introduction

1.1Background

According to world health organization, youth are defined as persons between 15 and 24 years of age who are identified by significant physiological, psychological and social changes that expose their life at high risk and contains about 20% of the world population, of whom 85% live in developing countries(1) .

There is 1.2 billion youth in the world by 2015 which accounts one out of every six people worldwide .In Africa, there is 226 million youths live which accounts 19 percent of the global youth population(2).In Ethiopia, youth accounts 20.4% of the total population (3).

Youth are often considered the healthiest stages of life, but they are also at critical periods which young people are faced with a unique set of threats to their health and survival. They are also confronted with decisions that can have important implications for their future risks of morbidity and mortality. Youths are at risk of unprotected sexual activity, Sexually Transmitted Infection, HIV/AIDS, unsafe abortion, unintended pregnancy, unmeet of family planning and excessive consumption of alcohol(4).

International Conference on Population and Development (ICPD) 1994 prioritized that, Adolescent, sexual and reproductive health issues are addressed through the promotion of responsible and healthy reproductive and sexual behavior, including voluntary abstinence and delivery of services and counseling suitable for that age group and countries were encouraged to ensure that program and attitudes of health-care provider don't restrict the access & utilization of the services and information for youth when they need(5).

Youth friendly services are services that are accessible, equitable, comprehensive, efficient, acceptable and appropriate for the youth. They are in the right place at the right price (free where necessary) and delivered in the right style to be acceptable to young people and are effective, safe and affordable. They include counseling, family planning, voluntary counseling and testing and treatment of STI as defined by world health organization (6).

1.2 **Statement of the problem**

Young people aged 15–24 years accounted for almost half (42%) of the infection reported worldwide of whom 80% are living in sub-Saharan Africa. There is an only28% woman and 36% of men have knowledge about HIV in this region(7, 8).According to Ethiopian demography health survey (EDHS)2016, among youth 39 percent of women and 24 percent ofmen have knowledge about HIV/AIDS and 22 percent of unmet need of family planning (9).

Globally there is more than 4.4million young people between the age of 15 and19 years have abortion every year and 40% of which is unsafe. The prevalence of sexually transmitted disease including HIV/AIDS is relatively high among young people in Ethiopia. According to HIV sentinel surveillance young girls attending antenatal care, the prevalence is 11 percent for girls 15-19 years and 15 percent for 20-24 years of aged(10).

There is 13million young aged girls of 15-19 years and girls younger than the age of 20 years have unintended births each year and the presence of unmet need for contraceptive exists among both married and unmarried individuals in the developing world. In this region, forty one and fifteen percent of unsafe abortion takes place among young women age of 15-19 and 15-24 years respectively (11).

There is an estimation of over 40% unintended pregnancy worldwide resulting from non-use, ineffective use or method failure of contraceptive(12). The young people in southern and Eastern Africa, access to contraception condoms, HIV testing and counseling or treatment is severely hampered(13).

About nineteen percent of girls in developing countries become pregnant by age 18 and three percent by age 15. Countries in west and central Africa have the largest proportion of women who give birth during adolescence (14).

The existing RH services for youth are not well organized to meet their RH service needs and much has not been done to make the health services youth friendly. Even though ,various national policies and strategies including the national youth policy issued in 2000 and the Youth Sector

Development Plan from 2006-2010 was conducive in Ethiopia, there was no widely disseminated and implemented (6).

According to the national study done by federal ministry of health on selected urban areas of Ethiopia, Southern Nations ,Nationalities and people region was one of them which showed that youth couldn't properly utilize the available health service(15). Moreover, the evidence for low and improper utilization of RH services is not well known. Therefore, the purpose of this study helps to identify the gap in the process of service provision and attraction of youth to utilize the available youth friendly reproductive health services.

1.3 Significance of the study

The study on utilization of youth friendly reproductive health services is the key for the improvement in the quality of life of the youth. The finding acquired from this study would be scaled up the understanding of pattern of demand and uptake of reproductive health services among preparatory school students in Sodo town. Health care planners might use information generated from the study to improve service delivery dimension and quality among preparatory school students in Sodo town.

The findings of this study will also serve as a reference for giving intervention to the health care providers and others for conducting further researches. In addition to this, it will have special importance for health care providers to serve as base line information for filling gaps of the actual practices on youth RH services.

2. Literature review

2.1 Overview of Youth Friendly Service

Youth Friendly Reproductive Health Services (YFRHS) should have to be accessible, acceptable, effective and appropriate for the young people to effectively bring them to the service, secure their needs and maintain them for consistent use of the service. The services are providing accurate IEC on SRH, voluntary counseling and testing, contraceptive counseling and provision, sexual violence counseling, treatment and referral, sexually transmitted infection counseling, testing and treatment, post abortion care, antenatal and postnatal care, referral for delivery and other cases(16). Literature reviewed utilization of YFRHS globally, regionally in Africa and also in Ethiopia illustrates socio- demographic, economic and cultural, knowledge and health system factors which influence access and utilization of the service.

2.2Youth friendly service utilization

A community based study conducted in Mandalay City, Myanmar on 444 randomly selected youths between 15 and 24years of age to assess baseline information on access and utilization of RH services and unmet needs among youths living in resource- limited, suburban communities of Mandalay City, Myanmar. The finding revealed that 67% participants had ever utilized at least one type of RH service. The most utilized service was family planning (70%) (17).

The survey conducted on 6,752 youths in India showed that reproductive health service utilization is low. Only 31% of young married women without children used contraceptives to delay first birth and 30% unmarried young women seek abortion services(18). On the contrary to this, study conducted in Malawi, majority of the respondents (62%) was visiting the YFHS and the services mostly provided were HIV testing, general counseling and contraceptives (19).

A finding from an institutional based study conducted in Nigeria revealed that (51%) of the study participants had ever used reproductive health services while 29.7% gained in the last six month preceding the survey. Schools were the main sources of information (29.7%), followed by radio (24.5%) and health professionals (21.4%).The services rendered in the facilities as reported by respondents health education (60.7%), family planning (60.2%), antenatal (57.1%) and VCT services. Private hospitals (43.1%) followed by government health facilities were the sites where

most participants gained access to SRH services. However, a few (3.3%) patronized traditional health practitioners (20).

According to a community based study done in Jimma the finding revealed that 41.1% of the participants utilize reproductive health services, of which, family planning, STI and abortion care were accounts 17.6%,5%,and 3.1% respectively(21).

Findings from the community based study conducted in Albuko woreda, south wollo zone, Amhara region showed that 34.1% of the respondents utilized youth friendly service and the services used by the majority of participants include receiving information about sexual issues, family planning counseling, and recreational services 75.8%,73% and 68% respectively(22).

According to a community based study conducted in Machakel district,East Gojam zone, Amhara Region only 21.5% of the study participants used reproductive health service. The services were used by the majority of the participants are STI treatment and family planning which were 23.1% and 30% respectively (23) .Another study conducted with the same zone in Awabale district also showed that only 41.2% of the study participants had utilized sexual and reproductive health services. The mostly delivered services were IEC, contraceptives& condoms, VCT, STI & abortion and post abortion care(51.1%,25.4%,10.4%, and 2.6%) respectively{23}.

A community based study conducted in Badwachew, Hadiya zone, South Region 29.4% of the respondents had utilized the reproductive health service. Among the most common family planning services delivered pills, injectables and condoms were 64.8%, 47.7% and 40.6% respectively(25) .

A finding from the community based study in Harar on a sample of 845 study participants showed that 64% of the participants had utilized youth friendly service utilization. The services which were utilized by the majority of the participants were STI, counseling, and condom were consisted 57.4%, 44.7% & 53.1% respectively (26).

According to the study done in Bahirdar town 32% of youths had utilized youth friendly service utilization(27). Another study also done in Goba town showed that71.4% and 67.3% of the services were accounted family planning and VCT services respectively (28).

2.3 Barriers to utilization of YFRHS

Program for appropriate technology in health study which is conducted to evaluate youth friendly services (YFS) in Shanghai obtained that there was good infrastructure, equipment, staff and good environment at the city, district, and school level, few amount of youths used YFRHS because of the existence of insufficient publicity and inconvenient time (29).

According to a community based study conducted in Matawara district, Tanzania many health facilities do not have skilled service providers on sexual reproductive health rights. Furthermore, Girls start sexual intercourse between 9 and 12 years the services sought to included; education, family planning and voluntary counseling and testing for HIV. Because of the existence of lack of privacy, confidentiality, and the service were inaccessibility (30) .

A project conducted in Malawi states that the factors discourage the utilization of youth friendly service were Long distances to the health facility, Lack of knowledge about the service and where they are delivered, fear of being seen by parents, Lack of youth participation in the design and implementation of the activities(19).

A study in Burkina Faso, Ghana, Malawi and Uganda the major challenges for utilization of reproductive health service were a substantial proportion of sexually-active adolescents do not know of any source to obtain contraception or get STI treatment, and financial cost remain common barriers to getting services(31).

An institutional based study conducted in Bahirdar on the sample of 818 study participants the Barriers in utilizing reproductive health services, for 31% of the students were due to inconvenience hours and 28.5% were due to fear of being seen by parents or people whom they know (27).

According to the community based study done in Awabale district, East Gojjam zone Amhara Region the main reason for not using reproductive health (36.2%) were cost of service and commodities(24).

2.4. Factors affecting youth friendly service utilization

2.4.1 Socio -demographic and Socio-cultural factors affecting YFS utilization

The community based studies in Awabel district, Goba town and Gondar showed that parental communication and co-residence with parents were significantly associated with the use of VCT and family planning services and reproductive health service utilization respectively (24, 28, 32).

According to the finding from the community based study in Machakel district ,east Gojjam zone, Amhara region ,sex, age, being in school and educational status were significantly associated with reproductive service utilization(23).

An institutional based study conducted at Goba town having gain a pocket money, grade level, co-residence and parental communication were significantly associated with utilization of youth friendly sexual and reproductive health service (37).

Astudy in Bahirdar and Jimma showed that age (20-24) is significantly associated with reproductive health service utilization. However, a study conducted in Jimma demographic and socio-economic variables such as education level and schooling did not show statistically significant association with ever or current use of RH services(21, 27).

2.4.2 Knowledge factors that affect youth friendly service utilization

According to an institutional based study conducted from Nigeria awareness of RH services and discussion of SRH issues with parents were associated with utilization of SRH services(20).A study in Machakel district, East Gojjiam zone, Amhara region more than two-third (67%) of the adolescents had awareness about reproductive health. Age, living arrangement and economic status were associated with reproductive awareness. In addition to this 72% of the participants had heard about VCT services(23).

A study in Jimma showed that significant association was observed between utilization and knowledge about reproductive health services and source of information. In addition to this,82.2% of youth reported that they knew where YFS are delivered (21).

A community based study in Goba town awareness of family planning and VCT services were 9 and 3 time more likely to ever use RH services. Therefore, Adolescents who had interaction with family and peers and had access to pamphlets and posters as source of information for RH services were more likely to be ever used. Therefore, 92.2% and 93.7% of the respondents had heard about family planning and VCT services respectively(28).

According to the study conducted in Harar using friends, and schools as a source of information about reproductive health service were significantly associated with youth friendly service(26).

A study in Mekelle showed that 69.1% of the respondents utilized youth friendly services whereas 47.1% reported that they did not know where to go as a main reason for not using YFS. The majority of the respondents 89.4% had information about YFS and 35.5% heard from media. In addition to this, 86.1% of the respondents heard about sexual and reproductive health information &94 % of the participants had information about VCT(33).

2.4.3 Health system factors affecting youth friendly service utilization

The study conducted in South Africa and a study in Burkina Faso, Ghana, Malawi, Uganda the health system factors which affected reproductive health service utilization were including weak referral system, long distance of the health facility and lack of financial resource(31, 34).

According to the study conducted in Bahirdar results revealed that 13.6% of the participants did not access health services nearby and 15.5% could not afford for payment(27).A study conducted on health provider in Ethiopia indicated being married ,lower educational level, being a health extension worker and participants that do not use family planning were significantly associated with provision of sexual and reproductive health services to adolescents (35).

The findings of the study from Dejen district in Amhara region, Ethiopia on a sample of 690 young participants studied about utilization and satisfaction of YFRHS, (45.4%) used health services at the last one year; among these, (60.7%) were satisfied. Physical proximity ,drug availability, availability treatment in separate room, checked all adolescents problem ,treated with respect and opportunity to explain feeling were predictors of satisfaction (36)

2.4 Conceptual framework of the study

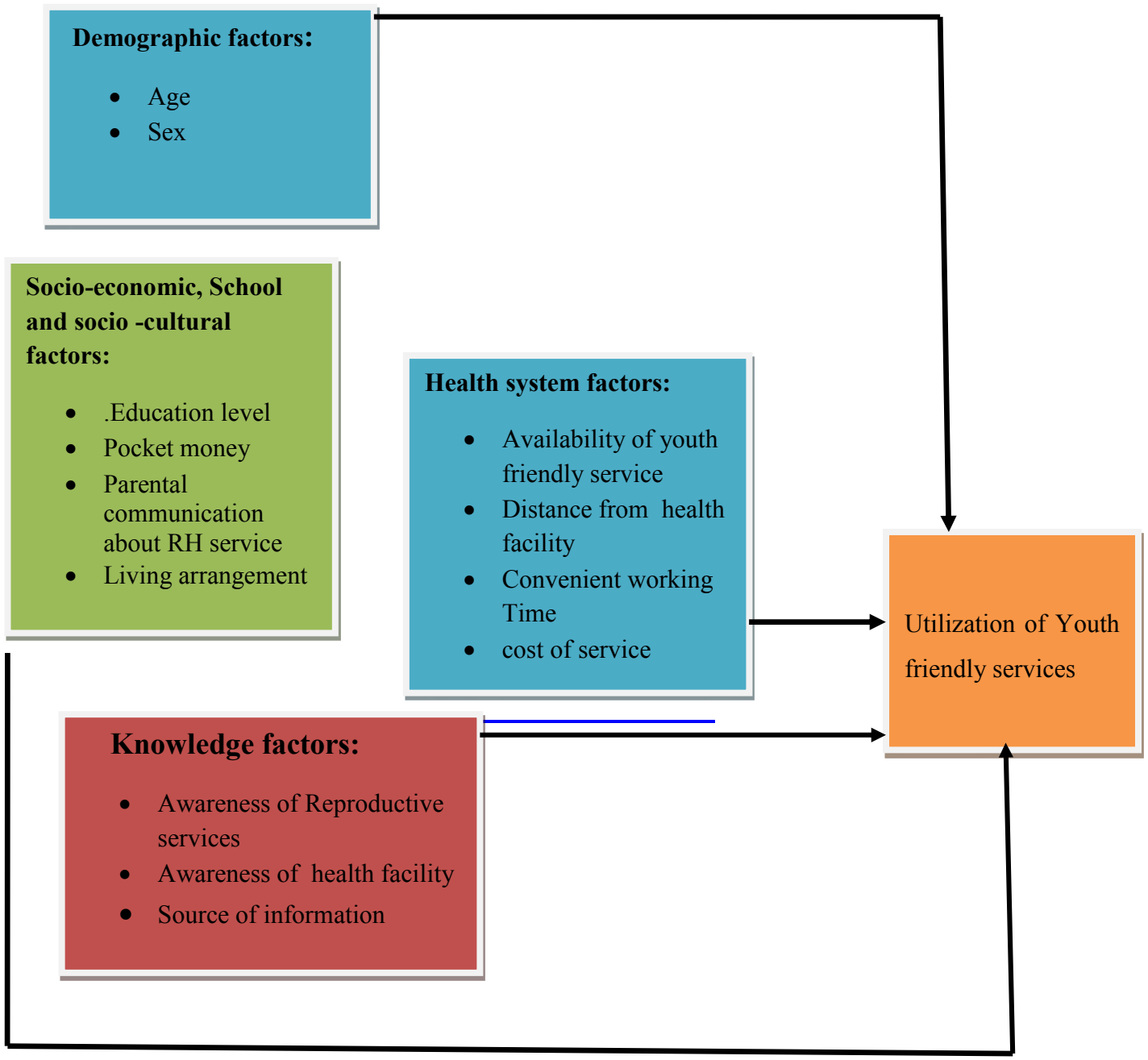


Figure 1.This conceptual framework is adapted from literatures

3. Objectives

3.1 General objective

- To assess youth friendly service utilization and associated factors among preparatory school students in Sodo Town, Southern Nations Nationalities and Peoples Region, Ethiopia 2017

3.2 Specific Objectives

- To determine the proportion of youth friendly service utilization among preparatory schools students in Sodo town
- To identify factors associated with youth friendly service utilization among preparatory schools students in Sodo town

4. Methodology

4.1 Study area

This study was conducted in Sodo town .It is an administrative town of Wolaita zone which is 330 Km away from the capital city of Addis Ababa. It is found at a latitude and longitude of $6^0$54'N$37^0$45'E, 2025 meter above sea level and an area of 25.6 km^2.According to the Central Statistical Agency of Ethiopia at 2016, Sodo has a total population of 76,050 of whom 40,140 men and 35,910 of women and also 15,850 households and there is 7044 of the young population according to the town information desk affairs beaurea. Among these the majority of the population is Protestant 54.61% followers and the rest is Orthodox Christian (38.43%), Muslim 4.76% and Catholic (1.28%). The town has one hospital, three health centers, a youth center and family guidance association of Ethiopia which deliver youth friendly service and four preparatory schools of which one is governmental.

4.2 Study design and period

An institutional based cross-sectional study was conducted to generate quantitative finding through assessing youth friendly service utilization and associated factors among preparatory school students in Sodo town, Southern Nations, Nationalities and Peoples Region, Ethiopia. The study was conducted from March 25-30, 2017.

4.3 population

4.3.1 Source population

All preparatory school students aged 15-24 years lived in Sodo town.

4.3.2 Study Population

All students aged from 15-24 years who were selected and available during the study period at preparatory school in Sodo town.

4.4 Eligibility criteria

4.4.1 Inclusion criteria

Regular students who were at the age of 15-24 years of old and gave consent at preparatory schools in Sodo town were included in the study.

4.4.2 Exclusion criteria

Students who were absent due to severe physical or mental illness during the data collection period.

4.5 Sample size determination

A single population proportion formula was used to estimate the sample size. From the study conducted in Goba town taking youth friendly sexual and reproductive health service utilization as 38% (37) a confidence level of 95%, marginal error of 5%, and adding 10 percent non- response rate. The final total sample size was 398.

$$n = \frac{Z^2 P\, q}{d^2}$$

Where: n = the desired sample size

z = 1.96 which corresponds to 95% confidence level

p=38% which is reproductive health service utilization from Goba town..

d=5% which is margin of error

q=1-p: (1-0.38=0.62)

Therefore n=(1.96*1.96*0.38*0.62)/(0.05*0.05)=362

Then, adding 10 percent non-response rate the final sample size was 398.

4.6 Sampling procedure

All the four preparatory school were included in the study. A stratified sampling technique was used based on type of school (private and government) preparatory schools .Government preparatory school students have learnt both natural and social sciences whereas privates students have attended only natural sciences. Proportional allocation was made to both governmental and private schools and each grade based on their number of students available. Finally, Study participants were selected by simple random sampling technique of computer generating method of using their identification card after proportionally allocated to each grade and field of study.

Proportional allocation formula

$$n_j = \frac{n\ N_j}{N}$$

Where, n_j is the sample size of the J^{th} stratum

$N_{j=}$ is the population size of the J^{th} stratum

$n=n_1+n_2+\ldots\ldots\ldots\ldots+n_k$ is the total sample size

$N=N_1+N_2+N_3\ldots\ldots+N_K$ is the total population size

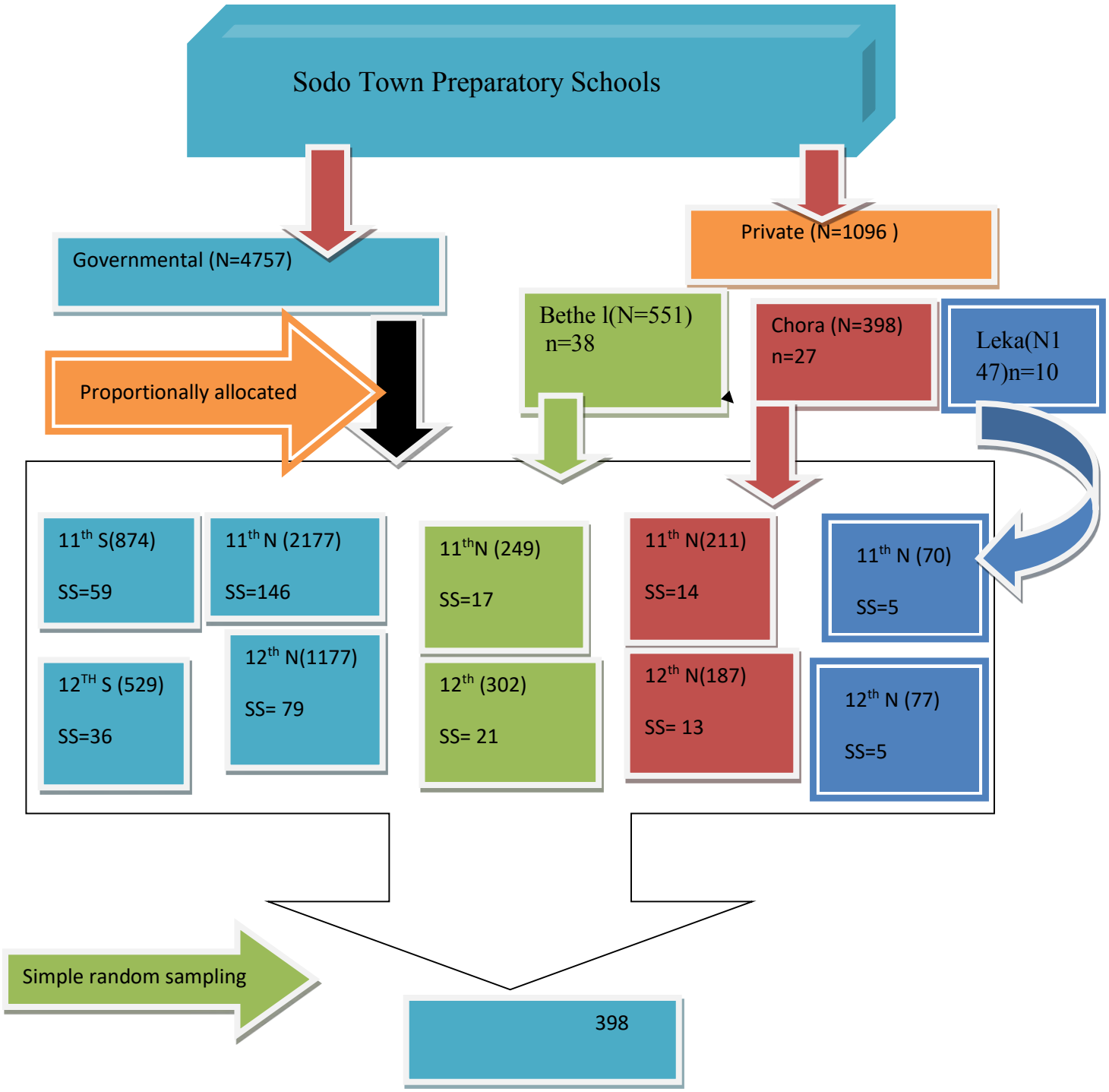
$n_g = \frac{4757\times398}{5853} = 323$, sample size of government student preparatory

$n_p = \frac{1096\times398}{5853} = 75$, sample size of private preparatory

Leka = $\frac{147\times75}{1096} = 10$, allocated to Leka preparatory school

Bethel = $\frac{551\times1096}{1096} = 28$, allocated to Bethel preparatory school

Chora = $\frac{398\times1096}{1096} = 10$, allocated to Chora preparatory school



**SS=sample size allocated*
**11thS=grade eleven social*
**11thN=grade eleventh natural*
** 12thS=grade twelve social*
**12thN=grade twelve natural*

Figure 2 Schematic representation of the sampling procedure in Sodo town, Ethiopia 2017.

4.7 Variables of the of the study

4.7.1 Dependent variables

- Youth friendly service utilization

4.7.2 Independent variables of the study

- Demographic factors such
  - Age
  - Sex
- Socio-economic, socio-cultural and school factories
  - Educational level
  - Living arrangement
  - Parental communication about RH issue
  - Pocket money
  - Marital status
- Knowledge related factors
  - Awareness of reproductive health facility
  - Awareness of reproductive health services
  - Source of information
- Health system factors
  - Distance from health service
  - Availability of youth friendly service
  - Convenient health institution working hour
  - Payment for youth friendly services

4.8 Data collection tools and procedures

A structured self-administered questionnaire was used to collect the data. The questionnaire was adapted by combining John Cleland's illustrative questionnaire for interview survey with young people's (39) and several literatures reviewed to achieve research objective. The questionnaire contains socio-demographic characteristics, health system factors and knowledge related factors and utilization parts. It was translated from English to Amharic and then back to English with language experts to keep consistency. Six diploma nurses and two BSC level health professionals were recruited and trained as a data collectors and supervisors, respectively. The data collection training was given for one day concerning about the aim of the study, contents of the questionnaire, definition of terms in the questionnaire, issues of confidentiality and privacy. The lists of students' identification card were obtained from the school director office. Then the identification card was selected by using computer generating simple random method from the list. The director conveys a message for teachers to permit the selected individuals to participate in study. The data collectors picked up each individual by using the computer generating number from each class and grade. Finally, the selected individuals were asked about their voulenterness to participate in the study and questionnaires were administered by data collectors for volunteers'.

4.9. Operational definitions

1 .Youth**:** The preparatory school students who were at the age of 15-24years in this study**.** 2**.** Youth friendly service utilization: it was measured by asking the respondents history of utilizing one or more reproductive health services components (abortion, antenatal care , family planning, VCT, STI treatment and diagnosis, post natal care, information, education and counseling) in the past twelve months.

3. Youth-friendly services: It was measured by the available component of services within YFS clinics at Sodo town (family planning, VCT, STI diagnosis and treatment, abortion care, post abortion care, PNC and condom use) in this study.

5. **Data quality assurance**

A pretest was conducted on 20 students (5%) of the sample before collecting the data on Daworo-tercha town preparatory school students. Collected data was checked for incompleteness and inconsistency by the supervisors and principal investigators. The necessary feedback was given to research team before the actual procedure started.

6. Data processing and analysis

The data obtained from each respondent was entered using Epi-data version 3.1 and exported to SPSS version 22 for analysis. Descriptive statics (frequency, mean and standard deviation) was used to describe the study population in relation to relevant variables. Bivariate and multivariate models were used to assess the presence of any association between each independent variable (socio-demographic, health system and knowledge related variables) and dependent variable (Youth friendly service utilization).Crud and adjusted odd ratio were used to know and ascertain any association between the independent and dependent variables while significance was declared using 95% confidence interval. Those candidate variables at Bivariate logistic regression with a p-value<0.25 were moved to Multivariate logistic regression model for the dependent variables to control potential confounding variables. P-value<0.05 at multivariate analysis was considered as statically significant to this study.

7. Ethical consideration

Ethical clearance letter was obtained from Addis Ababa University, College of Health Sciences; Department of Nursing and Midwifery institutional review board (IRB). Official letter was received from the department of nursing and midwifery and submitted to Sodo town education office. The office permitted the request and announces each preparatory school for their cooperation to do this research. The aim of the research was explained for the study participant. Informed oral consent was obtained for respondents above 18 years of old and for those who are under18years oral assent from them and consent obtained from the school directors before collecting the data. Respondents were informed that participating in the research is not harming them instead helps to create awareness about the issue. The right to withdraw the consent whenever they want was also respected. The participants' confidentiality and privacy was kept.

8. Dissemination and utilization of results

The result of this study will be disseminated to Sodo town health office, Wolaita zone youth and children affairs, Wolaita zone health office, SNNPR health office, Addis Ababa University, college of allied health sciences, department of nursing and midwifery, Federal ministry of health and NGO's that are Interested in working in the area. In addition to this, efforts will be made for publication in local and international scientific journals.

5. Result

5.1 Socio-demographic characteristics of study participants

There were a total of three hundred ninety eight study participants with a response rate of 99 percent. Among these 214(54.3%) were males and the remaining 180(45.7%) were female respondents. Two hundred eighty six (72.6%) of respondents were between 15 and 19 whereas108 (27.4%) were between 20- 24 years of old and a mean age of 18.7(+/-2.145 years). The majority of the respondents 247(62.7%) were protestant by religion and Wolaita by ethnicity 325(82.5%)

Among the total of 394students more than the average (69.5%) of them were living with both parents followed by father only 23 (5.8%), mother only 37(9.4%), with friends 34(8.6%), alone 24(6.1%) and others 2(0.2%). Regarding about respondents father educational status, fifty three (13.5 %) of them had no primary level of education, one hundred thirty eight 138(35%) had primary level of education and the remaining two hundred three (51.5%) had secondary and above level of education. Concerning with the respondents mothers educational status forty five (11.4%) had no formal education, one hundred thirty eight (25.6%) had primary level of education and two hundred forty eight (63%) had secondary and above level of educational status. Only 236(59.9%) of the participants gained pocket money and 158(40.1%) did not gain pocket money.

Table 1.Socio-demographic characteristics of students in Sodo Town, Ethiopia, 2017(n=394)

Variables	Frequency	Percentage
Sex		
Male	180	45.7
Female	214	54.3
Age		
15-19	286	72.6
20-24	108	27.4
Marital status		
Single	307	77.9
Married	54	13.7
Living with girl/boy friend	33	8.4
Type of school		
Government	312	79
Private	81	21
Grade level		
Grade 11	217	55.1
Grade 12	177	44.9
Religion		
Protestant	251	63.7
Orthodox	109	27.7
Muslim	16	4.1
Catholic	4	1
Other	14	3.6
Ethnicity		
Wolaita	325	82.5
Oromo	24	6.1
Amhara	24	6.1
Tigrie	3	0.8
Other	18	4.1

**siltie was other ethnicity*

**Pagan was other religion*

Table 2.The family characteristics of respondents in Sodo town, SNNPR, Ethiopia, 2017

Variables	frequency	percent
Living arrangement	274	69.5
With father and mother	23	5.8
With father only	37	9.4
With mother only	34	8.6
With friends	24	6.1
Alone	2	0.2
Other		
Fathers educational status	53	13.5
No formal education	138	35
Primary level of education	203	51.5
Secondary and above		
Mothers educational status		
No formal education	53	13.5
Primary education	138	35
Secondary education	203	51.5
Perceived family monthly income		
<600	11	2.8
601-1650	134	34
1651-3200	140	35.5
3201-5250	91	23.1
5251-7800	16	4.1
7801-10900	1	0.3
>10900	1	0.3
Gain pocket money		
Yes	236	59.9
No	158	40.1

**Income category was based on civil service taxation cutoff points*

**livings with friends were other living arrangement*

5.2 Reproductive health knowledge related factors

The participants were asked if they had ever heard about youth friendly service 349(88.2%) out of the total of 394 responded that they had heard. The majority of the respondents 187(21.8%) had heard about family planning followed by VCT 185(21.5%). Only 129(37.1%) had ever heard only one type of youth friendly service and the remaining 219(62.9%) had ever heard about two and above type of service.

Two hundred eighty nine (82.6%) knew the place where youth friendly service was delivered. Among the respondents asked about the right to use youth friendly service 250(79.6%) of them

knew that they had the right to use the service. One hundred seventy four (49.7%) of the study participants reported that they had a parental discussion about the issue of reproductive health service.

Out of the total respondents 300(85.7%) of them reported that they knew one or more methods of preventing pregnancy. Among these, only 114(37.9%) knows one type pregnancy prevention methods and the remaining 187(47.5%) knows more than one type of pregnancy prevention methods. The most known preventing methods of pregnancy by the respondents was condom 216(25.8%) followed by implanon179 (21.4%).

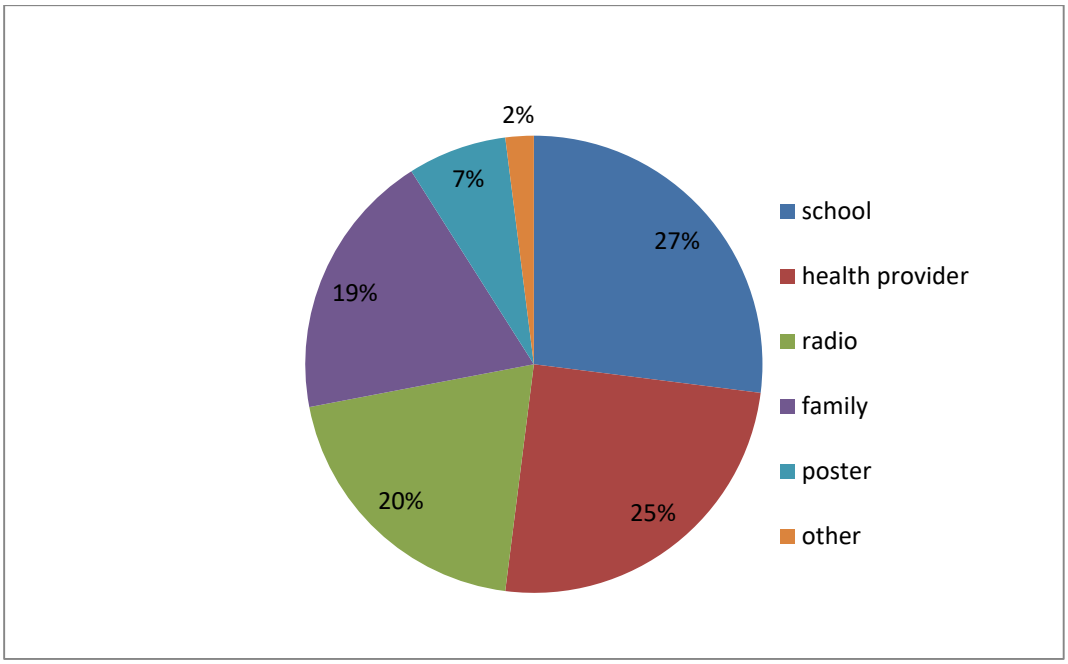
Two hundred eighty eight (82.3%) of the respondents reported that they had ever heard of the one or more sexually transmitted infections. The most commonly reported STI was HIV/AIDS 177(38.6%) followed by syphilis 133(29%). The major symptom of STI reported by the study participants was genital ulcer 186(39.1%) followed by burning sensation during urination 127(26.7%). The most frequently mentioned STI mode of transmission was unprotected sexual intercourse 224(77.2%) followed by contact with infectious blood 71(24.5%), mother to child transmission 69(23.9%), using sharp materials together 50(17.2%) and other STI mode of transmission 11(3.8

Table 2. Reproductive health knowledge related factors in Sodo town, Ethiopian2017.

Variables		Frequency	Percentage
Ever heard YFRHS (n=394)	Yes	349	88.2
	No	45	11.8
Know services provided			
Family planning		187	21.8
STI		88	10.2
VCT		185	21.5
IEC		131	15.2
Abortion		79	9.00
Antenatal care		56.0	6.50
Condom		135	15.7
Know right to use service	Yes	250	79.6
	No	64.0	20.4
Know service place	Yes	289	82.6
	No	61.0	17.4
Pregnancy preventing method (n=354)			
Condom prevents pregnancy		216	25.8
Implanol prevents pregnancy		179	21.4
Pills prevent pregnancy		157	18.8
IUCD prevents pregnancy		127	15.2
Injectables prevent pregnancy		147	17.6
Ever heard STI(n=350)			
Hear syphilis		133	29.0
Hear gonorrhea		85.0	18.5
Hear cancroids'		53.0	11.5
HIV/AIDS		177	38.6
Knew signs/symptoms of STI			
Knew ulcer		186	39.1
vaginal/urethral discharge		87.0	18.3
Knew Itching		67.0	14.1
Knew burning sensation		127	26.7
Mode of STI transmission			
Mother to child transmission		69.0	18.5
Contact with infectious blood		71.0	25.0
Unprotected sexual intercourse		224	35.5
Using sharp materials with infected person		50.0	12

.

The main source of information for the study participant was teachers 148(26.8%) followed by health care provider 139(25.1%).Among the total respondents 202(59.4%) had only one source of information and 138(40.6%) had 2 and above source of information



**friends were other source of information*

Figure 3.Source of information among preparatory students in Sodo town, Ethiopia,2017.

5.3 Health system factors in Sodo town preparatory school

Majority of the respondents 306(77.7%) had an awareness of the presence of the YFRHS in their living surrounding. Two hundred six (52.5%) of the study participant said that they were requested to pay for the service and 187(47.5%) were not requested.

One hundred fifty two (38.6%) of the respondents said that the health facility working time was not convenient and 242(61.4%) was convenient to use youth friendly service. Among those who were asked the option of their convenient time to use the service,90(36.4%) mentioned that weekend as a convenient time followed by 67(27.1%) public/school holly day,57(23.1%) after noon and 33(13%) early in the morning .

Out of the total 394 respondents'36 (9.1%) responded as it needs 5-10 minutes, 199 (50.5%) 11-30 minutes, 67(17%) 31- 60 minutes and 92 (23.4%) more than an hour for a single journey to reach the health centers to utilize YFS services by walk from residence.

5.4 Youth friendly service utilization in Sodo Town

Out of the total respondents 160(40.6%) reported that they have ever used the service in the past twelve months of whom 61(33.9%) were females .One hundred ten (22.5%)used VCT service making it the most utilized followed by family planning 96(19.7%),IEC 83(17%),condom 82(16.8%),STI treatment 56(11.5(%),37(7.6%) of them used abortion service,12(2.5 %) used post abortion service ,6(1.2%) used antenatal care service and other services 6 (1.2%). One hundred sixteen (72.5%) of the study participants had used more than one type of service where as 44(27.5%) used only type one service.

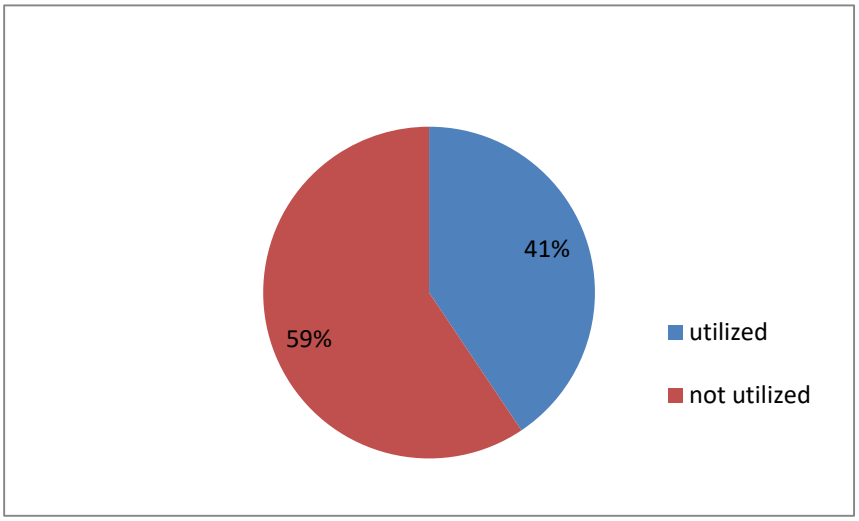


Figure 4, Youth friendly service utilization in Sodo town, Ethiopia, 2017.

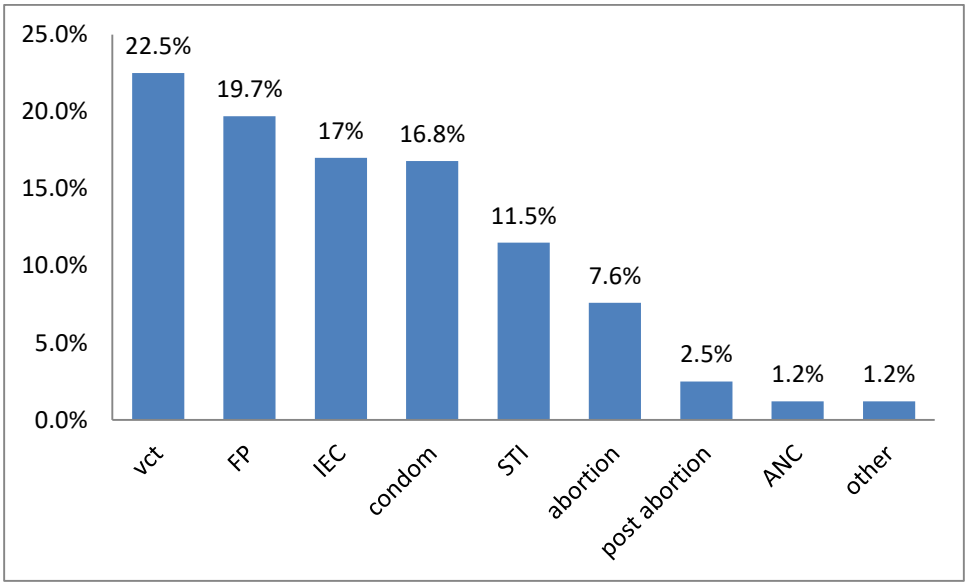
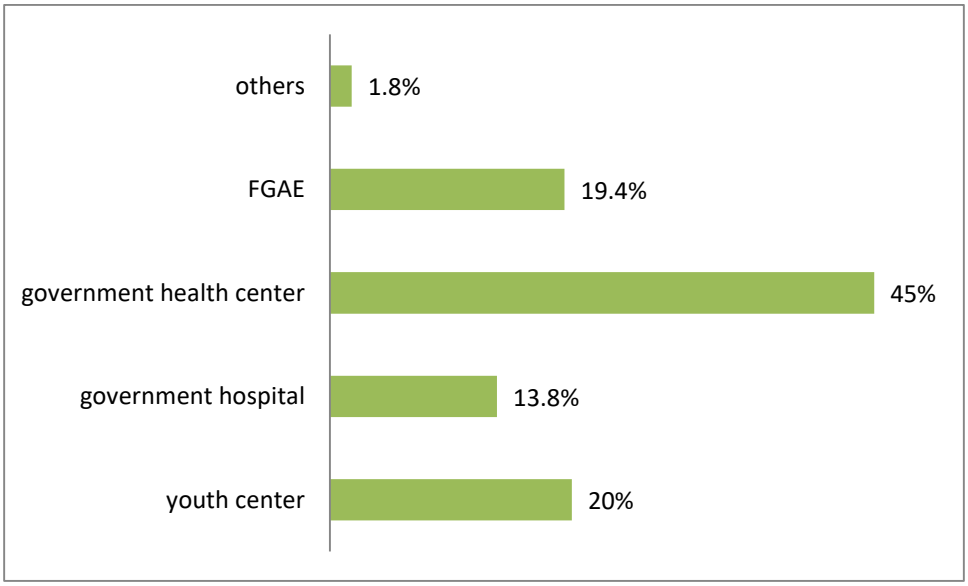


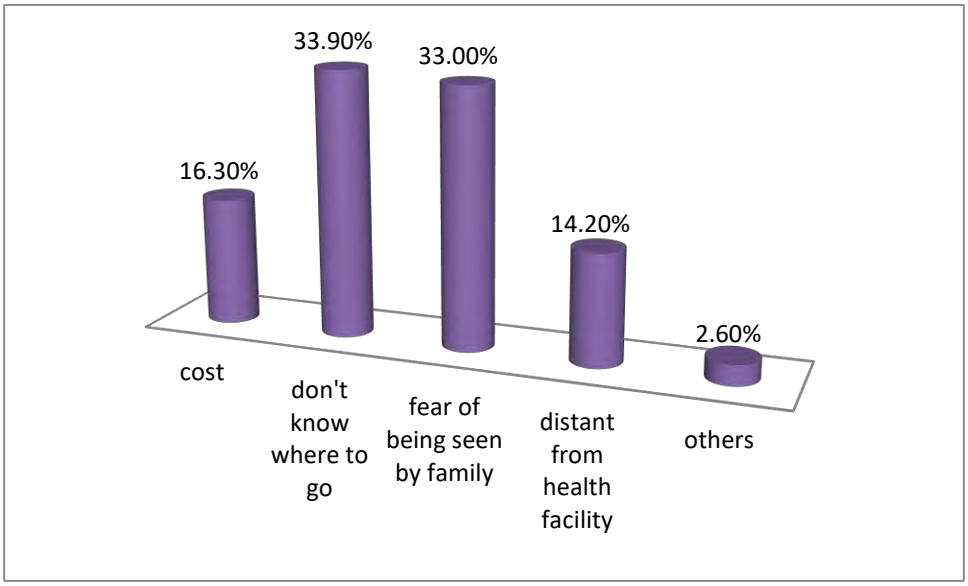
Figure 5.The type of services utilized by the study participants in Sodo town preparatory school students, SNNPR ,Ethiopia ,2017**.**



**Private clinic was other institution used*

Figure 6. Health institutions that respondents received service

Among those who did not use the service about one third (33.9%) of the respondents reported that the reason not to use YFRHS was "they do not know where to go" followed by 33% who said "fear of being seen by families or peoples whom they know".



** having not a sexual partner was other reason not to use*

Figure 7. Reason not to be used youth friendly service by preparatory school students in Sodo town, SNNPR, Ethiopia2017**.**

5.5 Factors associated with youth friendly service utilization

On Bivariate analysis sex of the respondents, having pocket money, cost of payment to youth friendly service ,convenience of health institution working time, using as a school as a source of information and fathers educational status showed that astatically significant association with youth friendly reproductive health service utilization.

On multivariate analysis the respondents being female, having a pocket money for daily expenses and used a school as a source of information were found to have statistically significant to youth friendly service utilization. Females were 2 times more likely to use youth friendly service than males counter parts (AOR=2.106, 95%CI: 1.115, 2.529). Participants who did not have gained a pocket money for daily expense were 40% times less likely to utilize youth friendly service than those who had gained pocket money for their daily expenses (AOR=0.60,95%CI 0.379,0.949). The respondents who did not use a school as a source of information were 41.1% times less likely to utilize youth friendly service utilization than those who use teacher as a source of information (AOR=0.589,95%CI:0.372,0.933).

Table 3. Bivariate and multivariate analysis of factors affecting youth friendly service utilization among preparatory school students in Sodo town, SNNPR, Ethiopia 2017

Variables	**Utilization**		**OR,95%CI**	
	Yes	No	COR	AOR
Sex				
Male	99(46%)	115(46%)	1	1
Female	61(33.9%)	119(66.1)	1.679(1.115,2.529)*	2.106(1.115,2.529)**
Father's edu. Status				
No formal education	23(52.3%)	21(47.7%)	0.514(0.270,0.978)*	0.529(0.266,1.053)
Primary education	43(48.3%)	46(51.7%)	o.602(0.370,0.979)*	0.628(0.363,1.087)
Secondary and above	94(36%)	167(64%)	1	1
Pocket money				
Yes	84(45.6%)	152(64.4%)	1	1
No	76(48.1%)	82(51.9%)	0.596(0.396,0.899)*	0.60(0.379,0.949)**
Convenience of time				
Yes	51(33.6%)	101(66.4%)	1	1
No	109(45%)	133(55%)	0.616(0.404,0.939)*	0.744(0.465,1.189)
School as Source of information				
Yes	51(34.5%)	97(65.5%)	1	1
No	94(46.5%)	108(53.5%)	0.604(0.390,0.936)*	0.589(0.372,0.933)**
Payment to YFRHS				
Yes	94(45.4%)	113(54.6%)	1	1
No	66(35.3%)	121(64.7 %)	1.525(1.016,2.289)*	1.311(0.836,2.054)

**=significant at p-value<0.25*

*** =significant at p-value <0.05*

6. Discussion

This study was conducted to determine youth friendly service utilization and associated factors among preparatory school students in Sodo town, SNNPR, Ethiopia, 2017. Therefore, utilization of youth friendly service was found to be 40.6%, elicited by asking the past one year use of RH services before the date of data collection.

This finding was higher as compared to a study conducted in Bahirdar (32%) and community based study in Albuko woreda, Wollo, Amhara region (34.3%), Machakel district, Amhara region (21.5%) and Badwachew woreda, Hadiya zone (29.4%) {23, 24,26, 40}. The reason for the discrepancy may be due to urbanization which enables youths from this study area to access information easily than rural youths from Albuko woreda, Badwachew woreda and Machakel district. In addition to this, the possible explanation with Bahirdar might be due to age profile (15-19) years of the respondents and lower educational status than the study area which might in turn affect the entire utilization.

The finding has not shown a significant difference when it is compared with a study done Addis Ababa more than a decade ago in which the service utilization was found to be 40%; the result of this study might indicate that the policies and strategies set in place to promote youths' RHS; there may be gaps when it comes to implementation in the health institution. This finding is almost consistent with the result of a community based study conducted in Awabale district, East Gojjam Zone, Amhara region (41%) ,Jimma town(41.1%) and Goba town (37.2%) {21, 24, 36}.

Utilization was lower than a study conducted in Harar which revealed that (63.8%) and Mekelle town (69.1%) .This variation might be due to the difference in socio-cultural factors and openness of the study participants between the two areas with this study area {26, 33}.

This finding is also lower than the community based study conducted in Mandalay City, Myanmar 67% and an institutional based study in Nigeria (51%) and Gahanna (55.8%). The difference in result may be due to the socio-economic, infrastructure, availability and accessibility of health facility, urban-rural residence and transportation difference between the these countries with this study area which can influence the health delivery system{18,20,38}.

The major youth friendly service utilized by the respondents was VCT (22.6%). This finding is higher than the study conducted in Brukinafaso, Ghana, Malawi and Uganda (4-16%) of females and (5-7%) of males utilized{31}.This is may be due to respondents from these countries were from 12-19 years of old and the age profile of the study subjects can affect the sexual status and in turn affects over all RH service utilization. This result is also greater than community based studies conducted in Awabale district (10.4%) and Badwachew woreda (30%) .The possible explanation behind to this might be the time gap between the two studies and difference in awareness of participants about VCT{24,25}.

The main source of information in this study was school teachers (27%). This finding is in line with a study at Harar (31.5%) and Nigeria (29.5%) {20, 26}. On the contrary, health provider was the main source of information in a study of Machakel district, East Gojjam zone (80.4%){23}. This disparity may be explained by the setting in which the studies were conducted. The other studies were conducted at health facility or community level but this study was done at school.

The most frequently visited health facilities were government health centers (45%).This is consistent with the finding from Awabale district (41.2%) and Gondar (52.7%) {24,32}. On the countray to this, respondent at Jimma (26.7%) and Harar (64.5%) family guidance association of Ethiopia was their frequently visited health institution{21,26**}**. This is may be due to the government health center had privacy and confidentiality, accessibility to trained health provider and affordability of cost in the study area.

"Do not know where to go", fear of being seen by family or other people who know them, cost of service and distance to the health facility were the main reasons mentioned not to utilize YFRHS. Among these the reasons not to utilize youth friendly service for the respondents was "Do not know where to go" (33.9%). This finding is lower than with the study conducted in Mekelle town (47.5%) and Harar (42.8%) {27,29}. This might be due to the presence promotion of the health centers and services from the study area.

Female respondents were more likely to utilize youth friendly services than male counter parts. On the contrary to this finding males were more likely to utilize reproductive health service than females on the study from Machakel district, Amhara region and Nigeria{20,23}. However, this

finding is in line with the result of the study at Badwachew woreda, Hadiya zone {25}. This might be due to females' area at risk for unintended pregnancy, abortion, sexually transmitted infection and HIV/AIDS than males which in turn contributes reproductive health service utilization.

Participants who did not gain a pocket money for daily expenses were less likely to utilize youth friendly service utilization than those who had gain a pocket money for daily expenses. This finding is in agreement with the study conducted from Goba Town {37}**.** This might be due to having got a pocket money for daily expenses enables to access transportation to health facility. This enables respondents to use youth friendly service utilization.

Respondents who did not use a school as a source of information were less likely to utilize youth friendly service utilization than those who used school as a source of information. This finding is in line with the study conducted in Harar town { 26 }. This might be due to presence of youth club at the school level which enables them to have information about youth friendly service utilization which attributes to use the service.

6.1 Strength and limitation of the study

Strength

This research was done at the reproductive health issue which is public concern and less achieved. It considered type of school balance sampling procedure by proportionally allocating for both governmental and private school students in each grades.

Limitation of the study

Since study was conducted on preparatory school youths the generalization of the result for out of school youths is not possible. This study was based on cross-sectional data, which implies that the direction of causal relationships cannot always be determined.

7. Conclusion and recommendation

Generally the utilization of youth friendly service among preparatory school students in Sodo town was low (40.6%). The main source of information in this study was found to be a school which was low (42.3%).The major reason not to utilize youth friendly services for the participants was lack of awareness where the service was obtained. Among the socio-demographic factors sex of the study participants, having a pocket money for daily expenses and also using school as a source of information determine the utilization of youth friendly in this study.

Recommendations

For Sodo town health office

- It is better to work in collaboration with school youth friendly clubs to scale up youth friendly service.
- It is better to have recreational service at health facility and hospital levels in Sodo town since this is one component of the YFRHS.
- It is nice to have peer educators at the health facility to pass the information easily from health care provider to the students.

For zonal health office

- It is better to have adequate funding and trained provider at the health facility level to have rational change about youth friendly service.
- Expanding service provision in collaborating with woreda health office, Sodo town health office and different stake holders who invest on youth.

For Sodo town preparatory schools

- It is fine to have mini-media at the school level which works in collaborate with youth club to have more information about youth friendly services
- It is good to link students who have money constraints with social support groups.

Areas of further research

- It is good to do another similar study from other towns which have several schools supported by qualitative approach including their parents and service providers to generate vital information about policies and strategies.

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Annexes

Annex1.Information sheet

***Title of Research*:** Assessment of Youth friendly service utilization and associated factors among preparatory school students in Sodo town, SNNPR, Ethiopia2017.

***Institution*:** Addis Ababa University, College of Health Sciences, School of Allied Health Sciences, Department of Nursing and Midwifery (post graduate program)

Name of sponsor: Addis Ababa University

***Principal Investigator*:** Natnael Atnafu (BSc.) Mobile: +251947326676

Email:natnaelatnafu89@gmail.com

***Advisors*:** Semarya Berhe (BSc, MSc/RH and PHD candidate)

Yeshi Assefa (BSc, MSc/RH,)

***Background Information*:** The high level of youth friendly service utilization is an important component in preventing youths from different sexual and reproductive health problems. Local evidence showed that youth friendly service utilization and associated factors are relevant to design age-appropriate programs, corrective interventions and strategies. Therefore, this study is aimed to investigate the youth friendly service utilization and associated factors among preparatory school students in Sodo town. The study will be conducted on randomly selected 394 youths by administering pre-tested structured questionnaire.

Annex2: Consent form in English language

My name is Natnael Atnafu. I am attending my MSc. in Maternity and Reproductive health nursing at Addis Ababa University. I brought these questions to you in order to find out

conditions regarding to youth friendly service utilization and associated factors among preparatory school students in Sodo town. The questionnaire will take about 20-30 minutes to fill. The purpose of this study is to get more information on factors contributing to youth friendly service utilization to design appropriate intervention and address the service need of young people. Therefore, your honest and genuine involvement by responding to the questions prepared is highly appreciated and helpful to attain the objective of the study. Your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential. You do not have to answer any question that you don't want to answer and you may refuse to answer all of the questions.

Would you willing to answer?

Yes then put your signature below and proceed to the next page By signing this document, I am giving consent to fill the research questionnaire. I understand that it is a part of study. I also informed that the participation would be entirely voluntary and that is free to withdraw from the study.

Participant's signature_____ Date_____

Data collector's signature_____ Date _____

No _____please stop here!!!.

Thank You!

Annex3.English version questionnaires

Part one: Socio-demographic characteristics of the participants

Q.No.	Question	Coding categories	
101	What is your sex?	1. Male 2. Female	
102	How old are you ?only in years	_____in years	
103	What is your marital status?	1. Single 2. Married 3. Living with boy/ girl friend 88. other(specify)	
104	What is your level of education?	1. grade 11 2. grade 12	
105	What is your type of school?	1. Governmental 2. Private	
106	What is your religion?	1.protestant 2 .orthodox 3.catholic 4. Muslim 88. others(specify)	
107	What is your ethnic group?	1. Wolaita 2. Oromo 3. Amhara 4. Tigrie 88. Other(specify)	
108	With whom do you usually live?	1.with both father and mother 2. With father only 3.with mother only 4.with friends 5.Alone 88.Other(Specify)	

109	What is your father educational status?	1. no formal education 2.primary school 3.secondary school and above 4. preparatory education and above	
110	What is your mother's educational status?	1.no formal education 2.primary education 3.secondary education 4. preparatory education and above	
111	How much is your family monthly income?	_____ (specify in Ethiopian birr	
113	Do you get pocket money for your daily expense?	1. Yes 2. No	

Part two. Knowledge questions about reproductive health services

Q.No.	Questions	Coding Categories'	
200	Have you ever heard about youth friendly reproductive health service?	1. Yes 2. No _____skip to	**300**
201	Which services are provided under YFRHS? (can mark more than one response)	1. Family planning 2. Treatment of sexually transmitted infection 3. Voluntary counseling and testing for HIV/AIDS 4. Abortion service 5. Antenatal care 6. Information education and communication 7. Condom use 88. Others (specify)	
202	If yes, for question number 300, from where you got information? (can mark more than one responses)	1. Parents 2. School 3. Heath providers 4. Peers 5. Posters 7. Radio 88. Others (specify	
203	Have you ever discussed about RH issues with parents/guardians?	1.yes 2. no	
204	Do you know where you get youth friendly services?	1.health center 2.Drug shop 3. traditional healer 88.other (specify)	

205	Youths/ adolescents have the right to use RH services?	1.yes 2. no	
206	Do you know any family planning method?	1.yes 2. no_____ skip to	208
207	Which of the following family planning methods do you know? (choosing more than one answer is possible)	1. condom 2. implant 3. pills 4. IUCD 5. Injectable 7. other	
208	Have you ever heard about sexually transmitted infections?	1. Yes 2. No_____ skip to	**300**
209	Which of the following lists do you know?	1. Syphilis 2. Gonorrhea 3. Chancroid 4. HIV	
210	What sign and symptoms of sexually transmitted infections do you know	1. Genital ulcer 2. Genital discharge 3. Itching 4. Burning urination 5. others	
211	What modes of transmission of sexually transmitted infections do you know?	1. Contact with infectious blood 2. Mother to child 3. Unprotected sex 4. Using sharp materials with an infected person 5. Others	

Part three: Questions on Health institution based factors

Q.No	Questions	Coding Categories	
300	Is there a YFRHS in your living area?	1. Yes 2. No _____skip to	302
301	How far is the health facility from your home?	_____(specify in minute)	
302	Have you ever asked to pay for the service you used?	1. Yes 2. No	
303	Is the working hour of the health facility convenient for you?	1. Yes 2. No _____ skip to	400
304	If No, for the above question, what would be the most convenient time for you?	1.earlier in the morning 2. late the afternoon 3. weekends 4.holidays(school holidays) 88.other(specify)	

Part four: Questions about utilization of youth friendly service

Q. No	Question	Coding Categories	
400	Have you ever used any RH service in the past twelve months?	1.yes 2. No_____ skip to	**403**
401	What services did you use in the past twelve month? (ticking more than one responses is possible)	1. Family planning 2. STD treatment 3. VCT for HIV/AIDS 4. Abortion service 5. Post abortion services 6. ANC 7. Condom use 8. Information, education and counseling 88. other services (specify	
402	From where did you use RH service in the past twelve month?	1.youth center 2. hospital 3. health center 4. family guidance association 88.other(specify)	
403	If no why? (tick more than one responses is possible)	1. Distance to the health facility 2. Don't know where to go 3. Fear of being seen by parents or people whom they knew 4 . Cost of service 88. Others (specify)	

Annex4 .Amharic version consent form

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Annex5. Amharic version questionnaire

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DECLARATION

I, the undersigned, MSC student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master in maternal and reproductive Health Nursing.
Name: Natnael Atnafu
Signature: _____

Place of submission: School of Allied Health Sciences, Department of Nursing and Midwifery, Addis Ababa University
Date of Submission: _____

This thesis work has been submitted to Department of Nursing and Midwifery for examination with my approval as university advisor.

Advisors: 1. Mrs. Yeshi Assefa (BSc/RN, MSc) Signature: _____ Date _____

2. Mrs. Semarya Berhe (BSc, MSc/RH,PHD fellow) Signature _____Date_____