

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

REPRODUCTIVE HEALTH SERVICE UTILIZATION &
ASSOCIATED FACTORS AMONG SECONDARY SCHOOLS
YOUTH IN MEKELLE, TIGRAY, ETHIOPIA

PI: GIRMAY TOLOSA BEKELLE (BSc)

ID NUMBER; CHS/ RRH/003/13

Email: tolosagirmay@gmail.com

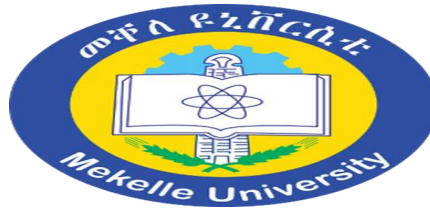
MAIN ADVISOR; Mr. Shishay Wahdey (Asst. Prof)

CO ADVISOR; Mr. Haftamu Ebuy (MPH/RH)

A THESIS SUBMITTED TO THE DEPARTMENT OF REAPRODUCTIVE
HEALTH SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEALTH
SCIENCES, MEKELLE UNIVERSITY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE MASTER OF PUBLIC HEALTH IN
REAPRODUCTIVE HEALTH

June, 2025

MEKELLE UNIVERSITY



**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCE**

MASTER'S THESIS RESEARCH PROPOSAL SUBMISSION FORM

Name Of Principal Investigator	Girmay Tolosa Bekelle
Name Of Main Advisor	Mr Shishay Wahdey (Asst. Prof)
Name Of Co- Advisor	Mr Haftamu Ebuy (MPH/RH)
Full Title Of Thesis Research Proposal	Assessment of Reproductive Health Service Utilization & Associated Factors Among youths in Selected Schools, Tigray, Ethiopia
Data collection period	December 2024
Study Area	Mekelle,Tigray,Ethiopia
Total Cost Of The Project (Birr)	37,623 ETB
Address Of Investigator (Email, Cell Phone And Landline Telephone)	Email :- tolosagirmay@gmail.com Phone No:- +251914 026605

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The undersigned agrees to accept responsibility for the scientific ethical and technical Conduct of the research project and for provision of required progress reports as Per terms and conditions of the Research Publications Office in effect at the time of Grant is forwarded as the result of this application.

Name of the student _____

Date. _____ Signature _____

Approval of the primary Advisor

Name of the primary advisor: _____

Signature _____ Date. _____

Approval of the examiner

Name of the examiner: _____

Signature _____ Date. _____

Approval of Graduate Program Coordinator

Name of coordinator: _____

Signature: _____ Date: _____

Acknowledgments

I would like to express my deepest gratitude to Mekelle University College of Health Sciences, School of Public Health, and Department of Reproductive Health for providing this opportunity for its overall support to conduct this final thesis. I would like also to thank my advisors Mr. Shishay Wahdey (Asst. professor) and Mr. Haftamu Ebuy (MPH/RH), for their valuable comments and honorable advice starting from topic selection through organizing this thesis work. My gratitude goes also to my hosting institution Dr. Tewelde Legesse Poly Health Science College for sponsoring me to follow master program in Reproductive Health, to my data collectors and participants for their valuable support during the data collection. . And my deepest gratitude also goes to Tigray regional education bureau for their unlimited support on data giving of the schools.

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List of abbreviations/ ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
LMICs	Low- and Middle-Income Countries
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
RHS	Reproductive Health Services
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
STDs	Sexually Transmitted Diseases
SDGs	Sustainable Development Goals
SRS	Simple Random Sampling
WHO	World Health Organization
YFSRH	Youth and Friendly Sexual and Reproductive Health
YFS	Youth Friendly Service

Abstract

Introduction: Youths (15–24 years old) worldwide are at risk, particularly women, for unsafe abortions, poor contraceptive services, high rates of unwanted pregnancies, and STIs. Students in secondary schools, especially in our country, are more vulnerable to several reproductive health problems. In Tigray, due to the war, there is no clear information on reproductive health service utilization in secondary schools. Additionally, there are many new cases of HIV/AIDS, early pregnancies, illegal abortions, and poor utilization of family planning. Therefore, this study aims to investigate how youths in Mekelle secondary schools utilize these services and identify factors that influence their use.

Objective: To assess reproductive health service utilization and associated factors among youths attending secondary schools in Mekelle, Tigray, Ethiopia 2024.

Methods: An institutional-based cross-sectional study was conducted on 630 secondary school students in Mekelle town from December to March 2024/25. A structured interviewed questioner was used to collect the data. The samples were distributed proportionally to each school, and participants from each school were selected by systematic random sampling technique. Bivariate and multivariable logistic regression was carried out to assess the association between dependent and independent variables. Level of significance was declared from $p\text{-value} < 0.05$ and adjusted Odds ratio with 95% confidence interval for the predictors of reproductive health service utilization.

Result: Among the 630 students who participated in this study, 279 (39.4%) reported utilizing reproductive health services. Among these, most of the respondents (400 (63.5%)) were from governmental school. Most of the respondents (480 (76.2%)) were from urban areas. About 364 (57.8%) were females. the majority of the respondents (351(55.7%)) were within the age group of 15–19 years (Table 1). And the mean age of the participant were 18.96. And the predictors of reproductive health service utilization included the availability of an RHS facility in school (AOR = 2.203, 95% CI (1.507, 3.222)), the mother's educational status, prior awareness of Reproductive Health services, and knowledge of Reproductive Health services delivery facility.

Conclusion and Recommendation: Reproductive health service utilization is the prevalent public health problem in our study area. Predictors which are availability of an RHS facility in school,

mother's educational status, prior awareness of Reproductive Health services, and knowledge of Reproductive Health services delivery facility can be minimized by establishing reproductive health service centers within schools and stakeholders should work to scale up the service utilization in schools by considering the students' background.

Keywords: Secondary schools, Youth-Friendly service, Reproductive Health services, youth.

1. Introduction

Background

Reproductive health (RH) is defined by the World Health Organization (WHO) defined as a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity in all matters related to the reproductive system and its functions and process (1). There are over 1.2 billion young people in the world. Nearly 90% of them reside in under developed nations(2). According to the World Health Organization (WHO), youth are those who are between the ages of 15 and 24 and also it is the transitional stage between childhood and maturity. Youth have sexual impulses and sexual exploration, which may drive them to engage in safe or dangerous sexual activities, throughout this time when secondary sexual traits develop and other biological changes take place. At this age, the majority of teenagers begin engaging in sexual activity(3).

Secondary school youths are particularly at risk for RH problems since they frequently engage in risky sexual activity(4). The use of reproductive health services has been linked to several socio-demographic and socio-economic factors, including age, being a female adolescent, and parental communication, maternal education, religious activities, maternal education, and media exposure are also important factors in the uptake of these services(2).

Every year, 21 million teenage pregnancies occur worldwide, 50% of which are unwanted(5). Over half of the world's population under 25 has been impacted by HIV/AIDS. Furthermore, among young people in Africa between the ages of 10 and 24, the AIDS epidemic continues to be the greatest cause of mortality(6). There about 32 million teenage women who wish to avoid getting pregnant in low- and middle-income nations, but 14 million do not have access to modern contraception(7).

About 33% of Ethiopian populations are aged 10-24 years, with nearly 22% of them being adolescent youths, aged between 10 and 19(8). Most youth's special secondary schools age are engaged in early and unplanned sexual activity, which incurs the risk of unintended pregnancies and transmission of sexual infections and also 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 (STDs) and HIV(9).

Providing youth-friendly health services and counseling is severely limited to secondary schools, which makes it difficult to address RH services(10). RH services provided by educational

institutions in Ethiopia are frequently constrained by stringent regulations, a dearth of private counseling spaces, and inadequate connections to resources located outside the schools. Youths' access to and use of reproductive health services (RHS) are a major concern when it comes to the promotion of reproductive health rights because they have particular risks related to their reproductive health, including unintended pregnancies, childbearing, STIs like HIV and unsafe abortion(3).

Statement of the problem

There is high number of youth in some countries and by 2050 the proportion of youths in the population is probably going to rise. This will be particularly true in low- and middle-income countries (LMICs), where there appears to be restricted access to health services, and means of subsistence(11). In sub-Saharan Africa, youth make up roughly 23% of the population(12).

The right of youth to reproductive health (RH) services has been highlighted by international initiatives(13); however, the institutions that support this right and the service providers themselves are not equipped to meet the needs of youths living in developing countries. Most countries prioritize adult health in their health systems and programs, but there is less emphasis on RH services for youths. This has resulted in youth not to use the services. Over 1.2 million teenagers die worldwide each year(14). Youth pregnancy has been linked to poor maternal health outcomes, and it is frequently linked to child marriage or decreased school involvement. Roughly 16 million teenage females give birth each year, with 90% of these births occurring in poor countries(15).

The adoption of RH services among youths have not been adequately researched or implemented, despite the fact that 23% of the SSA population was youths(16). And up to 30% of youths in SSA have an unmet need for contraception(17).

The goal of the Ethiopian government is to improve the health of young Ethiopians, those between the ages of 10 and 24. And Implemented different strategies like the first national adolescent and youth reproductive health strategy(2007-2015)(18), The health sector transformation plan (HSTP), National adolescent and youth health strategy (2016-2020) to address SRH, substance use, CD and NCD, nutrition and injury and The national RH strategic plan from 2021-2025(19). But about 33.8% of Ethiopia's total population is made up of young people(20). And still there is high unsafe abortion, domestic abuse, HIV/AIDS, unwanted pregnancies, and adolescent pregnancies are just a few of the RH concerns they deal with. Those strategies are very helpful to youths especially to secondary schools because of they are high risk for many RH problems. The Ethiopian government doing its role to increase the effectiveness of the health system for youths in carrying out strategies plans and initiatives(18).

Ethiopia has been a supporter of initiatives aimed at giving young people greater access to reproductive health care and this entails implementing extensive capacity building at all health system levels to scale up and institutionalize youth-friendly services (YFS)(21).

But of married women between the ages of 15 and 19, only 36.5% reported using injectable, implants, or IUDs when they were currently using contraception; this compares to 27.5% and 5.9%(22). Among teens between the ages of 15 and 19, girls make up the largest percentage of those who have never tested positive for HIV (75%), while boys make up the largest percentage (80%). Studies conducted throughout Ethiopia have shown that RH services are generally not sufficiently accessible to secondary schools(23).

Early childbearing rates range from 9.6% in Addis Ababa to 59% in Benishangul-Gumuz during the most recent period(24). Adolescent pregnancy is risky, indeed, with grave long-term repercussions that range from wider financial worries to health issues. Furthermore, students who lack understanding about the legality of abortion are more likely to attempt risky abortions, which raises the death rate. Unsafe abortions were performed on 83.9% teenagers between the ages of 15 and 19 and 46% women between the ages of 20 and 24(25). Parents in Ethiopia tended to be ignorant and preferred for their kids to learn from peers, teachers, and medical professionals. Parental education about sexual and reproductive health issues was also strongly linked to increasing youth's knowledge. And the obstacles to young people's use and access to reproductive health (RH) services:-a shortage of qualified health, costs of services and commodities, service privacy, absence of YFS and inconvenient health facility operating hours are the major factors for low utilization of RH services(24).

In addition to this, Ethiopian schools have a limited capacity to provide health-related services to their students, and the reaction to provide RHS for youths has been scattered. Because of this, a sizable fraction of students are experiencing RH-related issues, and factors influencing secondary school students' use of RHS have not received much attention in Ethiopian literature(26). Prior to the conflict, Tigray's RHS utilization was comparable to that of other Ethiopian regions. Almost 20 % of all the health facility had trained health professional on RH(27). But all health facilities in Tigray were destroyed or rendered inoperable following the conflict.

Therefore, I am motivated to assess how youths in Mekelle secondary schools use reproductive health services and related characteristics. And also reports reviled from the TRHB in 2024 the post war utilization of FP is 28.4%, high number of new HIV/AIDS case reported, high number illegal abortions and maternal mortality is 840/100,000(28). Because the infrastructure of the health system has been seriously harmed by the war. In order to provide appropriate RH services to meet the needs of the youths, it is necessary to understand the challenges encountered by the

youths in utilizing RHS in their specific contexts and hence the purpose of this study. And the majority of young people are more vulnerable to teenage pregnancy, HIV/STIs, abortion and other harmful practices because there are high number of students out of school and unemployed and also they were on the war. Furthermore, there haven't been any recent studies on the topic, which might help Tigray regional education office and Tigray regional health office understand more about the related problems and how RH services are given to youths in Mekelle's secondary schools.

1.3 Significance of the study

The study will be very important firstly to raise awareness about reproductive health (RH), as this will help educate all youth about reproductive health, create awareness among adolescents about safe sexual practices, and aid in the prevention of sexually transmitted infections, including FP, unwanted pregnancy and HIV/AIDS in schools. The study of the utilization of reproductive health services and its associated factors will help to improve quality of life of youths, especially after the war. By providing available information about utilization of the youth sexual and reproductive health services and possible factors that affect the utilization by secondary school youths in Mekelle.

This will help with the planning of services related to reproductive health for youth. By providing youth with reproductive health services in an appropriate manner, secondary school youths will be able to take advantage of these services, which will lower the number of unintended pregnancies and STDs, including HIV/AIDS, in the city's secondary schools. Ultimately, this will lower the number of infection cases in the district and the country. In addition the response to deliver RHS for students has been fragmented, and Ethiopian schools have limited capacity in delivering health-related services for their students. As a result, a significant proportion of students are developing RH-related problems. Lastly it will be used as base line for other researchers to study on this area. And the availability of literature in Ethiopia is limited in addressing factors that influence the utilization of RHS among secondary school students. Hence, the aim of the study will assess utilization and factors affecting RHS among secondary school students in Mekelle town.

2. Literature Review

Sexual and reproductive health can be define as a person's right to a healthy body; the autonomy, education and healthcare to freely decide who to have sex with; and the knowledge and healthcare products to avoid sexually transmitted infections or unintended pregnancy. And Utilization of reproductive health services is utilization of any one of the following RH services: contraceptive service, perinatal service, voluntary counseling and testing (VCT), sexually transmitted infections (STI): screening, diagnosis, and management, and abortion services(29).

Youths (15-24 age) are less informed about reproductive health services, less experienced, and less comfortable accessing health services for reproductive issues than adults. Focusing on adolescent reproductive health is both a challenge and an opportunity for health care providers. Youth is generally a healthy period of life, but many youths are less informed about reproductive health services and because of this they are susceptible to different RH problems(30).

Secondary school adolescents are particularly at risk for RH problems since they frequently participate in unsafe sexual activity. The use of reproductive health services has been connected to numerous socio-demographic and socio-economic characteristics, including age, being a female adolescent, and parental communication. The adoption of these services is also significantly influenced by media exposure, maternal education, religious activities, and maternal education. The use of RH services varies greatly throughout Ethiopia; in the Hadiya zone in the south, it is 29.4%, while in Harar, it is 63.8%. There was evidence that high school students were avoiding RH facilities because of long wait times, uncomfortable service hours, staff members who were judgmental and unwelcoming, and concern about being seen by others(29).

Each year an estimated 333 million new cases of curable sexually transmitted infections (STI) occur worldwide with the highest rates among 20-24 year olds, followed by 15-19 year olds. One in 20 young people is believed to contract a STI each year, excluding HIV and other viral infections. A minority of youths have not access to any acceptable and affordable STI services(31).

2.1 Reproductive Health Service Utilization

Secondary school are face significant barriers to accessing and using youth-friendly and reproductive health services, particularly in sub-Saharan Africa. Sub-Saharan Africa has improved its ASRH outcomes. The number of youth pregnancies is 103 per 1000 live births. The percentage of unmarried women aged 15 to 24 who use contraception is 33%. In most of the region, the youths

HIV epidemic seems to have peaked, if not completely stopped. Nevertheless, there is evidence that not everyone is benefiting from these advantages, which are modest and not widespread(32). A research was done in RH service utilization in different African countries like Nigeria, Kenya and the percentage of RH utilization was 40.6%(33).

Youths in sub-Saharan Africa suffer numerous serious RH issues, including restricted access to youth-friendly services (YFS) that provide knowledge on sexuality, gender-based violence, growth, unsafe abortion, and family planning (FP). This has encouraged young people to engage in hazardous sexual behavior, which has increased the prevalence of STIs and HIV in this age group, contributed to early pregnancy, increased vulnerability to delivery problems, and increased rates of death and disability. Despite the fact that just 33% of young men and 20% of young women in LMICs have a thorough understanding of HIV, less than half of the surveyed youth reported using condoms during their most recent sexual activity(33).

A study was conducted in Myanmar on secondary schools and 67% had never ever utilized at least one type of RH service. The most utilized service was family planning (70%)(34).

A school-based cross-sectional study design was conducted in Harari regional state and 25.3% of the secondary school students utilized reproductive health services, having a history of sexually transmitted infection , presence of a health facility nearby , discuss voluntary counseling and testing with family, and discussing about contraceptive with friends were significantly associated with reproductive health service utilization(29).

In Woldia Town, Northeast Ethiopia a school-based cross-sectional study design was conducted and 64.3% of the respondents utilize reproductive health service. residence , educational status of the partner, presence of RHS facility in school and good knowledge level on reproductive health services were significantly associated with reproductive health service utilization(30).

In Dawuro zone, Southwest Ethiopia a cross sectional study was conducted in school and the overall magnitude of sexual and reproductive health service utilization was 26%(35).

A cross sectional study was done in Gondar, North West Ethiopia and 24.6% utilized at least one reproductive health services in the past 1 year(36).

2.2. Reproductive Health Service and Utilization related characteristics

2.2.1. Socio-demographic factors

Age

Age have an effect to Reproductive health service utilization. In China approximately 11% of girls and 6% of boys between the ages of 15 and 19 report having sex before turning 15. And Latin America and the Caribbean has the highest percentage to having sex before turning 15. Asia has the lowest documented rates of sexual engagement among girls and boys under the age of fifteen (20).

In Kenya, the median age at first to have is 17.8 and because of this there are high number of RH problems reported because of not utilizing and they don't know where to get the services(37).

This is concerning because there is a persistent and alarming difference in the knowledge and practice of reproductive health service utilization between youth males and females.(23), Youth people frequently lack the comprehensive and accurate information that they need in order to protect themselves from HIV. Few know their HIV status, which increases their risk of transmission. In sub-Saharan Africa, only 10% of youths and 15% of young women ages 15-24 know their HIV status. Males aged 15-19 were consistently more likely than females to have engaged in higher-risk sex with non-marital, non-cohabiting partners in the previous 12 months (16).

In Kogi State of Nigeria a research was done and the determinant of utilization of RH services among secondary students. At Multivariate analysis, was found that the factors associated with the utilization of YFSRH services among secondary-going students included gender, age, and religion. While gender positively predicted the utilizations of RH services(38). And Older youth between 23-24 years utilized the services more than the younger youth owing to their increased knowledge of these services with $p < 0.05$ (21)

And a study done in Dessie, north east Ethiopia (16.8 years), in Kolladiba, north west Ethiopia (15 years), in Gojam, north west Ethiopia (13.5 years) and in Butajira, southern Ethiopia (16 years) (39).

Sex

A cross-sectional study was conducted in Indonesia, and gender is associated with the use of reproductive health service. Female youths were access RH service than males in Indonesia. However, males are actually at risk of reproductive health problems since they have a higher risk

of engaging in risky behavior than females. Females tend to perform preventive behaviors from risky behavior than males. And the study found that students with higher health literacy scores were more likely to utilize the services they accepted their need for reproductive health learning. Acceptability is the critical factor affecting the use of reproductive health services(40).

A study was done in Nigeria in school on RH service utilization and gender was positively predicted the utilization of RH services with AOR = 5.7(38).

2.2.2 Socio economic factors

Accordingly to the study done in Woldia town in school, the odds of the utilization of reproductive health service in urban was good. And a student who go to privet school was higher on RH service utilization than a student who are in governmental school. And Regarding the grade level of students, the utilization of reproductive health services among grade 10 students higher compared to grade 9 students(30).

In Dawuro zone, Southwest Ethiopia secondary students who have pocket money were 1.54 times more likely to utilize RH service compared to their counterparts. Secondary students who have no problem with money are more likely to use any RH service(35).

In Ethiopia youths whose educational level was primary were 57% less likely to use RH services than adolescents whose educational level was secondary and above. In-school youths were 2.39 more likely to utilize Family Planning services than youths who were out-of-school(11).

Parent's educational status

A study in Kenya were about 2.1% of the youths who feared their parents and hence could not use contraceptives(37).

There are a number of crucial aspects of reproductive health services that are especially relevant to youth. Youths aspirations, hopes, and social roles are influenced by a multitude of sociocultural and economic influences in their environment worldwide (17).

A research was done in Assosa Zone, Western Ethiopia, and the proportion of the youths discussed sex related issues with their mothers 56.8% than they discussed with their fathers 36.8%(41).

A cross sectional study was done in Woldia town in school and the odds of RSH utilization among respondents whose partners' educational status falls under secondary and above (AOR 2.66, 95%CI (2.35, 5.24)) was higher compared to those whose partners' educational status is unable to read and write(30).

Religion

In Kenya on Youth Knowledge and attitude influencing access to RH information was majority 43.8% were on religious ground with other 13.2% fearing these contraceptives. Cultural and religious norms preventing parents from freely discussing sexuality issues with their children(youths) because they often consider the issue as a taboo and are also embarrassed by the subject(37). And religious belief (aOR = 0.84), $p = 0.001$) showed a negative relationship with the utilization of YFSRH services(38).

A research was done in Nigeria in school and religious belief were showed a negative relationship with the utilization of YFSRH services(25).

A research was done in Pacific Island and the study revealed that teaching to secondary students at school about sex would encourage them to engage in premarital sex is the basis for which parents, older relatives and other members of communities were reportedly uncomfortable discussing sexual issues with young, unmarried individuals(42).

2.2.3 Health care system factor

The barriers to access to RSH can be as structural, individual, socio-economic, and socio-cultural. Individual barriers refer to people having incomplete or incorrect knowledge of SRH, including myths and misconceptions around contraception, limited self-efficacy and individual agency; constrained ability to navigate internalized social and gender norms and lack of access to information about what SRH services are available and where to seek services(15).

structural barriers refer to laws and policies requiring parental or partner consent, distance from facilities, costs of services and/or transportation, long wait times for services, inconvenient hours, lack of necessary commodities at health facilities, and lack of privacy and confidentiality.

Cultural barriers which refer to as restrictive norms and stigma around adolescent and youth sexuality, inequitable or harmful gender norms and discrimination and judgment by communities, families, partners, and providers and Social economic barriers is general term for pressure that

prevents people born into lower class from moving over the course to receive better SRH like those from affluent class knowledge, individual perception, shame and stigma affecting YFSRHS.

The availability of YFS at the health facility and school are very important for prevent the different RH problems. In South Africa almost 38.5% are knowledgeable about YFS. And in Kenya, Tanzania, Malawi three is poor knowledge about YFS and because of this the students are at high risk for the different RH problems because of shame and fear of disclosure by the community, misconception about the service and long distance to the health facility(43).

In Ethiopia, most respondents mentioned the challenge of cost of services 21% and 41.2% respectively, lacked money as it's needed to travel to health facilities as the distance/time taken is costly(44).

Structural barriers

In South Africa and Ethiopia addressed primarily provider attitudes and the clinical environment as barriers to adolescents' access to healthcare during the study however, perceptions of provider attitudes towards adolescents appeared to be inconsistent, Negative attitude of health workers as per the case in one of the studies indicated that 30% had negative attitudes towards the youth in Ethiopia. In Tanzania indicated that 37.2% of the service providers who were interviewed reported that they had received training in adolescent sexual and reproductive health (ASRH) information and counselling which is significantly very low and had disparities. A study in Uganda indicated that the overall quality of SRH services at the facilities was of poor quality(36).

2.2.4 Knowledge factors

Awareness of RH service

A study was done in Tanzanian, the majority of participants knew that STIs can be harmful to both themselves and their unborn children, but they did not think they were at risk of getting STIs. They believed that condoms were unnecessary for those in committed relationships and ineffectual at preventing STIs and pregnancy. Adolescent females were deterred from obtaining reproductive health care by stigma, lengthy wait times, and a lack of privacy at the clinics (18).

A study carried out in Assela town, Ethiopia, found that the majority of respondents (97.3%) had heard of family planning methods; the mass media was the first common source of information (62.5%), and the internet was the least common source of information (8.3%). Of the respondents

who were sexually active, 61% of them currently used contraceptive methods; females from urban areas were more likely than their counterparts to use family planning (AOR=4.60, 95%CI =1.06-19.96) and to be satisfied with the family planning services (AOR=9.75, 95%CI=1.62- 58.71) (19). A systematic review was done in Ethiopia and youths who ever discussed on FP/RH issues with relatives/family/ health workers were 3.63 more likely to use FP/RH services than youths who did not discuss on FP/RH issues with anyone else(20).

Awareness of RH facility

In Ghana a cross sectional study was done in a school and the youth who use non-facility based sexual and reproductive health services were relatively higher (30.5%) than those who use facility based sexual reproductive health service (25.2%). And Majority of 66.6% of In-school youth have never used facility-based SRHS(45).

In Woldia town institutional study was done and the odds of the utilization of reproductive health service among those who have RHS facility in school (AOR 2.53, 95% CI (1.57, 4.06)) was higher compared to those respondents who have not RHS facility in their school(30).

School health education

In Garissa Municipality, Kenya a study was conducted on RH Information Services among Young Aged 15-24 and the result was Only about 35.7% of the youths stated or perceived that they had adequate up take of youth friendly information and guidance on issues relating to sexual and Reproductive health verses 64.3% who lacked these RH information.(37) In Nigeria 81.7% are that in-school clubs can create demand for SRH services and 64.7% of them also agreed that out-of-school clubs are important for SRH services, In a low-quality study in Ethiopia, the majority of the respondents (72.7%) who were involved in the available school clubs and (54.3%) had discussed on YFSRH issues with friends put them at high levels of utilization and Friends/peers (45.7%) were the best sources of information on A/YFRHS, however, the most popular services known were FP (81.6%), voluntary counselling and testing (73.8%), and sexually transmitted diseases (67.3%)(46).

2.2.5 Behavioral factors

Media

In Garissa Municipality, Kenya a study was conducted on RH Majority 44.3% of the youths stated both mass and print media as the most useful sources of information on issues relating to youth sexual and Reproductive health, others included 19.4% age mates and friend and the least 0.8% older relatives years. And majority 37.4% of the youths could not identify the contributing factors to lack of information on issues relating to youth sexual and Reproductive health(37).

In Dawuro zone, Southwest Ethiopia respondents with exposure to media were 1.47 times more likely to utilize SRH services(35).

A study carried out in Assela town, Ethiopia, found that the majority of respondents (97.3%) had heard of family planning methods; the mass media was the first common source of information (62.5%), and the internet was the least common source of information (8.3%) (19).

Sexual exposure

A study conducted on youths women in six Pacific Island Countries and Territories (PICTs) revealed that 26.1% of women under 25 and 11.9% of women over 25 had chlamydia trachomatis infections, respectively. The study was conducted in Fiji, Kiribati, Samoa, Solomon Islands, Tonga, and Vanuatu(42) .

The average age at which young people start having sexual relations can be calculated using the age at first sex as an indication. It can also shed some light on the timing of the majority of young people's exposure to hazards associated with pregnancy and STDs. When having their first sexual experience, teenagers seldom utilize protection, and younger adolescents are more likely than older teens to contract HIV or other STDs. The majority of nations for which data is available indicate that young women typically have their first sexual experience between the ages of 16 and 18. In nations like Niger, Sierra Leone, Liberia, Guinea, and Uganda, the average age of first sex is under 17. These nations are designated as red because teenagers under the age of 18 are at a higher risk for sexually transmitted infections and poor reproductive health outcomes due to pregnancy and early childbearing (24).The main causes of the transmission of HIV among young people are: unprotected sex with an HIV-positive person or contact with infected blood or other fluids through the sharing of non-sterile injecting equipment. In addition, many youths living with HIV were born with the virus (23).

Today, there are more than 4 million young people living with HIV in developing countries. HIV prevalence rates among young women, ages 15-24, in sub-Saharan Africa are twice as high as they are for their male peers.⁶ Young people often lack the comprehensive and accurate information that they need in order to protect themselves from HIV. Few know their HIV status, which increases their risk of transmission. In sub-Saharan Africa, only 10 per cent of young men and 15 per cent of young women ages 15-24 know their HIV status (25). The rapid roll-out of anti-retroviral treatment programmes has made it possible for prenatally infected infants to live through adolescence and adulthood, thereby engaging in dating and sexual relationships (26). However, the sexual and reproductive health needs of this unique and rapidly increasing population are largely unmet.

Consequently, HIV continues to pose a serious risk to young people's reproductive health throughout the world. However, the young people's access to information and services may be restricted because of their age, social or economic standing, or both. According to estimates from 2012, adolescents between the ages of 10 and 19 make up 2.1 million (5.9%) of the HIV positive population in middle-class and low-income nations (27). While the number of HIV-related deaths worldwide has decreased by 30%, the number of deaths among teenagers has grown by 50%. Every day, over 2500 new cases of HIV infections among adolescents and young people aged 15 to 24 are reported worldwide. In addition, because to sexual compulsion and vertical transmission, 712 new cases of HIV are identified in children under the age of 15 every day (28).

Substance use

A study done in Debre Berhan and 36.3% of students were used substance (Alcohol, Khat and Cigarette) and the students were high risk for different RH problems(47).

2.3 Conceptual frame work of the study

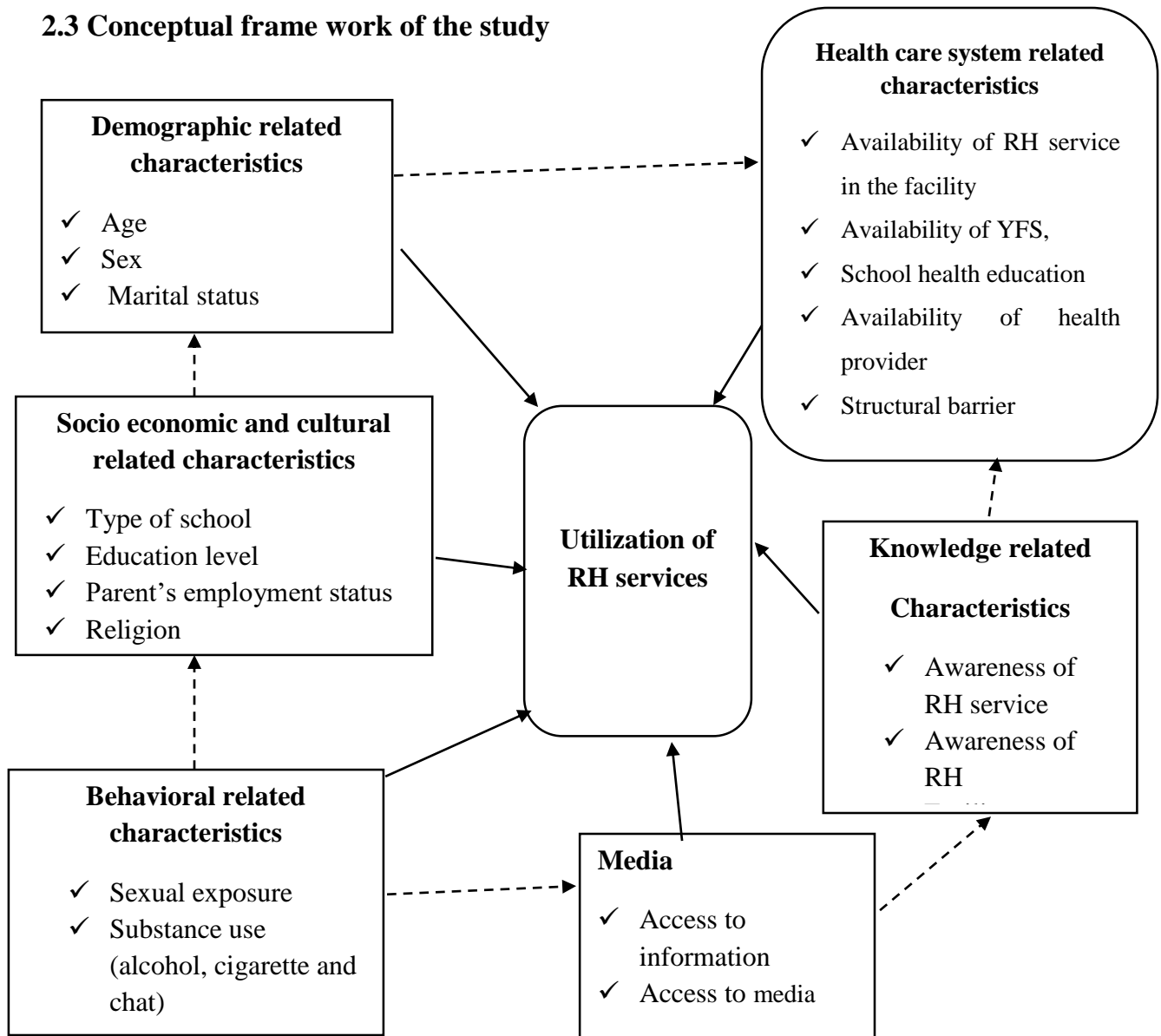


Figure 1: Conceptual frame work on Reproductive Health Service Utilization & Associated Factors of youths among Selected School in Mekelle, Tigray, Ethiopia, 2024(16).

Andersen's Phase Two Model of Health Service Utilization (developed to study determinates of one's health service utilization) (34) will be employed in this study. To look on the use of reproductive health services by young people attending secondary schools in Mekelle. The figure shows that interaction of factors each other and leading to the occurrence of Reproductive Health Service Utilization & Associated Factors which results unintended pregnancy, criminal abortion

and STI including HIV/AIDS. In order to examine a variety of human, contextual, and provider-related factors connected to decisions to seek medical attention, this behavioral model offers a systems view. It suggests that three groups of variables influence the usage of health care services; predisposing traits, which primarily explain the correlation between the use of health services and demographic variables including age, sex, and educational level and consumption of health services (40).

Enabling characteristics such as family income or economic status, location of residence, access to health facilities and availability of person for assistance is key factors in health seeking behavior. Most of the youth are largely dependent on parents/guardian and the infrastructure within their residence. Need characteristics explores perceived need for health services, and expected benefit from treatments. Health care system includes health policy, resources and organization which refers to how health care system manages its resources and consumer satisfaction determine individual's use of health service (43, 44, 46).

3. OBJECTIVES

3.1. General objective

- ✓ To assess reproductive health service utilization and associated factors among youths attending selected schools in Mekelle, Tigray, Ethiopia 2024.

3.2. Specific objectives

- ✓ To determine magnitude of reproductive health service utilization among secondary school youths in Mekelle.
- ✓ To identify factors that affect utilization of reproductive health services among secondary school youths in Mekelle.

4. Methodology and materials

Study area and period

The study was conducted in Mekelle which is the capital city in the northern Tigray Region of Ethiopia. Based on 2007 G.C Ethiopian census report Mekelle city had total population of 314,914 and 51% of the residents were female according to data from Mekelle city administrative office in 2020 G.C. Administratively, Mekelle is considered a Special Zone, which is divided into seven sub-cities. In Mekelle there are 14 public secondary schools and 14 private secondary schools. The city is an economic, cultural, and political hub in the Northern region of the country(48). The study will be carried out from November until January 2024/ 2025.

Study design

Institutional-based cross-sectional study design was conducted.

Population

4.3.1 Source population

All youths aged 15-24 attending their secondary education at schools of Mekelle during data collection period.

4.3.2 Study population

Selected youths aged 15-24 attending their secondary education at selected schools in Mekelle during data collection period.

4.3.3 Study unit

Those youths who are aged 15-24 years old was selected from the sampling frame (student roster) by simple random sampling technique during the data collection period.

4.4 Eligibility Criteria

4.4.1 Inclusion criteria

Youths aged 15-24 in all selected secondary school students enrolled in 2024/2025.

4.4.2 Exclusion criteria

- I. Those who were not available during the data collection period

- II. Those who were physically and mentally not capable of being interviewed and
- III. Those who were not sexually active.

4.5 Sample size determination

The sample size for this particular study was calculated using a single population proportion considering the following assumptions. A 95% confidence level, margin of error (0.05), proportion of Utilization of RH service (p = 0.643)(30) is substituted in the following single population proportion formula:

$$n = \frac{(Z_{\frac{\alpha}{2}})^2 * P (1-P)}{d^2}$$

$$n = \frac{(1.96)^2 * 0.643(1-0.643)}{(0.05)^2}$$

$$n = 353$$

Where n = minimum sample size required,

z = critical value for normal distribution at 95% confidence level which equals to

$$1.96 \text{ (z value at } \alpha = 0.05),$$

P = proportion of Utilization of RH service (64.3%) from previous study(30).

d = Margin of error (precision) which is 5%. With 10% non-response rate

Adding 10 % of non-response rate the sample was 388. Because multistage sampling method was used the sample of 388 is multiplied by design effect of 1.5 and the final sample size was 582.

Secondly, was determined sample size for the specific factors on Discussion with mother about RH service by considering d=0.05, $Z_{\alpha/2}=95\%$ (1.96) and p=45.6% (24).

Thirdly, determine sample size for the specific factors on grade level on RH service by considering d=0.05, $Z_{\alpha/2}=95\%$ (1.96) and p=26.9% (35).

Specific factors	P	Z	d	n	10% NR	Design effect	Final sample size
Utilization of RH	64.3%	95%	5%	353	388	1.5	582
Grade level	45.6%	95%	5%	382	420	1.5	630
Discussion with mother on RH	26.9%	95%	5%	302	332	1.5	498

Finally the highest sample size was taken and it was 630.

4.6 Sampling technique and procedure

After calculating the sample size, the multistage stratified sampling was considered all governmental and private high schools in Mekelle city.

Initially, three sub city was selected randomly from the seven sub cities (Adi haki, Ayder and Kadamay wayeni sub cities) of Mekelle and the total sample size of the study was distributed over each of the institute proportional to their size.

In the second stage, high schools from the selected High schools was selected by using simple random sampling (SRS) technique. Accordingly the sample size of the high schools was distributed to each of the High schools proportional to their size. And students was stratified by their grade level of attendance. Sample size was then allocated proportionally after obtaining list of students from the respective school administration. Finally, the study participants was selected from each grade by using simple random sampling and with interval of every eight student from the sampling frame of student roster.

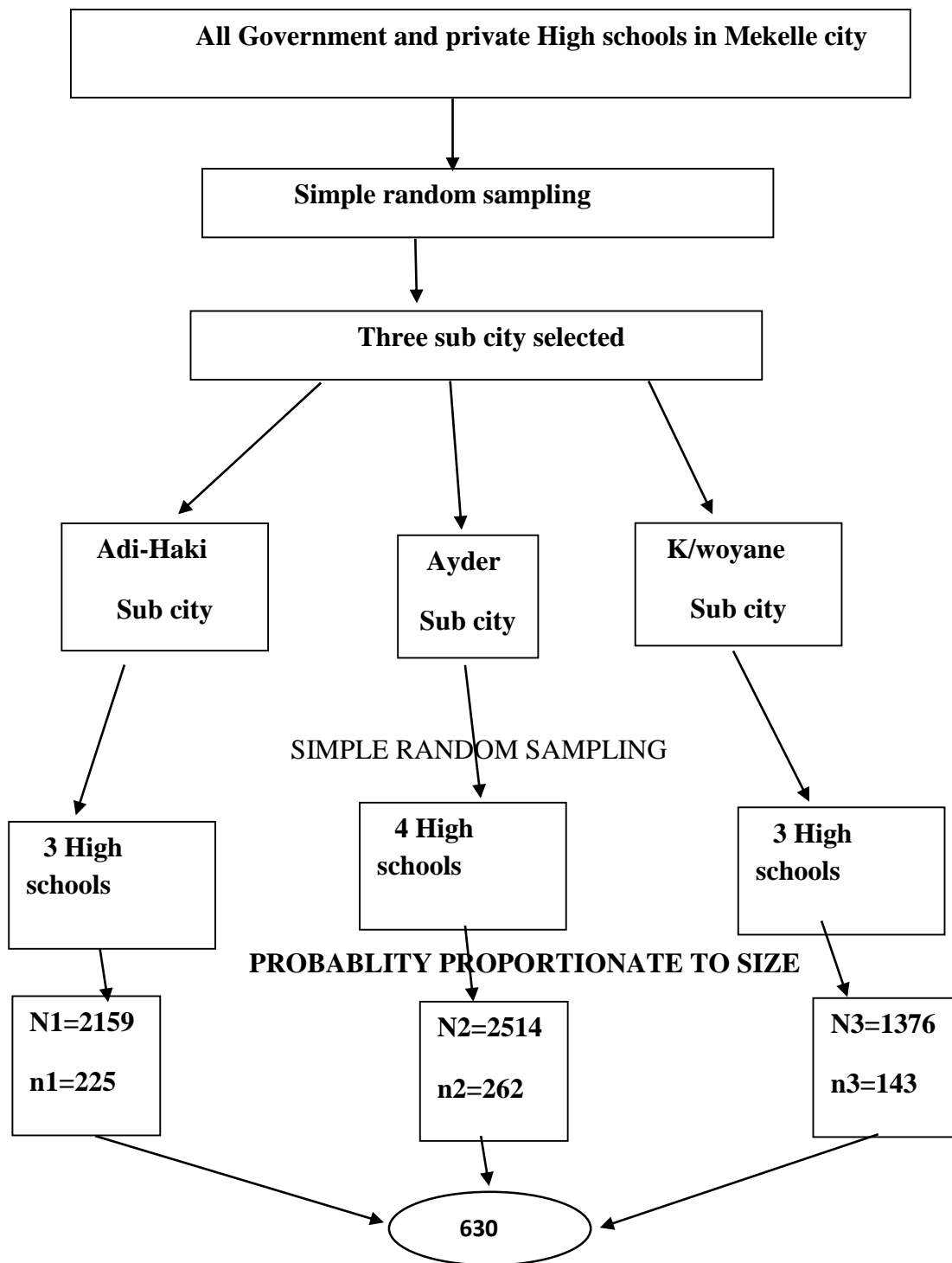


Figure 2: Schematic presentation of sampling procedure High schools in Mekelle city

4.7 Variables

4.7.1 Dependent variable

Reproductive Health Service Utilization (Yes/No)

4.7.2 Independent variables

Socio-demographic (Age, Sex, marital status, School, education level, Parent's employment status, Religion)

Behavioral factors (Sexual active, Substance use (alcohol, cigarette and chat),

Media factors

Knowledge factor (Awareness of RH service, Awareness of RH service delivery facility)

Health care system factor (Availability of RH service in the facility, Availability of YFS, School health education, structural barrier and availability of trained care provider)

4.8. Data collection Procedure and instrument

The data was collected using kobo toolboxes software and document review checklist. Data collectors was four nurses who works in youth friendly service from health centers. Two Health Officers was assigned as Supervisors to check for the daily activity, consistency and completeness of the questionnaire and to give appropriate support during the data collection process.

4.9. Data Processing and Analysis

After data collection, each questionnaire was checked for completeness. The data was coded and entered data to Epi data version 4.4.2 statistical package software then exported to SPSS version 27.0 for analysis of descriptive statistics and statistical inferences. Descriptive statistics was presented in mean, median, standard deviation, and inter-quartile range (IQR) for numerical variables and frequency percentages for the categorical variables. Bivariate analysis was done to show and check the existence of a crude association between two variables. Multivariable logistic regression was done for bivariate analysis P-value is <0.25 and there is clinical significance to show the adjusted odds ratio (AOR) and to control potential confounders. Confounding was checked using percentage change in the regression coefficient (β) less than 10% shows the absence of confounders. The summary measures of estimated crude and adjusted

Odds Ratio (OR) in 95% confidential interval was presented. A P-value of less than 0.05 was used to declare statistical significance. The goodness of fit multivariable logistic regression model was assessed by using Hosmer and Lemeshow goodness of fit test with the assumptions of P- value greater than 0.05 was considered good model and the result was p -value 0.236. And normality was tested using Shapiro-wilk test and multicollinearity was all so checked. Finally, the result was presented and summarized in texts, numbers, tables, and figures.

4.10 Data quality Control

Pretest was conducted at 5 %(32) of the total sample size in Wukro town secondary school students a week before the actual data collection period to test variability and the checklist was assessed for clarity, completeness and necessary correction was done accordingly. And training was given for data collectors for one day before data the collection. And the kobo toolbox questioner was checked for completeness by the investigators and returned in case of incompleteness. The questioners was translated to the local language Tigrigna and it was back translated in to English by another expert. The principal investigator was also supervise to the data collectors daily for the data quality. Inconsistencies and errors was corrected accordingly. And also to decrease social desirability the date collectors are trained on YFRHS from health center and they were oriented to ask them systematically for sensitive questions, and during the data collection the participant were interviewed alone to maintain confidentiality and privacy.

4.11 Operational and standard Definition

Substance use: use of at least any one of the following substances: alcohol, khat and cigarette that are assumed to affect level of thinking and increase risk of involving in risky sexual behavior(49).

Counseling service– was measured by response of the students to the presence of access and consultation for the youth in school and health facility about the reproductive health services and those students whose score was at the mean and above the mean score of practice questions were categorized as good counseling service while those students whose score were below the mean score and categorized as having poor counseling service (33).

Reproductive health service utilization: The reproductive health service utilization was assessed based on ever utilization of counseling service, family planning service, HIV counseling and testing service, sexually transmitted disease treatment service and counselling services on

unwanted pregnancy from any health facility and rated as utilized if at least one of the services mentioned utilized. This was measured through the dichotomous response (yes or no) by asking whether a participant had utilized one or more of RH service components within the last 12 months. The positive response was further validated with questions on the type of RH services utilized. A positive (“yes”) response to any one of these services was regarded as service utilization(50).

Sexually Active; having a previous history of sexual intercourse(24).

Youths: those persons with in the age group of 15-24 according to WHO definition(51).

4.12 Ethical Consideration

Ethical clearance (MU-IRB 2420/2024) was obtained from Institutional Review Board of Mekelle University, College of Health Science. Support letters was obtained from department of RH department and official letter of permission was also obtained from Tigray regional Education bureau. The purpose and significance of the study was explained to the study participants and they was assured that they had the right to withdraw from the study at any stage. Written informed consent from youths aged greater than 18 years old and ascent from youths aged less than 18 years old was taken prior data collection. The collected data was kept confidential and no personal identifiers recorded on the questionnaire. Moreover, the purpose, procedures of the study, advantages, and disadvantage were informed to respondents before the start of data collection.

Dissemination of result

The result will be presented to Mekelle University College of Health Sciences Department of RH for partial fulfillment for the requirement of MPH in Reproductive health. The results will be submitted to Mekelle University Department of RH, Regional Health Bureau, and Tigray Public and governmental secondary schools; presenting at the different workshops and so that it can be used as a source of information for possible planning and implementation of health intervention. Moreover, efforts will be done to publish the findings of the study and disseminated through different journals and scientific publications.

5. RESULT

5.1 Socio demographic characteristics

All 630 respondents complete the questioner with a response rate of 100%. Among these, most of the respondents (400 (63.5%)) were from governmental school. And most of the respondents (480 (76.2%)) were from urban areas. About 364 (57.8%) were females. the majority of the respondents (351(55.7%)) were within the age group of 15–19 years. And the mean age, SD were 18.96(\pm 1.929) and the median and IQR of the participants were 19 and 3 were respectively found. Most of the respondents were single (542(86.0%)) (Table 1).

Table 1: Socio-demographic characteristics of secondary school students in Mekelle town, Tigray, Ethiopia 2025(n=630).

Characteristics	Category	Frequency (n)	Percent (%)
Age	15-19	351	55.7
	20-24	279	44.3
sex	Male	266	42.2
	Female	364	57.8
Marital status	Single	542	86.0
	Married	57	9.0
	Living with a man but not married	31	4.9
Religion	Orthodox	376	59.7
	Muslim	194	30.8
	Protestant	31	4.9
	Others	29	4.6
Level of Educational	Grade 9	171	27.1
	Grade10	166	26.3
	Grade11	144	22.9
	Grade 12	149	23.7

Type of school	Government	400	63.5
	al school		
	Privet	230	36.5
	school		
Residence	Urban	480	76.2
	Suburban	150	23.8
Mothers Education	No formal	185	29.4
	education		
	primary	188	29.8
	secondary	209	33.2
	college and	48	7.6
	above		
Fathers educational	No formal	134	21.3
	education		
	primary	176	27.9
	secondary	195	31.0
	college and	125	19.8
	above		
Occupation of father	Farmer	66	10.5
	Private	139	22.1
	business		
	Government	88	14.0
	employee		
	Nongovern	59	9.4
	ment		
employee			
Daily	136	21.6	
laborer			
Student	32	5.1	

	Rearing of domestic animals	45	7.1
	Other	65	10.3
Occupation of mother	Farmer	30	4.8
	Private business	82	13.0
	Government employee	82	13.0
	Nongovernment employee	21	3.3
	Daily laborer	38	6.0
	Student	96	15.2
	Unemployed	83	13.2
	Other	77	12.2
	Housewife	121	19.2
Discuss sex related issues with your father	Yes	114	18.1
	No	516	81.9
Discuss sex related issues with your mother	Yes	190	30.2
	No	440	69.8

5.2. Behavioral and media factors

A total of 307(48.7%) of the participants heard and follow media related to RH. And more than half 254(40.3%) of the students get more information from television. Two hundred forty six (39.0%) of youths have a girl/boyfriend. And 34.6 % of the respondents had sexual intercourse. One hundred ninety eight (31.4%) drink alcohol (Table 2).

Table 2: Behavioral and media characteristics of secondary school students in Mekelle town, Tigray, Ethiopia, 2025(n=630).

Variables	Category	Frequency (n)	Percent (%)
Have a girl/boyfriend	Yes	246	39.0
	No	384	61.0
Ever had sexual intercourse	Yes	218	34.6
	No	412	65.4
Chew chat	Yes	16	2.5
	No	614	97.5
Smoking cigarette	Yes	20	3.2
	No	610	96.8
Smoking duration	Once a week	1	0.2
	Sometimes	13	2.1
	None	616	97.8
Ever drink alcohol	Yes	198	31.4
	No	432	68.6
Alcohol drinking in the last 30 days	Yes	198	31.4
	No	432	68.6
Alcohol drinking in the last one year	Yes	198	31.4
	No	432	68.6
Ever heard or follow on media related to RH.	Yes	307	48.7
	No	323	51.3
More information gathered about RH	Television	254	40.3
	Radio	173	27.5
	Internet	203	32.2

5.3. Knowledge and Utilization of Reproductive Health Services (RHS)

Two hundred forty five (38.9%) of the participants know a health facility which gives RH service. In this study, most for 30 %(191) of the study participants prefers to discuss RH issues with their friends. About 201(31.9%) of the respondent have been went to health facility for RH service (Table 3).

Table 3: Knowledge and Utilization of Reproductive Health Services of secondary school students in Mekelle town Mekelle, Tigray, Ethiopia, 2025(n=630).

Variables	Category	Frequency (n)	Percent (%)
knows any RH facility	Yes	245	38.9
	No	385	61.1
Ever have been went to health facility for RH service	Yes	201	31.9
	No	429	68.1
Service offered during visit	FP(ref)	122	19.4
	VCT	108	17.1
	Treatment of all the diseases	78	12.4
	Treatment of STI	105	16.7
	Care of pregnant young persons	70	11.1
	General health information	84	13.3
	Sports and recreational activities	63	10.0
Preference to discuss RH issues.	Friends	191	30.3
	Partners	127	20.2
	Siblings	114	18.1
	Professionals	132	21.0

	Others	66	10.5
More source of RH service gained from	Parent/Guardia	126	20.0
	Friend/Peer	178	28.3
	Teacher	128	20.3
	I read on a notice board	124	19.7
	I do not know of any	74	11.7

5.4 Health system factors

A total study participants 448(71.1%) responds that there is no RH service in their school. And about 136(21.6%) of the respondent don't want to use RH service at their school because of they felt ashamed of their friends. And majority of the respondent 271(43.0%) said that the health facility are near and a short walking distance (Table 4).

Table 4: Health system factors of secondary school students in Mekelle town, Tigray, Ethiopia, 2025(n=630).

Variables	Category	Frequency (n)	Percent (%)
Presence of RHS in school	Yes	182	28.9
	No	448	71.1
Reason for not getting RH	The queue was long	213	33.8
	Lack of money	185	29.4
	felt ashamed	136	21.6
	The clinic was closed	68	10.8
	Provider refused	28	4.4
Distance of the RH facility from school	Near, a short walking distance	271	43.0
	Near less than 2.5 km requires about # 15 Eth birr for transport	166	26.3

	Far, requires more than 2.5 km # 15	193	30.6
	Eth birr and above for transport		
Ever visited any RH clinic for RH service	Yes	178	28.3
	No	452	71.7
Handling of RHS providers	Good	384	61.0
	Moderate	168	26.7
	Bad	78	12.4
Missed RHS required	Yes	123	19.5
	No	507	80.5
Trained teacher on RH	Yes	254	40.3
	No	376	59.7

5.5. Utilization of Reproductive Health Services

Out of 630 study participants, 279 (39.4%) utilized reproductive health services. About 174 (27.1%) respondents utilized VCT while 127(20.2%) respondents utilized family planning service. Most of the of the respondents 16.7% uses condom type of contraceptive. 20.3 of the respondent faces cultural and religious influence (Table 5).

Table 5: Utilization of Reproductive Health Service among secondary school students in Mekelle town, Tigray, Ethiopia2025.

Variables	Category	Frequency (n)	Percent (%)
Family planning Counselling	Yes	186	29.5
	No	444	70.5
Ever use FP	Yes	127	20.2
	No	503	79.8
Type of FP utilized	Condom	105	16.7
	Oral	19	3
	contraceptive		
Counseling services of HIV(VCT)	Yes	174	27.6

	No	456	72.4
Counseling services of STI	Yes	181	28.7
	No	449	71.3
Counseling services on unwanted pregnancy	Yes	162	25.7
	No	468	74.3
Stigma attached to utilize RHS	Yes	4	0.6
	No	626	99.4
Cultural and religious influence	Yes	128	20.3
	No	502	79.7

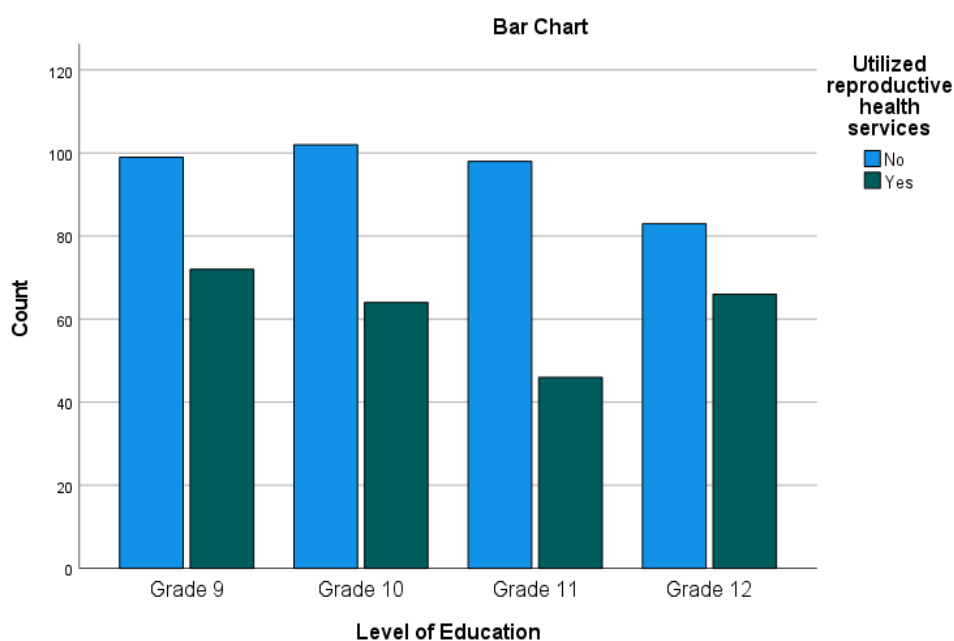


Figure 3. Level of education defined by reproductive health service utilization among youths attending selected schools in Mekelle, Tigray, Ethiopia 2025 (n= 630)

5.6. Reproductive Health Service Utilization and Associated Factors

In bivariate logistic regression analysis, age, educational level of the respondent, residence, educational status of the mother, Occupation of mother, presence of RHS facility in school, Discuss sex related issue with mother, Ever heard about RH service, Knowing any RH facility, More source of information on RH service gained, Service provided at RH facility and Availability

of trained teacher on RH were associated with the reproductive health service utilization. Those variables that have a $P < 0.25$ were entered into a multivariable logistic regression model to determine the final model.

In multivariate logistic regression analysis, educational status of the mother, presence of RHS facility in school, ever heard about RH service and knowing of any RH facility have been found to be significantly associated with the reproductive health service utilization.

The odds of the utilization of reproductive health service among those who have RHS facility in school (AOR = 2.20, 95% CI (1.507, 3.222)) was higher compared to those respondents who have not RHS facility in their school. The odds of RHS utilization among respondents whose mothers educational status falls under secondary (AOR = 2.34, 95%CI (1.499, 3.652)) was higher compared to those whose mothers educational status is unable to read and write. The odds of RHS utilization among participants who ever heard about RH service uses RHS was (AOR =2.07, 95%CI (1.459, 2.931)) higher compared to those who never heard. Respondents those who Knows of any RH facility were (AOR =1.95, 95%CI (1.368, 2.788)) higher compared to those who doesn't know the RH facility (Table 6).

Table 6: Bi-variate and multivariable logistic regression analysis of factors associated with Utilization of RHS among secondary school students in Mekelle town, Tigray, Ethiopia.

Variables	Category	Utilization of RH services		COR (95% CI)	AOR (95% CI)
		No (%)	Yes (%)		
Presence of RHS in school	No	154(24.4%)	294(46.6%)	0.490*(0.346,0.696)	2.203(1.507,3.222)
	Yes	94(14.9%)	88(13.9%)	1	1
Level of education	Grade 9	99(17.6%)	72(11.4%)	1	1
	Grade10	1029(16.2%)	64(10.1%)	0.915(0.587,1.125)	0.735(0.456,1.184)
	Grade11	98(15.5%)	46(7.3%)	0.789(0.503, 1.237)	0.735(0.456, 1.184)
	Grade12	83(13.2%)	66(10.5%)	0.590(0.366, 0.951)	0.941(0.579, 1.527)
Mothers education	No formal education	124(19.7%)	61(9.7%)	1	1
	primary	130(20.6%)	58(9.2%)	0.453*(0.238,0.862)	0.937(0.588, 1.493)
	secondary	105(16.7%)	104(16.5%)	0.410*(0.215, 0.783)	2.340(1.499, 3.652)

	college and above	23(3.6%)	25(3.9%)	0.911(0.486, 1.707)	2.603(1.295, 5.232)
Discuss sex related issue with mother	No	181(28.7%)	259(41.1%)	1.283*(0.901, 1.826)	0.7339(0.498,1.078)
	Yes	67(10.6%)	132(20.9%)	1	1
Ever heard about RH service	No	147(23.3%)	160(45.2%)	0.495(0.358,0.658)	2.068(1.459,2.931)
	Yes	101(16.1%)	222(35.2%)	1	1
Knowing of any RH facility	No	131(20.8%)	254(40.3%)	0.564(0.407,0.783)	1.953(1.368,2.788)
	Yes	117(18.6%)	128(20.3%)	1	1
More source of info on RH service gained	Parent/Guardian	85(13.5%)	411(65.2%)	1	1
	Friend/Peer	103(16.3%)	75(11.9%)	0.567(0.315,1.024)	1.520(0.911,2.538)
	Teacher	82(13%)	46(7.3%)	0.857(0.496,1.148)	1.289(0.734,2.266)
	I read on a notice board	72(11.4%)	52(8.3%)	0.660(0.369,1.182)	1.473(0.846,2.565)
	I do not know of any	40(6.3%)	34(5.4%)	0.850(0.476, 1.517)	1.837(0.973, 3.470)
Service provided at RH facility	FP	75(11.9%)	47(7.5%)	1	1
	VCT	63(10%)	45(7.1%)	1.253(0.662, 2.373)	1.017(0.571, 1.809)
	Treatment of all the diseases	41(6.5%)	37(5.9%)	1.429(0.747, 2.733)	1.554(0.833,2.897)
	Treatment of STI	65(103%)	40(6.3%)	1.805(0.908, 3.587)	0.993(0.554, 1.781)
	Care of pregnant	47(7.5%)	23(3.6%)	1.231(0.639, 2.370)	0.799(0.410,1.558)

	young persons				
	General	49(7.8%)	35(5.6%)	0.979(0.475, 2.017)	1.124(0.608, 2.078)
	health info				
	Sports and recreation	42(6.7%)	21(3.3%)	1.429(0.724, 2.820)	0.901(0.456, 1.782)
	al activities				
Availability of trained teacher on RH	No	140(22.2%)	236(37.5%)	1	1
	Yes	108(17.1%)	146(23.2%)	0.802(0.579, 1.110)	1.333(0.934, 1.904)

Note: * *P* value <0.05, CI = Confidence Interval, COR = Crude Odds Ratio, AOR = Adjusted Odds Ratio

6. DISCUSSION

The overall utilization of RHS among secondary school youths in Mekelle town was found to be 39.4%; the finding was less with the study conducted in Nigeria (33) and Woldiya (30) in which 40.6% and 64.3% respectively of youths utilize reproductive health services. However, it was higher than the study conducted in Maynamar (34), Dawuro zone (35), Gondar and Harari (29) in which 23%, 26%, 24.6% and 25.3% of participants utilized RHS respectively. The possible reason for this difference might be due to the participants' socio demographic characteristics, duration of time reference used in the definition of RHS utilization, socioeconomic variation and the effect of post war crises in the area. Furthermore, this discrepancy might be due to differences in the availability or accessibility of RH health facilities or youth centers in the school, educational status/level, socioeconomic status, urban-rural residence, transportation, and cultural variations.

The odds of the utilization of reproductive health service among respondents from the urban residence was higher compared to those respondents from rural residences. This finding was supported by other studies in Ethiopia (30, 37, 41). This might be because the accessibility of RHS in the urban area and the availability of media in urban areas will facilitate the information transmission regarding the benefit of utilizing RHS. The odds of the utilization of reproductive health service among those who have RHS facility in school was higher compared to those respondents who have not RHS facility in the school. This finding was supported by other studies in Ethiopia (30, 41). This might be due to the fact that those school-based RHS facilities will deliver services like counseling and easily accessing the facility students need timely.

In this study, the odds of RHS utilization among respondents whose mothers' educational status falls under secondary and above was higher compared to those whose mothers' educational status is unable to read and write. This finding was supported by other studies in worldwide Kenya, Assosa Zone, Woldia respectively (17, 37, 41, 30). Those families with higher educational status are more likely to be familiar with RHS-related issues.

The odds of RHS utilization among respondents who have RH service at their school to use RHS was higher compared to those who don't have RH service at their school to use RHS. Other studies also support this finding (43, 44). This shows the influence of availability of YFS at the health facility on the utilization of RHS.

In this study, respondents who have Awareness of RHS were in a good stance to utilize reproductive health services compared to those who don't of the respondents. A similar finding has been reported in other studies (18, 19, 20). The possible justification for this might be the fact that those respondents with a good level of Awareness regarding RHS will understand the benefit of using RHS and the consequence of not using RHS. In this study, a good Awareness regarding RHS was 1.14 times at a higher level to utilize reproductive health services. This finding was comparable with the study conducted by Teshome et al. in Woldia Town, Northeast Ethiopia (30). In this study, respondents who have known RH facility were in a good to utilize reproductive health services compared to those who don't know the health facilities. A similar finding has been reported in other studies (30, 45, 46). The possible justification for this might be the fact that those respondents with who knows more regarding RH facility will understand the benefit of using RHS and the consequence of not using RHS.

7. STRENGTH AND LIMITATION OF THE STUDY

7.1 Strength of the study

The sample was considered representative due to the application of a random sampling method, and the sample size was sufficient. Additionally, the study took place after the war, a period when gathering information can be challenging, which may prove beneficial for interventions in post-war contexts.

7.2 Limitation of the study

This study was conducted using cross sectional study design and it does not establish the possible temporal relationship between the dependent and independent variables. A structured self-administered questionnaires was used which may not be convenient to study reproductive health behavior in conservative societies. Also, the study topic by itself assesses personal and sensitive issues related to reproductive health which might have social desirability caused underreporting of some behaviors. It is tried to minimize the bias through making the place of interview private and recruited male data collectors for male participants and female data collectors for female participants as much as possible.

8. CONCLUSION AND RECOMMENDATION

8.1. Conclusion

Reproductive health service utilization in Mekelle, Tigray was found low and a major health issue. And Availability of an RHS facility in school, mother's educational status, prior awareness of Reproductive Health services, and knowledge of Reproductive Health services delivery facility were important predictors of Reproductive health service utilization.

In this study, 279 (39.4%) of youths students were utilized reproductive health services. This indicated that RH problems are the prevalent public health problem in our study area. All the social, behavioral, sexual and health system factors contribute to utilize or not to utilize RH services among youths students aged 15-24 years.

8.2. Recommendation

Low service utilization in these students could dispose them to different reproductive health risks such as sexually transmitted infections, HIV/AIDS, and unwanted pregnancy, which in turn can increase the school dropout rate and have an impact on an individual's future life. However, students who have utilize RHS and were encouraged by their family have good reproductive health service utilization. Therefore, special attention is needed for students regarding their parent-youth open communication, school staff involvement in their relationship, and open discussion on their sexual and reproductive health issues, and stakeholders should work to scale up the service utilization in schools by considering the students' background. And in addition we recommended the study should be studied out of Mekelle with different method of study to assess the predictors..

To Regional Health Office

By providing health professionals (like school nurses or outreach workers) to provide reproductive health education or services, working with local clinics or health centers to refer students in need of counseling, contraception, STI testing, or other services, tracking local health data related to youths reproductive health to inform interventions, and organizing awareness campaigns on topics like puberty, menstrual hygiene, safe sex, family planning, and pregnancy prevention, the regional health office can implement health services and coordinate local health programs.

To Regional Education Office

Coordinates with the health office to organize seminars, workshops, or health clubs in schools; works to integrate reproductive health topics into the curriculum, usually through biology or life skills classes; trains and supports teachers to ensure they can teach reproductive health in a way that is appropriate for students of all ages and culturally sensitive; and assesses the implementation of school health initiatives and confirms that schools follow national educational standards.

To Ministry of Health (MoH)

Establishes national health standards, policies, and plans by works together to develop policies and guidelines for reproductive health services with the Ministry of Education. Allocates cash and resources for programs pertaining to youth health, such as those offered in schools, oversees nationwide teenage reproductive health programs and advocacy initiatives, offers educational resources and backs efforts to increase the ability of educators and healthcare professionals and examines and assesses national reproductive health initiatives.

These organizations should guarantee that reproductive health education and services are age-appropriate, accessible, scientifically correct, and compliant with national laws and policies for all parties involved.

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10. Annex

Participant Information Sheet

Assessment of Reproductive Health Service Utilization & Associated Factors among Selected School youths in Mekelle

Principal Investigator: GIRMAY TOLOSA

Advisor:

Department of RH College of Health Science Mekelle University

Hello. My name is _____ I am data collector for Master of Public Health in Reproductive Health student in Mekelle University. I am conducting a study with the aim of Assessment of Reproductive Health Service Utilization & Associated Factors among Selected School Adolescents in Mekelle

Purpose To determine the level of Reproductive Health Service Utilization & Associated Factors among Selected School youths in Mekelle

Procedure and Participation: The study process includes Adolescents who are in the selected secondary schools n mekelle.

Confidentiality: Any information forwarded will be kept confidential and names will not be written or specified.

Benefit: The long term benefit would be, the result of the study will be useful to expand and implement prevention, community mobilization strategy and encouraging the secondary schools to have well and continuous RH services and utilization.

Risk: Participating in this study will not have any risk or harm.

Person to Contact: Investigator's Address

GIRMAY TOLOSA: tolosagirmay@gmail.com

Mobile +251914026605

Study instruments and tools

Part I: English version questionnaire for the interview

Respondent's information sheet for face to face survey on Assessment of Reproductive Health Service Utilization & Associated Factors among Selected School youths in Mekelle 2024.

Consent form (English Version)

In undersigning this document, I am giving my consent to participate in the study entitled as "Assessment of Reproductive Health Service Utilization & Associated Factors among Selected School youths in Mekelle 2024." I have understood that participation in this study is entirely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any way. I have also been informed that my participation or non-participation or my refusal to answer questions will have no effect on me. I understood that participation in this study does not involve risks. I understood that Girmay Tolosa is the contact person if I have questions about the study or about my rights as a study participant.

Respondent's signature _____

Interviewer

Name _____ Signature _____ Date _____

Thank you for the time you devoted!!!

STATEMENT OF CONSENT/ASSENT

..... Has described to me what is going to be done, the risks, the benefits involved and my rights regarding this study. I understand that my decision to participate in this study will not alter my usual schooling. In the use of this information, my identity will be concealed. I am aware that I may withdraw at any time. I understand that by signing this form, I do not waive any of my legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to participate. A copy of this form will be provided to me.

Signature/thumbprint of participant..... Age..... Date

Signature/ thumbprint of the witness Date

Signature of Interviewer Date.....

I. Questionnaires to be filled by asking the study participants

Part 1. Socio demographic characteristics of secondary school students

S/n	Question	Response	Code
101	Age	_____year	
102	Sex	1. Male 2. Female	
103	What is your current level of education?	1. Grade 9 2. Grade10 3. Grade11 4. Grade 12	
104	What is the type of school you attend?	1. Governmental school 2. Privet school	
105	Marital status	1. Single 2. Married 3. Living with a man but not married	
106	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Others	
107	Residence	1. Urban 2. Suburban	
107	Educational status of your father	1. No formal education 2. primary 3. secondary 4. college and above	
108	Educational status of your mother	1. No formal education 2. primary 3. secondary 4. college and above	
109	Occupation of your father	1. Student 2. Private business 3. Government employee 4. Nongovernment employee	

		5. Daily laborer 6. Farmer 7. Rearing of domestic animals 8. Other	
110	Occupation of your mother	1. Student 2. Private business 3. Government employee 4. Nongovernment employee 5. House wife 6. Daily laborer 7. Farmer 8. Rearing of domestic animals 9. Other	
111	Did you discuss sex related issues with your father?	1. Yes 2. No	
112	Did you discuss sex related issues with your mother?	1. Yes 2. No	
Part Two-behavioral factors			
113	Do you have a girl/boyfriend?	1. Yes 2. No	
114	Had sexual Intercourse?	1. Yes 2. No	
115	Have you ever chew chat?	1. Yes 2. No	
116	During the last 30 days, how many days did you chew Chat?	1. Daily 2. none in the last 30 days	
117	Have you ever smoke cigarette?	1. Yes 2. No	
118	If yes for Q.117 how many times did you smoke cigarette?	1. Everyday 2. Once a week 3. Sometimes	
119	Have you ever drink alcohol?	4. Yes 5. No	
120	During the last 30 days, how many days did you drink alcohol?	1. Daily 2. sometimes 3. None in the last 30 days	

121	During the past 13 months, how many days did you have a drink that contains alcohol?	<ol style="list-style-type: none"> 1. Almost every day 2. At least once a week 3. sometimes 4. None in the last 13 months 	
Part Three – Media factor			
122	Have you ever heard or follow on media related to RH.	<ol style="list-style-type: none"> 1. Yes 2. No 	
123	From where did you hear more about RH services?	<ol style="list-style-type: none"> 1. Television 2. Radio 3. Internet 	
Part four - Knowledge and Utilization of Reproductive Health Services (RHS)			
124	Do you know of any Reproductive Health facility?	<ol style="list-style-type: none"> 4. Yes 5. No 	
125	If yes who told you about it?	<ol style="list-style-type: none"> 1. Parent/Guardia 2. Friend/Peer 3. Teacher 4. I read on a notice board 5. I do not know of any 	
126	Have you ever been to health facility for RH service?	<ol style="list-style-type: none"> 1. Yes 2. No 	
127	Which services are being offered in reproductive health facility? Tick all correct answers	<ol style="list-style-type: none"> 1. Family planning services (Contraceptives, condoms) 2. Voluntary Counseling and Testing(VCT) 3. Treatment of all the diseases 4. Treatment of sexually transmitted Infections/diseases 5. Care of pregnant young persons 6. General health information 7. Sports and recreational activities 	
128	With whom you prefer to discuss RH issues?	<ol style="list-style-type: none"> 1. Friends 2. Partners 3. Siblings 4. Professionals 5. Others 	
Part Five- Health system factor			
129	Is there reproductive health service (RHS) facility in your school?	<ol style="list-style-type: none"> 1. Yes 2. No 	

130	If yes for Q.129 have you ever use the service in your school?	1. Yes 2. No	
131	If no in question no.135, state the reason for not getting the service	1. The queue was long 2. I have no money for the service 3. I found friends and felt ashamed 4. The clinic is closed 5. The service provider refused to give the service/ was harsh	
132	How far is reproductive health facility from your school?	1. Near, a short walking distance 2. Near less than 2.5 km requires about # 15 Eth birr for transport 3. Far more than 2.5km requires # 15 Eth birr and above for transport	
133	Have you ever visited any RH clinic for RH service	1. Yes 2. No	
134	If you have ever used a reproductive health service facility, how would you describe how you were handled by service provider?	1. Good-Friendly, welcoming, handled me well and gave me the service I required 2. Moderate-welcomed me but asked too many unnecessary questions before giving me service 3. Bad, he/she was harsh, rude and denied me service	
135	Have you ever missed the service you required?	1. Yes 2. No	
136	Do you think RH service providing at school is important?	1. Yes 2. No	
137	If yes is for Q.136 please write why is important?		
138	Is there any teacher in your school trained on RH?	1. Yes 2. No	
Part six- Utilization of Reproductive health service			
Have you ever used any of these services in the last 12 months?			
139	FP Counselling services	1. Yes 2. No	
140	Have you ever use FP?	1. Yes 2. No	
141	If yes for Q. 140, what type of FP did you use?	1. Condom 2. Oral contraceptive	

		3. Injectable 4 IUCD	
142	STI Counselling services	1. Yes 2. No	
143	HIV Counselling services	1. Yes 2. No	
144	Counselling services on unwanted pregnancy	1. Yes 2. No	
145	Have you ever had stigma attached to utilize RHS?	1. Yes 2. No	
146	Does your cultural or religion restrict utilization of youth friendly reproductive health service?	1. Yes 2. No	

መቐለ ዩንቨርሲቲ

ኮሌጅጥዕና ሳይንስ ክፍሊትምህርቲ ሕብረተሰብ ጥዕና

Annex I

ትግርኛ ቃለ-መሕትት

እዚ ቅጥዒ ኣብ ከተማ መቐለ ዝርከቡ ካልኣይ ብርኪ ቤት ተመህርቲ ብዛዕባ ሰነ ተወልዶ ኣገልግሎትን እጠቓቅማን ተፅዕኖታቶምን ብዝተገለጸ ርእሲ ኣብ ዝስራሕ መፅናቲ መረዳእታ ንምእካብ ዝተዳለወ እዩ።

ኣነ ኣብ መቐለ ዩንቨርሲቲ ኮሌጅ ጥዕና ሳይንስ ሕብረተሰብ ጥዕና ካልኣይ ዲግሪ ንምስራሕ ዝግበር ፅንዓት መረዳእታ ዝእክብ እዩ። እዚ ዝሓተኪ/ካ ሕቶ ብዛዕባ ኣብ ሰነ ተወልዶ ኣገልግሎትን እጠቓቅማን ተፅዕኖታቶምን እዩ። ኣብ ታሓቲ ንዝንበበልኪ/ካ ናይቲ ፅንዓት መግለጺ ተረዲኪ/ካ ብፍደኛነት መረዳእታ ብምሃብ ኣብዚ ፅንዓት ተሳታፊት/ይ ንክትኮና/ኑ ብኣጋጣሚ ተመሪፅክን/ኩም ኣለክን/ኩም።

ዕላማ ናይቲ ፅንዓት: ኣብ ከተማ መቐለ ኣብ ሰነ ተወልዶ ኣገልግሎትን እጠቓቅማን ተፅዕኖታቶምን ብምድህሳስ መረዳእታ ምእካብ፣ እዚ ዝእክብ ሓበሬታ ንሕብረተሰብ ፤ ንወረዳን ክልልን ኣብ ጥዕና ስነ ፆታዊን ተዋልዶን ዝሰርሑ ትካላትን ዝጠቅም እዩ።

ናይቲ ፅንዓት ጥቅምን ጉዳኣትን: ኣብዚ ፅንዓት ብምሰታፈኪ/ካ ዝበፀሐካ/ኪ ጉዳኣት ይለን። ብምስታፍካ/ክ ቀጥታዊ ዝኮነ ጥቅሚ ይኩሉን።

ናይቲ ፅንዓት ምሰጥራዊነት : ናይቲ ዝወስድ መረዳእታ፣ ወፅኢት ናይቲ ምረመራ ይኩን እትህብኒ/ኒ መረዳእታ ኩሉ ምሽጥፍ ዝተሓለወ እዩ፣ ብዜካ ነዚ መፅናዕቲ ንካሊእ ኣይውዕልን፣ ካሊእ ሰብ እውን ኣይረኣን ሹም ኣይፀሓፎን። ዝተወሰደልካ/ካ/ መረዳእታ ነዚ ፅንዓት እዚ ጥራሕ ተጠቅምና ሰብ ኣብ ዘይረክቦ ቦታ ክነቅምጦ ኢና። ኣብ ድሌት ዝተመስረተ እዩ። ደስ እተዘይልኪ/ካ ውልቀ ሕቶ ይኩን ሙሉእ ሕቶ ዘይክተምልሲ/ስ ትክእል/ሊ ኢካ/ኪ። ንክትሰተፋ ግን ተስፋ ይገብር ምክንያቱ ተሳትፎኪ/ካ ኣይላዩ ስለዝኮነ።

ሕቶ እንተሃሊኪ/ካ በዚ ስልኪቁፅሪ: 0914026605 ግርማይ ቶሎሳ ኢልካ ምድዋል ይካኣል እዩ።

ፍቃድ (ናይፅሑፍ)

ኣነ ናይቲ ፅንዓት መግለጺ ተነቢቡለይ/ኣንቢበዮ ኣለኩ ዕለሙኡን ጥቁሙን ተረዲኦ ኣብዚ ፅንዓት ንዝግበረለይ ቃለ-መሕትት ተሳታፊት/ይ ንክከውን ፍቃደኛ ኮይነ ኣለኩ።

ናይተሳታፊት/ይ ፊርማ _____

ዕለት _____

ሹም መረዳኣታ ዝሓተተ ኣካል: _____ ፊርማ _____

ዕለት _____

ስልኪቁፅሪ _____

ፍቃድ /ስምምዕነት ንትሕቲ 18 ዓመት

_____ ናይቲ ፅንዓት ዕላማ ዘለዎ ጥቅምን ጉድኣትን ተገሊጹለይ እዩ።ኣብዚ ፅንዓት ንምስታፍ ብዝወሰንኩዎ ተረዲኦ ኣለኩ።ኣብ ድሌት ዝተመሰረተ እዩ። ደስ እተዘይልኪ/ካ ውልቀ ሕቶ ይኩን ሙሉእ ሕቶ ዘይክተምልሲ/ስ ትክእል/ሊ ኢካ/ኪ፡ ኣብዚ ፅንዓት ንዝግበረለይ ቃለ- መሕትት ተሳታፊት/ይ ንክከውን ፍቃደኛ ኮይነ ኣለኩ።

ናይ ተሳታፊት/ይ ፊርማ _____ ዕድመ _____ ዕለት _____

ናይ ተሳታፊ ሓላፍነት ዝወስድ ኣካል ፊርማ _____ ዕለት _____

ሹም መረዳእታ ዝሓተተ ኣካል ፡ _____ ፊርማ _____ ዕለት _____

Part II: Tigrigna version questionnaire for the interview

ካብ ዝተፈላለዩ መፅናዕትታት መሰረት ብምግባር ዝተዳለወ ትግርኛ ቃለ- መሕትት

1ይ ክፋል-ማሕበረ-ሰነ-ህዝባዊ ባህርያት ተማሃሮ ካልኣይ ብርኪ

ተኸታታሊ ቁጽሪ	ሕቶ	መልሲ	Code
101	ዕድሙ	_____ ዓመት	
102	ጾታ	1. ተባዕታይ 2. ጓል ኣንስተይቲ	
103	ህሉው/ሕዚ ዘለካዮ ደረጃ ትምህርትኻ/ኪ ኣብ ምንታይ እዩ?	1. 9ይ ክፍለ 2. 10ይ ክፍለ 3. 11 ክፍለ 4. 12 ክፍለ	
104	ኣብይ ቤት ትምህርቲ ትመሃር/ሪ?	1. ናይ መንግስቲ ቤት ትምህርቲ 2. ናይ ግሊ ቤት ትምህርቲ	
105	ኩነታት ሓዳር	1. ንጽል 2. በዓል ሓዳር 3. ካልእ	
106	ሃይማኖት	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካልኣት	
107	ናይ ወላዲኪ/ካ ናይ ትምህርቲ ደረጃ	1. ፈድል ዘይቆፀረ 2. ካልኣይ ብርኪ 3. ለዕሊ ካልኣይ ብርኪ	
108	ናይ ወላዲትኻ/ኪ ናይ ትምህርቲ ደረጃ	1. ፈድል ዘይቆፀረ 2. ካልኣይ ብርኪ 3. ለዕሊ ካልኣይ	
109	ሞያ ወላዲካ/ኪ እንታይ እዩ?	1. ተምሃራይ 2. ነጋዴ 3. መንግስቲ ሰራሕተኛ 4. ግብረ ሰናይ ድርጅት ሰራሕተኛ	

		5. ናይ ገዛ እመቤት 6. መዓልቲ ሰራሕተኛ 7. ሓረስታይ 8. ካልእ _____	
110	ሞያ ወላዲት/ኪ እንታይ እዩ?	1. ተምሃራይ 2. ነጋዴ 3. መንግስቲ ሰራሕተኛ 4. ግብረ ሰናይ ድርጅት ሰራሕተኛ 5. ናይ ገዛ እመቤት 6. መዓልቲ ሰራሕተኛ 7. ሓረስታይ 8. ካልእ _____	
111	ምስ ወላዲት/ኪ ብዝሰበገ ጸታዊ ርክብ ትዛራርቡ ዶ?	1. እወ 2. ኣይፋልን	
112	ምስ ወላዲት/ኪ ብዝሰበገ ጸታዊ ርክብ ትዛራርቡ ዶ?	1. እወ 2. ኣይፋልን	
ካልኣይ ክፋል - ናይ ባህሪ ረጅሒታት (Behavioral factors)			
113	ኣፍቃሪ ኣለካ/ኪ ዶ?	1. እወ 2. ኣይፋልን	
114	ጸታዊ ርክብ ፈጻምካ/ኪ ትፈልጥ ዶ?	1. እወ 2. ኣይፋልን	
115	ጫት ትጠቂምኪ/ኪ ትፈልጥ ዲኻ?	1. እወ 2. ኣይፋልን	
116	እብ ዝሓልፉ 30 መዓልታት ጫት ትጠቂምኪ/ኪ ትፈልጥ ዲኻ/ኪ?	1. ብዚሒ መዓልታት__ 2. መንመ ኣይትጥቅሙኩን	
117	ሲጋራ ኣጨሰካ/ኪ ትፈልጥ ዶ?	1. እወ 2. ኣይፋልን	
118	ን ቁፀሪ 117 እወ ኣንተኮይኑ ከንደይ ጊዝ ሲጋራ ኣጨሰካ/ኪ ትፈልጥ/ጢ?	1. ዳርጋ ኩሉመዓልቲ 2. ኣብ ሰሙን ሓደ ግዜ 3. ሓል ሓሊፉ	
119	ኣልኮላዊ መስተ ተጠቅም/ሚ ዶ?	1. እወ	

		2. አይፋልን	
120	እብ ዝሓልፍ 30 ማዓልታት ኣልኮላዊ መስተ ብበዘሒ ትጠቁምኪ/ካ ዶ?	1. ብዚሒ ማዓልታት _____ 2. መንመ ኣይትጥቅሙኩን	
121	እብ ዝሓልፍ 13 እዋርኽ ኣልኮላዊ መስተ ብበዘሒ ዝልዎም ትጠቁምኪ/ካ ዶ?	1. ዳርጋ ኩሉማዓልቲ 2. ኣብ ሰሙን ሓደ ግዜ 3. ሓል ሓሊፍ	
ሳልሳይ ክፋል - ሚድያ			
122	ምስ ሰነ ተወልዶ ዝተኣሳሰሩ ሚድያታት ሰሚዕካ/ኪ ወይ ተኸታቲልካ/ኪ ትፈልጡ ዶ?	1. እወ 2. አይፋልን	
123	ብበዘሒ ብዛዕባ ኣገልግሎት ሰነ ጸታዊን ሰነ ተዋልዶን ካብይ ትርከብ?	1. ቴሌቪዥን 2. ሬዲዮ 3. ኤንቴርኔት	
ፊብዓይ ክፋል - ፍልጠትን ኣጠቓቕማን ኣገልግሎት ጥዕና ሰነ ተዋልዶ (RHS)			
124	ዝኸነ ትካል ኣገልግሎት ጥዕና ሰነ ተዋልዶ ዘህብ ትፈልጡ ዶ?	1. እወ 2. አይፋልን	
125	እወ እንተኸይኑ መን ነገሩካ?	1. ወላዲ/አላዪ 2. ዓርኪ/መዛኑ 3. መምህር 4. ኣብ መተሓሰስቢ ሰሌዳ 5. ኣንቢበ 6. ዝኸነ ኣይፈልጥን	
126	ናብ ጥዕና ትካል ከይድካ/ኪ ትፈልጥ/ጢ ዶ?	1. እወ 2. አይፋልን	
127	መልሲ እወ እንተኸይኑ ኣብ ትካል ጥዕና ሰነ ጸታዊን ተዋልዶን ኣየኖት ኣገልግሎታት ክወሃቡ	1. ኣገልግሎት ምጣነ ስድራቤት (መከላኸሊ ጥንሲ፣ ኮንዶም) 2. ወለንታዊ ምኽርን መርመራን HIV(VCT) 3. ሕክምና ኩሎም ሕማማት	

	ተዓዚብካ/ኪ አብ ኩሉ ቅኑዕ መልስታት ምልክት ግበር?	<p>4. ሕክምና ብጾታዊ ርክብ ዝመሓለፉ ረኽስታት/ሕማማት</p> <p>5. ክንክን ነፍሰ ጾር መንእሰያት</p> <p>6. ሓፈሻዊ ሓበሬታ ጥዕና/ምኽሪ</p> <p>7. ስፖርትን መዘናግዕን ንጥፈታት</p>	
128	ምስ መን አብ ጉዳይ ስነ ተዋልዶ ክትዘራረብ ትመርጽ?	<p>1. ፈተውቲ</p> <p>2. መሻርኽቲ</p> <p>3. ኣሕዋት</p> <p>4. ሰብ ሞያ</p> <p>5. ካልኣት?</p>	
ሓምሻይ ክፋል፡ ረጅሒታት ስርዓተ ጥዕና			
129	አብ ቤት ትምህርትኹም ኣገልግሎት ጥዕና ሰነ ተዋልዶ (RHS) ኣሎ ድዩ?	<p>1. እወ</p> <p>2. ኣይፋልን</p>	
130	አብ ቁ.129 እወ እንተኾይኑ፡ እቲ ኣገልግሎት ዘይረኽብካሉ ምኽንያት ግለጽ?	<p>1. እቲ ሪጋ ነዊሕ እዩ ነይሩ።</p> <p>2. ንኣገልግሎት ዝኸውን ገንዘብ የብላይን</p> <p>3. ኣዕሩኽ ረኪበ ሕፍረት ተሰሚዑኒ</p> <p>4. እቲ ክሊኒክ ተዓጽዩ ኣሎ</p> <p>5. እቲ ወሃቢ ኣገልግሎት ነቲ ኣገልግሎት ምሃብ ኣብዩ/ ተሪር እዩ ነይሩ.</p>	
131	ትካል ጥዕና ሰነ ጾታዊን ሰነ ተዋልዶን ካብ ቤት ትምህርትኹም ክንደይ ርሕቀት ኣለዎ?	<p>1. አብ ቀረብ፡ ሓዲር ናይ እግሪ ርሕቀት</p> <p>2. ቀረብ ግን ንመጓጓዣ ኣስታት # 10 ቅርሺ ይሓትት</p> <p>3. ርሑቕ፡ ንመጓጓዣ # 15 ቅርሺን ልዕሊኡን ይሓትት</p>	
132	ንኣገልግሎት ጥዕና ሰነ ጾታዊን ሰነ ተዋልዶን ናብ ዝኾነ ናይ ሰነ ተዋልዶን ክሊኒክ በጺሕኩም ትፈልጡ ዶ?	<p>1. እወ</p> <p>2. ኣይፋልን</p>	
133	ትካል ኣገልግሎት ሰነ ጾታዊን ሰነ ተዋልዶን ተጠቐምካ/ኪ ትፈልጥ እንተኾንካ፡ ብወሃቢ ኣገልግሎት	<p>1. ጽቡቕ-ምሕዝነታዊ፡ ተቐባሊ፡ ጽቡቕ ኣተሓሕዝን ዝደልዮ ኣገልግሎት ዝሃበንን</p>	

	ብሽመይ ከም ዝተታሕዘካ ብሽመይ ምገለጽኩ?	2. ማእከላይ-ተቐቢሉኒ ግን ቅድሚ ኣገልግሎት ምሃቡ ብተሕ ዘዩድሊ ሕቶታት ሓቲቲኒ 3. ሕማቕ፣ ተረር፣ ጨካንን ኣገልግሎት ዝሽልኣኒን እዩ ነይሩ።	
134	እቲ ዝደለኹም ኣገልግሎት ሲኣንኪ/ካ ትፈልጥ ዶ?	1.እው 2. ኣይፋልን	
135	ኣብ ቤት ትምህርቲ ምሃብ ኣገልግሎት ሰነ ጾታዊን ሰነ ተዋልዶን ኣገዳሲ ይመስለካ/ኪ ዶ?	1.እው 2. ኣይፋልን	
136	መልሲን ቁ.135 እው እንተኾይኑ በጃኹም ስለምንታይ ኣገዳሲ ምካኑ ጽሓፉ?		
137	ኣብ ቤት ትምህርቲኩም ብዘኣባ ኣገልግሎት ሰነ ጾታዊን ሰነ ተዋልዶን ሰልጥና ዘውስደ እለኩም ዶ?	1.እው 2. ኣይፋልን	
ሻድሻይ ክፋል - ኣጠቓቕማ ኣገልግሎት ጥዕና ሰነ ተዋልዶ ኣብ ዝሓለፈ 12 ኣዋርሕ ካብዞም ኣገልግሎታት ዝኾነ ይኹን ተጠቂምኩም ትፈልጡ ዶ?			
138	ኣገልግሎት ምኽሪ ምጣነ ስድራቤት	1.እው 2. ኣይፋልን	
139	ምጣነ ስድራ ቤት ትጥቂመኪ/ካ ትፈልጥ?	1.እው 2. ኣይፋልን	
140	ምልስኩመ እው ኣንትኮዪኑ ኣንታይ ዓይነት ምጣነ ስድራ ቤት ትጥቂመኪ/ካ ትፈልጥ?	1. ኮንዶም 2. ብ ኣፍ ዘውስድ 3. ብምርፈኣ ዘውስድ 4. ብማህፅን ዝውስድ	

141	አገልግሎት ምክሪ አብ ወለንታዊ ምክርን መርመራን HIV(VCT) ?	1.እወ 2. አይፋልን	
142	አገልግሎት ምክሪ ብጾታዊ ርክብ ዝመሓላለፉ ረኽስታት/ሕማማት(STI)	1.እወ 2. አይፋልን	
143	ምስ መን አብ ጉዳይ ስነ ተዋልዶ ክትዘራረብ ትመርጽ?	1. ፈተውቲ 2. መሻርኽቲ 3. አሕዋት 4. ሰብ ሞያ 5. ካልኣት?	
144	ሰነ ተዋልዶ ንምጥቃም ጸለመ ተተሓሕዞ/ኪ ይፈልጥ ዶ?	1.እወ 2. አይፋልን	
145	ሃይማኖትካ ንመንእሰያት ዝሙቹ አገልግሎት ጥዕና ተፈጥሮ (YFRHS) ንኣጠቓቕማ ይድርት ድዩ?	1.እወ 2. አይፋልን	