ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

The Magnitudeof Induced Abortion and Associated Factors Among High School Teenage Girls Aged 15-19 Years in Addis Ababa City

By

Tadla Wassie (Bsc)

A Thesis Submitted To the School Of Graduate Studies Addis Ababa University, College Of Health Science, School Of Public Health, In Partial Fulfillment of the Requirements for Degree of Masters in Public Heath

October, 2017

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October, 2017

Addis Ababa, Ethiopia

APPROVED BY THE BOARD OF EXAMINERS

This thesis, by Tadla Wassie is accepted in its present form by the board of examiners as fulfilling for the degree of masters in public health nutrition.

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Abstract

Background: - Abortion emanating from unintended pregnancy is one of the most significant causes of maternal morbidity and mortality; it is also a major medical and public health problem. However, there is paucity of information on high risk population groups in Ethiopia.

Objectives: - To measure the magnitude of induced abortion and identify factors associated with it among female high school students aged 15 to 19 years in Addis Ababa.

Methods: - A mixed methods cross sectional study design was employed. The quantitative method was conducted among 914 students. Multistage sampling technique with self administered questionnaire was used. Data were entered into Epi data and cleaned using frequency distribution and cross- tabulation. Data were analyzed using STATA version 14. The associations of the main independent variables with the practice of induced abortion were first cross tabulated and those found statistically significant with induced abortion were fitted into binary logistic regression. Multivariable logistic regressions were fitted to control confounding. The key informant interview was transcribed and translated. Open Code software was used to code and categorize and different ideas in the text were merged in their categories and content analysis was done.

Results: - From the total 903 respondents 152 (16.8%) were sexually active and 129 (14.28%) of them experience pregnancy in their life time. Ninety-two percent of the pregnancy was unwanted and ended with induced abortion which was 119(13.17%). On the other hand, multivariate analysis visit to religious places, learning in government school, being a daughter of private employs, having a boy friend and seeing/reading pornography materials have showed significant association with induced abortion with AOR (95% CI) 3.55 (1.30-9.68), 7.3(3.71-14.37), 2.33 (1.06-5.15), 46.9 (19.0-116.17), 2.01 (1.01-3.98), respectively. According to the qualitative study the main reasons for the high prevalence of induced abortion were peer pressure, celebrating different festivals and birth days out side home, availability of chat, shisha and grocery houses around the school, poor family and child relationship, risky sexual behaviors low economic status, rape and birth place of students.

Conclusion: - A considerable proportion of girls engage in sexual activity that leads to high prevalence of induced abortion. Having a boy friend, being a daughter of private employs, going into government school and seeing/reading pornography materials played a positive role for abortion while frequent visit to religious place had a negative role. Efforts should be made to

engage parents, schools and religious institutions to curb the practice of induced abortion among high school teens.

Abbreviations

AIDS Acquired Immuno Deficiency Syndrome

EC Emergency Contraceptive

FMOH Federal Ministry of Health

FP Family Planning

HF Health Facility

HIV Human Immuno Virus

IUCD Intrauterine Contraceptive Device

LAM Lactational Amenorrhea Method

MMR Maternal Mortality Rate

NGO Nongovernmental Organization

SRS Simple Random Sampling

SSA Sub Sahara Africa

TV Television

WHO World Health Organization

1. Introduction

1.1 Background

Abortion is a sensitive and contentious issue with religious, moral, cultural, and political dimensions. It is also a public health concern in many parts of the world (1).

Induced abortion is the act of ending a pregnancy by surgery or medicine. World health organization (WHO) defines unsafe abortion as a procedure for terminating an unintended pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both(1).Where as safe abortion is the termination of pregnancy by a skilled health care provider with proper equipments and in an environment with required medical standard (2).

The conditions under which abortion is legally permitted differ from country to country. In some countries, access is highly restricted; in others, pregnancy termination is available on broad medical and social grounds or on request (3). Abortion is restricted in most African countries. Some countries have written laws on abortion that is more restrictive than the practice observed or inferred. Ethiopia is one of the countries permitted abortion for an expanded range of indications to protect the woman's life and physical health (1). Each year there are about 250 million pregnancies globally; around one third of these are unintended, of which 20% end in induced abortion. Similar rates apply in low income countries, where more than one third of the 182 million pregnancies are unintended, of which 19% are subjected to abortion. However, 11% of these abortions are unsafe (with about 2·5 million (almost 14%) of all unsafe abortion in these countries occurring in women younger than 20 years (4).

Approximately 16 million adolescents aged 15 to 19 become pregnant each year, constituting 11% of all births worldwide (4). Despite the social and cultural importance of child bearing in many African communities, unwanted pregnancies are the source of problems in the families. This is more severe for young girls who often fall pregnant out of wed lock. The best option for them is to go for an abortion just to avoid facing the judgment from their families and the community in general (3). Complications during pregnancy and childbirth are consistently the second cause of death for girls aged 15 to 19 years old (4). In Ethiopia, abortion emanating from unintended pregnancy is one of the most significant causes of maternal morbidity and mortality; it is also a major medical and public health problem (5).

1.2 Statement of the problem

Complications during pregnancy and childbirth are the second cause of death for 15-19 year-old girls globally and every year, some 3 million girls aged 15 to 19 undergo unsafe abortions. About 16 million girls aged 15 to 19 and some 1 million girls under the age of 15 years give birth every year most in low- and middle-income countries. Babies born to adolescent mothers face a substantially higher risk of dying than those born to women aged 20 to 24 years (6).

Adolescent pregnancy rates are far higher in four SSA countries (Burkina Faso, Ethiopia, Kenya and Malawi) than in developed countries. They range from 121 per 1,000 women aged 15–19 in Ethiopia to 187 per 1,000 in Burkina Faso (both in 2008) (7).

In developing countries, two in five unsafe abortions occur among women under age 25, and about one in seven women who have unsafe abortions are under 20. In Africa, about one-quarter of the unsafe abortions are among teenagers (ages 15 to 19), a higher proportion than in any other world region. Nearly 60 percent of women in sub-Saharan Africa who have unsafe abortions are younger than 25, and 25 percent are still in their teens (1).

Sub-Saharan Africa has the world's highest maternal mortality ratios (MMR) (8). Africa is one of the most dangerous regions to have an abortion. The ratio of abortion deaths per 100,000 procedures is less than 1/100,000 in developed countries, for developing countries it is 330/100,000 and for Africa alone the average is 680/100,000 (9). As the result of high prevalence of unsafe abortion, in 2006 the Federal Ministry of Health (FMOH) issued technical guidelines for safe abortion services. However unsafe abortion is still common and exerts a heavy toll on women in Ethiopia (10). From studies done between 1980 and 1999 showed, from the top four causes of maternal mortality abortion related complications were 31%. In the last decade, however, abortion contributes for about 10% of maternal deaths (11). Evidences on the magnitude of induced abortion and identifying factors that are responsible for induced abortions are essential in improving maternal morbidity and mortality. It was important to conduct this study because of the limited data on the magnitude of induced abortion and associated factors among high school teenage students and its consequences. Therefore, the purpose of this study was to assess the magnitude of induced abortion and identify associated factors among teenage girls aged between 15 and19 years in Addis Ababa city.

1.3. Rationale of the study

In May 2005, Ethiopia's new Criminal Code came into effect. The government revised the code to permit abortion for an expanded range of indications. These include: when the pregnancy results from rape or incest; when the health or life of the woman and the fetus are in danger; in cases of fetal abnormalities; for women with physical or mental disabilities; and for minors who are physically or psychologically unprepared to raise a child (12). The latest statistics available are from 2008, which show that 27 percent of women who sought abortions in Ethiopia did so legally and safely. That still suggests more than 70 percent of abortions were done in unsafe conditions by untrained providers (13).

This study will be used as baseline information for future studies and uncover the magnitude of induced abortion and associated factors among teenage girls age from 15 to 19 years. It will also add relevant understanding on knowledge of teenagers about abortion law of Ethiopia and access of safe abortion care services. Understanding the magnitude of induced abortion as well as identifying the factors that are associated with it is very crucial in designing and implementing interventions that could help in reduction of maternal morbidity and mortality. Information from this study will be used by the policy makers and program managers in addressing the needs of teenage people and come up with effective interventions in the reduction of unwanted pregnancy and induced abortion.

2. LITERATURE REVIEW

Complications of abortion are the second highest cause of maternal death worldwide and may cause 13 % of all pregnancy-related deaths (14). Unsafe abortion is a significant cause of maternal mortality and morbidity in the world. Ninety-five percent of unsafe abortions take place in developing countries. Globally, each year, unsafe abortion claims the lives of about 68,000 women; 43% of these women were from Africa. Unsafe abortion accounts for an estimated 14% of maternal death in Africa (15) and 32% in Ethiopia (16).

2.1 Unintended pregnancy

In Sub-Saharan Africa (SSA) as a whole, about 35% of pregnancies among teenage girls 15–19 years of age in 2007 were unintended (2).

A study done in Guraghe zone, Ethiopia in 2010, on post abortion care quality status in health facilities, showed that, out of 17% of abortion,75.5% of the pregnancy which ended in abortion was unwanted (17). Another national study done on correlates of unintended pregnancy in Ethiopia showed that, women in the age groups 25-29 years and 30-34 years had a reduced chance of unintended pregnancy compared with those in the age group of 15-19 years (18). The other study on magnitude and risk factors of abortion among regular female students in Wolaita Sodo University, Ethiopia in 2010/2011 revealed that, from a total of 7.7% pregnancies, 85.3% of the pregnancy was unwanted (19). Similarly, a study done in Adama University, Central Ethiopia in 2009, on predictors of emergency contraceptive use among regular female students revealed that, 32.5% of the previously sexually active girls and 9.5% of all girls had been pregnant at least once. Most (69.8%) of the pregnancies occurred between the age group 15 and 19 years and majority of them (92%) were unintended (5).

Since most teenage pregnancies are unintended, teenagers choose to terminate their pregnancies through safe or unsafe way. Terminating pregnancy has its own consequences on health, socio cultural and socio economic problems. Thus this study provides information on the magnitude of unintended pregnancies and will fill the gap why teenagers faced to unintended pregnancy. This will help to take a measure to prevent unintended and/or unwanted pregnancy and its consequences among school teenage girls.

2.2 Induced abortion

Some studies tried to assess the magnitude of both safe and unsafe induced abortion among teenagers. For instance, a study done in Philippines: a qualitative study, on perceptions and practices of illegal abortion among urban young adults revealed that, when focused group discussion and in-depth interview respondents were asked what people do when faced with an unintended pregnancy, they indicated that people either accept the pregnancy or try to terminate it using one or more abortive techniques or substances. Participants mentioned several ways in which a pregnancy could be terminated. Herbs gathered from trees were considered easier and less costly to obtain and medicinal methods. Medical products can be purchased in pharmacies without suspicion of their intended use (20).

Review on adolescent pregnancy, birth, and abortion rates across countries on levels and recent trends revealed that, the percentage of pregnancies to girls in the age group 15 to 19 years that ended in abortion was the lowest in Slovakia (22%) which otherwise ranged from 46% in the United States to 87% in Sweden. Generally, a higher proportion of pregnancies 10-14 years old ended in abortion compared with the proportion among 15-19 years old. Even though in most countries, the birth rate declined more steeply than the abortion rate, exceptions are Hungary, Slovakia, and the United States where the abortion rate declined more steeply than the birth rate. In England and Wales, Finland, the Netherlands, Scotland, and Sweden, the teen abortion rate increased, whereas the teen birth rate declined (21). But a study done on previous pregnancies among young women having an abortion in England and Wales showed that, the overall rate of abortions per 1,000 young women aged 15–19 years has been in decline since 2007 (22).

A study in Temeke district of the southern most of three districts in Dares Salaam, Tanzania, revealed that, teenagers aged 15-18 years were more likely to have unwanted pregnancy (80.0 %). The same age group was reflected on the rate of induced abortion of which 80 % of them reported to have ever had an abortion. It was also reported that all abortion was conducted by the health care provider(100%) (2).

Another study done in Ghana using focused group discussion on abortion experience of university students showed that, 66.9% of students had personal experiences on abortions. Out of this only 9.8% of induced abortions, performed in an approved health facility or by trained personnel but the

remaining 64.1% of abortion were self induced and 26.1% were by herbalists and quack doctors (23).

Similarly, a study done in suburb of Accra, Ghana: a qualitative study, on experiences of pregnancy and motherhood among teenage mothers showed that, more than half of the participants noted that abortion was discussed as a way out. While nearly all parents advised the teenagers not to consider abortion, others mentioned parents who wanted to facilitate abortion (24).

The other study done in North Central, Nigeria on teenage pregnancy and prevalence of abortion among in-school adolescents showed that, out of the total female respondents 5.7% respondents' experiences pregnancy. Out of which 66.3% have been pregnant only once while 33.3% have been pregnant more than once. All the pregnancies were ended with induced abortion and done out of health facilities giving an abortion prevalence of 100%. (25).

Another study on magnitude and risk factors of abortion among regular female students in Wolaita Sodo University, Ethiopia in 2010/2011 assessed that, rate of abortion among Wolaita Sodo University students was found to be 65 per 1000 women and virtually all of the abortions (96.9%) were induced abortion. Out of 96.9% only half of the abortion were safe (19).

The other study done in Adama University, Central Ethiopia in 2009, on predictors of emergency contraceptive use among regular female students revealed that, out of 69.8% of the pregnancies occurred among young girls aged between the ages of 15 and 19 years 92% were unintended and the majority (84.5%) of pregnancies ended in induced abortion. More than half of induced abortions were done by non-health professional (55.1%) (5).

Similarly, a study conducted in Jimma comprehensive high school south west Ethiopia, in 1996 showed that, the majority (73.1%) of them experienced induced abortion were in the age group of 15-19 years old. Eighty four percent of the abortions were induced by health professionals, 10.9% performed by traditional practitioners and the remaining 5% were self abortion (26).

Another study done in Harari Region, Eastern Ethiopia, on awareness of female students attending higher educational institutions toward legalization of safe abortion and associated factors revealed that, eighteen pregnancies were terminated by abortion out of these twelve of the abortions were

unsafe (induced by traditional practitioner) and only six abortions had been conducted in health institutions (27).

The other study which was done on communication and awareness of contraceptive methods among secondary school female students, in Mekele Northern Ethiopia in 2011/ 2012, assessed that, among sexually active respondents, 15.7% had been pregnant at least once and 90% of the respondents had an induced abortion previously (28).

Similarly, study done on factors influencing utilization of post abortion care in selected governmental health institutions, Addis Ababa, Ethiopia in 2012, revealed that, 68% of the participants had induced abortion (29).

Another study done on prevalence and associated risk factors of induced abortion in Northwest Ethiopia, showed that, from a total of 25% of induced abortion 9.9% of induced abortion were among teenagers 15 to 19 years (30).

Information on the incidence of induced abortion among teenage female students aged from 15 to 19 years is limited. This study identified the incidence of induced abortion among teenagers and what factors associated with it.

Knowing the magnitude of induced abortion among teenagers is important to know the magnitude of maternal morbidity and mortality due to the complication of induced abortion. In countries where abortion is legally restricted, unsafe abortion is an important source of mortality and morbidity for young women. Thus, this study would explore the magnitude and associated factors of induced abortionb both safe and unsafe among school teenagers. This would help us to see the accessibility and effectiveness of reproductive health services, policies and strategies and their implementation among school teenage girls.

2.3 Factors associated with induced abortion

2.3.1 Socio-demographic factors

Age

Some studies tried to assess the relationship of selected socio demographic factors with induced abortion and reported some important associations. For example, according to a study conducted in Temeke district of the southern most of three districts in Dares Salaam, Tanzania :case study in 2011 / 2012, revealed that, the age group 15-18 years showed a higher rate of induced abortion (80%) as compared to the age group of 19 -24 years with 23 % of induced abortion (2).

Another study which was done in the Volta Region, Ghana on factors associated with induced abortion at selected hospitals in 2012, revealed that, induced abortion high among women in their twenties and decreased in the teens and women in their thirties. However, there was no statistically significant difference in age with regard to induced abortion (31).

However the other study in Tanzania which was done on induced abortion, pregnancy loss and intimate partner violence: a population based study showed that, women's age and number of live born children were the only factors that remained significantly associated with induced abortion and pregnancy loss (32).

Another study which was done in Amhara region referral hospitals in 2013/2014, on induced second trimester abortion and associated factors revealed that, about 59.6% of the pregnancies were unplanned. Out of these 1.7% of the of pregnancy were terminated, because the woman is too young to raise a child (33).

Since studies with different study design had different results or association regarding to age and induced abortion (2, 31, 32 and33). Thus, this study will assess and confirm whether age has an association with induced abortion of school teenagers in the study area.

Marital status

Some studies assessed that the relation of marital status and induced abortion. For instance a study done in Kenya in 2012, showed that, the proportion of women who had a first-time induced abortion was higher among women who were never married (88 %) and also it can be noted that the proportion of women who had had a previous induced abortion was highest among the divorced/separated/widowed which was 34 % (34).

Another study done in Temeke district of the southern most of the three districts in Dares Salaam, Tanzania, in 2011/2012; showed an association of the marital status with induced abortion. Which was statistically significant for both unwanted pregnancy and abortion; in-case of unwanted pregnancy single women are more likely in having unwanted pregnancies (78%) which is also more likely to end up with abortion (58 %) compared to their married counterparts (2).

Similarly a study in Northwest Ethiopia on prevalence and associated risk factors of induced abortion revealed that, single women and students were 14.6 and 13.4 times higher in performing induced abortions compared with married women and housewives, respectively (30).

Different studies also revealed that, marital status had an association with induced abortion, being single or divorced increased rate of induced abortion (2, 30, and 34). This study will add knowledge on whether the level and factors associated with induced abortion will be different among high school teenage girls.

Education

A study done in Kenya in 2012 revealed that , compared with non educated women, women with education were less likely to had had a prior abortion (34).

Another study which was done in the Volta Region Ghana, on factors associated with induced abortion at selected hospitals in 2012, showed that, a significant association between education and induced abortion, with more educated women having a higher likelihood of induced abortion (31). However a study done in Temeke district of the southern most of three districts in Dares Salaam, Tanzania, in 2011/2012, showed that, regarding level of education, the association was not statistically significant for both unwanted pregnancy and induced abortion (2). Even though different studies had different results (2, 31 and 34). This study will also add to the body of knowledge on the relationship between level of education and induced abortion especially among teenage high school students.

Occupation

A study in Northwest Ethiopia on prevalence and associated risk factors of induced abortion assessed that, student's were13.4 times higher in performing induced abortions compared with housewives (30). Studies revealing statistical significant association between occupation and induced abortion are limited; this study might tease out this at a greater depth to understand the association of occupation with induced abortion among teenagers in high school.

Family income

Different studies explored the association of economic status with induced abortion. For instance, a study in Tazania *in* 2001/2002, on induced abortion, pregnancy loss and intimate partner violence in a population based study revealed that, women's socio-economic status was significantly associated with induced abortion. The rates of induced abortion increasing with socio-economic status (32).

Another study done in Temeke district of the southernmost of three districts in Dares Salaam, Tanzania, in 2011/2012, on unwanted pregnancy and induced abortion among female adolescents, showed that, 40% of the cases reported shortage of money to take care of the baby as a precursor for induced abortion (2).

According to a study done in Sri Lanka, on decision making on unsafe abortions in a case-control study revealed that, the commonest reason given by respondents for terminating their pregnancy was not being economically stable (35).

Similarly, a study done in Guraghe zone, Ethiopia in 2010, on post abortion care quality status in health facilities, revealed that, among the post abortion patients 36.7% of the case was due to economic reason (17).

However, the other study in Tanzania which was done on induced abortion, pregnancy loss and intimate partner violence: a population based study showed that, women's socio-economic status was only significantly associated with induced abortion but not pregnancy loss, with rates of induced abortion increasing with socio-economic status (32).

Studies also showed that, the socio economic status of women's had significant association with induced abortion (2, 17, 32, and 35). Information on the association of household economic status and induced abortion among teenagers is limited. So in this study we will identify whether family income or household economic status has significant association with induced abortion among teenage high school students.

Religion

A study done in the Volta region Ghana, on factors associated with induced abortion at selected hospitals revealed that, lack of association between religion and abortion (31).

Similarly a study done on prevalence and associated risk factors of induced abortion in Northwest Ethiopia showed that, religion did not show a significant association with induced abortion (30). However, there are some strict scripts in some religions but not in others that favor or disfavor induced abortion (30 &31). This study will therefore add relevant understanding on the debate which has been surfacing for several years now among teenager high school girls. The study will also uncover the association between religious and induced abortion among teenage school girls.

2.3.2 Sexual factors

Number of sexual partners

A study done in Amhara Region, Ethiopia, on risky sexual behaviors among female youth in Tiss Abay, revealed that, from the total respondents 71.6% had sexual intercourse and out of these 54.6% of them had two or more sex partners (36).

Some studies tried to assess the relationship between age at first sexual intercourse and number of sexual partners with induced abortion. For example, a study done in Temeke district of the southernmost of three districts in Dares Salaam, Tanzania, in 2011/2012 showed that, when comparing the number of sexual partners with the rate of unwanted pregnancy and induced abortion, adolescents with more than two sexual partners are more likely (51.9%) to have unwanted pregnancy compared to others with one partner (27.3 %). And 80% of pregnancies ended with induced abortion (2). There is information gap in the association of number of sexual partner and induced abortion among teenagers. Since studies on these factors are limited, this study will add relevant understanding on the relationship between number of sexual partners and induced abortion among female high school teenagers. This will help, program managers to set strategies and addressing the need of teenage female high school students.

Age at first sexual intercourse

A study done in Amhara Region, Ethiopia, on risky sexual behaviors among female youth in Tiss Abay, revealed that, 46.5% of the sexual initiations occurred between the ages 14–16 years (36).

Another study in Harari Region, Eastern Ethiopia revealed that, 42.9% of the respondents in the study had a boyfriend and 24.1% of the study participants responded that they had ever performed sexual intercourse. Among those who had sexual intercourse, 17% of them had sex before the age of 15 years and majority of them (75.3%) had sex by the age of 18 years. sixty five percent of them became pregnant and 18% of pregnancies culminated in induced abortion (27).

According to a study in Adama University, Central Ethiopia in 2009, on predictors of emergency contraceptive use among regular female students revealed that, nearly one third of (29.4%) respondents were ever sexually active, and out of which 19.1% started sexual activity before the age of 15 years. Seventy four (74.2%) started sexual activity between 15 and 19 years of age. And 69.8%

of them became pregnant and the majority (84.5%) of pregnancies culminated in induced abortion (5).

There is information gap in the association of age at first sexual intercourse and induced abortion among teenagers. Since studies on these factors are limited, this study will add relevant understanding on the relationship between age at first sexual intercourse and induced abortion among female high school teenagers. This will help, program managers to set strategies and addressing the need of teenage female high school students.

Unsafe sex

A study done in Amhara Region, Ethiopia, on risky sexual behaviors among female youth in Tiss Abay, revealed that, 68.8% had sex after using the substances such as alcohol, khat or cigarettes. Drinking homemade alcohol, chewing 'khat', watching pornography before sex, sex for transaction and using any form of stimulant substances were the predictors of unsafe sex (36).

Similarly a study in Bahir Dar University, on Sexual behaviors and associated factors among students: a cross sectional study, showed that, 24.6% of the students engaging in sexual intercourse after watching porn videos, 34.3% of the them were after drinking alcohol and 17.2% were after chewing khat (37).

Another study done in Jimma zone, south west Ethiopia, on living with parents and risky sexual behaviors among preparatory school students revealed that, alcohol consumption was the highest predictor variable of risky sexual behaviors as compared to other predictor variables (38).

This study will give us relevant information on the predictors of unsafe sex among high school teenage students aged 15 to 19 years

2.3.3 Health system

A study done in Kenya (2012), revealed that, compared with women not using any contraceptive method at the time of conception, women on traditional methods of contraception and women on short-acting methods (although not significant) were nine times and two times respectively more likely to have had a prior abortion compared to women not using any contraceptive method at the time of conception (34).

Similarly, a study in Adama University, central Ethiopia in 2009, revealed that, majority (69.8%) of the pregnancies occurred between 15and 19 years of age and most of them (92%) were unintended. The majority (84.5%) of pregnancies end up in induced abortion. Out of the 92% of unintended pregnancies 41.4% were due to forgetting to take contraceptives (5).

Another study done in Arbaminch University Ethiopia, on knowledge of emergency contraceptives and associated factors among regular undergraduate female students; a cross sectional study showed that, 48.2% had heard of about emergency contraceptives and twenty-seven percent of the respondents reported the correct timing of taking emergency contraceptive, after unexpected sexual intercourse. On the other hand, most (45.6%) respondents were getting information about emergency contraceptive from friends (39).

Similarly, a study done in Volta Region, Ghana, on factors associated with induced abortion at selected hospitals revealed that, among study participants with awareness on contraceptive methods, more than half (57.6%) reported that they received their information from TV/Radio, followed by formal education (38.2%). With regards to the choice of their information source, 57.1% and 26.4% of the participants preferred TV/Radio and formal education, respectively(31).

This study will add relevant understanding on the knowledge of contraceptive use including emergency contraceptive, information and source of information about contraceptive and its accesses among teenage students aged 15 to 19 years.

2.4 Conceptual framework

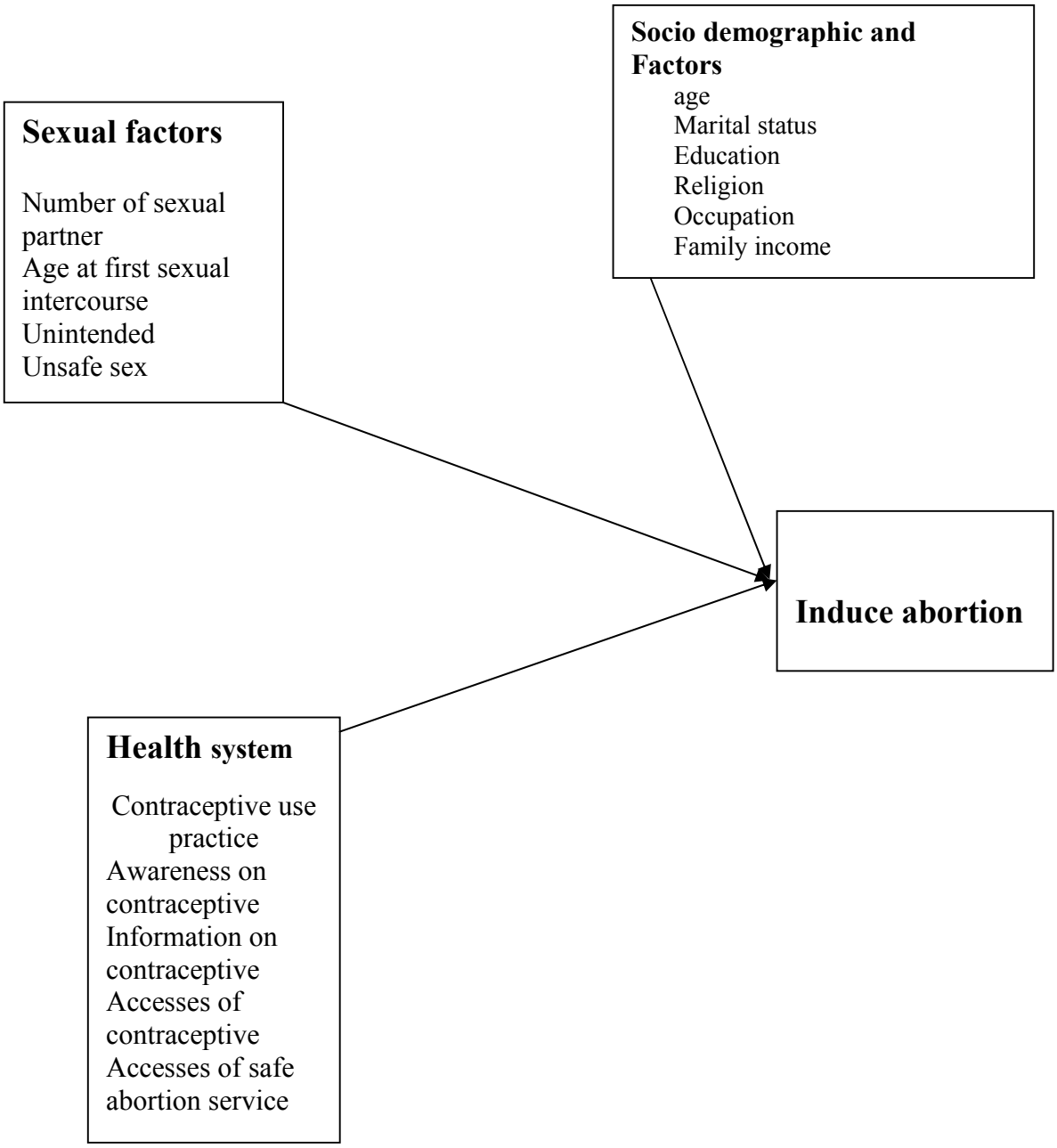


Figure 1: Conceptual framework for the factors associated with induced abortion. (Adapted and modified from Teshale Mulatu, June 2014, Addis Ababa Ethiopia.)

Research Questions

1. What is the magnitude of induced abortion among teenage high school female students aged 15 to 19 years in Addis Ababa city, 2016/17?
2. What are the factors associated with induced abortion among teenage high school female students in Addis Ababa city, 2016/17?
3. What are the reasons for higher occurrence of induced abortions among teenage girls in high schools of Addis Ababa city, 2016/17?

3. Objectives

3.1 General objective: To assess the magnitude of induced abortion and associated factors among teenage female high school students aged 15 to 19 years in Addis Ababa city.

3.2 Specific objectives:

- To determine the magnitude of induced abortion among teenage high school female students age 15 to 19 years in Addis Ababa city.
- To identify factors associated with teenage induced abortion among high school students in Addis Ababa city.
- To explore reasons for induced abortions among teenage girls in the high schools of Addis Ababa city.

4. Methods

4.1 Study Area and Period

The study was undertaken from September 2016 to October 2017 among high school girls aged 15-19 years in Addis Ababa city. Addis Ababa is the capital city of Ethiopia. Addis Ababa has ten sub cities and 116 Wordas. The city has a total population of 3,435,030, of which female population accounts 52.68% (1,809,577). From the total female population, 6.89% (124,635) are teenagers aged 15-19 years (40). According to Addis Ababa education bureau statistics 2015/2016 report, secondary education is given in two cycles; first cycle grade 9 to 10 and secondary cycle preparatory (grade 11 – 12). The city has a total of 215 high schools out of which 65 are government high schools, 1 is public high schools and 149 are private high schools. There are total of 57,741 high school students in the city in 2016/2017 academic year. Out of these, 87,207 are female students (41).

On the other hand, there are a total 52 hospitals in Addis Ababa of which 6 are government hospitals under Addis Ababa health bureau, 5 hospitals under federal ministry of health (FMOH), 3 hospitals under defense and police, 3 non-governmental organization(NGO) hospitals and 35 private hospitals. There are also 98 health centers and 800 different categories of clinic in the city.

4.2 Study Design

Cross-sectional study design that employed both quantitative and qualitative method was conducted to collect data on regular high school female students aged 15 to 19 years in Addis Ababa city.

4.3 Source Population

Quantitative study

All regular teenage female high school students aged 15 to 19 years in Addis Ababa city.

4.4 Study population

Quantitative study

The study participants were regular teenage female high school students aged 15 to 19 years in the randomly selected government, faith based and private high schools in selected sub cities of Addis Ababa, who are attending their education at the time of data collection.

Qualitative study

The study population was key informants. In-depth interviews were conducted among health care providers who work in comprehensive abortion care and youth friendly health services unit, school directors, religious leaders and students who were not included in the quantitative study.

4.5 Inclusion and Exclusion Criteria

4.5.1 Inclusion Criteria

All female regular high school (grade 9-12) students whose ages were in the range of 15 to 19 years and were attending their education during the study period in the selected government, faith based and private high schools of Addis Ababa were included in the study.

4.5.2 Exclusion Criteria

Students who were physically or mentally ill during the study and those who were not available in their respective class rooms were excluded from the study.

4.6 Study Variables

4.6.1 Dependent variable

Experience of induced abortion

4.6.2 Independent variables

Age, religion, marital status, educational status, age at first sexual intercourse, unsafe sex, number of sexual partners, ever use of contraceptive, exposure to family planning information, unintended pregnancy, ethnicity, birth place, pocket money, age at first pregnancy, Frequency of visiting holy places in a week and praying practices, peer pressure, awareness, attitude, and source of information on abortion service. Awreness, attitude and source of information on abortion law, Substance and alcohol use were also some other variables included in this study.

4.7 Sample Size Determination

The sample size for the study was determined by using prevalence of induced abortion among teenagers aged 15 to 19 years to be 9.9% from the study conducted in North West Ethiopia on prevalence and associated risk factors of Induced Abortion (30). The actual sample size was calculated using a single population proportion formula of:

$$n = \frac{(z_{\alpha/2})^2 P(1-P)}{(d)^2} = \frac{(1.96)^2\, 0.099(1-0.099)}{(0.03)^2} = 381$$

n=the required sample size

p=expected proportion of population who had induced abortion=9.9% =0.099

Z = 1.96 at 95% confidence interval

d = the level of precision (0.03), since the prevalence 9.9% which is less than 20% and

Non-response rate considers = 20%

By using the design effect of 2

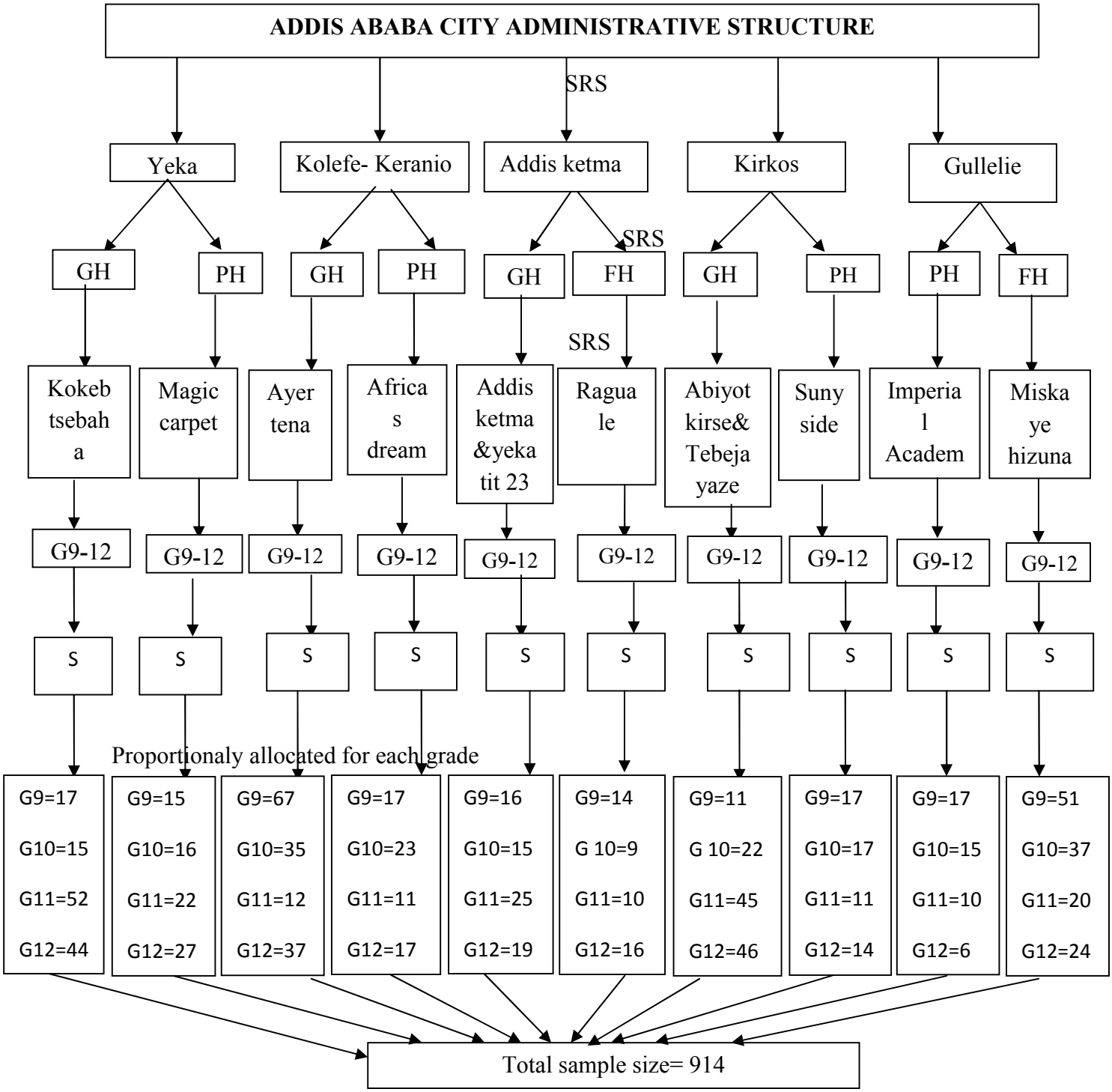
The design effect of 2 was used, since we employed a multi stage sampling procedure and students are very much heterogonous by their different characteristic which leads to clustering. Therefore, the total sample size was estimated to be 914.

Qualitative study: The sample size was determined by saturation of ideas from key informants.

4.8 Sampling Procedure

Quantitative study

Multi stage sampling technique was employed to recruit study participants. First, five of the ten sub cities were selected using simple random sampling technique. In the second stage, high schools owned by the government, private and faith based organizations are selected proportional to their size from each of the selected five sub cities; by taking in to account the number of high schools in each sampled sub cities. Third stage, the total sample size (914 students) was allocated to each sub city proportional to the number of high schools per sub city. After allocated proportionally, Addis ketma sub city=89, Kolefie keraniyo sub city = 338, Gullele sub city = 179, Kirkos sub city = 119 and Yeka sub city= 189 were obtained. Fourth stage, the allocated sample size of each sub city was distributed to government, private and faith based high schools proportionally based on their number of students (government schools=478, private shools=255 and faith based school=181). Fifth stage, the study participants in each high school were taken proportionally to each grade level ($G9^{th}$, $G10^{th}$, and $G11^{th}$ &$G12^{th}$). Sixth stage, the sections from each grade level was selected randomly by using lottery method. Finally study participants in the selected section were selected by using simple random sampling technique from the list of the students. At the end, teenage female students who fulfilled the inclusion criteria from the selected section were participated in the study.



Note: GH=government high school, PH= private high school and FH= faith based high school

G9-G12 = Grade nine upto grade tewelve and S = Section

SRS =Simple rondom sampling

G9= grade 9, G10= grade 10, G11=grade 11 and G12=grade 12

Figure 2: Schematic presentation of the sampling procedure used in the study, Addis Ababa, Ethiopia, 2016/17

Qualitative study

Snowball sampling approach was used for locating information-rich key informants. Using this approach, a few potential respondents like health care providers who works in comprehensive abortion care and youth friendly health services unit, school directors, students who were not included in the quantitative study and religious leaders were traced. Who, in turn, through snowball sampling, led us to other key informants. Again, a snowball approach was employed to expand the list of potential participants. Members of the sample group were recruited via chain referral. For each person listed and contacted, the investigator explained to the key informants the nature of the research and sought their voluntary participation. Finally, the sample size was determined by saturation of ideas of key informants.

4.9 Data collection tools and procedure

Quantitative study

Self-administered questionnaire initially prepared in English and later translated into the local language, Amharic was used. The questionnaire was designed to obtain information on socio demographic characteristics of respondents, sexual factors, and health service factors, ethnicity, birth place, pocket money, religiosity variables, alcohol and chat use, and peer pressure among others, awareness, source of information on service and abortion law. The supervisors were female midwives who have experience on the subject under caption. The supervisors were trained for two days on the questionnaire and principles and procedures of data collection. After the training, pre test was carried out on the 5% of the sample that would not be included in the study. In all schools there was an official communication to get permission and to arrange a specific time for data collection. Before collecting the data, the respondents or students were given a clear explanation on the purpose and objectives of the study. Similarly, the participants were aware on the confidentiality and privacy of their response. To avoid contamination of information, the data collection was completed in a single day in each participating school. Students were enrolled in different halls according to their grade level or section and seat apart from each other. Discussion was not allowed between students for the purpose of privacy and to prevent similar or shared answers. After completing the questionnaire, the students were asked to put their completed questionnaire on the table by turning back, then the data collectors collect all completed questionnaire on each table.

Daily supervision, spot checking and reviewing the completed questionnaire was done by the ten supervisors and principal investigators daily to maintain data quality.

Qualitative study

Interview guide was developed and designed to obtain information on induced abortion among teenagers. In-depth interviews were conducted by using an interview guide among participants who are recruited using the snow ball approach. All interviews were held with the local language, Amharic. Trained note taker and tape recorder assisted the principal investigator not to miss information during the interview. All interviews were hand written and tape recorded. Note taker who, among other things, includes nonverbal responses, cues, and other interactions and the tape records are transcribed in full text by the principal investigator in the same day of data collection.

4.10 Data quality management

Quantitative study

To ensure the quality of the data first, questionnaire was prepared in English, translated in to Amharic. Ten supervisors who have experience on data collection were recruited. Since the study participants were teenage female students, there was fear or apprehension of the response, to avoid these supervisors was also female midwives. Supervisors were trained on the purpose of the study, procedures of data collection, how to check completeness and consistency of the questionnaire completed by the respondents to ensure the quality of the data. During the data collection the supervisors and the principal investigator closely supervised the data collection process throughout the data collection period and all of the questionnaires were checked each night. When inconsistencies and incompleteness of the questionnaire occurred, correction was taken accordingly and the principal investigator evaluated the data during data analysis.

Qualitative study

Trained tape recorder and note taker persons were recruited. Tape recorder should be in good quality and handled carefully. Information in the tape records was transcribed word by word in to Amharic language then translated to English by the principal investigator. The filled note that was taken during in depth interview was taken to cross validate the tape records to ensure quality of the data.

4.11 Data Analysis procedures

Quantitative study

Data from the questionnaire were entered in to Epi data version (3.1) using a data entry template. The entered data were cleaned using simple frequency distribution and cross- tabulation. Then the analysis was done using STATA 14 software. Frequency distributions of the outcome variable and main independent variables were presented using graphs and tables. The associations of the main independent variables with the practice of induced abortion were assessed by cross tabulation along with chi square test with p-value .p-value less than 0.05 was considered as statistically significance. Those independent variables which were found statistically significant with induced abortion were modlled using the binary logistic regression, multivariate logistic regression were fitted to control the confounding effect. The interaction of some of the independent variables was also assessed.

Qualitative study

Transcription and translation was done using Microsoft Word from each audio tape records and note taken. Translated data was exported to Open Code software for coding and categorizing. Different ideas in the text were merged in their thematic areas and sorted the data thematically by clustering together the material with similar content. Finally, content analysis was done and the result was presented in narration by triangulating with quantitative findings.

4.12 Operational definitions

Induced abortion: Deliberative termination of pregnancy before 28 weeks of gestation.

Unintended pregnancy: Unintended pregnancy refers to pregnancies that are reported to have been either unwanted (not wanted at the time) or mistimed (wanted but at a later time)

Unsafe sex: Having sex without using any type of contraceptive.

Access of contraceptive: availability of contraceptive, skilled providers and distance of the facility.

Contraceptive use: A student will be considered as using contraceptive, if she ever used one of the modern contraceptives or emergency contraceptives.

4.13 Ethical considerations

Ethical clearance was obtained from the Research Ethical committee (REC) of the School of public Health, Addis Ababa University. First a formal letter was written to Addis Ababa Administration and education bureaus. During the data collection, written informed consent was obtained from each respondent for the quantitative study and an assent from their family was taken during pre test but due to confidentiality issue that the student raised an assent was taken from their schools during the data collection by first explaining the objectives of the study and oral consent was taken for qualitative study. To maintain confidentiality identifiers like names were not taken in the questionnaire and to keep privacy, female students filled the questionnaire alone without the presence of guardian or parents. There was no direct benefit of the participants of the study. However the results of this study would help in identifying the associated factors of teenage induced abortion and contributes to design appropriate program to solve the problem; which was explained to study participants. Moreover, midwives who were recruited as supervisors shared brochures on the risks of induced abortion among students. Participating in this study did not have any risk or harm except the times of students.

4.14 Dissemination of results

The findings of the study will be presented at the School of Public Health, College of Health Sciences. Besides, a copy of the research findings will be given for Addis Ababa Education Bureau and Addis Ababa Health Bureau. An attempt will also be made to publish main findings of the study and present in national and international conferences.

5. Results

5.1 Socio-demographic characteristics of study participants

A total of 903 respondents agreed to participate in this study; giving a response rate of 98.8%. Different characteristics of study participants were measured or observed in this study. However, only selected characteristics which are found associated with the practice of induced abortion will be described in Table 1 below. Distribution of participants were, 242 (26.8%), 202(22.37%), 217(24.03%) and 242(26.8%) in 9^{th}, 10^{th}, 11^{th} and 12^{th} grades respectively. Four hundred sixty-seven (51.7%) students were from government schools and 436(48.3%) students were from nongovernment schools. As it was shown in the table below; the respondents were within the late teenage years (15-19 years), with the mean age of 16.9 years ((± 1.27 SD). One hundred seventy-three (19.9%) visited religious places daily where as 252(29.2%), 313(35.99%) and 130(14.93%) visited religious places more than twice in a week, once in a week and once in two weeks and above respectively.

Majority of fathers of participants, 323(41.52%), were government employees, 153(19.67%) of fathers were private employees and 302(38.82%) were merchants. The mean monthly pocket money of students was 213 birr. (Table1)

Table 1: Socio demographic characteristics of female teenage high school students in Addis Ababa, 2017

Variable	Frequency(n)	Percent (%)
Age group:		
15-17	559	61.90
18-19	344	38.10
Visit religion place:		
Daily	173	19.91
More than twice in a week	252	29.16
once in a week	312	35.99
once in two weeks and above	130	14.93
Grade :		
Grade 9	242	26.8
Grade 10	202	22.37
Grade 11	217	24.03
Grade 12	242	26.8
School:		
Government	467	51.72
Non government	436	48.28
Father occupation:		
Government employee	323	41.52
Private employee	153	19.67
Merchant	302	38.82

5.2 Reproductive health and substance use related characteristics of study participants

Out of the 903 respondents, 297 (32.89%) ever had boyfriends of whom 169(18.71%) had one boy friend and 128 (14.2%) had two or more boyfriends. Six hundred two (66.9%) and 298 (33.1%) students started their menses at the age of (10-14 years) and (15-17 Years) respectively. One hundred fifty-two (16.83%) of the study participants had history of sexual intercourse (See Table 2 below).

On the other hand, this study showed that, 165(18.27%) of the respondents had an access to pornographic materials; of whom 19(11.52%), 48(29.09%) and 98(59.39%) saw/read pornography materials daily, often (3-4 times per week) and occasionally (1-4times per month) respectively. Among them, 15 (9.09%) saw video and 15 (9.09%) of participants practicing sexual intercourse after seeing or reading pornographic materials. (Table 2)

In addition to this, 47 (5.2%) of study participants have been using different drugs; 9 (19.15%) of them had sexual intercourse after they abused drugs.

About 281(31.12%) of study participants reported ever use of alcohols; 88(31.32%) used occasionally or 1-3 times per month and 193(68.68%) used it rarely (on holidays). (Table2)

Table 2 : The reproductive health, pornography and substance use related characteristics of female teenage high school students in Addis Ababa, 2017

Variable s	Frequency (n)	Percent (%)
Ever had boy friend:		
Yes	297	32.89
No	606	67.11
Partner number (ever):		
One	169	18.71
More than one	128	14.17
Age at first menses:		
10-14	602	66.9
15-17	298	33.1
Ever had sexual intercourse:		
yes	152	16.83
No	751	83.16
See/read pornographic materials:		
Yes	165	18.27
No	738	81.73
Frequency to seeing/reading pornographic materials:		
Daily	19	11.52
Often(3-4 times per week)	48	29.09
Occasionally(1-4 times in a month)	98	59.39
See video:		
Yes	15	9.09
No	150	90.91
Practicing after see/read pornographic materials:		
Yes	15	9.09
No	150	90.91
Ever use of drugs:		
Yes	47	5.20
No	856	94.80
Sexual intercourse after drug use:		
Yes	9	19.15
No	38	80.85
Alcohol use:		
Yes	281	31.12
No	622	68.88
Frequency of alcohol use:		
Occasionally(1-3times per month)	88	31.32
Rarely (on holidays)	193	68.68

5.3 Awareness and practice of contraceptive methods by female teenage high school students in Addis Ababa.

Out of 903 study participants, only 570(63.1%) have heard about family planning methods and 337 (37.36%) heard about emergency contraceptive. From 152 sexually active participants, only 60(39.47%) used contraceptives and 5 (8.33%) had a history of emergency contraceptive use. The mean distance to get the service was 6.28 kilometers. (See Table 3 below)

Table 3: Awareness, use and distance of family planning and emergency contraceptive services among female teenage high school students in Addis Ababa, Ethiopia, 2017

Variables		Frequency(n)	Percent (%)
Ever heard of family planning methods:			
	Yes	570	63.12
	No	333	36.88
Ever use of family planning methods:			
	Yes	60	39.5
	No	92	60.5
Ever heard about emergency contraceptive:			
	Yes	337	37.32
	No	566	62.68
Ever use of emergency contraceptive:			
	Yes	54	16.02
	No	283	83.98
Mean distance of family planning service in kilo meter:		6.28km	

Most of the respondents had awareness on different methods of family planning. Pills was mentioned by majority of participants, 435 (76.32%), followed by injectable, 389 (68.25%) and implant, 357 (62.63%). The least known methods were withdrawal 103(18.1%) and male sterilization 103(18.1%). Those who reported to have ever used contraceptives are using pills, 19(31.66%) followed by male condom 15(25.86%) and injectable 15 (25.86%). Least preferred family planning method of use was withdrawal 2 (3.33%). Female condom, implant, male and female sterilization were not totally used by the respondents. (Figure 3)

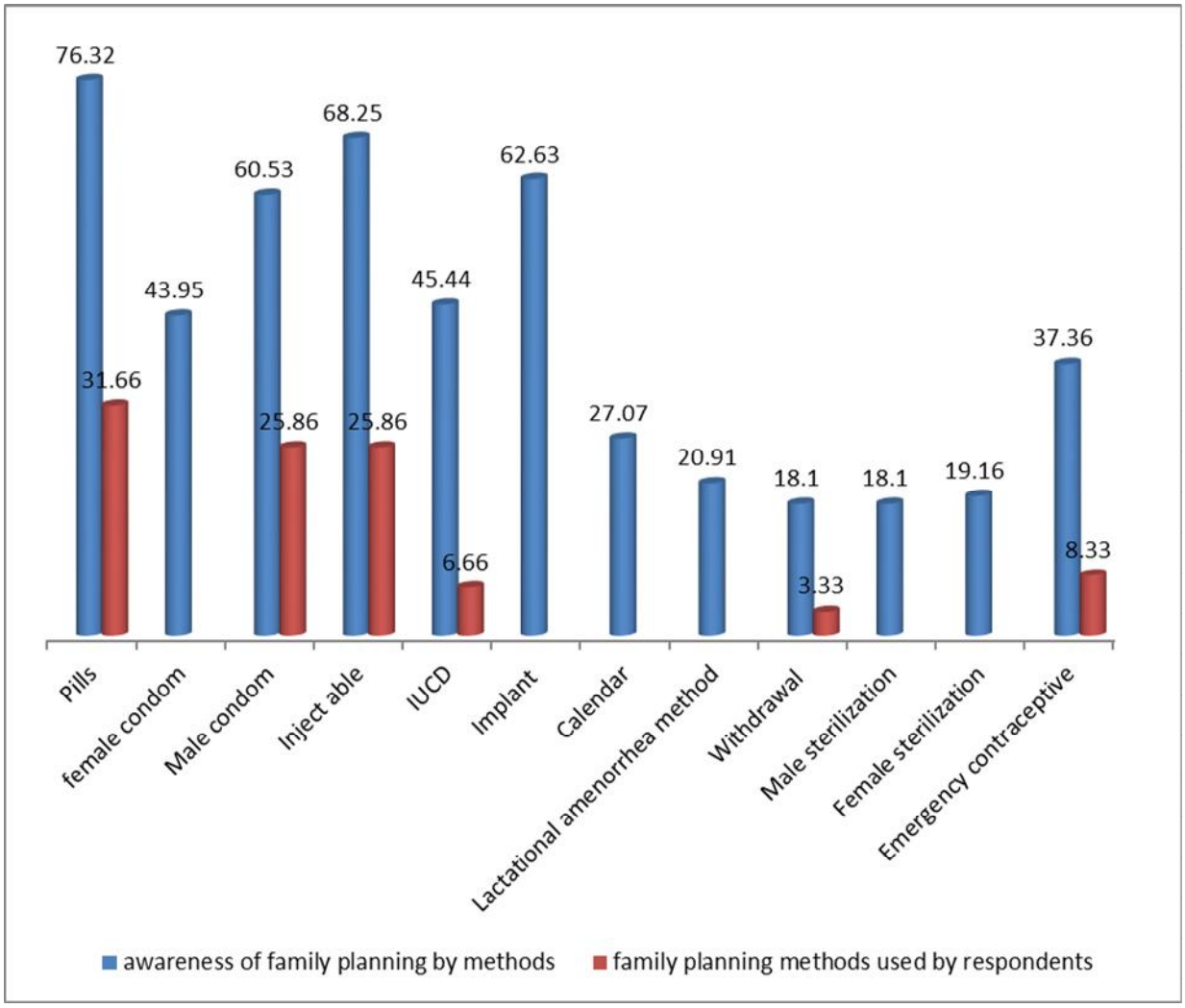


Figure 3: Awareness and use of family planning methods among female teenage high school students in Addis Ababa, Ethiopia, 2017

Family planning information was mostly received from 384(67.49%) different media like radio/newspaper /television/poster followed by the school system 226 (39.72), friends 182(31.82%) and health facility 173 (30.46%). The religious organizations (churches/ mosques) contribute only 102(17.93%) of the information. (Figure 4)

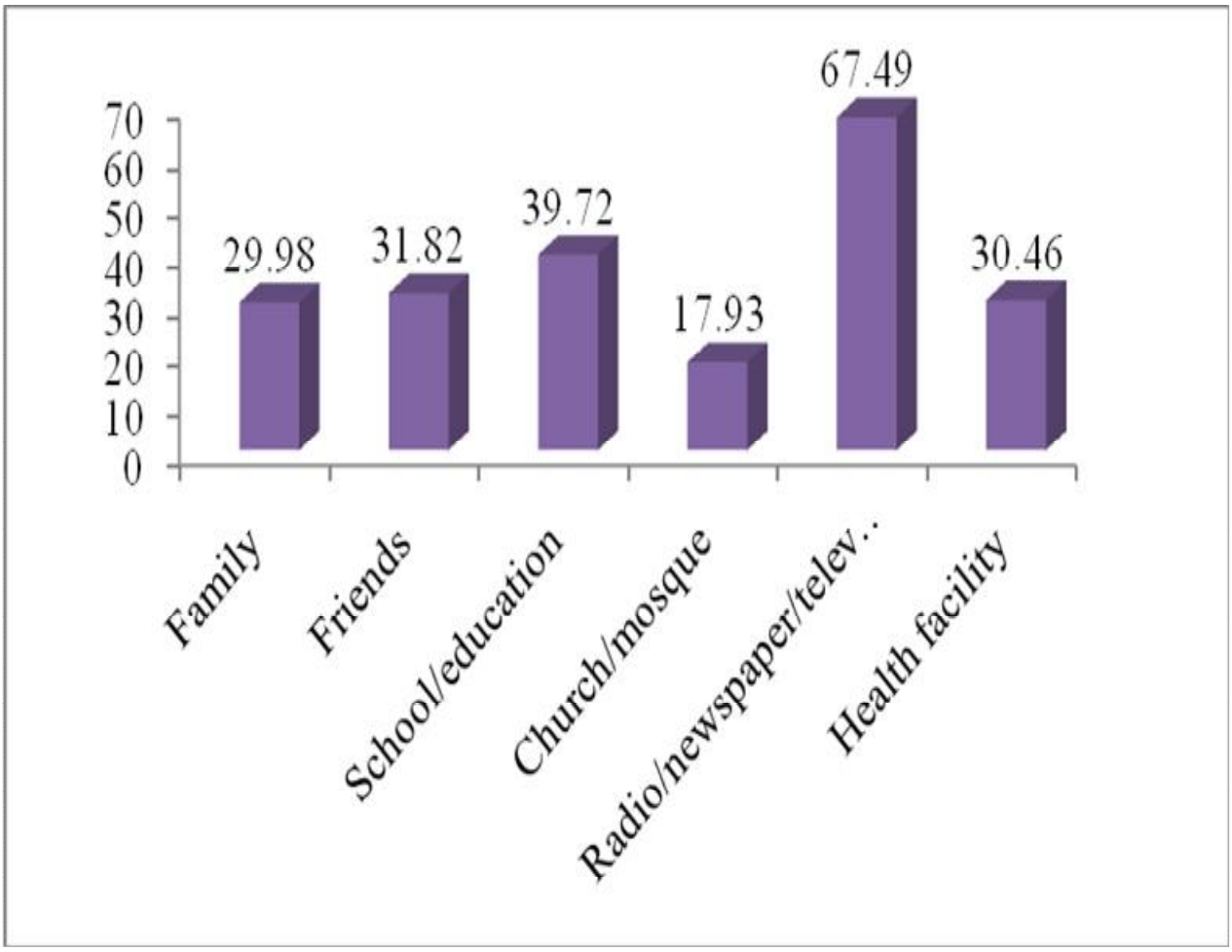


Figure 4: Source of information on family planning method among female teenage high school students in Addis Ababa, Ethiopia 2017.

Most of the respondents mentioned that, the reasons for not using contraceptive were cultural influence, 44(47.8%), followed by lack of knowledge on contraceptive, 43(46.7%). Other reasons participants revealed for not to use family planning were, unavailability of contraceptives, 21 (22.8%), religious related issues, 20(21.7%) and fear of family members,18 (19.59%). (Figure 5)

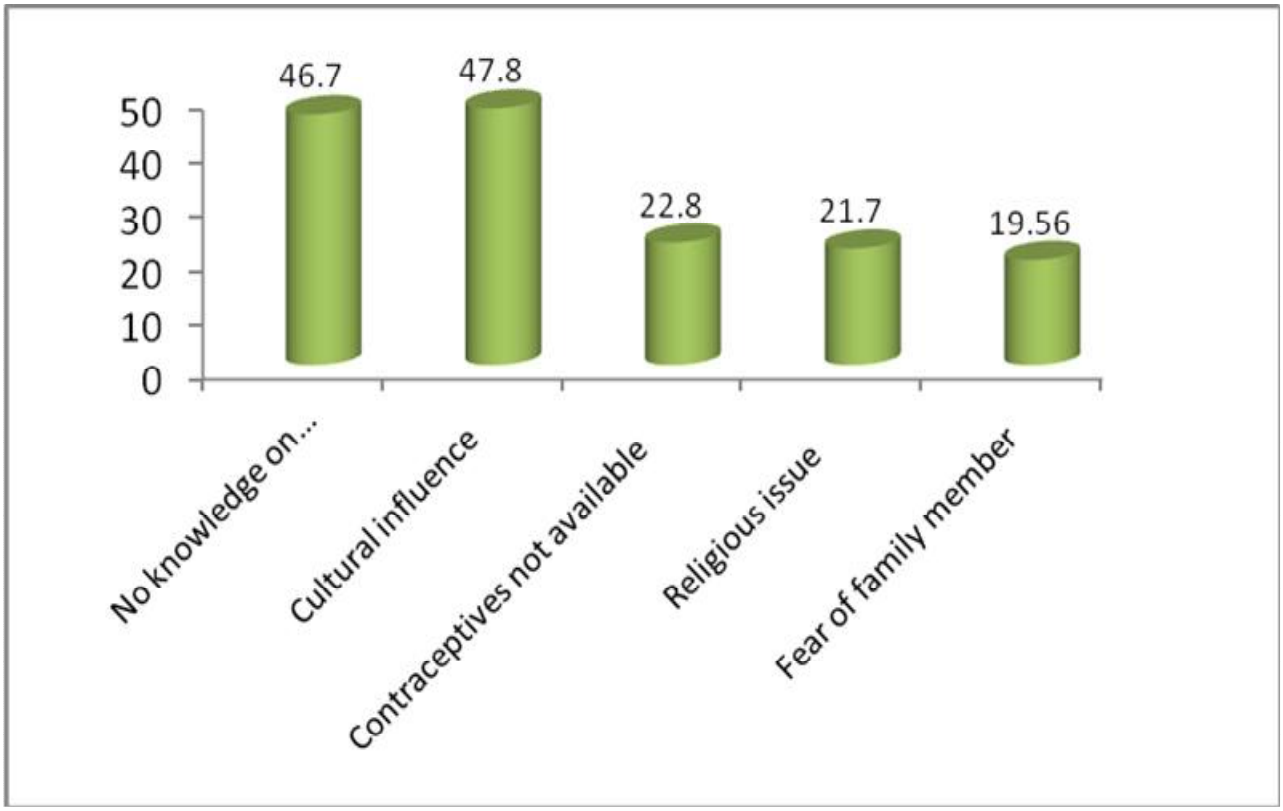


Figure 5 : Reasons not to use family planning methods among female teenage high school students in Addis Ababa, Ethiopia, 2017.

Moreover, the qualitative in-depth interview revealed that the main reasons for not using contraceptives are, fear of the fact that a teenage girl would be rejected by the community if she is known to be sexually active at early age and lack of awareness on contraceptives. The other main reason is related to the entertainment activity of students which leads to the practice of excessive alcoholic drinks, especially on party days that may in turn lead to unsafe sex which exposes teenage girls to unwanted pregnancy that could be aborted. The other reasons mentioned were, the absence of open discussion between family and teenagers about reproductive health, fear of parents, original place of the students (students came from rural area) and religious issues.

A health professional respondent said that*:*

"The attitude of students is the main problem; they believe using contraceptives is not appropriate because a teenage girl would be rejected by the community if she is known to be sexually active at early age.

Another female health worker also added that:

"Students who came from rural areas had no awareness on contraceptives and during celebrating different festivals, like birth day parties, crazy days, party days and color days' students take alcoholic drink and spent the day with someone or their boy friend practiced unsafe sex…"

In addition to this a grade 11 female respondent suggested that:

''Sometimes students (teenagers) go out for entertainment and take alcoholic drinks and they will have unplanned sex. They don't consider pregnancy at that time and didn't use contraceptives."

Similarly, a school principal also added the fact that:

''Lack of open discussion or communication between parents and children, watching/reading pornographic materials, and unlimited intimacy with their relatives exposed teenagers to unplanned sex and unwanted pregnancy".

Moreover, a priest from the Orthodox Church also explained the fact as:

''The reason why students didn't use contraceptives is due to fear of their family and the society observing them while buying or taking contraceptives from health facilities. They prefer to undergo abortion after it had happened instead of using contraceptives.

A Muslim religious leader also said that:

‘‘Our religion does not support the use of contraceptive and abortion because contraceptives and abortion are not allowed in the Islamic religion. Islamic thoughts do not encourage a girl to use contraceptives either to practice abortion. We teach girls to avoid pregnancy before marriage or Nikah.”

Table 4 : Codes of the qualitative study and their categories and thematic areas

Code	Category
- Fear of family -Fear of society -Fear of being rejected -Attitude -Early age	Cultural issues
-No awareness -Attitude -Rural area	Lack of awareness
-Celebrating festivals -Celebrating birth days -Color days -Crazy days -Party days -Entertainment -Take alcohol -Boy friend -Watching -Reading	Unplanned or unsafe sex
-Rural area -Lack awareness	Birth place of students
-Unlimited intimacy -Fear of family -No open discussion -Communication -Spent the day	Poor family and child relationship
-Religion - Do not encourage -Use contraceptive -Does not support -Before marriage -Nikah	Religious issue

5.4 Experience of pregnancy and abortion by female teenage high school students in Addis Ababa.

Out of 903 participants 129(14.3%) had ever been pregnant in their live times, of those 16 (12.4%) had two pregnancies in their sexual life time. Among these 119(92.25%) were unwanted pregnancies. Sixty-three (48.84%) and 66 (51.16%) of the respondents were in the age group 14-16 years and 17-19 years respectively. Of those who had never been pregnant, one hundred four (13.43%) reported that they would accept and give birth if they face pregnancy, 190(24.55%) of them preferred to terminate it and the remaining 480(62%) were indifferent.

In addition to this, 100 percent of the unwanted pregnancies ended up with induced abortion giving 119(13.17%) prevalence of induced abortion. One hundred seventy-nine (19.82%) respondents reported that it was easy to get safe abortion care services. Three hundred nineteen (35.33%) teenagers had awareness where to get safe abortion care service and 318(35.21%) agreed on the importance of safe abortion care service. From the total participants, 692(76.63%) didn't hear about the revised abortion law of Ethiopia. Majority of the respondents knew two or more different side effects of induced abortion. (Table 4)

Table 5 : The frequency distribution of female teenage high school students by their pregnancy and abortion related characteristics in Addis Ababa, 2017.

Variable	Frequency (n)	Percent (%)
Ever had pregnancy:		
Yes	129	14.3
No	774	85.7
Decision on pregnancy:		
I will terminate the pregnancy	190	24.55
I will accept the pregnancy	104	13.44
Don't know	480	62.02
Pregnancy number:		
One	113	87.60
Greater or equal two	16	12.40
Age at first Pregnancy:		
14-16	63	48.84
17-19	66	51.16
Whether the pregnancies wanted:		
Yes, then	10	7.75
No	119	92.25
Ever had induced abortion:		
Yes	119	13.17
No	784	86.83
Easy to get safe abortion services:		
Yes	179	19.82
No	724	80.18
Know where to get safe abortion services:		
Yes	319	35.33
No	584	64.67
Importance of safe abortion care services:		
Yes	318	35.21
No	585	64.86
Heard about the revised abortion law of Ethiopia:		
Yes	211	23.28
No	692	76.63
Know the side effects of abortion:		
Infection	595	65.89
Infertility	411	45.51
Fistula	535	59.25
Sever bleeding	628	69.55
uterine rupture	460	50.94
Death	671	74.31

Regarding the place where they conducted abortion, most of the respondents, 58 (48.74%) did it in a private clinic and the rest did in health center 25 (21.01%), practitioner house 17(14.29%), private house 11(9.24%) and government and private/NGO hospitals 2(1.67%) and 6(5.04%) respectively. (Figure 6)

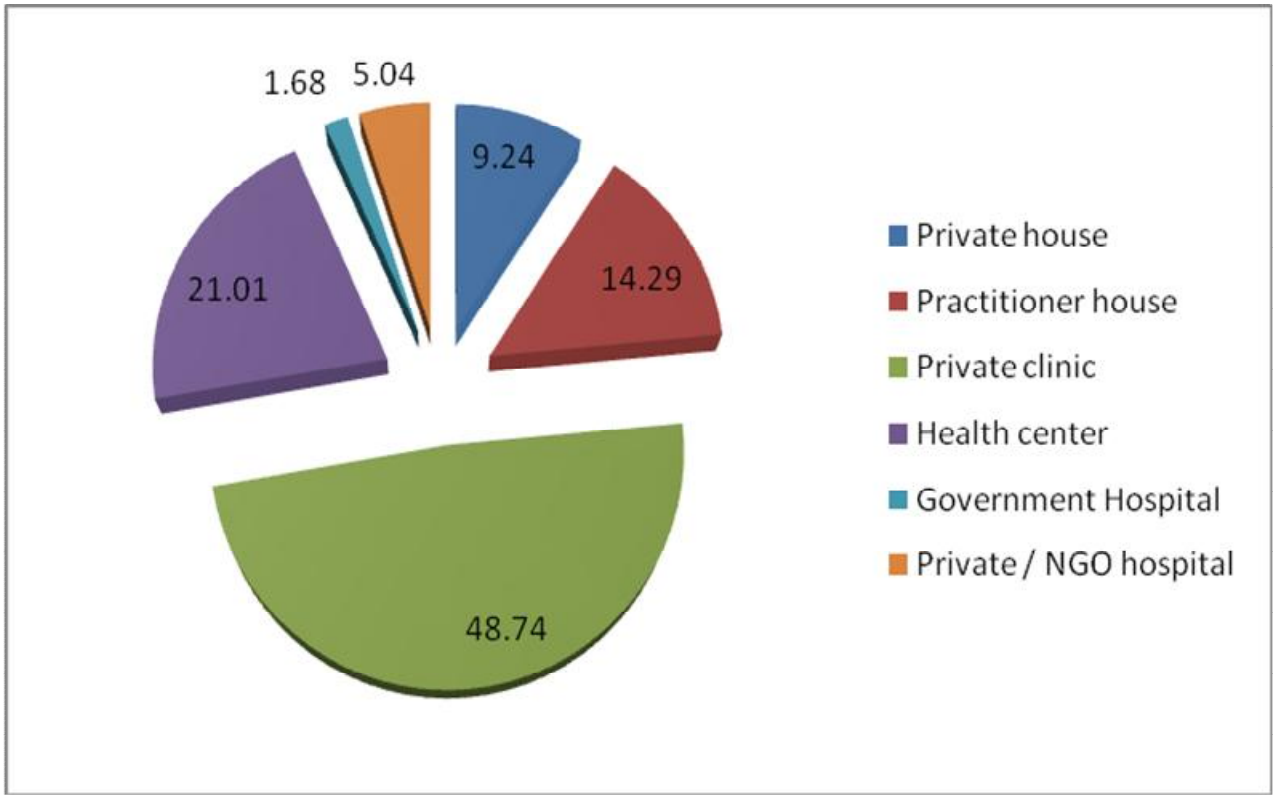


Figure 6 : Place for conducting abortion among female teenage high school students in Addis Ababa, Ethiopia**,** 2017.

Different methods were identified that respondents used to conduct induced abortion. The commonest method was medicinal drugs (pills) 65(54.62%). However, 25(21.01%) of teenagers did not know what method was used to conduct the induced abortion. Eighteen (15.13%), ten (8.4%) and 1(0.84%) of respondents used curette, catheter (plastics) and traditional herbs to conduct induced abortion, respectively. (Figure7)

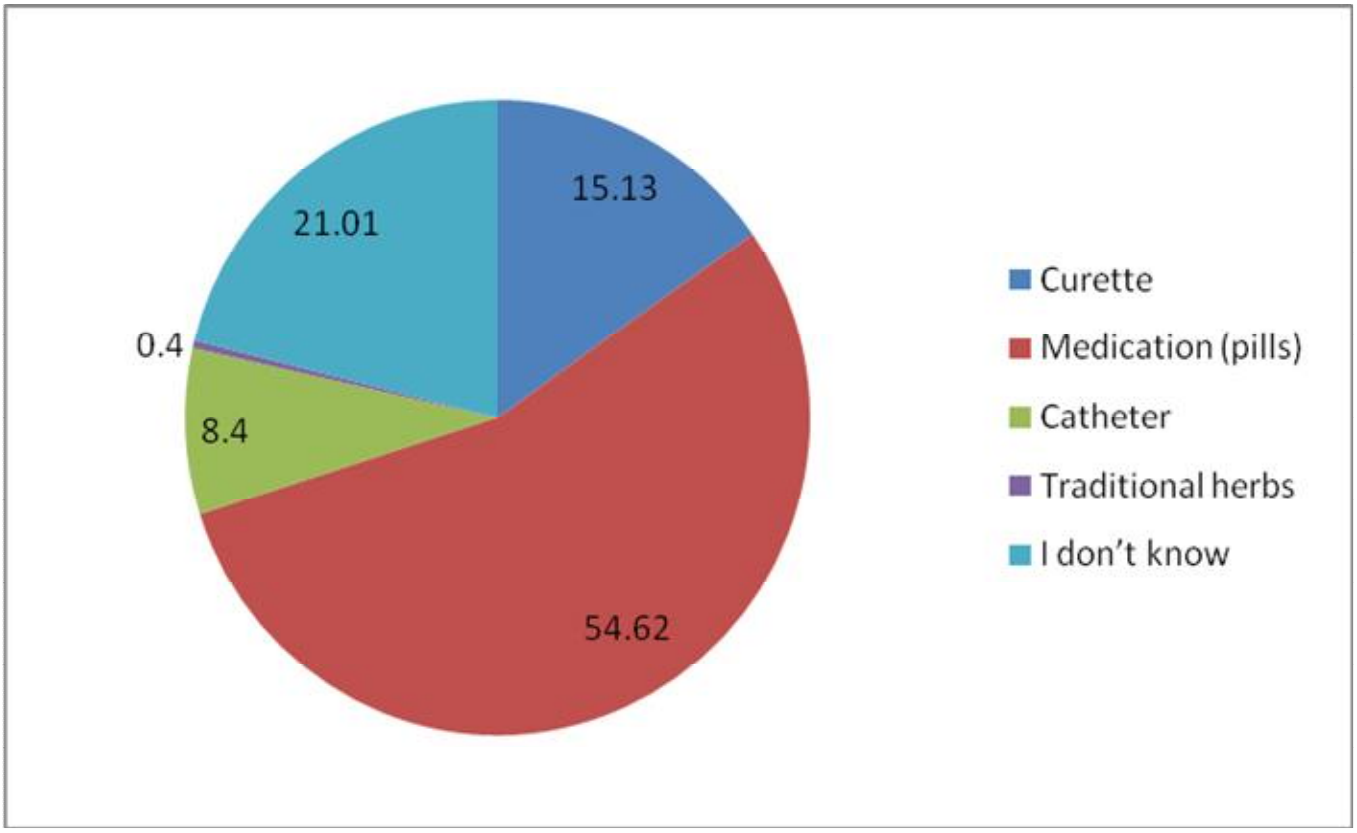


Figure 7 : Methods used to conduct induced abortion among female teenage high school students in Addis Ababa, Ethiopia, 2017.

Concerning reasons, respondents reported that they had two or more reasons for conducting induced abortion. The main reasons cited were because they were still in school 103(85.83%), fear of parents 91(75.83%) and they were single 64(53.33%). As shown in the figure below the least reasons were employment need 2(1.67%) followed by high cost to raise a child 12(10%) and under age 25 (20.83%). (Figure8)

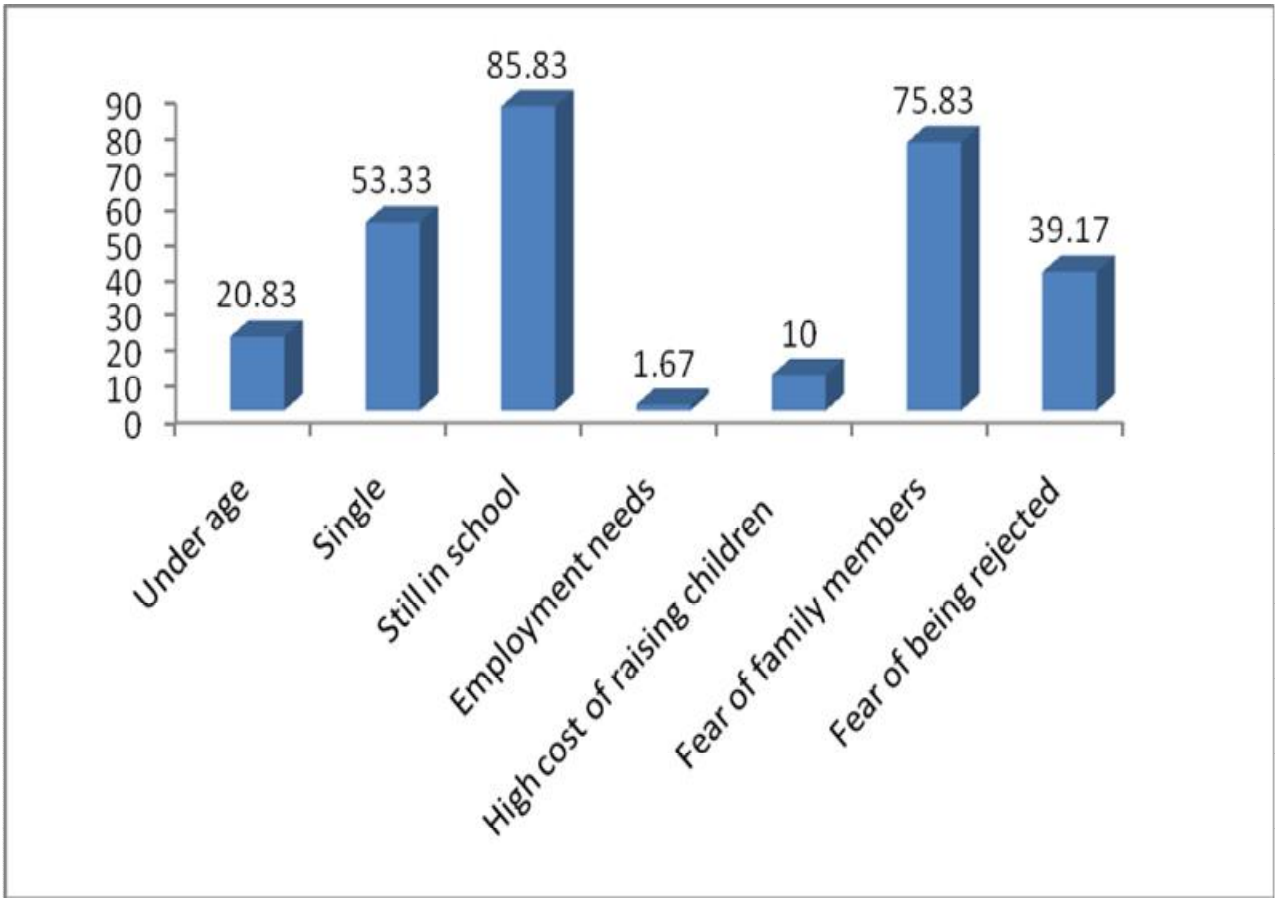


Figure 8 : Reasons for the conduct of induced abortion among female teenage high school students in Addis Ababa, Ethiopia, 2017.

In the study most of the induced abortions were conducted by health professionals 93(78.15%). Almost two in five of the 22(18.49%) cases were conducted by traditional practitioners and 4(3.36%) of the abortions were done by the respondents themselves. (Figure 9)

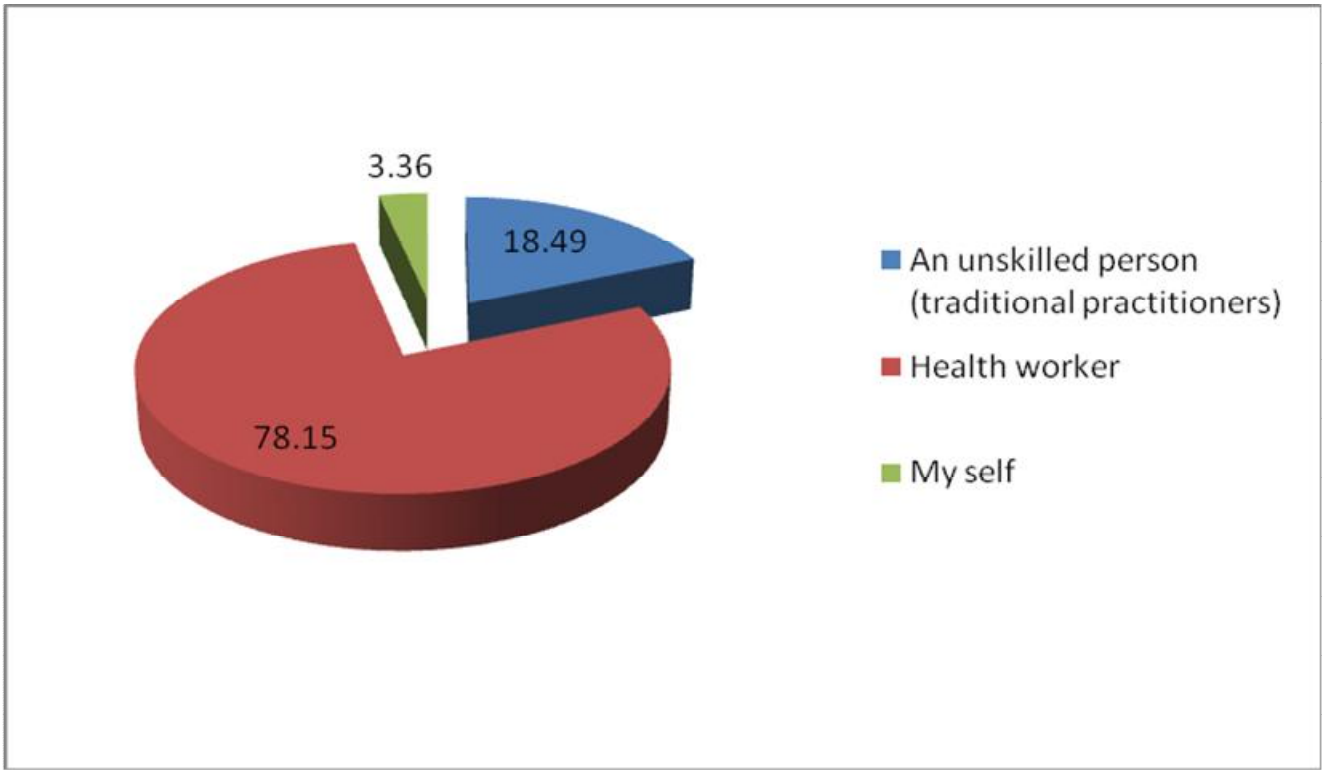


Figure 9: Persons who carried out the abortions among female teenage high school students in Addis Ababa, Ethiopia, 2017.

This finding was supported by in depth interview**.** Induced abortion has been conducted covertly by traditional means although low level health workers are actively involved in the conduct of traditional practices.

A grade ten female student said that:

‘‘*Mostly services given at health facilities are expensive, while the traditional medications might be cheaper. Fear of being seen by someone they know, and the fact that traditional practitioners' places are hidden and more secret than health facility lead school girls towards them.''*

Moreover, a health worker from health center also added that:

''Because students believed that traditional practioners are more secretive and the facility or health professionals may not keep their secret…''

Besides the priest from Orthodox Church explained the fact that, most abortions by school girls are conducted in a traditional way without the consent of everyone around the victims as follows:

"Because of their bad attitude, students prefer to undergo abortion in a traditional and unsafe way. God created everyone with a conscience to think and to control his/ her own body but once a woman gets pregnant she should give birth and do her best to raise her child. Otherwise she should not commit a murder and the church is against this action.''

Table 6: Codes of the qualitative study and their categories and thematic areas

Reasons to choose unsafe way of abortion	
Code	Category
-More secret -Hidden place -HF not keep secret -Health professional not keep secret -Fear of being seen	Confidentiality
-Traditional -Cheaper -Service is expensive -Atttude -Raise her child -Un safeway	Lack of awareness

5.5 Factors associated with induced abortion

First each variable was entered into the binary logistic regression model to identify whether it is associated with induced abortion (P-value<0.05). Accordingly, female high school students in the age group 18-19 were COR= [2.55:95% CI (1.72-3.78)] times more likely to experience induced abortion compared to those aged 15-17 years of age. On the other hand, as the frequency of visit to religious places diminished the odds of experiencing induced abortion has been increasing among high school students in Addis Ababa. The odds of having an induced abortion was COR= [1.19:95%CI (0.59- 2.37)], COR= [1.90: 95%CI (1.01-3.58)] and COR= [3.72: 95%CI (1.89-7.32)] times higher among those who visit religious places more than twice in a week, once in a week and once in two weeks and above respectively compared with those who visited religious places daily. Moreover, the odds of experiencing induced abortion significantly increased as the level of education of teenage girls in high school increased in Addis Ababa. The likelihood of induced abortion was COR= [1.46: 95%CI (0.73-2.93)], COR= [2.35: 95%CI (1.24-4.43)] and COR= [3.96:95%CI (2.19-7.15)] times higher among students in grade 10, 11 and 12 respectively compared with those in grade 9 in Addis Ababa. Similarly, students who were enrolled in government schools had COR= [6.40, 95%CI (3.81- 10.78)] times more likelihood of experiencing induced abortion

Compared with those who attended their education in non- government schools. Besides, students whose fathers work as private employees had COR = [1.91: 95% CI (1.12-3.27)] times more likelihood of experiencing induced abortion compared with those fathers are working as government employees and merchants COR= [0.91:95% CI (0.55-1.51)]. In addition to this, female students who ever had a boy friend were COR= [44.60, 95% CI (21.36-93.13)] times more likely to experience induced abortion compared with those who did not have a boy friend. Moreover, female students who see/read pornographic materials were COR= [3.1: 95% CI (2.03-4.72)] times more likely to experience induced abortion compared with those who did not see/read pornographic materials. Female students who used drug were COR= [4.18: 95% CI (2.23-7.86)] times more likely to experience induced abortion compared with those who did not use drugs and those who used alcohol were COR= [2.03:95% CI (1.37-3.01)] times more likely to experience induced abortion compared with those who did not drink alcohol.

However, when some background characteristics of female students are controlled it is only visit to religious places, school type, occupation of the father, having a boy friend and seeing/reading pornography materials that stand to be statistically associated with the experience of induced abortion among female high school students in Addis Ababa. Table 5 below revealed that female students who visit religious places only once in two week or more were AOR= [3.55: 95%CI (1.30-9.68)] times more likely to experience induced abortion compared with those who visit religious places daily. On the other hand, female students who have been enrolled in government schools were AOR= [7.3: 95%CI (3.71-14.37)] times more likely to experience induced abortion compared with those who have been attending in non government schools. Besides, female students whose fathers work as private employees were AOR= [2.33: 95%CI (1.06-5.15)] times more likely to experience induced abortion compared with those female students whose fathers are government employees or merchants. Moreover, female high school students in Addis Ababa who have a boy friend were 46 times higher odds to experience induced abortion as compared to that teenager who do not have boy friend; AOR= [46.9:95%CI (19.0-116.17)] although the finding has to be interpreted due to its high odds ratio and wider confidence interval. In addition to this female high school student who see/read pornographic materials were AOR= [2.01:95%CI (1.01-3.98)] times more likely to experience induced abortion compared with those who do not see/read pornographic materials.

Table 7 : Bivariate and multivariate analysis of factors associated with induced abortion among female teenage high school students in Addis Ababa, 2017

Variable		Induced abortion		COR(95%CI)	AOR(95%CI)
Age group:		Yes	No		
	15-17	50	509	1.00	1.00
	18-19	69	275	2.55(1.72-3.78)	1.32(0.63-2.76)
Frequency of Visit to religious places:					
	Daily	15	158	1.00	1.00
	More than twice in a week	25	227	1.19(0.59- 2.37)	0.98(0.38-2.51)
	once in a week	46	266	1.90(1.01-3.58)	1.65(0.67-4.09)
	once in two weeks and above	33	97	3.72(1.89-7.32)	3.55(1.30-9.68)*
Grade:					
	Grade 9	16	226	1.00	1.00
	Grade 10	19	183	1.46(0.73-2.93)	0.96(0.37- 2.47)
	Grade11	31	186	2.35(1.24-4.43)	1.19(0.46-3.04)
	Grade12	53	189	3.96(2.19-7.15)	1.48(0.54-4.02)
School ownership/type:					
	Non government	18	418	1.00	1.00
	Government	101	366	6.40(3.81- 10.78)	7.3(3.71-14.37)*
Fathers' occupation:					
	Government employee	37	286	1.00	1.00
	Private employee	28	125	1.91(1.12-3.27)	2.33(1.06-5.15)*
	Merchant	32	270	0.91(0.55-1.51)	0.85(0.44-1.63)
Ever had boy friend:					
	Yes	111	186	44.6(21.36-93.13)	46.9(19.0-116.17)*
	No	8	598	1.00	1.00
See/read pornography materials :					
	Yes	43	122	3.1(2.03-4.72)	2.01(1.01-3.98)*
	No	76	662	1.00	1.00
Drug use:					
	Yes	17	30	4.18(2.23-7.86)	2.35(0.87-6.34)
	No	102	754	1.00	1.00
Alcohol use:					
	Yes	54	227	2.03(1.37-3.01)	0.54(0.28-1.04)
	No	65	557	1.00	1.00

Note: * statistically significant

In summary, the in depth interview showed that the main reasons for the high prevalence of induced abortion among female high school students in Addis Ababa were, low household economical status, having a boy friend, Seeing and/ reading pornographic materials, substance abuse, availability of grocery around the schools and peer pressure. Students need for money to engage in different activities including celebration of different festivals for which they may be forced to have unsafe sex with a man who can cover their expenses, the celebration of parties and birth days outside their homes without the control of their parents which may lead to excessive drinking that in turn leads to unsafe sex.

In addition to this, having a boy friend is considered as modernization which in most cases is done with facebook chatting. It is also stated that drug use is increasing and the thinking that the prevalence of HIV is declining might have lead many students to have an unsafe sex which may in turn lead to induced abortion. In some instances, students whose birth place is rural areas may be less aware on the evils of urban life which might have exposed them to seduction and rape that contribute students to have induced abortion. When we look at each of the main qualitative findings, low economic status of the students leading teenagers to induced abortion is reiterated by many interviewees. Low economic status forced students to have unsafe sex that lead to unwanted pregnancy and induced abortion.

Male health worker from the health center said that:

"Economical problem of students forced them to do induced abortion."

This view also is augmented by a female health worker who said:

"If the female is from low economical status households, she will have unsafe sex for exchange of money to fulfill her needs which finally lead them to induced abortion"

A school director also reiterated the fact as follows:

"Most teenage students have been cheated by materials and money. There are people who saw their temporary feelings and want teenagers for sexual intercourse. In our school, there are students who come from very poor family but they have a smart mobile phone which costs more than ten thousand birr. When their parents are asked why they bought such kind of mobile, they said that they didn't

buy it for them. This showed that there are students who have sexual intercourse for exchange of materials or money which finally lead them to unwanted pregnancy and abortion."

In the same way, another school director also explained the fact as follows:

"I saw grade nine and ten students who wear uniform and went to private clinic to do induced abortion. Low economic status of students is the cause that exposed them for induced abortion. There are people who had car and wait female students next to school door during lunch time and home time to take them to restaurants and use them for their sexual pleasure since the girls are willing to do unsafe sex for the sake of money…"

Similarly, the other School director added:

"Economical problems of students or difference between family statuses of the students were factors that lead teenagers to do unsafe sex and then induced abortion. Students who came from a very poor family want to compete with those who are from a family that lives luxurious life and the only source of income they have is having sex with rich men who do not care about their future."

In addition, a grade eleven female student also said that:

"For the reason students live with their family and they don't have their own income to raise a child they prefer abortion"

Unhealthy environment in the school and its neighborhoods including availability of chat selling and chewing places, shisha and groceries selling alcohol and student's risky sexual behavior as well as celebrating different festivals and birthday parties outside their home lead teenagers to have unsafe sex and induced abortion.

Male health worker in a health center explained the issue under caption as follows:

"The use of drug and drinking alcohol during the celebration of festivals forced students to have unsafe sex. This led them to unwanted pregnancy and induced abortion."

A female health worker added on the issue of alcoholism among teenage students and its effect on induced abortion as follows:

‘‘During party days’ students take alcohol and spent the day with someone or their boy friend which lead them to unsafe sex, unwanted pregnancy and induced abortion.…”

The issue has also been acknowledged by the students themselves, a grade eleven student has to say the following:

*“*I*n my opinion, sometimes students (teenagers) go out for entertainment and take alcoholic drinks and they will have unplanned sex. They don’t consider pregnancy at that time and then leads to unwanted pregnancy and induced abortion.”*

Similarly, a grade twelve female student augmented that:

“Most of the time pregnancies occur during party days and celebration of events like color days, crazy days and birth days. Therefore, unsafe sex occurs unexpectedly and then leads to unwanted pregnancy and induced abortion.”

The problem is shared by school principals who said:

“The presence of groceries and club house around schools contribute for teenage induced abortion. We reported repeatedly for the concerned bodies to close these houses but nobody heard us…”

Another school principal added that:

“There are different groceries, chat and shisha houses around schools that force students to unsafe sex and then induced abortion. We struggled for the closure of these houses and the worda closed some of them but after some days another house will be opened on the other side…”

On the other hand, the influence of peer pressure was also emphasized. Students who do not have boyfriends are considered as less informed to modern life styles in city by their peers. They consider these students as traditional and encourgage them to practice sexual act which leads to unwanted pregnancy and there by to induced abortion, since the pregnancy is not accepted by either the boyfriend or parents.

A School director suggested that:

“…Most of the pregnancies were due to peer pressure and students fear their parents and they prefer to do induce abortion.”

Moreover, female health worker respondent added that:

''Most of the pregnancies occur due to peer pressure that students are forced to have a boy friend and after some time he will force her to have sex with him. The boy friend insists that if she refused to have sex with him, he will leave her and due to fear of separation teenagers do unplanned sex which lead to pregnancy and induced abortion."

Like wise, female high school students who see/read pornographic materials were two times more likely to experience induced abortion compared with those who do not see/read pornographic materials. (Table5) This finding was also supported by the in-depth interview

A school director explained the fact as follows:
"In Ethiopia films are not selected for children. Children see American films which are not allowed to be seen in America and wants to practice what they have seen since this age is the time adolescents need to practice and test things ."
Besides, the other school principal added that:
"Now a day having a boy friend is considered as modernization and unlimited intimacies between girls and boys even with their relatives lead them to unsafe sex. This resulted in induced abortion…"

A grade twelve, 18 years old female student from girls club also added that:

"Face book is the main media that lead most of students to experience unsafe sex and induced abortion because girls chat with someone for days, then meet a person they do not know before and through time they will be exposed to unsafe sex and induced abortion."

Most of the interviewee illustrated that wrong perception of students towards HIV/AIDS was the other factor for the high prevalence of induced abortion among female high school students.

Health worker respondent explained this fact as follows:

"The prevalence of induced abortion is high because of a wrong perception that the transmission of HIV/AIDS has decreased and students do not fear to have unsafe sex which leads them to unwanted pregnancy and then to induced abortion."

A school director respondent also added that:

"Unlike previous times *HIV/AIDS is forgotten now a days and this make teenagers to have wrong perception that transmission of HIV/AIDS has decreased and students do not fear to have unsafe sex which leads them to unwanted pregnancy and then to induced abortion."*

In addition to all the above factors mentioned as a reason for induced abortion, participants also added that, poor parent and child relationship like absence of open discussion and freedom during childhood and parents not being role model for their children play a major role for the high prevalence of induced abortion among teenagers in Addis Ababa.
This view is explained by the priest from Orthodox Church who said that:

As a plant needs protection and suitable environment to grow, children also need protection, care and safe environment. A child needs to be raised in a discipline of the church and with fear of God. Because if a child is raised being taught of the gospel, they will obey God and abstain from immoral actions like abortion and others.

More over, a grade twelve, 18 years old female student from the girls club of the school also added that:
''Parents must have an open discussion with their children about reproductive health characteristics and fulfill all their requirements rather than giving them money…"
Similarly, a school director also explained the fact as follows:

"We know the fact that very few students are free from this action. I can say that there are no students who are not engaged in risky sexual behavior internally (with their class mates) or externally (with somebody outside school). But no parent identifies the issue and discuss with their children.

The parents didn't raise their children by telling or discussing the consequence of such things. And the society also does not encourage open discussion on sexual affairs. So the students will be engaged in unsafe sex without being aware of its consequences."

Correspondingly, the other school director explained the fact as follows:

"*Parents are not role models for their children because we saw kindergarten and very young elementary female students caught while kissing. When we ask them, the students replied that they saw their parents doing that."*

In the same way, another school director respondent also describes that:

"In principle, parents should have an open discussion with their children about reproductive health. However, parents do not follow their children what they are doing in school and outside school. When we ask them they said that the children do not obey what we say…

Participants in the in depth interviewee mentioned that, birth place of students and rape were other factors that contribute for induced abortion among teenagers. Students whose birth place was rural area had lack of awareness and knowledge on the issue of unsafesex and induced abortion.

A female health worker respondent explained the fact as follows:

"Yes, most of students who seek abortion service came from rural area. This shows that students who came from rural areas are more vulnerable for unsafe sex and induced abortion."

A school director respondent also added that:

"Rape is one of the main factors that lead teenagers to induced abortion. I remember one of our students used hashish and raped by nine men and faced many complications. Even some students are raped by their parents. For example, there is a grade eleven student who is 17 years old, raped by her father who is HIV positive. Now she is HIV positive and pregnant we are trying to help her to give birth …."

Table 8 : Codes of the qualitative study, their categories and thematic areas

Enabling factors for induced abortion		
Code		**Category**
-Economic problem -Who had car -Difference between family -From poor family -Competition -Have no own income	-To have mobiles -Luxurious life -Rich men -Exchange of money -cheating by materials	Low economical status
-Celebrating festivals -Celebrating birth days -Color days -Crazy days -Party days -Suitable environment	-Peer pressure - Chat houses -Shisha houses -Club houses -Gloceries -Spent the day	Un healthy environment
-See/read pornographic -Face book -Drug use -Unplanned sex -Drinking alcohol -kissing	-Having boy friend -Unsafe sex -Thinking HIV is deceasing -Films -club after school	Risky sexual behavior
-Do not have freedom -Parents are not role model -No follow up -Give money -Do not encourage -Do not obey -Aware	-No open discussion - Do not telling -Raise children -Out side school -Un limited intimacy -In school -Major role	Poor family and child relationship
-From rural area -lack of knowledge -Lack of awareness		Birth place
-Rape by somebody -Raped by parents -Rape		Rape

6. Discussions

This study showed high prevalence of induced abortion. The frequency of visiting religious places, fathers' occupation of students, school type, having boy friend and seeing and/reading pornography materials were statistically associated with induced abortion among high school female students in Addis Ababa.

Besides, the main reasons for the high prevalence of induced abortion were, unhealthy environments like

peer pressure, celebration of different festivals and birth days out side home, the presence of chat, shisha and groceries around the school, poor family and child relationship, risky sexual behaviors like drug use,

Seeing and/reading pornography materials and alcohol use, low economic status, birth place and rape.

This study revealed that 152(16.8%) of the study participants had sexual intercourse at least once in their life and 129(14.3%) of them faced pregnancy. Those with pregnancy 119 (13.17%) of them had a history of induced abortion. This is consistent with a study done in Jimma which showed 16.3% of students had sexual intercourse at least once and 10.1% of all respondents had induced abortion at least once (26). This is also in line with a study in North West Ethiopia, on prevalence and associated risk factors of induced abortion with the prevalence of induced abortion 9.9 % (30).This again is consistent with the study in Nigeria which showed that pregnancy in teenagers was 5.7% and all the pregnancies were ended with induced abortion (100%) (25). But the result is inconsistent with a study in Brazil that showed the prevalence of induced abortion were 5.7% (46).This might be due to the difference in study settings and wareness on reproductive health. The finding is also inconsistent with a study in Aletawondo high school Sidama zone; in Ethiopia which was only 2.2% of students had induced abortion (47). This might be due to the difference in study settings and other socio-demographic factors.

In this study the in-depth interview supported the fact that, very few students are free from this action; that there are no students who are not engaged in risky sexual behavior internally with their class mates or externally with somebody outside school. It is concluded from this study that prevalence of teenage pregnancy and induced abortion is very high among in school adolescents in the study area.

This is a serious backset for adolescent reproductive health and indeed for the movement to reduce maternal mortality and morbidity, as abortion has been documented one of the direct causes of maternal mortality in Ethiopia. Consequently, policies and interventions aimed at educating and reducing induced and unsafe abortion practices among students must target schools, religions and parents as advocates and player of knowledge dissemination and behavior change among teenage students.

In this study 21.8% of the abortions were unsafe. This is congruent with the in-depth interview which illustrated that, Fear of being seen by someone they know, and the fact that traditional practitioner's places are hidden and more secret than health facility lead school girls to choose unsafe way of abortion.

This might be due to lack of knowledge and fear of family and the community which enforces teenage students to choose secrecy over safety. Accessing to safe abortion service and improving teenage awareness are crucial to reduce maternal mortality and morbidity related to unsafe abortion. Programmes should be planned specifically to target adolescents to create awareness on reproductive health characteristics and sexual issues.

Regarding to the materials used to induce the pregnancy were, herbs 1 (0.84), plastics (catheter) 10 (8.4%), oral medications pills 65(54.62%), curette 18(15.13%) and 25(21%) did not know what method the health worker used. Ninety-three (78.15%) reported that the abortion was done by health workers, 22 (18.49%) by traditional practitioner and 4(3.3%) by themselves. This finding is inconsistent with a study done in Gurage zone that most respondents conduct the abortion by using herbs (36.7%) and forty percent of the interference were done by themselves (17).

The possible justification for lower use of herb and interference by themselves might be due to the level of knowledge, information and accessibility of safe abortion services is higher in urban than rural. Results from the in-depth interview described that mostly services given at health facilities are expensive, while the traditional medications might be cheaper. Fears of being seen by someone they know, and the fact that traditional practitioner' places are hidden and more secret than health facility lead school girls to choose traditional practitioners.

Thirteen percent of the respondents reported that they would accept and give birth if they faced unwanted pregnancy, but 24.55% prefer to terminate the pregnancy and majority of the remaining, 62.02 % were indifferent. This finding is inconsistent with a study done in Jimma, 63.1% reported

that they would accept and give birth in case of unwanted pregnancy. About 32% prefer to terminate it whereas the remaining 5.1% were indifferent (26). This might be due to students highly influenced by religious teachings and difference of societal acceptance of teenage pregnancy.

This showed that teenage pregnancy is one of the most unpleasant and usually unplanned outcomes of adolescent sexual activity. Generally, the urgent need for sensitization and education on reproductive health, induced abortions and counseling and family planning services among teenage students is implicated.

More than half of the respondents have heard of family planning 570 (63.12%). This result is inconsistent with the study conducted in Jimma Ethiopia which reported that only 27.2% of respondents had awareness on family planning methods (26). This might be due accessibility of information and family planning services that the urban areas get compared to the rural; the urban areas are also closer to different medias, that they get the knowledge about family planning and develop good attitude about it. This finding again is inconsistent with a study in Tanzania which showed majority of them (98%) has heard of family planning and 57% of the participants agreed to have ever used contraceptives. (2) This might be due media coverage, accessibility of information and family planning services, and attitude towards family planning might be good in Tanzania.

Besides, from 152 (16.8%) sexually active participants only 60(39.47%) of them ever used contraceptives. Moreover, most of interviewee described that lack of awareness on contraceptive, teenagers' attitude about contraceptive and fear of family and the society to buy or take contraceptives from health facilities, lead teenage girls not to use contraceptives. In addition to this, celebrating different festivals, consuming alcoholic drinks and lack of open discussion between parents and children were the other factors that participants illustrated teenagers not to use contraceptives.

The family planning method that was mentioned by the majority was pills 435 (76.32%) and the information was mostly received from radio/newspaper /television/poster 384(67.49%). This is consistent with a study done in Temeket district in Dares Salaam, Tanzania that information was mostly received (96%) from radio, newspaper, television and pamphlets and the family planning method mentioned by the majority was pills (93.6%) (2).

In general, this study came up with findings which have an implication to develop a policy for reducing the short and long term effects of induced abortion among teenage girls in high school

students. There is also a need for increasing the knowledge of high school girls about family planning and reproductive health characteristics by strengthening dissemination of information, education and communication at schools.

In this study female student who visited religious places only once in two week or more were 3.55 times more likely to experience induced abortion compared with those who visit religious places daily. This finding is supported by a study done among preparatory school students in Jimma zone, South west Ethiopia, students who didn't visit religious institution were 6.39 times more likely to be at risk than students who visited religious institution (26).

This is also in line with the qualitative study conducted in Iran that those who lack of information on religious aspects of abortion experience induced abortion than those who had information on religious aspects of abortion (42). This is again concistent with astudy done in western Ethiopia that attending religious institutions frequently were more likely to reject sexual activity than those who never and occasionally attend religious institutions and sexual activity among teenagers differs significantly with respect to religious attachment (45). This finding again is congruent with the indepth interview result, which described that, children need protection, care and safe environment to grow. If a child is raised being taught of the gospel will abstain from dishonest actions like abortion and others (Participant from Orthodox Church). Religion teaches adolescents to avoid any sexual intercourse and pregnancy before marriage or Nika (participant from Muslim religion). This implies that religious teachings and Spiritual places are very important factor to influence student's decisions about risk sexual behavior that lead them induced abortion.

On the other hand, female students who learn in government school were 7.3 times more likely to experience induced abortion compared with those who are learning in non government schools. This is consistent with the study conducted among public secondary school students in North Central Nigeria, and all the females that have ever been pregnant claimed that they aborted the pregnancies giving an abortion prevalence of 100 %(25). This might be due to the youth and girls clubs in non government schools are working on reproductive health and sexual issues and students had higher school attachment. However, effort should be made to use every opportunity to provide sexual and reproductive health education to the teenagers and the schools are ideal places for this.

Like wise, in this study, students whose fathers work as private employees were 2.33 times more likely to experience induced abortion compared with those female students whose fathers are government employees. This might be due to students whose fathers work as private employees may get more money to engage in different activities including celebration of different festivals, celebration of parties and birth days outside their homes which may lead to excessive drinking that in turn leads to unsafe sex.

More over, this study revealed that, female high school students who have a boy friend were 46 times higher odds to experience induced abortion as compared to that teenager who do not have boy friend. This result is consistent with a study in Aletawondo high school female students who have a boy friend were more than four times higher odds to experience perimarrital sex (47).

This again in line with a study in Malawi, most of the girls who conducted induced abortion get pregnant from their boyfriends (48).

This result goes well together with the result from the in-depth interview in this research which described that, having a boy friend is considered as modernization. Students who do not have boyfriends are considered as less knowledgeable to modern life styles. They consider these students as traditional and encourgage them to practice sexual act which leads to unwanted pregnancy and there by to induced abortion.Though the need to consider effective sexuality education as a preparation and a preventive action for the reproductive health of teenage girls.

With regard to pornography materials and other risk sexual behaviours, there was an increase in induced abortion among students who are seeing/reading pornography materials and practicing other risky behaviours.

In this study students who are seeing/reading pornographic materials were two times more likely to experience induced abortion compared with those who do not see/read. This result is consistent with study done in Bahardar, Students who watched porn videos were 1.8 times more likely to have sex and 2.8 times more likely to had multiple sexual partners. Those who engaging in other risk behaviours such as Khat chewing, drinking alcohol, attending clubs were independently associated with likely hood of ever had sex and having multiple sexual partners (37).

Similarly, the result from the in-depth interview in this research showed that, in Ethiopia films are not selected for children. Children who are seeing foreign films wants to practice what they have seen in the film. Face book is also the main media that lead most of the students to experience unsafe

sex and induced abortion. This needs urgent solution, particularly pornography films which have got the power to provoke teenagers in different types of sexual practices.

According to the in depth interview low economic status of students leads them to unwanted pregnancy and induced abortion. This finding is supported by world health organization (WHO 2010), that the association between higher rates of ever-pregnancy and lower socioeconomic status of adolescents (43). This result again is consistent with the result of qualitative study conducted in Tanzania that girls did sex either in exchange for money or food (44).

This shows that teenagers do not consider the consequences of engaging in premarital sexual activity; in the long term, this may affect their ability to improve upon their status. This needs efforts by all stakeholders to ensure that, teenagers from low economic status are guided and given the right message about reproductive health issues.

Rape by their relatives or somebody was the other reason that causes unwanted pregnancy and induced abortion among teenagers according to the in depth interview respondents. This is consistent with a qualitative study conducted in Tanzania; a school girl raped by an uncle was reported to her teacher. The girl claimed that, for a long period she had been repeatedly raped by her uncle who claimed to do so as compensation for costs he incurs to feed and educate her (44). This implies students are usually enforced for sexual activities without their consent that lead them to unwanted pregnancy and induced abortion.

More over, results from the in-depth interview describe that poor family and child relationship and peer pressure were factors that cause unwanted pregnancy and induced abortion. This finding is supported by a study conducted in western Ethiopia that the odds of having had sex were two fold higher among adolescents who do not discussed about sexual matters with their family than who discussed. Similarly, adolescents had peer pressure to have sexual intercourse and those who had friends already engaged in sexual intercourse were more likely to have sexual experience (45). This again is concistent wih a study in Brazile talking with parents about sex is a protective factor of induced abortion among teenagers (46). This implies that, lack of parent child discussion towards sexual and reproductive health issue is the main problem for unsafe sex and induced abortion. Parents should always consider the importance of having close relationship and have to discuss with their children about different sexual and reproductive health issues.

7. Strengths and Limitations of the study

The strength of this study is that the use of qualitative method to triangulate or complement the results found in the quantitative part of the study

The limitation of this study is that since the study touches very sensitive issues all students might not give genuine answers to the questions this might underestimate the prevalence of induced abortion in the study area. The other limitation is the study includes only regular high school students i.e out-of-school adolescents and extention high school students were excluded so it could not be generalized. In addition the study was based on cross-sectional data, which implies that the direction of causal relationships cannot always be determined.

8. Conclusion

It is concluded from the study that prevalence of teenage induced abortion is very high among high school female students in Addis Ababa Ethiopia. This high prevalence of induced abortion was reasoned out by the qualitative study that unhealthy environments like peer pressure, celebrating different festivals and birth days out side home, the presence of chat, shish and groceries around the school, poor family and child relationship, risky behaviors such as drug use, seeing and/reading pornography materials, alcohol use, low economy status, birth place and rape. Moreover, visiting religious places, fathers' occupation, school type, having boy friend and seeing and/reading pornography materials were statistically associated with the induced abortion among high school female students in Addis Ababa Ethiopia.

9. Recommendation

❖ There should be an open discussion between families and children about reproductive health.

❖ Schools should have strong attachment with students and their parents through different mechanisms.

❖ Since peers have greater influence on the positive and negative behavior of their friends, schools should focus on promoting peer educators in order to protect teenagers from unwanted pregnancy and induced abortion.

❖ Religious institution should teach their follower about risk sexual behavior that lead them induced abortion.

❖ Strategies should be designed to control the use of alcohol and to restrict watching porn movies which contributes for the engagement on unsafe sex and induced abortion.

❖ The health sector should strengthen youth friendly services in all facilities and making family planning service more accessible.

❖ Government and policy makers have to work on schools and their surroundings that, groceries, Chat houses and other substances should not be allowed around school environment.

❖ Government and policy makers are recommended to consider reproductive health education as part of the education curricula in school.

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11. Annexes

11.1 Information sheet

Title: The assessment of the magnitude of induced abortion and its associated factors among high school teenage girls aged 15-19 years in Addis Ababa city, 2016/2017.

Greeting-----I am a member of the research team lead by Tadila Wassie, which is conducted for the partial fulfillment of her Master in Public Health in Addis Ababa University, College of Health Sciences, School of Public Health. The study has also obtained permission from Addis Ababa city administration health bureau and Addis Ababa city administration education bureau. The purpose of the envisaged research is to measure the magnitude of induced abortion and its associated factors among high school girls aged 15 to 19 years. The study will have a valuable input to design appropriate interventions to reduce unwanted pregnancy and induced abortion in high school teens. You are randomly selected to participate in this study. All information that you will be providing will be held confidential and no one except the research team will have access to the information. You can decline from participating in the study or stop to answer questions at any time. However, participating in this study will be useful to understand the reproductive health needs of teenage high school girls who are challenged due to their prevailing environment. Your names will not be written on the questionnaire and it will not appear in the report, either.

You can ask me a question for further clarification now and I am ready to answer your questions. However if you wanted to ask the principal investigator her contact details are as follows.

Tadla Wassie

Tele: 0910069242

E-mail:tadiwassie@gmail.com

11.2 Consent form

I have been informed the purposes of the study using the language I can understand. I asked questions for things which I did not understand and got enough explanations by the interviewer. I was also informed to ask the principal investigator and the contact detail of her is given to me. I was even told not to participate in the study if I am not convinced by its purpose or stop filling the answers for certain questions for which I am not comfortable with. I then decided.

Be a respondent for this survey……..signature……..…….date ……

Decline to participate in this study……signature……..…….date …….

11.3 Information sheet for Assent form

Title: The assessment of the magnitude of induced abortion and its associated factors among high school teenage girls aged 15-19 years in Addis Ababa city, 2016/2017.

Greeting-----I am a member of the research team lead by Tadla Wassie, which is conducted for the partial fulfillment of her Master in Public Health in Addis Ababa University, College of Health Sciences, School of Public Health, and the study has also obtained permission from Addis Ababa city administration health bureau and Addis Ababa city administration education bureau. The purpose of the envisaged research is to measure the magnitude of induced abortion and its associated factors among high school girls aged 15 to 19 years. The study will have a valuable input to design appropriate interventions to reduce unwanted pregnancy and induced abortion in high school teens. You can say no now or you can even change your mind later. No one will be upset with you if you decided not to be in this study. Your grade or your relationship with your school, teachers and classmates will not be affected if you choose to not participate in the study or if you choose to stop participating at any point. You will not miss any instructional class time by opting out. Being in this study will bring you no harm. There are no direct benefits to you for participating in this study. It will hopefully help us learn more about induced abortion and associated factors among high school teenage girls aged 15 to 19 years. We will be very careful to keep your answer private. Before and after the study we will keep all information we collect about you locked up and password protected. If you choose to stop before you finished, any answers you already gave will be destroyed. There is no penalty for stopping. Your names will not be written on the questionnaire and it will not appear in the report, either. If you have questions about the study, contact the researcher:

Tadla Wassie

Tele: 0910069242

E-mail:tadiwassie@gmail.com

11.4 Assent form

I have been informed the purposes of the study using the language I can understand. I asked questions for things which I did not understand and got enough explanations by the interviewer. I was also informed to ask the principal investigator any question and the contact detail of her is given to me. I was even told not to participate in the study if I am not convinced by its purpose or stop filling the answers for certain questions for which I am not comfortable with. My grade or relationship with my school, teachers and classmates will not be affected if I choose not to participate in the study or if I choose to stop participating at any point. I will not miss any instructional class time by opting out. Being in this study will bring me no harm and there are no direct benefits to me for participating in this study. I then decided.

Be a respondent for this study……..signature……..…….date …….

Decline to participate in this study……signature……..…….date …….

11.5 English Questionnaires for quantitative part of study

Addis Ababa University School of Public Health

Questionnaire for The assessment of the magnitude of induced abortion and its associated factors among high school teenage girls aged 15-19 years in Addis Ababa city.

Questionnaire code…..

GENERAL INSTRUCTIONS: The questionnaire has seven section, including questions regarding to socio-demographic characteristics, individual's behavior related with sexual and reproductive health, pornographic materials, substance and alcohol use related questions, awareness and practice of contraceptive use, pregnancy related and abortion related questions. Please read the instructions and questions carefully before proceeding to answer them.

SECTION 1. SOCIO DEMOGRAPHIC CHARCTERSTICS

Now I am going to ask you some questions about your socio demographic and economic status, in order to gain a better understanding of some important life issues. Whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. Your names will not be written on the questionnaire and it will not appear in the report, either. The information that you provide will help us to improve the reproductive health of the students.

No	Questions and filters	Coding categories	Skip
101	How old are you in completed full years?	……years	
102	Where are you born?	Rural…….....1 Urban…….....2	
103	To which ethnic group do you belong?	Oromo……..…..1 Amhara……...2 Tigray…….....3 Woliyta …….....4 Gurage……..…….5 Sidama ……..6 Other specify…….....99	
104	What is your religion?	Orthodox…….....1 Muslim……...2 Protestant…….....3 Catholic……..4 Others (specify)……....99	

105	Do you attend church /Mosque?	Yes …...… ……....1 No…….....2	→ 107
106	If Yes to question 105 how often?	Daily……...……1 More than twice in a weak…….2 Once a week…….....3 Once in two week……..…4 Once a month…….....5 Once in 6 month ……...……6	
107	Who are you living with?	Both parents ……..1 Mother only…….....2 Father only……..…….....3 Relative……..…….…..4 Husband……..…….....5 Boyfriend……..…….....6 Pal……..…….....7 Alone……..8 Others (specify)……....99	
108	What is your grade level?	Grade 9 ……..…….....1 Grade 10 ……....2 Grad11…….....3 Grades12……...…….4	
109	Are you currently doing any activity to generate income for your living?	Yes……1 No …….....2	→ 111
110	What do you do for your living?	Farming…….…1 Private employee……...2 Civil servant……...3 Business/trading……4 House maid/security guard……5 Daily laborer……..…6 Other(specify)….....99	
111	Is your father alive now?	Yes……1 No……...2	→ 114

112	What is the highest level of education your father attend?	Never been to school…….....1 Informal education (a Bible school or Koranic school or any other informal school that involves learning to read and/or write)……...……...2 Read and write by teaching himself…...…3 Primary . . . . ……..... 4 Secondary . . . .5 Technical/vocational . . . .6 Higher (diploma and above). . . . . ……7	
113	What does your father do for living?	Didn't do anything…….....1 Government employee …….....2 Private employee…….....3 Merchant…….....4 Daily laborer…….....5 farmer…….....6 Other (specify)……...…….…99	
114	Is your mother alive now	Yes……...……..1 No …….....2	→ 117
115	What is the highest level of education your mother attend?	Never been to school……...1 Informal education(a Bible school or Koranic school or any other informal school that involves learning to read and/or write)…….....2 Read and write by teaching herself……3 Primary . . . . . ……...4 Secondary . . . . ……. . ….5 Technical/vocational . . . . ……....6 Higher (diploma and above). ... . ……7	
116	What does your mother do for living?	Didn't do anything……1 Government employee …….....2 Private employee…….....3 Merchant…….....4 Daily laborer…….....5 Farmer…….....6 House wife……..……...7 other (specify)……..99	

117	How much pocket money do you get on an average month from your parents/relatives?	…….Birr	

SECTION 2. REPRODUCTIVE HEALTH CHARACTERISTICS

Now I would like to ask you some questions about your personal reproductive characteristics. Since your names will not be written on the questionnaire and it will not appear in the report, either. Whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. The information that you provide will be interpreted and will help us to improve the reproductive health of the students.

201	How old were you, when you see your menses for the first time?	……Age in complete years	
202	Have you ever had a boyfriend?	Yes … ……..1 No…….....2	
203	Have you ever had sexual intercourse?	Yes ……..1 No ……....2	→ 205
204	At what age did you have your first sexual intercourse?	…….Age in complete years	
205	What is your current marital status?	Married/living together……1 Single...…….....2 Divorced…….....3 Widowed…….....4	
206	What is the age at which you were married for the first time?	……...Age in complete years	
207	How many sexual partners have you ever had?	……	
208	How many sexual partners do you currently have?	……	

SECTION 3. VIEWING PORNOGRAPHIC MATERIALS			
Now I would like to ask you some questions about your personal habit of viewing pornographic materials. Since your names will not be written on the questionnaire and it will not appear in the report, either. Let me assure you again that your answers are completely confidential and will not be told to anyone.			
301	Have you ever viewed/read/sea Pornographic material (s)?	Yes……1 No…….....2	→ 401
302	How often?	Daily…….....1 Often (3-4 times per week)……....2 Occasionally (1-4 times per month)…...3 Rarely (once in month)……4	
303	How old were you when you first Viewed pornographic material?	…… years	
304	What type of pornographic materials did you view the last time?(Multiple answer is possible)	Videotapes and films…….....A Newspaper/Magazine….....B Photograph/pictures……..……....C Dummies…….....D Others (specify)……....99	
305	Have you ever tried practicing what you have seen from pornographic materials?	Yes……1 No…….……....2	
SECTION 4. SUBSTANCE AND ALCOHOL USE RELATED QUESTIONS			
Now I would like to explore your substance and alcohol use. I am going to ask you some very personal questions that some people find it difficult to answer. I would like to remind you again that whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team.			
401	Have you ever used any drug to make you feel high?	Yes……1 No……..2	→ 404
402	What drugs have you used? (Multiple answer is possible)	Chat……A Hashish……...B Marijuana……....C Heroin…….....D Cigarette ……....E Other (specify)……...99	

403	Have you ever practiced sexual Intercourse after using a drug?	Yes……..1 No…….....2	
404	Have you ever drunk Alcoholic beverages like (Tej, Tella, Beer, and Arake) in your life?	Yes……..1 No……. ……....2	
405	If yes to Q no 404 how frequently do you drink Alcoholic Beverages?	Always (daily)…….1 Often (3-4 times per week)…….2 Occasionally (1-3 times per month)……...3 Rarely (on holydays)…….....4	

SECTION 5. AWARENESS AND PRACTICE ON CONTRACEPTIVE USE

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. Your names will not be written on the questionnaire and it will not appear in the report, either.

501	Have you ever heard of family planning methods?	Yes ……1 No……2 →	508
502	Which family planning methods do you know? (Multiple answers are possible)	Pills ……A female condom……..……..….B Male condom…….C Inject able…….....D IUCD…….....E Implants ……...F **Standard Days Method**: (Women can use a cycle of beads to count the days they are most likely to get pregnant and avoid sexual intercourse during those days.)……...G Lactational Amenorrhea Method (LAM)……..H **Withdrawal**: (Men can be careful and pull out before climax.)……....I **Emergency Contraception**:(As an emergency measure, within three days after they have unprotected sexual intercourse women can take special pills to prevent pregnancy……..J **Male sterilization**:(Men can have an operation to avoid having any more children)……..K **Female sterilization**: (Women can have an operation to avoid having any more children…L Other (specify).....99	

503	Have you ever used any type of family planning methods?	Yes ……1 No…….....2 →	505
504	Among these methods which one did you ever used (multiple answers are possible)).	Female condom……..A Male condom……..B Pills…….C Injectables …….D Implants……..E IUCD ……..F Lactational Amenorrhea Method (LAM)...G Standard Days Method……..……..…H Withdrawal……..I Emergency Contraception……..J Others (specify).....99	
505	Why are you not using contraceptives? (Multiple answers are possible.)	No knowledge on contraceptives….....A Cultural influence …….B Contraceptives not available …….C Fear of side effects……D Religious issue …….....E Fear of family member……F Opposition from husband / boy friend.....G Others (specify).....99	
506	Where do you get family planning information? (Multiple answers are possible.)	Family……A Friends…….....B School/education……. …..C Church/mosque……...D Radio/newspaper/television/poster ……...E Health facility……..F Others (mention)……...G	
507	How far is the family planning service delivery point from your home?	……in kilometer/minute	

508	Have you ever heard of emergency contraceptives?	Yes ……1 No……....2	→ 511
509	What type of emergency contraceptive do you know? (multiple answers are possible)	IUCD……..A Pills……B Others specify ……...99	
510	Have ever used emergency contraceptive?	Yes ……..1 No ……...2	
511	when should emergency contraceptive be used in order to effectively prevent pregnancy after unprotected Sex?	Immediately after sex ……1 Within 24 hours after sex……....2 Within 72 hours after sex …….. ...3 Within 4-6 days after sex……4 Even after a missed period …….....5 Other(specify)……99	

Section 6. PREGNANCY RELATED QUESTIONS

Now I would like to explore your pregnancy history. I am going to ask you some very personal questions that some people find it difficult to answer. I would like to remind you again that whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. Your names will not be written on the questionnaire and it will not appear in the report, either. The information that you provide will be interpreted and will help us to improve the reproductive health of the students.

601	Have you ever been pregnant?	Yes……..1 No……2	
602	If no to Q no 601 what will you do if you become pregnant.	I will terminate the pregnancy …….....1 I will accept the pregnancy……2 Don't know……3	
603	If yes to Q no 601 how many times have you been pregnant?	……..times	
604	What was your age at your first Pregnancy?	…….years	

605	Was the pregnancies wanted?	Yes, then……..…….....1 Yes, some time later…….....2 No…….....3	
606	Why didn't you want to have the pregnancy by then?	Under age ……A Still in school ……B Don't have enough money to take care of the baby..C Raped ……..... D To have a space between births ……...E Divorced ……..…F Fear of being rejected ……...G Fear of family ……..…...H Other(specify).....99	
Section 7. ABORTION RELATED QUESTIONS			
Now I am going to ask you some very personal questions related with abortion .I would like to remind you again that whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. Your names will not be written on the questionnaire and it will not appear in the report, either. The information that you provide will be interpreted and will help us to improve the reproductive health of the students.			
701	Have you ever had an abortion?	Yes ……..1 No ……2	→ End of the interview
702	If yes to Q no 701 how many times did you have abortion?	…….abortions	
703	How many of these abortions were spontaneous or induced abortion?	……..Spontaneous abortion ……induced abortion	
704	Did you have spontaneous abortion in the past 12 months?	yes……..1 No…….....2	
705	How many spontaneous abortions did you have in the past 12 months?	…… Spontaneous abortion	

Now I am going to ask you some very personal questions related with induced abortion that some people find it difficult to answer. I would like to remind you again that whatever information you provide will be kept Strictly confidential, and will not be shared with anyone other than members of our research team. Your names will not be written on the questionnaire and it will not appear in the report, either. The information that you provide will be interpreted and will help us to improve the reproductive health of the students.			
706	Did you have induced abortion in the past 12 months?	Yes ……...1 No ……2	
707	How many induced abortions did you have in the past 12 months?	……induced abortion	
708	Why did you go for an induced abortion?(Multiple answers are possible)	Under age ……..……A Single ……B Still in school…….....C Employment needs ……D Wanted bigger interval between births…….E High cost of raising children ……F Fear of family members…….G Fear of being rejected…….…… H Other (specify) 99	
709	Who did the recent induced abortion for you?	An unskilled person {traditional practitioners)… ..1 Health extension worker……...…...2 Health personnel…….…..3 Myself…….…..……4 Other(specify).....99	
710	Which method was used for abortion?	Curette……1 Medication (pills) ……....2 Catheter……3 Traditional herbs ……4 I don't know ……..…….……5 Other(specify).....99	

711	Where did you get the services?	Private house……1 Practitioner house……....2 Private clinic…….……...3 Health post……..4 Health center…….....5 Government Hospital……..6 Private / NGO hospital……7 Other(specify).....99	
712	Who supported you to do an abortion? (Multiple answers are possible.)	Mother …….…....A Father…….……..B Aunt /Uncle…….……C Sister(brother)…….D Pal……E Husband……....F Boyfriend……...……...……G Nobody ……H Others specify…….……...99	
713	How much did it cost to do an abortion currently?	…… Birr	
714	Was it easy to get safe abortion services? (Safe abortion is the termination of pregnancy by a skilled health care provider with proper equipments and in an environment with required medical standard.)	Yes……1 No……....2	
715	Do you know where to get safe abortion services?	Yes……..1 No…….…….....2	
716	If yes to Q no 715 who gave you the information? (multiple answers are possible)	Family……...1 Friends(pal)……...….....2 School…….....3 Radio/newspaper/television/poster .....4 Health facility……...……5 Others(specify)…….....99	

717	Is it important having safe abortion care services?	Yes…….……..1 No……....2	
718	Have you ever hear about the revised abortion law of Ethiopia?	Yes…….....1 No…….2	
719	Do you know when abortion is permitted in Ethiopia? (Multiple answers are possible.)	When the pregnancy results from rape or incest…A When the health or life of the woman and the fetus are endanger……....B In cases of fetal abnormalities…….C For women with physical or mental disabilities….D For minors who are physically or psychologically un prepared to raise a child.....E	
720	What side effects of induced abortion do you know? (Multiple answers are possible.)	Infection……..…A Infertility…….....B Fistula due to mismanagement……....C Sever bleeding……..…...D uterine rupture……..….E Death……F Others specify ……99	

11.6 Information sheet for the qualitative study

Title: The assessment of the magnitude of induced abortion and its associated factors among high school teenage girls aged 15-19 years in Addis Ababa city 2016/2017.

Greeting-----I am Tadla Wassie, graduate student of Addis Ababa University. I conduct a research for the partial fulfillment of my Master in Public Health in Addis Ababa University, College of Health Sciences, School of Public Health, and the study has also obtained permission from Addis Ababa city administration health bureau. The purpose of the envisaged research is to measure the magnitude of induced abortion and its associated factors among high school girls aged 15 to 19 years. The study will have a valuable input to design appropriate interventions to reduce unwanted pregnancy and induced abortion in high school teens. You are selected through chain of referral to participate in this study. You can decline from participating in the study or stop to answer questions at any time. You will not get payment for participating in the study and your participation in this study will not have any risks or harm. However, participating in this study will be useful to understand the reproductive health needs of teenage high school girls who are challenged due to their prevailing environment. If you agree to participate in the study you will be asked some questions about your experience on induced abortion and its associated factors among high school teenage girls aged 15 to 19 years. The interview will take about 25-30 minutes. The interview will be tape recorded .The information you provide will be kept completely confidential, that is your name will not be record and will not be mentioned in the report either. No one except the principal investigator will have access questionnaires and tape records.

You can ask me a question for further clarification now and I am ready to answer your questions. However if you want to ask the principal investigator any time, my contact details are as follows.

Tadila Wassie

Tele: 0910069242

Email: tadiwassie@gmail.com

11.7 In-depth Interview Guide for qualitative part of study

In-depth Interview Guide for health professional participants

Now we will talk about issues related with induced abortion and its associated factors among teenage girls. The discussion will be tape recorded and hand written starting from now.

1. Why do you think teenage girls do not use modern contraceptive methods? (Service related, provider related, culture, religion....)
2. Why do you think teenage girls do induced abortion?
3. What complication of induced abortion you ever faced among teens in your service years?
4. Can you give me detailed information for each of the complication you were faced with?
5. What do you think teenage students choose unsafe way of induced abortion?
6. What do you think we should do to prevent induced abortion among teenage female students? (Government, health sector, health care providers, school, parents, religious leaders…)

Thank you.

In-depth Interview Guide for school directors, religious leaders (Christian orthodox and Muslim) and students.

Now we will talk about issues related with induced abortion and its associated factors among teenage girls. The discussion will be tape recorded and hand written starting from now.

1. Why do you think teenage girls do not use modern contraceptive methods?
2. Why do you think teenage girls do induced abortion?
3. What do you think teenage students choose unsafe way of induced abortion?
4. What is the purpose of revising the abortion law in Ethiopia?
5. What do you think we should do to prevent induced abortion among teenage female students? (Government, health sector, health care providers, school, parents, religious leaders…)

You can add any issue related with it that I didn't touch it.

Thank you.

11.8 Information sheet Amaharic version

ስለጥናቱ ማስታወቂያ ቅጽ

ጤና ይስጥልኝ ! ስሜ ----------እባላለሁ፡፡ የመጣሁት ከአ.አ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ የማህበረሰብ ጤና ት/ት ክፍል ሲሆን በታድላ ዋሴ ለሚሰራ የማስተርስ የመመረቂያ ጥናት መረጃ ለማሰባሰብ ነው፡፡ ጥናቱም በአዲስ አበባ ከተማ አስተዳደር ጤና ቢሮ ፈቃድ አግኝቷል፡፡ የጥናቱም ዋና አላማ እድሜያቸዉ ከ15 እስከ 19 አመት የሆኑ ወጣት ሴት ተማሪዎች ላይ ያለዉን የጽንስ ማቋረጥ መጠን እና ለጽንስ ማቋረጥ ምክንያት የሆኑ ነገሮችን ለመለየት ነዉ፡፡ በተጭማሪም ጥናቱ በወጣት ሴት ተማሪዎች ላይ የሚደረሰዉን ያልተፈለገ እርግዝናን እና ዉርጃን ለመቀነስ የሚጠቀም እቅድ ለማቀድና ለመተግበር ይጠቅማል፡፡ እናንተ በዚህ ጥናት እንድትሳተፉ የተመረጣችሁት በአጋጣሚ ሲሆን የምትሰጡት መረጃም ሙሉ በሙሉ ሚስጥራዊነቱ የተጠበቀ እና መረጃዉን ማየት የሚችለዉ የጥናቱ ባለቤት ብቻ ነዉ፡፡ በተጨማሪም በመጠይቁም ይሁን በሪፖረቱ ላይ ስም አይገለጸም ፡፡ ከጥናቱ ራሳችሁን ማግለልም ሆነ በጥናቱ ወቅት መመለስ የማትፈልጉዋቸዉ ጥያቄዎች ካሉ ያለመመለስ ብሎም አቋርጦ እስከ መዜድ መብት አላችሁ፡፡ይሁን እንጂ በዚህ ጥናት መሳተፈዎ ለሁለተኛ ደረጃ እና ለመስናዶ ሴት ተማሪዎች የስነ ተዋልዶ ጤና ፍላጎታቸዉን ለመረዳት እና ያለባቸዉን ችግሮች ለመፍታት ይጠቅማል፡፡

ጥያቄ ካለዎት ማንኛዉንም ጥያቄ መጠየቅ ይቻላል፡፡ በተጨማሪም ጥናቱን በ ተመለከተ የጥናቱን ባለቤት መጠየቅ ከፈለጉ በዚህ አድራሻ ማግኘት ይችላሉ፡፡

ስም፡- ታድላ ዋሴ

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11.9 Concent form Amaharic version

ከመጠይቁ በፊት የተጠያቂው ስምምነት ማረጋገጫ ቅጽ

ስለጥናቱ አላማ በማዉቀዉ እና ልረዳዉ በምችለዉ ቋንቋ ተገልጾልኛል፡፡ ያልገቡኝንም ነገሮች በመጠየቅ ተረድቻለሁ፡፡ በተጨማሪም በጥናቱ ላይ መመለስ የማልፈልጋቸዉ ጥያቄዎች ካሉ አለመመለስ እንደምችል እና ከዚህም አልፎ በጥናቱ ላይ እስከ አለመሳተፍ መብት እንዳለኝ ተገልጾልኛል፡፡ ስለጥናቱ የጥናቱን ባለቤት ማግኘት እና መጠየቅ እንደምችል ተነግሮኝ አድራሻም ተሰቶኛል፡፡

የጥናቱ ተሳታፊ ለመሆን ፈቃደኛ ነኝ ፊርማ----------ቀን---------

በጥናቱ ለመሳተፍ ፈቃደኛ አይደለሁም ፊርማ----------ቀን--------

11.10 Information sheet for Assent form Amaharic version

ስለጥናቱ ማስታወቂያ ቅጽ (እድሚያቸዉ ከ 18 አመት በታች ለሆኑ ተማሪዎች)

ጤና ይስጥልኝ ! ስሜ ----------እባላለሁ፡፡ የመጣሁት ከአ.አ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ የማህበረሰብ ጤና ት/ት ክፍል ሲሆን በታድላ ዋሴ ለሚሰራ የማስተርስ የመመረቂያ ጥናት መረጃ ለማሰባሰብ ነው፡፡ ጥናቱም በአዲስ አበባ ከተማ አስተዳደር ጤና ቢሮ ፈቃድ አግኝቷል፡፡ የጥናቱም

ዋና አላማ እድሜያቸዉ 15 እስከ 19 አመት የሆኑ ወጣት ሴት ተማሪዎች ላይ ያለዉን የጽንስ ማቋረጥ መጠን እና ለጽንስ ማቋረጥ ምክንያትየሆኑ ነገሮችን ለመለየት ነዉ። በተጭማሪም ጥናቱ በወጣት ሴት ተማሪዎች ላይ የሚደረሰዉን ያልተፈለገ እርግዝናን እና ዉርጃን ለመቀነስ የሚጠቀም እቅድ ለማቀድና ለመተግበር ይጠቅማል። እናንተ በዚህ ጥናት እንድትሳተፉ የተመረጣችሁት በአጋጣሚ ሲሆን የመትሰጡት መረጃም ሙሉ በሙሉ ሚስጥራዊነቱ የተጠበቀ እና መረጃዉን ማየት የሚችለዉ የጥናቱ ባለቤት ብቻ ነዉ። ከጥቱ ራሳችሁን ማግለልም ሆነ በጥናቱ ወቅት መመለስ የማትፈልጉዋቸዉ ጥያቄዎች ካሉ ያለመመለስ ብሎም አቋርጦ አስከመተዉ መብት አላችሁ።በተጨማሪም በጥናቱ በመሳተፋችሁ የሚያመልጣችሁ ትምርትም አይኖርም። የጥናቱ አካል በሆናችሁ ምንም አይነት ቀጥተኛ የሆነ ጥቅማ ጥቅም እንደማታገኙ እና በጥናቱ መሳተፋችሁ ምንም አይነት ጉዳት አያስከትልም። በዚህ ጥናት በመሳተፋችሁ ዉጤታችሁን ወይም ከ መምህራናችሁ እና ጓደኞቻችሁ ጋር ያለዉን ግንኙነት አይጎዳም ። ስለዚህ በመሃል ጥያቄዉን መመለስ ቢያቆሙ ለጥናቱ አባል በመንገር ሌሎች ሰርተዉ እስኪጨርሱ በወንበርዎት ላይ በጽሞና ይጠብቃሉ። በማቋረጥዎት ማንም አይበሳጭብዎትም።

ጥያቄ ካለዎት ማንኛዉንም ጥያቄ መጠየቅ ይቻላል። በተጨማሪምጥናቱን በ ተመለከተ የጥናቱን ባለቤት መጠየቅ ከፈለጉ በዚህ አድራሻ ማግኘት ይችላሉ።

ስም፡- ታድላ ዋሴ

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11.11 Assent form Amaharic version

ከመጠይቁ በፊት የተጠያቂው ስምምነት ማረጋገጫ ቅጽ (እድሜያቸዉ ከ18 አመት በታች ለሆኑ ተሳታፊዎች)

ስለጥናቱ አላማ በማዉቀዉ እና ልረዳዉ በምችለዉ ቋንቋ ተገልጾልኛል። ያልገቡኝንም ነገሮች በመጠየቅ ተረድቻለሁ በተጨማሪም በጥናቱ ላይ መመለስ የማልፈልጋቸዉ ጥያቄዎች ካሉ አለመመለ ስእንደምችል እና ከዚህም አልፎ በጥናቱ ላይ እስከ አለመሳተፍ መብት እንዳለኝ

ተገልጾልኛል፡፡ በጥናቱ መሳተፌን ማንም እንደማያውቅ እና ምንም አይነት የትምርት ጊዜ እንደማይባክን ተገልጾልኛል፡፡ በተጨማሪም በጥናቱ በመሳተፌ በዉጤቱ እና ከመምህራኖቼ እንዲሁም ከ ክላስ ጓደኞቼ ጋር ባለኝ ግንኙነት ላይ ችግር እንደማይፈጥር ተገልጾልኛል፡፡ ስለጥናቱ የጥናቱን ባለቤት ማግኘት እና መጠየቅ እንደምችል ተነግሮኝ አድራሻም ተሰቶኛል፡፡

የጥናቱ ተሳታፊ ለመሆን ፈቃደኛ ነኝፊርማ----------ቀን----------

በጥናቱ ለመሳተፍ ፈቃደኛ አይደለሁምፊርማ----------ቀን----------

11.12 Amaharic Questinnaiers for quantitative part of study

መጠይቆች

በአዲስ አበባ ዩኒቨርሲቲ የማኅብረተሰብ ጤና ትምህርት

እድሜያቸዉ 15 እስከ 19 አመት የሆኑ ወጣት ሴት ተማሪዎች ላይ ያለዉን የጽንስ ማቋረጥ መጠን እና ለጽንስ ማቋረጥ ምክንያት የሆኑ ነገሮችን ለመለየት የተዘጋጀ መጠይቅ፡፡

የመጠየቂያ መለያ ቁጥር---------

አጠቃላይ መመሪያ፡- መጠይቁ በ ሰባት ክፍሎች ተከፍሏል፡፡ እነዚህም ማህበራዊ ሁኔታዎችን፣ ከስነ-ተዋልዶ ጤና ጋር ተያዥነት ያላቸው ግላዊ ሁኔታዎችን፣ ወሲባዊ ይዘት ስላላቸው የመዝናኛ መንገዶች በተመለከተ፣ አደንዛዥ እጽ መጠቀምን በተመለከተ፣ የእርግዝና መከላከያ ያጠቃቀም እውቀትና ትግበራ በተመለከተ፣ እርግዝናን በተመለከተ እና ጽንስ ማቋረጥን የተመለከቱ ጥያቄዎች ይገኙበታል፡፡ እባክዎን እያንዳንዱን መመሪያ እና ጥያቄ በሚገባ አንብበው መልስዎን እንዲያስቀምጡ በአክብሮት እንጠይቃለን፡፡

ክፍል1.መሰረታዊ መረጃዎች

አሁን ግላዊ ስለሆኑ መሰረታዊ ነገሮችን ለማወቅ አንዳድ ጥያቄዎችን እናቀርባለን፡፡የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች መለያ አሰጣጥ	እለፍ
101	ዕድሜሽ በሙሉ ዓመት ስንት ነዉ?	…… ዓመት	
102	የተወለድሽበት ቦታ የት ነዉ?	ገጠር……1 ከተማ……..2	
103	ብሄርሽ ምንድን ነዉ?	ሲዳማ……..1 ወላይታ……..2 ኦሮሞ……..3 አማራ……..4 ጉራጌ……5 ትግራይ……..6 ሌላ ካለ (ይጠቀስ)……..7	
104	የምን ሀይማኖት ተከታይ ነሽ?	ኦርቶዶክስ ክርስቲያን ……..1 ሙስሊም ……..2 ፕሮቴስታንት……..3 ካቶሊክ……..4 ሌላ ካለ (ይጠቀስ)……..5	

105	ቤተ ክርስቲያን ወይም መስጅድ ትሄጃለሽ ወይም ትከታተያለሽ?	አዎ.....1 የለም.....2	→ 107
106	ለጥያቄ ቁ 105 መልስሽ አዎ ከሆነ ምን ያህል ጊዜ ትሄጃለሽ/ትከታተያለሽ?	በየቀኑ .....1 በሳምንት ከ 2 ጊዜ በለይ.....2 በሳምንት አንድ ጊዜ.....3 በ2 ሣምንት አንድ ጊዜ.....4 በወር አንድ ጊዜ.....5 በ6 ወር አንድ ጊዜ.....6	
107	አሁን የምትኖሪዉ ከማን ጋር ነው?	ከሁለቱም ወላጅ ቤተሰቦች ጋር.....1 ከእናቴ ጋር ብቻ.....2 ከአባቴ ጋር ብቻ.....3 ከዘመድ ጋር.....4 ከባለቤቴ ጋር.....5 የወንድ ጓደኛዬ ጋር.....6 የሴት ጓደኛዬ ጋር.....7 ብቻዬን.....8 ሌላ ካለ (ይጠቀስ).....99	
108	የስንተኛ ክፍል ተማሪ ነሽ?	ዘጠንኛ (9) ክፍል.....1 አስረኛ(10) ክፍል.....2 አስራደኛ (11) ክፍል .....3 አስራሁለተኛ (12) ክፍል.....4	
109	በአሁኑ ሰዓት ለመተዳደሪያ የሚሆን ገንዘብ የሚያስገኝ ስራ ትሰሪያለሽ?	አዎ.....1 አልሰራም.....2	→ 111
110	መተዳደሪያ ስራሽ ምንድን ነው?	ግብርና .....1 የግል መስሪያ ቤት ተቀጣሪ.....2 የመንግስት ስራ..... .....3 ነጋዴ.....4 የቤት ሰራተኛነት/ጥበቃ.....5	

		የቀን ስራ……6 ሌላ ከሆነ (ይጠቀስ)…… …7	
111	አባትሽ በሕይወት አሉ?	አዎ ……1 የለም ……2	→ 114
112	የአባትሽ የትምህርት ደረጃ ምን ያህል ነው?	ማንበብ እና መጻፍ የማይችሉ……1 መደበኛ ያልሆነ ትምህርት (ቁራን ወይም የቂስ ት/ቤት የተማሩ……2 ማንበብና መፃፍ በራሳቸው የተማሩ……3 የመጀመሪያ ደረጃ ያጠናቀቀ……4 ሁለተኛ ደረጃ ያጠናቀቀ……5 ሙያና ቴክኒክ ያጠናቀቀ……6 ከፍተኛ(ዲፕሎማ እና ከዚያ በላይ)……7	
113	የአባትሽ መተዳደሪያ/ስራ ምንድን ነዉ?	ስራ የለዉም……1 የመንግስት ሰራተኛ……2 የግል መስሪያ ቤት ተቀጣሪ……3 ነጋዴ……4 የቀን ሰራተኛ……5 አርሶ አደር/ግብርና……6 ሌላ ካለ (ይጠቀስ)……7	
114	እናትሽ በህይዎት አሉ?	አዎ……1 የለችም……2	→ 117
115	የእናትሽ የትምህረት ደረጃ ምን ያህል ነው?	ማንበብ እና መጻፍ የማይችሉ……1 መደበኛ ያልሆነ ትምህርት (ቁራን ወይም የቂስ ት/ቤት የተማሩ……2 ማንበብና መፃፍ በራሳቸው የተማ……3 የመጀመሪያ ደረጃ ያጠናቀቀ……4	

		ሁለተኛ ደረጃ ያጠናቀቀ……..…..5 ሙያና ቴክኒክ ያጠናቀቀ……6 ከፍተኛ(ዲፕሎማ እና ከዚያ በላይ)…….7	
116	የእናትሽ መተዳደሪያ/ስራ ምንድን ነዉ?	ስራ የላትም……..……..…1 የቤት እመቤት……....2 የመንግስት ሰራተኛ……....3 የግል መስሪያ ቤት ተቀጣሪ…….....4 ነጋዴ……..……5 የቀን ሰራተኛ……....6 አርሶ አደር/ግብርና……..…….....7 ሌላ ካለ (ይጠቀስ)……...8	
117	በወር ዉስጥ በአማካይ ከቤተሰብሽ /ከዘመድ ምን ያህል ብር ታገኛለሽ?	……ብር	
ክፍል 2. የስነ- ተዋልዶ ባህሪያትን በተመለከተ			
አሁን ግላዊ ስለሆኑ የስነ-ተዋልዶ ባህሪያት ለማወቅ አንዳድ ጥያቄዎችን እናቀርባለን፡፡የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
201	የመጀመሪያ የወር አበባ ያየሽዉ በስንት ዓመትሽ ነበር?	……ዓመት	
202	የወንድ ጓደኛ አለሽ?	አዎ……....1 የለኝም……2	
203	የግብረ ስጋ ግንኙነት አድርገሽ ታዉቂያለሽ?	አዎ……1 አላደረኩም……..…..2 → 205	
204	መጀመሪያ የግብረ ስጋ ግንኙት የፈጸምሽዉ በስንት ዓመትሽ ነው?	……..ዓመት	
205	የጋብቻ ሁኔታሽ ምንድን ነው?	ያገባ……..……1 ያላገባ……2	

		የፈታች.....3 ባል የሞተባት.....4 ሌላ ካለ (ይጠቀስ).....5	
206	ለመጀመሪ ጊዜ ስታገቢ ስንት ዓመትሽ ነበር?	....ዓመት	
207	እስከ አሁን ስንት የፍቅር ጓደኞች ኖርወሽ ያዉቃል?	.....የፍቅር ጓደኛ ብዛት	
208	በአሁኑ ስዓት ስንት የፍቅር ጓደኞች አሉሽ?	.....የፍቅር ጓደኛ(ዎች) ብዛት	
ክፍል 3. ወሲባዊ ይዘት ስላላቸው የመዝናኛ መንገዶች በተመለከተ			
አሁን ግላዊ የሆኑ የመዝናኛ መንገዶችሽን ለማወቅ አንዳድ ጥያቄዎችን እናቀርባለን፡፡የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
301	ወሲብ ቀስቃሽ የሆኑ መዝናኛዎችን አይተሽ ታዉቂያለሽ ?	አዎ.....1 አይቼአላውቅም.....2 → 401	
302	ምን ያህል ጊዜ ታያለሽ?	በየቀኑ.....1 ብዙጊዜ (በሳምንት ከ 3-4 ጊዜ).....2 አልፎ አልፎ (በወር 1-4 ጊዜ).....3 ብዙም አላይም (በወር አንድ ጊዜ).....4	
303	እነዚህን ወሲብ ቀስቃሽ መዝናኛዎች ማየት ስትጀምሪ እድሜሽ ስንት ነበር?	.....ዓመት	
304	የትኞቹ አይነት የወሲብ ቀስቃሽ የመዝናኛ መንገዶች አይተሽ ታዉቂያለሽ?(ከአንድ በላይ መልስ ይቻላል)	ፊልሞችና ቪዲዮዎች.....1 ጋዜጦች እና መፅሄቶች.....2 ፎቶግራፎች/ ስዕሎች.....3 የተለያዩ ምስሎችን .....4 ሌላ ካለ (ይጠቀስ).....5	

305	እነዚህን ወሲባዊ ይዘት ያላቸውን የመዝናኛ መንገዶች ከተመለከትሽ በኋላ በተግባር ፈፅመሽዉ ታዉቂያለሽ?	አዎ……..1 አልፈፀምኩም……..2	
ክፍል4. አደንዛዥ እጽ(ሄሮይን/ኮኬን፤ሲጋራ ፤ጫት፤ሽሻ/ማሪዋና እና አልኮል) መጠቀምን በተመለከተ			
አሁን ደግሞ የአንችን የእጽ እና የአልኮሆል አጠቃቀም ባሃሪያቶችሽን ለማዎቅ አንዳድ ጥያቄዎችን እናቀርባለን፡፡ ይህ ጥያቄ ለአንዳነድ ሰዎች ለመመለስ ይከብዳቸዋል፡፡ ነገር ግን የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
401	ሱስ የሚያስይዙ መድኃኒቶችን ወይም ዕጾችን ተጠቅመሽ ታዉቂያለሽ?	አዎ……..1 ተጠቅሜ አላውቅም…….2 → 404	
402	የትኛውን መድኃኒት ነበር የተጠቀምሽዉ?(ከአንድ በላይ መልስ ይቻላል)	ጫት…….ሀ ሽሻ…….ለ ማሪዋና…….ሐ ሄሮይን…….መ ሲጋራ…….ሠ ሌላ ካለ (ይጠቀስ)……..ረ	
403	ይህን ዕጽ/መድሃኒት ከተጠቀምሽ በኋላ በወቅቱ የግብረ ስጋ ግንኙነት አድርገሽ ታወቂያለሽ?	አዎ……..1 የለም……..2	
404	የአልኮል አይነቶችን እንደ (ጠጅ፣ቢራ/ድራፍት፣ጠላ እና አረቂ) የመሳሰሉትን በህይወት ዘመንሽ ተጠቅመሽ ታወቂያለሽ?	አዎ……..1 የለም……..2	
405	መልስሽ አዎ ከሆነ በአማካኝ በምን ያህል ጊዜ አልኮል ትጠጫለሽ?	በየቀኑ(ሁል……..1 ብዙ ጊዜ (በሳምንት ከ3-4 ጊዜ)……..2 አልፎ አልፎ (በወር 1-3 ጊዜ)……..3 በበአላት ቀን ብቻ ……..4	
ክፍል 5. የእርግዝና መከላከያ ያጠቃቀም እውቀትና ትግበራ			

አሁን ግላዊ ስለሆኑ የቤተሰብ እቅድ አጠቃቀም መንገዶችሽን ለማወቅ አንዳድ ጥያቄዎችን እናቀርባለን፡፡ ይህም ጥንዶች እርግዝናን ለመከላከል ወይም ለማዘግየት የሚጠቀሙበት ዘዴ ነው፡፡ አንቺ የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡

501	ስለቤተሰብ ዕቅድ ዘዴ ሰምተሽ ታዉቂያለሽ?	አዎ.....1 አልሰማሁ.....2 →	508
502	የትኛውን የቤተሰብ ዕቅድ ዘዴ ታዉቂያለሽ? (ከአንድ በላይ መልስ ይቻላል)	ፒልስ (እንክብል) .....ሀ የሴትኮንዶም.....ለ የወንድ ኮንዶም.....ሐ በመርፌ የሚሰጥ.....መ አይዩሲዲ(ማህፀን ውስጥ የ ሚቀመጥ መከላከያ.....ሠ ኢምፕላንት (በክንድ ውስጥ የሚቀመጥ).....ረ የቀን መቁጠሪያ (ካላንደር ዘዴ)በመጠቀም.....ሰ ጡት በማጥባት የመከላከል ዘዴ.....ሸ የማህጸን ማስቋጠር.....በ በግብረ ስጋ ግንኙነት ወቅት የወንድ የዘር ፈሳሽን ዉጭ ማፈሰስ .....ቀ ድንገተኛ የእርግዝና መከላከያ.....ተ የወንድ የዘር መተላለፊያን ቱቦ የማስቋጠር.....ቸ የሴት የማህፀን ቱቦ የማስቋጠር.....አ	
503	በህይዎት ዘመንሽ የእርግዝና መከላከያ ዘዴ ተጠቅመሽ ታዉቂያለሽ?	አዎ.....1 ተጠቅሜ አላውቅም.....2 →	505
504	ከነዚህ የመከላከያ ዘዴዎች ውስጥ የትኞቹን ተጠቅመሽ ታዉቂያለሽ? (ከአንድ በላይ መልስ ይቻላል)	ፒልስ (እንክብል) .....ሀ የሴትኮንዶ.....ለ የወንድ ኮንዶም.....ሐ በመርፌ የሚሰጥ.....መ አይዩሲዲ (ማህፀን ውስጥ የ ሚቀመጥ	

		መከላከያ)……..ሠ ኢምፕላንት (በክንድ ውስጥ የሚቀመጥ)……ረ የቀን መቁጠሪያ (ካላንደር ዘዴ)በመጠቀም……..ሰ ጡት በማጥባት የመከላከል ዘዴ……...ሸ የማህጸንማስቋጠር…….....በ በግብረ ስጋ ግንኙነት ወቅት የወንድ የዘር ፈሳሽን ……..ቀ ድንገተኛ የእርግዝና መከላከያ .....ተ ሌላ ካለ (ይጠቀስ)……..ቸ	
505	የእርግዝና መከላከያ የማትጠቀሚበት ምክንያት ምንድን ነው?((ከአንድ በላይ መልስ ይቻላል)	የእርዝና መከላከያ ዘዴዎች እውቀት ማነስ…...ሀ የባህል ተጽኖ ስላለ……..…ለ የእርግዝና መከላከያ ዘዴዎች በቀለላሉ ስለመይገኙ…..ሐ የሚያስከትላቸውን አሉታዊ ተጽኖ በመፍራት…….....መ ሀይማኖቴ ስለማይፈቅድ……ሠ ቤተሰብ በመፍራ……...ረ የባል ወይም የጓደኛተጽኖ.....ሰ ሌላ ካለ (ይጠቀስ)…….....ሸ	
506	የቤተሰብ ዕቅድ መረጃዎችን ከየት ታገኚያለሽ?(ከአንድ በላይ መልስ ይቻላል)	ከቤተሰብ……ሀ ከጓደኛ……ለ ከትምህርት ቤት……..ሐ ቤተክርስቲያን/መስጅድ…..መ ሬዲዮ/ጋዜጣ / ቴሌቭዥን / ፖስተር ……..ሠ ከጤና ተቋም……ረ ሌላ ካለ (ይጠቀስ)……..ሰ	
507	የቤተሰብ እቅድ አገልግሎት የሚሰጥበት ከቤትሽ በግምት ምን ያህል ይርቃል/ይወስዳል?	……በኪሎ ሜትር/በደቂቃ	
508	ስለድንገተኛ የእርግዝና መከላከያ ዘዴዎች ሰምተሽ ታውቂያለሽ?	አዎ…….....1 አልሰማሁም……..……..2 → 511	

509	ምን አይነት ድንገተኛ የእርግዝና መከላከያ ዘዴዎችን ታውቂያለሽ? (ከአንድ በላይ መልስ ይቻላል)	አዩሲዲ (ማህፀን ውስጥ የሚቀበር)……1 ፒልስ/የሚዋጥ እንክብል……..2 ሌላ ካለ (ይጠቀስ)…….……....3	
510	ከዚህ በፊት ድንገተኛ የእርግዝና መከላከያ ተጠቅመሽ ታውቂያለሽ?	አዎ……...1 ተጠቅሜ አላውቅም……..……....2	
511	ጥንቃቄ ያልተሞላበት የግብረስጋ ግንኙነት ከፈፀሙ በኋላ እርግዛናን በብቃት ለመከላከል መከላኪያውን እንዴት መጠቀም እንዳለብሽ ታውቂያለሽ?	ወዲያው ከግብረስጋ ግንኙነት በኋ……..1 ከግብረስጋ ግንኙነት በኋላ በ24 ሰዓት ጊዜ ውስጥ……..2 ከግብረስጋ ግንኙነትኋላ በ72 ሰዓት ጊዜ ውስጥ……....3 ከግብረስጋ ግነኙነት በኋላ ከአራት እስከ ስድስት ቀን ጊዜ ውስጥ……..4 የወር አበባ ከቀረበት ጊዜ ጀምሮ በማንኛውም ስዓት ……..……5 ሌላ ካለ (ይጠቀስ)…….……6	
ክፍል 6. እርግዝናን የተመለከቱ ጥያቄዎች			
አሁን ደግሞ ስለእርግዝና ሁኔታ አንዳድ ጥያቄዎችን እናቀርብልሻለን፡፡ ይህ ጥያቄ ለአንዳነድ ሰዎች ለመመለስ ይከብዳቸዋል፡፡ ነገር ግን የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ አይቻልም፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
601	ከዚህ በፊት አርግዘሽ ታውቂያለሽ?	አዎ……..……1 አላውቅም……..……2	
602	ለጥያቄ ቁጥር 601 መልስሽ አላውቅም ከሆነ በአሁኑ ስዓት እርግዝና ቢፈጠር ምን ታደረጊያለሽ?	ጽንሱን አቋርጠዋለሁ (አስወርደዋለሁ)……..1 እርግዝነዉን እቀበለዋለሁ (እወልደዋለሁ)……..2 ምን እንደማረግ አላውቅም…..……3	
603	ለጥያቄ ቁጥር 601 መልስሽ አዎ ከሆነ ስንት ጊዜ አርግዘሽ ታውቂያለሽ?	……የእርግዝና ብዛት	

604	በመጀመሪያ እርግዝናሽ ወቅት እድሜሽ ስንት ነብር?	……..ዓመት	
605	እርግዝናዉ በዚያ ጊዜ ተፈልጎ ነበር?	አዎ (በወቅቱ) ……..1 አዎ ከተወሰነ ጊዜ በኋላ……..2 አይደለም (አልተፈለገም)…….3	
606	ለጥያቄ ቁጥር 605 መልስሽ አይደለም ከሆነ እርግዝናው በወቅቱ ለምን አልተፈለገም? ((ከአንድ በላይ መልስ ይቻላል)	እድሜዬ ትንሽ ስለነበር……ሀ ተማሪ ስለሆንኩ……ለ የሚወለደውንሕፃን ለማሳደግ በቂ ገንዘብ ስለሌለ……ሐ እርግዝናው ከአስገድዶ በመደፈር የመጣ በመሆኑ……መ አራርቂ መውለድ ስለፈለኩ……ሠ ከባለቤቴ ጋር የተፈታን በመሆኑ……ረ በሌላ የማህበረሰብ ክፍል ላለመገለል……ሰ ቤተሰቤን በመፍራት……ሸ ሌላ ካለ (ይጠቀስ)……ቀ	
ክፍል 7.ጽንስ ማቋረጥን የተመለከቱ ጥያቄዎች			
አሁን ደግሞ ጽንስ ማቋረጥን በተመለከ ዉስን የሆኑ ግላዊ ጥያቄዎችን እንጠይቅሻለን፡፡በድጋሜ የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ እንደማይቻል ልንነግርሽ እንወዳለን፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
701	ከዚህ በፊት ፅንስን አስወርደሽ /አቋርጠሽ ታዉቂያለሽ?	አዎ……..1 አቋርጬ አላዉቅም……..2	
702	ለጥያቄ ቁጥር 701 መልስሽ አዎ ከሆነ ስንት ጊዜ ጽንስ አቋርሽ/አስወረድሽ?	……የተቋረጠ ጽንስ/ዉርጃ ብዛት	
703	ከተቋረጡት ጽንሶች ውስጥ ስንቱ በዉርጃ የተከሰተ ነው?	……በዉርጃ የተከሰተ ጽንስ ብዛት	
704	ባለፉት 12 ወራት ዉስጥ በራሱ ጊዜ የተከሰተ የጽንስ መቋረጥ	አዎ……..1 አላጋጠመኝም……2	

	አጋጥሞሽ ነበር?		
705	ባለፉት 12 ወራት ዉስጥ ስንት በራሱ ጊዜ የተከሰተ የጽንስ መቋረጥ አጋጥሞሽ ነበር?	…… ……ጊዜ	
አሁን ደግሞ ሆን ተብሎ የተደረገ የጽንስ ማቋረጥን በተመለከ ዉስን የሆኑ ግላዊ ጥያቄዎችን እንጠይቅሻለን፡፡አንዳንድ ሰዎች ይህን ጥያቄ መመለስ ይከብዳቸዋለ ነገርግን በድጋሜ የምትሰጭዉ መረጃ በመጠይቁ ላይ ስምሽን ስላልጻፍሽ ከማን እንደተገኘ ማወቅ እንደማይቻል ልንነግርሽ እንወዳለን፡፡መረጃዉም በሚስጥር የሚያዝ እና የሚተነተን በመሆኑ የመልስ ሰጭ ስም አይገለጽም፡፡ስለዚህ የተማሪዎች የስነ- ተዋልዶ ጤና ለማሻሻል የሚጠቅም መረጃ ትሰጭን ዘንድ በትህትና እንጠይቃለን፡፡			
706	ባለፉት 12 ወራት ዉስጥ ሆን ተብሎ የተደረገ የጽንስ መቋረጥ ነበርሽ?	አዎ……..1 አልነበረም……..…2	
707	ባለፉት 12 ወራት ዉስጥ ስንት ሆን ተብሎ የተቋረጠ ጽንስ ነበርሽ?	……..…ሆን ተብሎ የተቋረጠ ጽንስ	
708	ጽንሱን ለማቋረጥ የወሰንሽበት ምክንያት ምን ነበር? (ከአንድ በላይ መልስ ይቻላል)	እድሜዬ ትንሽ ስለነበር……ሀ ያላገባሁ በመሆኑ ……..…ለ ተማሪ በመሆኔ……..ሐ ሥራ ፈላጊ በመሆኔ……..…….መ አራርቁ መውለድ ስለፈለኩ……..ሠ ሕፃናትን ለማሳደግ ከፍተኛ ወጪ የሚጠይቅ በመሆኑ……..……ረ ቤተሰቤን በመፍራት……..ሰ በሌላ የማህበረሰብ ክፍል ላለመገለል……..ሸ ሌላ ካለ (ይጠቀስ)……..ቀ	
709	በቅርቡ ሆን ተብሎ የተቋረጠውን ፅንስ የሠራልሽ ማን ነው?	በባህልላዊ መንገድ ጽንስ የሚያሰወርዱ ……..…1 የጤና ኤክስቴንሽን ሰራተኛ……..…2 በጤና ባለሙያ……..3 እኔ/ራሴ……..…4 ሌላ ካለ (ይጠቀስ)……..……5	
710	ጽንሱን ለማቋረጥ የተጠቀምሽበት ዘዴ የትኛው	የማህፀን መጥረጊያ መሳሪያ……..1 ለዉርጃየሚጠቅምየሚዋጥመድሀኒት(እንክብል)..2	

	ነበር?	ባህላዊ መደሀኒት……..3 የፕላስቲክ የሽንት ቱቦ በመጠቀ……..…..4 አላውቅም……...5 ሌላ ካለ (ይጠቀስ)……..…..6	
711	አገልግሎቱን ያገኘሽዉ የት ነው?	የግል ቤት……..…..1 የጽንስ ማቋረጡን የሰራልኝ ሰው ቤት……2 የግል ክሊኒክ…….……..3 ጤና ኬላ……..……..4 ጤና ጣቢያ……..…..5 የመንግስት ሆስፒታል…….……..6 የግል ሆስፒታል……...7 ሌላ (ይጠቀስ)……8	
712	ጽንሱን ለማቋረጥድጋፍ ያደረገልሽ ማን ነዉ? (ከአንድ በላይ መልስ ይቻላል)	እናት……...ሀ አባት……..……..ለ አክስት/አጎት……..……ሐ እህት/ወንድም……..……መ ጓደኛ……ሠ ባለቤቱ……..ረ የወንድ ፍቅረኛዬ……..ሰ ማንም ድጋፍ አላደረገልኝም…..……ሸ ሌላ ካለ (ይጠቀስ)……..…..ቀ	
713	ፅንስ ለማቋረጥ በአሁኑ ጊዜ ምን ያህል ወጪ ያስወጣል?	……ብር	
714	ንጽህናዉን የጠበቀ የጽንስ መቋረጥ አገልግሎት ማግኘት ቀላል ነዉ ብለሽ ታስቢለሽ?	አዎ……1 አይደለ……2	
715	ንጽህናዉን የጠበቀ የጽንስ መቋረጥ አገልግሎት የት እንደሚገኝታዉቂያለሽ?	አዎ……1 አላውቅ……2	
716	ለጥያቄ ቁጥር 714 መልስሽ አዎ ከሆነ መረጃዉን ማን ሰጠሽ/ የት	ቤተሰብ……..……..ሀ የቅርብ ጓደኛ……..ለ	

	አገኘሽ? (ከአንድ በላይ መልስ ይቻላል)	ትምህርትቤት……ሐ ራዲዎ/ቴሌቪዥን/ጋዜጣ/ፖስተ……መ ጤና ተቋም……ሠ ሌላ ካለ (ይጠቀስ)……ሰ	
717	ንጽህናዉን የጠበቀ የጽንስ ማቋረጥ አገልግሎት መኖሩ ጠቃሚ ነዉ ብለሽ ታስቢያለሽ?	አዎ……..……..…...1 አላስብም……2	
718	ስለ ተሻሻለው የኢትዮጵያ የጽንስ ማቋረጥ ህግ ሰምተሽ ታዉቂያለሽ?	አዎ……..……1 አላውቅም……..……2	
719	በኢትዬጵያ የጽንስ ማቋረጥ ህግ መሰረት ጽንስ ማቋረጥ የሚፈቀደዉ መቼ ነዉ? (ከአንድ በላይ መልስ ይቻላል)	እርግዝናዉ ከአስገድዶ መደፈር ወይም ከዘመድ ከሆነ……ሀ እርግዝና ለእናትየዋ አስጊ ከሆነ……ለ ጽንሱ ሊድን የማይችል ከባድ የአካል ጉዳት (ዲፎርምድ) ሲሆን……ሐ እናትየዋ የአካል ወይም የአዕምሮ ችግር ካለባት እና የማሳደግ የህሊና ሆነ የአካል ዝግጅት የሌላት ሲሆን ……...መ ሌላ ካለ (ይጠቀስ)……..…ሠ	
720	ስንት አይነት የጽንስ ማቋረጥ የጎንዮሽ ጉዳቶችን ታዉቂያለሽ? (ከአንድ በላይ መልስ ይቻላል)	ማመርቀዝ……..……...ሀ መሃንነት……..ለ ፊስቱላ ……..…..ሐ ከፍተኛ የሆነ የደም መፍሰስ……..……...መ የማህጸን መቀደድ ……..…….ሠ ሞት……..…….ረ ሌላ ካለ (ይጠቀስ)……ሰ	

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11.13 Amaharic quesionnaries for qualitative study

መጠይቆች

በጥናቱ ለመሳተፍ ፍቃደኛ ከሆኑ መጠይቁን አሁን እንጀምራለን።ዉይይቱም ከአሁኑ ስዓት ጀምሮ በቴፕ ይቀዳል።

የጤና ባለሙያ ለሆኑ ተሳታፊዎች የቀረበ ቃለ መጠይቅ

1. ወጣት ሴት ተማሪዎች የወሊድ መቆጣጠሪያ የማይጠቀሙት ለምን ይመስለዎታል? (ከአገልግሎት አሰጣጥ ጋር በተያያዘ፡ ከባለሙያዎች ጋር በተያያዘ፡ከሀይማኖት ጋር በተያያዘ፡ ከባህል ጋር በተያያዘ....)

2. ወጣት ሴት ተማሪዎች ጽንስ የሚያቋርጡት ለምን ይመስልዎታል?

3. በአገለገሉበት አመታት ዉስጥ ምን አይነት የተወሳሰበ የጽንስ ማቋረጥ ገጥመዎት ያዉቃል?

4. ስለ ገጠምዎት እያንዳዱ የተወሳሰበ የጽንስ ማቋረጥ አይነቶች ሊነግሩኝ ይችላሉ?

5. ወጣት ሴት ተማሪዎች ንጽህናዉን ያለጠበቀ የጽንስ ማቋረጥ ዘዴን የሚመርጡት ለምን ይመስለዎታል?

6. በወጣት ሴት ተማሪዎች ላይ የሚከሰተዉን የጽንስ ማቋረጥ ለመከላከል ምን ምን መሰራት አለበት ይላሉ? (መንግስት፤ጤና ተቋማት፡ ጤና ባለሙያዎች፡ትምህረት ቤቶች፡ ወላጆች፡ የሀይማኖት መሪዎች.....)

በጉዳዩ ላይ ያልተነሱ ወይም ቀረ የሚሉት ነገር ካለ ማንሳት እና መጨመርይቻላል፡

ስለ ትብብርዎት በጣም አመሰግናለሁ::

መጠይቆች

ለመሳተፍ ፍቃደኛ ከሆኑ መጠይቁን አሁን እንጀምራለን፡፡ዉይይቱም ከአሁኑ ስዓት ጀምሮ በቴፕ ይቀዳል፡፡

ለርዕሰ መምህር ፤ ለሀይማኖት መሪዎች (ለኦርቶዶክስ ክረስቲን ሀይማኖት መሪ እና ለእስልምና ሀይማኖት መሪ) እና ተማሪዎች፡፡

1. ወጣት ሴት ተማሪዎች የወሊድ መቆጣጠሪያ የማይጠቀሙት ለምን ይመስለዎታል? (ከአገልግሎት አሰጣጥ ጋር በተያያዘ፡ ከባለሙያዎች ጋር በተያያዘ፡ከሀይማኖት ጋር በተያያዘ፡ ከባህል ጋር በተያያዘ....)
2. ወጣት ሴት ተማሪዎች ጽንስ የሚያቋርቱት ለምን ይመስልዎታል?
3. ወጣት ሴት ተማሪዎች ንጽህናዉን ያለጠበቀ የጽንስ ማቋረጥ ዘዴን የሚመርጡት ለምን ይመስለዎታል?
4. የኢትዮጵያ የጽንስ ማቋረጥ ህግ መሻሻሉ ምን ይጠቅል ብለዉ ያስባሉ?
5. በወጣት ሴት ተማሪዎች ላይ የሚከሰተዉን የጽንስ ማቋረጥ ለመከላከል ምን ምን መሰራት አለበት ይላሉ? (መንግስት፤ጤና ተቋማት፡ ጤና ባለሙያዎች፡ትምህረት ቤቶች፡ ወላጆች፡ የሀይማኖት መሪዎች.....)

በጉዳዩ ላይ ያልተነሱ ወይም ቀረ የሚሉት ነገር ካለ ማንሳት እና መጨመር ይቻላል፡፡

ስለ ትብብርዎት በጣም አመሰግናለሁ፡፡

DECLARATION

I the undersigned, declare that this thesis is my original work, has never been presented in this or any other university, and that all the resources and materials used for the thesis development, have been acknowledged as complete references.

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This thesis work has been submitted for examination with my approval as University primary advisor.

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