

**PREVALENCE OF ADOLESCENT PREGNANCY AND ASSOCIATED
FACTORS AMONG HIGH SCHOOL AND PREPARATORY STUDENTS
IN ARBAMINCH TOWN, SOUTH ETHIOPIA**



By Samuel Mathewos (BSc.)

**A RESEARCH REPORT TO BE SUBMITTED TO DEPARTMENT OF POPULATION
AND FAMILY HEALTH, IN PARTIAL FULFILMENT FOR THE REQUIREMENT
OF MASTERS DEGREE IN REPRODUCTIVE HEALTH (MPH/RH).**

June, 2014

Jimma, Ethiopia

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Abstract

Introduction: Adolescent pregnancy has long been a worldwide social, economic and educational concern for the developed, developing and underdeveloped countries. Many countries continue to experience high incidence of teenage pregnancy despite the intervention strategies that have been put in place. Pregnancy at an early age is risky for the mother and the baby. Studies on adolescent sexuality and pregnancy are very limited in our country, yet there are no studies conducted on adolescent pregnancy and its contributing factors in Arbaminch town.

Objectives: To assess the prevalence of adolescent pregnancy and associated factors among high school and preparatory students in Arbaminch town.

Methodology: Institution based cross-sectional study was conducted from March 20-30, 2014. After stratifying schools in to high school and preparatory, four out of eight schools were selected by SRS and a total of 578 students were drawn by systematic sampling technique. Data was collected by trained data collectors using a pre tested, self administered structured questionnaire and analyzed using SPSS version 16.0. Bivariate logistic regression was done to see the crude effects of each independent variable. Variables with p-value <0.25 on bivariate regression were added in to multivariate logistic regression model with 'back-ward stepwise method' to identify independently associated factors. P value < 0.05 was considered for statistical significance and AOR was used to see the risk of getting pregnant among categories.

Results: from the total 560 respondents completed the questionnaire, 124(22.1%) were sexually active and 43(7.7%) reported ever experience of pregnancy. Being 11th and 12th grade student, having peers use alcohol, Khat or cigarette, having peers ever married or pregnant were factors significantly associated with higher likelihood of adolescent pregnancy, while they know time to take emergency contraceptives, living with both biological parents and good parent-daughter communication were factors significantly associated with lower likelihood of adolescent pregnancy in this study.

Conclusion and recommendation: Significant numbers of adolescent female students were at risk of facing the challenges of teenage pregnancy in the study area. Concerned public and private bodies should increase their efforts to avert the problem.

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Acronyms and Abbreviations

- AIDS: Acquired Immune Deficiency Syndrome
- BEST: Basic Education Statistics in Tanzania
- BSc: Bachelor in science
- CDC: Center for Disease Control
- CSA: Central Statistics Authority
- DALYs: Disability Adjusted Life Years
- DFID: Department For International Development
- EDHS: Ethiopian Demographic and Health Survey
- EU: European Union
- FGD: Focus group discussion
- FMOH: Federal Ministry Of Health.
- HCG: Human chorionic gonadotropine
- HIV: Human immunodeficiency virus
- JUREAC: Jimma University Research Ethics Approval Committee
- M.D: Medical Doctor
- MDG: Millennium Development Goals
- MPH: Masters in public health
- PPD: Partners in Population and Development
- RH: Reproductive Health
- SADHS: South African Demographic and Health Survey
- SNNPR: South Nations Nationalities and Peoples Region
- SRH: Sexual and Reproductive Health
- STIs: Sexually Transmitted Infections
- TPA: Teenage Pregnancy Associates
- U.S.: United States
- U.S.A: United States of America
- UNFPA: United Nations Population Fund
- UNICEF: United Nations Children's Fund
- UNSD: United Nations Statistics Division
- WHO: World Health Organization

CHAPTER ONE

1. INTRODUCTION

1.1 Background

Adolescence is a transitional period from childhood to adulthood characterized by significant physiological, psychological and social changes. World Health Organization defined the age group of 10-19 and 15-24 years of age as adolescents and youth respectively. Those segments of population aged from 10-24 years are labelled as young people (1).

Pregnancy is a physiological process, presenting with history of missed period, fatigue, breast enlargement and tenderness, abdominal distension, nausea and vomiting together with light-headedness. Abdominal ultrasound, urinary or serum levels of HCG are confirmatory tests for pregnancy (2). When these happen at age of 19 years or below, we call it adolescent/ teenage/ pregnancy.

Adolescent girls hold the key to a world without poverty. With the right skills and opportunities, they can invest in themselves now and, later, in their families. If they are able to stay in school, postpone marriage, delay family formation, and build their capacity they will have more time to prepare for adulthood and participate in the labour force before taking on the responsibilities of motherhood (3).

In 2011, worldwide, 1.2 billion populations were in the age group 10-19 years making up 18% of world population (4); their share is 23% in least developed, 19% in developing and 12% in developed countries. More than half of the world's adolescents live in Asia (India is a home for more adolescents, about 243 million, than any other country, followed by China with around 200 million). Sub Saharan Africa is a region where adolescents make up the greatest proportion which accounts for 23% of the region's population. It is the only region of the world in which the number of adolescents continues to grow significantly (5). In Ethiopia, 25% of the total 83 million populations are in the age group 10-19 years (6).

In Ethiopia, adolescents start sexual activity and marriage early; the median age at first sexual intercourse was 16.6 years, which is very close to the median age at first marriage

of 16.5 years. Twelve percent of adolescents aged 15-19 years were already mothers or pregnant with their first child (7).

Studies have shown that Reproductive Health knowledge and services utilization amongst adolescents in Ethiopia were insufficient (67% of the adolescents had knowledge about reproductive health issues and only a fifth (21.5%) of the adolescents has ever utilized reproductive health services (8) and contraceptive prevalence rate is very low (23% among women age 12-19 years) (7).

Considering the problems that youths are facing, the government of Ethiopia developed strategies to achieve four major objectives that include increasing access to quality reproductive health services for adolescents, increase awareness and knowledge about reproductive health issues, strengthen multi-sectoral partnerships and design and implement adolescent and youth reproductive health programs (9).

1.2 Statement of the problem

Despite the fact that adolescent fertility rates are falling on a global level, from 60 per 1000 in 1990 to 48 per 1000 in 2007, the absolute number of births has declined less, owing to the increase in the adolescent population (10) and approximately 18 million girls under the age of 20 give birth each year. Two million of these pregnancies are to children under the age of 15 and nine out of ten adolescent pregnancies in the developing world are to married girls (11). The average adolescent birth rate in middle-income countries is more than twice as high as that in high-income countries, with the rate in low-income countries being five times as high (12).

In low and middle-income countries, over 30% of girls marry before they are 18 years of age; around 14% before the age of 15 (13). Some adolescents do not know how to avoid becoming pregnant, or are unable to obtain contraceptives; in Latin America, Europe and Asia only 42%-68% of adolescents who are married or in partnerships use contraceptives, in Africa the rate ranges from 3% to 49% (10). In some situations, adolescent girls may be unable to refuse sex. Sexual violence is widespread and particularly affects adolescent girls. More than one third of girls in some countries report that their first sexual encounter was coerced (14).

Pregnancy at an early age is risky for the mother and the baby. Maternal conditions in adolescents cause 13% of all deaths and 23% of all DALYs (overall burden of disease due to pregnancy and childbirth among women of all ages) (10). According to Save The Children's report 2012, adolescent pregnancy is the biggest killer of young girls worldwide; every year one million teenage girls die or suffer serious injury, infection or disease due to pregnancy or childbirth (15). Teenage girls aged 15 to 19 are twice as likely to die from complications in pregnancy as are women in their twenties. The youngest girls are particularly at risk, the mortality rate for those under 15 is four times higher than for those in their 20s (11). Babies born to adolescents also face a significantly higher risk of death compared to babies born to older women (16). For example; babies born to mothers under 18 years of age have a 60 percent greater chance of dying in the first year of life than that of a baby born to someone aged 19 or older (17).

Teen pregnancy and childbearing bring substantial economic costs through immediate and long-term impacts on teen parents and their children. In 2008, teen pregnancy and childbirth accounted for nearly \$11 billion per year in costs to U.S.(18).

Adolescent pregnancy and childbearing also have significant long term social consequences for the adolescents, their children, families and communities; it led adolescent to less educational attainment and high school dropout (19), poor health and poverty (20) where as the children of teenage mothers are more likely to have lower school achievement and drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult (21).

In Ethiopia, early marriage and childbirth considered as significant harmful traditional practice for women as it harms women's physical and psychological well-being and curtails their education and future income-earning potential (22). Not only do women married young bear more children over time, but an adolescent mother is also less prepared to care for her children and to manage a household. Many young wives are also subject to sexual violence and exposure to sexually-transmitted infections (23).

Although adolescent pregnancy occurs among all racial, cultural, and socioeconomic groups, some adolescents are more likely than others to become pregnant (24). Factors

such as economic status, education, religion, place of residence, peers and partners' behaviors, family and community attitudes, gender and age, and mass media and lack of reproductive health services and knowledge are contributing to the increase of unintended pregnancy among adolescents in Ethiopia (25).

WHO published guidelines on how to prevent early pregnancies and poor reproductive outcomes among adolescents in low and middle income countries targeting on six key objectives: reducing marriage before the age of 18, creating understanding and support to reduce pregnancy before the age of 20, increasing the use of contraception by adolescents at risk of unintended pregnancy, reducing coerced sex, unsafe abortion, increasing the use of skilled antenatal, childbirth and postnatal care among adolescents (26). In line with this, the Ethiopian government has developed a National Strategic plan in March 2006, and has been implementing to reduce adolescent pregnancy and early childbearing in an integrated and comprehensive manner addressing all reproductive and sexual health issues (9). But, despite much effort, many adolescents are suffering from complications of early pregnancy and child bearing, early sexual practice & early marriage, low contraceptive use (7) which implies much has to be done in the future. This study is, therefore, aimed to assess the magnitude of adolescent pregnancy and associated factors in Arbaminch town to contribute for the adolescent pregnancy and childbearing prevention programs by providing up to date and necessary information for decision making and program implementations.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Magnitude of adolescent pregnancy

Adolescent pregnancy and childbearing is a global health and economic challenge nowadays. Globally, about 18 million adolescent girls between 15-19 years give birth each year (adolescent birth rate was 53 births per 1,000 women). Babies born to adolescent mothers account for 11% of all births worldwide; 95% of which occur in developing countries (16).

Pregnancies in and births to adolescents aged 10 to 14 years are relatively low in most countries; nevertheless in some sub-Saharan African countries the proportion of women who give birth before the age of 15 years has ranged from 3% in Tanzania, 4% in Congo and Zambia, 5% in Kenya and Ethiopia, to 9 % Niger, 10 % Mali and 13 % Sierra Leone (5). In Latin America, births in this age group represented less than 3% of all births among adolescents (10).

In U.S, the rate of teenage pregnancy remains the highest among the most developed countries in the world (27). In 2012, there were 29.4 births for every 1,000 adolescent females ages 15-19, or 305,420 babies born to females in this age group (28). Teen birth rates vary considerably from state to state; the lowest reported rate was in New Hampshire, at 15.7 births per 1,000 women aged 15-19 and the highest was in Mississippi, 55 births per 1,000 women aged 15-19 (29).

In Western Europe, though teenage pregnancy rate has been low, England has the highest rate with 35,966 conceptions in under18s in 2009 in the region. In 2011, the rate of teenage pregnancy stood at 38.2 per 1000, or around 3.8% of young women of that age (30).

Although there has been a slight decline, adolescent childbearing is more common in developing countries than in developed countries (10% versus 2%) (24). In South and Southeast Asia, prevalence is highest in Bangladeshi (over 64 percent), followed by Nepal (51 percent), and India (47 percent). Adolescent childbearing rates are also high in

Latin America and the Caribbean; between 30% and 40% in Bolivia, Columbia, Dominican Republic, Haiti, Honduras, Nicaragua and Peru (3).

Sub Saharan Africa, in 2013, at 101 births per 1,000, has some of the highest rates of adolescent fertility in the world (24). Among 14.3 million adolescent girls that gave birth in 2008 worldwide, one of every three was from sub-Saharan Africa (31). More than 50 percent of adolescent girls give birth by age 20 in this region. WHO discussion paper on adolescent, 2007, has revealed that the Age Specific Fertility Rates in some African countries were above 200 births per 1000 women of age 15-19 (it was about 230 births per 1000 in Angola and Liberia, 210 births per 1000 in Somali, Uganda, Nigeria and Sierra Leone) (32).

A cross sectional study conducted in public secondary schools in Ilorin, Nigeria, had shown that female respondents who had ever been pregnant constitute 5.7% of all sexually active female respondents while 17% of all sexually active males had ever impregnated a girl (33). Another institutional cross sectional study has also shown the prevalence of teenage pregnancy among pregnant women attending primary health care units to be 22.9% (34). A study conducted in Owerri, Nigeria, has also shown that over half (57.2%) of the participant adolescents had had sex. The data show that 31.6% of those who had ever had sex had an unintended pregnancy (35). According to a study in Ganye General Hospital, among 106 pregnant women randomly selected from the women that attend antenatal clinic, has shown the prevalence of adolescent pregnancy to be 51% (36).

Studies in Kenya have shown that teenage childbearing is common and increases dramatically from 2 percent of girls at age 15 to 36 percent at age 19. The levels of teenage childbearing are highest in Nyanza, (27 percent) and Coast (26 percent) provinces and lowest in Central province (10 percent) (37). In Uganda, with 25 percent of adolescent girls becoming pregnant before the age of 19, has one of the highest rates of adolescent pregnancy in Sub-Saharan Africa (38). In Kinondoni Municipality (Tanzania), according to the Magomeni Reproductive and Child Health Clinic's 9 months report, about 25 to 40 pregnant women attended the clinic daily, with 3 to 6 among them being adolescents (39).

Childbearing begins early in Ethiopia; the overall level of early teenage pregnancy among women age 17-24 increased from 19% in 2000 to 22% in 2005 in Ethiopia. More than one-third (34%) of women age 20-49, at the time of the survey, gave birth by age 18, and more than half (54 %), by age 20 (40). Twelve percent of adolescent women age 15-19 are already mothers or pregnant with their first (7). According to Gurm E and Dejene T., 2005, in Ethiopia, the level of teenage motherhood has shown a declining trend over 30 years preceding the 2005 EDHS (41). However, in 2011, fertility among adolescents age 15-19 in Ethiopia was 79 births per 1,000 women (7), it was 104 per 1000 women of age 15-19 in 2005 EDHS (42).

2.2. Factors contributing to adolescent pregnancy

2.2.1 Sociodemographic factors

Early age at marriage is a risk factor for early pregnancy and poor reproductive health outcomes (26). Sexual activities and pregnancy during early adolescence are low and most people initiate sexual activity between 15 and 19 years of age (10). In South Africa, older adolescents aged 17-19 account for the bulk of teenage fertility (43) and the prevalence increases with age (those 19 years old girls were much more likely than 13 years old to have been pregnant (11.5% compared to less than 0.2% in 2011) (44). According to a study by Tewodros Alemayehu and Jemal Haider, 2010, 12.9 % of those below age 15, 65 % of those age 15-17 and 22 % of age 18-19 have their first birth. Teenagers who were aged between 18 and 19 years were found to be 5.4 times at risk of being fertile than those whose ages were between 15-17 years (45)

Though sexual activity increases with increase in educational level of adolescents; in US, 2011, 32.9% of 9th graders reported having experienced sexual intercourse, 43.8% for 10th graders, 53.2% for 11th graders, and 63.1% for 12th graders (46) and also a study in Nekemt town has shown 46% of 9th graders and 53% of 10th graders (47), pregnancy rates decrease with increasing educational status. In Kenya, 32% of uneducated teenagers begin childbearing, as compared to only 10 % of teenagers with secondary education and above (37) and in Ethiopia, according to Gurrmu, the odds of giving first birth before age 20 among women with secondary and above education is at least 68% lower than women with no education (41).

Practice of adolescent marriage and pregnancy also varies by region, residence and economic status. In Ethiopia, teenagers in rural areas are much more likely to have started childbearing than their urban counterparts (15% and 4%, respectively). Among regions adolescent pregnancy and childbearing ranges from 3% in Addis Ababa, 8% in SNNPR, to 21% in Gambela (7). Teens in the lowest wealth quintile are almost four times as likely to start childbearing early as women in the highest wealth quintile (21% and 6%, respectively) (24). In Kenya, teenagers from poor families are more likely to begin childbearing compared to of teenagers from wealthier families, 24% versus 16% (37).

In developing countries, about 90% of births to adolescents occur within marriage (16). A community based study in Nigeria, among 13-19 years adolescents, have shown the significant association between teenage pregnancy and marital status where majority teenage pregnancy occurred among married adolescents, 69%, while it was only 11.1% among singles (48). In Ethiopia, early marriage, adolescent pregnancy and childbirth are not uncommon. There is a strong association between early marriage and teenage pregnancy. For instance; 86 % of those married before age 15 and 81.3 % of those married before age 18 were adolescent mothers while the proportion is only 13.3% among women not married before age 18 (49). Religion and belief influences adolescent pregnancy in Ethiopia. A systematic review of EDHS 2005, by Ayele WM, has shown that among youth between 17-24 years, 28 % of Muslims, 21 % of Orthodox and 16 % of other Christians were pregnant before age 17 years (40). Teenage fertility varies with race and ethnic groups; adolescents in Amhara ethnic group have 1.6 times higher and those in Oromo have 1.4 times higher fertility rate as compared to Adolescents in Tigre (45).

2.2.2 Individual level factors

At individual level, many health-compromising lifestyles (risky sexual behaviours, alcohol, drug or tobacco use) were shown to have association with teenage pregnancy. Higher teenage pregnancy rate in relation to a range of self-reported sexual behaviours including early sexual initiation, increasing number of partners and non-use of contraceptives (50). Use of drugs and alcohol encourage unintended sexual activity as intoxicated adolescents often forget to use protection (51). A study in Liverpool has also

shown association between alcohol attributable hospital admissions in both males and females with teenage pregnancy; the occurrence of at least one alcohol-attributable hospital admission in females and males was found to predict the occurrence of one or more births to teenage girls (52).

Adolescents who are enrolled in school and engaged in learning, participating in after-school activities, having positive attitudes toward school are less likely than other adolescents to mother or to father a baby (53). Early puberty predicts deleterious outcomes for young girls and was found to be associated with earlier age of alcohol use, smoking and sexual initiation, which in turn predicted early pregnancy (54).

Early age at first sex is a risk factor for adolescent pregnancy. Analysis of data from EDHS 2005, by Demissie, has shown that 84% of participants who were sexually active before age 15, 73% of those sexually active between age 15-17 years and only 14% of those not active before age 18 had their first birth before age 20 (49).

A review of longitudinal studies published between 1980 and 2001, for ten years, done in USA had shown that religiosity delays the sexual debut of adolescent females; High school females who initiated sexual intercourse earlier were less religious and attended church less frequently, Mother's religiosity decreased likelihood of adolescent's sexual debut in 9th and 10th grades (55).

Contraceptive use is known to reduce the risk of adolescent pregnancy. In USA, improved contraceptive use has been the primary determinant of declining adolescent pregnancy rates. The overall pregnancy risk index declined 38% among 15-19 years with 86% of the decline was attributable to improved contraceptive use among 15-19 years (56). But rates of use of contraception by adolescents are often low, and low knowledge about sex and family planning and low skill to put these knowledge into practice put adolescents at risk for pregnancy (10).

A study by Hamerlynck, 2007, in U.S, has revealed adolescents with history of multiple sexual partnership were found to be 2.8 times at higher risk of experiencing pregnancy and 56% of teenage participants from pregnancy group were with history of multiple sexual partnership as compared to only 31% from non pregnancy group (57).

A study done to demonstrate a prospective link between exposure to sexual content on television and the experience of a pregnancy before the age of 20 has concluded limiting adolescent exposure to the sexual content on media with information about negative consequences might reduce the risk of teen pregnancy (58).

2.2.3 Family level factors

Parents and guardians are important source of reproductive health education to adolescents and useful for prevention of early pregnancies (2). Adolescents who lived with both biological parents at age 14 were found to have a lower risk of teen birth (53, 59). WHO report on risk and protective factors affecting adolescent RH in developing countries highlighted living with both parents as a protective factor for the occurrence of adolescent pregnancy (60). Another study in USA also reported parental separation in early childhood and changes in caretaking situation to be associated with timing of menarche, first sexual intercourse, first pregnancy, and duration of first marriage (61). A study in Dar es Salaam, Tanzania, found higher proportion of fathers and mothers attended secondary and above level of education among non pregnant adolescents than among pregnant adolescents (49.7% and 40.9% versus 21.4% and 14.3% respectively), on the contrary, high proportion of fathers and mothers (21.4% and 28.6% respectively) attended no formal education among pregnant adolescents while it accounted only 8.1% and 8.4% among non pregnant (39). Mother's lower level of education, alcohol abuse among family members and parents' non-acceptance of the teenager's sexual relationship were more common among pregnant teenagers than among those who are not (62).

Adolescent childbearing is more likely among women with low levels of income than among their better-off peers. At the low economic level, U.S. teenagers are 79% more likely to have a child by age 18 (18% vs.10%) and 58% more likely to have given birth by age 20 (40% vs. 25%) (63).

Parents play a key role in influencing their adolescent's behaviour. Secure adolescent-parent attachment is associated with less engagement in high risk behaviours, fewer mental health problems, and enhanced social skills and coping strategies (64) . Parental factors that appear to offer strong protection against the onset of early sexual activity include an intact family structure; parents' disapproval of adolescent sex; teens' sense of belonging to and satisfaction with their families; parental monitoring; and parent-child

communication about teen sex and its consequences (65). Adolescent girls in intact families are less likely to become pregnant and give birth outside of marriage compared to peers in non-intact families (65).

2.2.4 Peer level factors

The perception of threats connected to sexual risk taking was highly influenced by the attitudes of partners and peers (66). According to a study in Kenya, 30% of participant adolescents reported having been encouraged by peers to engage in romantic relationships against 68.2% who disagreed. Those who reported having been encouraged to have friends of the opposite sex by peers were 39.9%, encouraged to watch pornographic materials with peers were 29.9%, to take drugs in order to have sexual courage were 15.2% and to do sexual things were 15.7% (67).

2.3 Significance of the study

Adolescent pregnancy and childbearing is a global health and economic challenge nowadays and developing countries share 95% of problems associated with adolescent pregnancy and child birth which is responsible for 23% maternal death worldwide. Ethiopia is one of the African countries where adolescent pregnancy has negative health and socioeconomic consequences for parents, children and for the community as a whole. Studies on adolescent sexuality and pregnancy are very limited in our country and most of the existing studies were done on older age women assessing their past experience of adolescent pregnancy which may not show the magnitude and determinant factors of teenage pregnancy currently. This study is, therefore, aimed to assess the magnitude of adolescent pregnancy and identify associated factors in Arbaminch town in order to contribute for the adolescent pregnancy and childbearing prevention programs by providing up-to-date and necessary information for decision making and program implementations.

Conceptual framework of factors influencing adolescent pregnancy

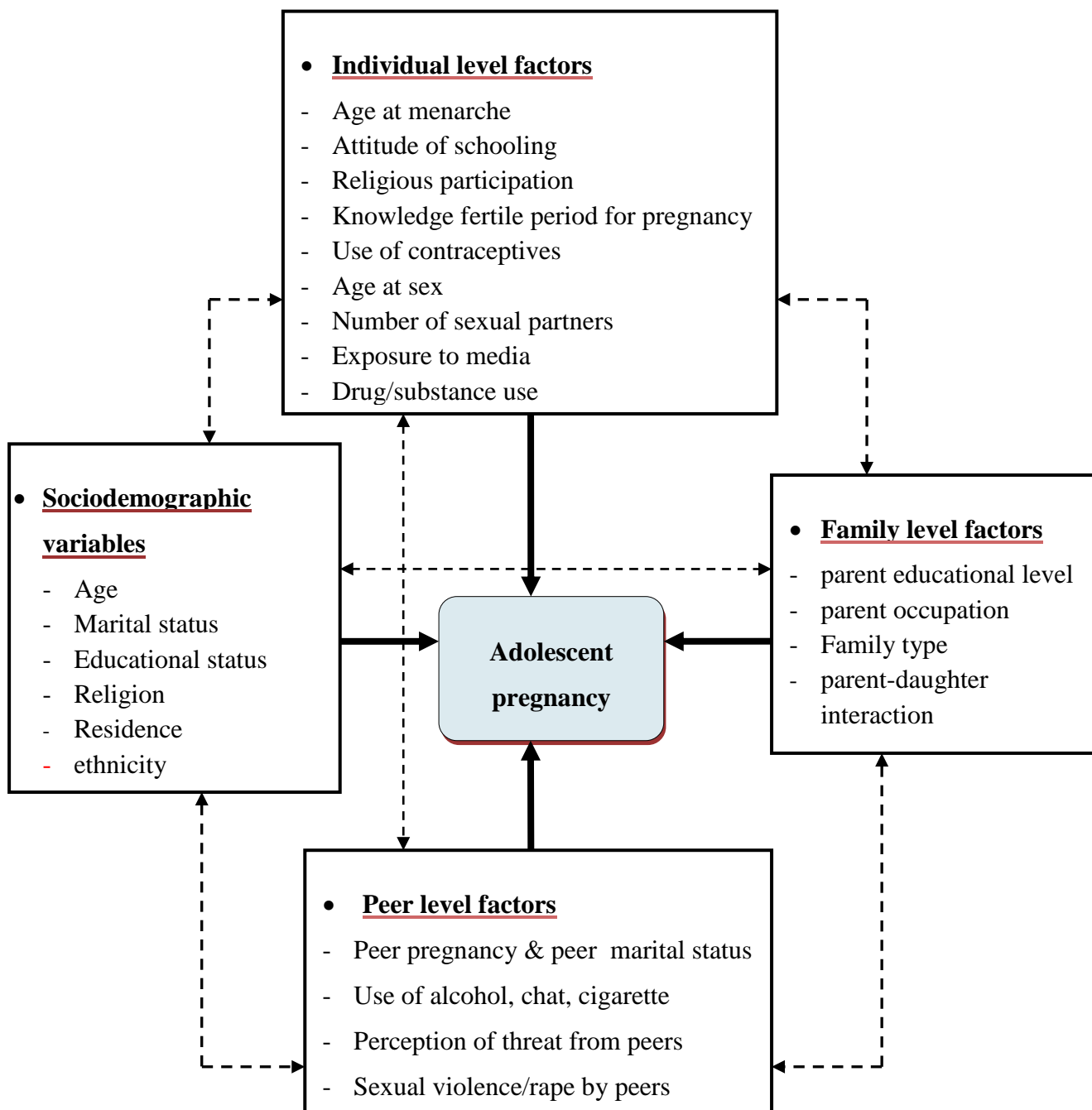


Figure 1 Conceptual frame work of factors affecting adolescent pregnancy

CHAPTER THREE

3. OBJECTIVES

3.1 General Objective:

- To assess the prevalence of adolescent pregnancy and associated factors among high school and preparatory students in Arbaminch town, 2013/14.

3.2 Specific objectives:

- To assess the prevalence of adolescent pregnancy among high school and preparatory students.
- To identify factors associated with adolescent pregnancy among high school and preparatory students.

CHAPTER FOUR

4. METHODOLOGY

4.1 study area and period

Arbaminch town which is located in SNNPR which is 505 km far from Addis Ababa. The total population of the town, which is obtained from Arbaminch town Administration Office, is 86405 (projected from 2007 census), with male 42,380, female 44,025 and total households of 16,766 divided in to Secha, Abaya, Nechsar, and Sikela kifle ketemas. In the town, there are 8 colleges (private and public together), 6 high schools and 2 preparatory schools. There are 1 public zonal hospital, 2 public health centers, and many medium and lower level private clinics and pharmacies. The major economic activities are small scale industry, trade and agriculture.

The data was collected from March 20-30, 2014.

4.2 Study design

Institutional descriptive cross-sectional study design was used.

4.3 Study population

Source population: all female students in the age range 15-19 years in high schools and preparatory schools in Arbaminch town.

Study population: all female students in the age range 15-19 years who were in four schools included in the sample.

4.4 Inclusion and exclusion criteria

Inclusion criteria: all female adolescent students who are in the age group 15-19 years and willing to participate in the study.

Exclusion criteria: Adolescent students who are unable to participate due to serious illness or not willing were excluded.

4.5 Sample size determination and sampling procedure

Sample size determination

A total sample size was determined by using the formula for a single population proportion with the following assumption:

- The SNNPR average proportion of adolescent pregnancy and childbearing is $p = 0.08$ or 8% (7).
- 95% confidence interval and corresponding critical values of the Standard Normal Distribution ($Z_{\alpha/2} = \pm 1.96$.)
- Margin of error to be tolerated considered to be 3%. Therefore; total sample size is:

$$n = \frac{Z^2 * P(1-P)}{d^2} \quad n = \frac{1.96^2 * 0.08(0.92)}{0.03^2} \quad n = 315$$

Since stratified multi stage sampling was used, the total sample size 'n' was adjusted for the design effect multiplying by 2;

$$n = 315 * 2 = 630$$

Using the finite population adjustment formula (since the total number of students in selected schools is 2971, which is < 10000);

$$\frac{n}{1+n/N} = \frac{630}{1+630/2971} = 525$$

Adding a non response rate of 10 %. The final sample was $525+53 = \underline{\underline{578 \text{ students}}}$.

Sampling procedure

There were 8 schools (2 preparatory and 6 high schools) in the town. After stratifying schools in to preparatory and high schools, 1 preparatory school and 3 high schools were selected randomly which included 50% of the total schools in the town. Proportional number of students was assigned to each school and then the total number of age 15-19 year female students in each grade level of selected schools was taken from the school administration. Separate sampling frame was prepared for each grade level of each school. Then the final participants were drawn from each grade level by systematic sampling technique 1 in every 5 students.

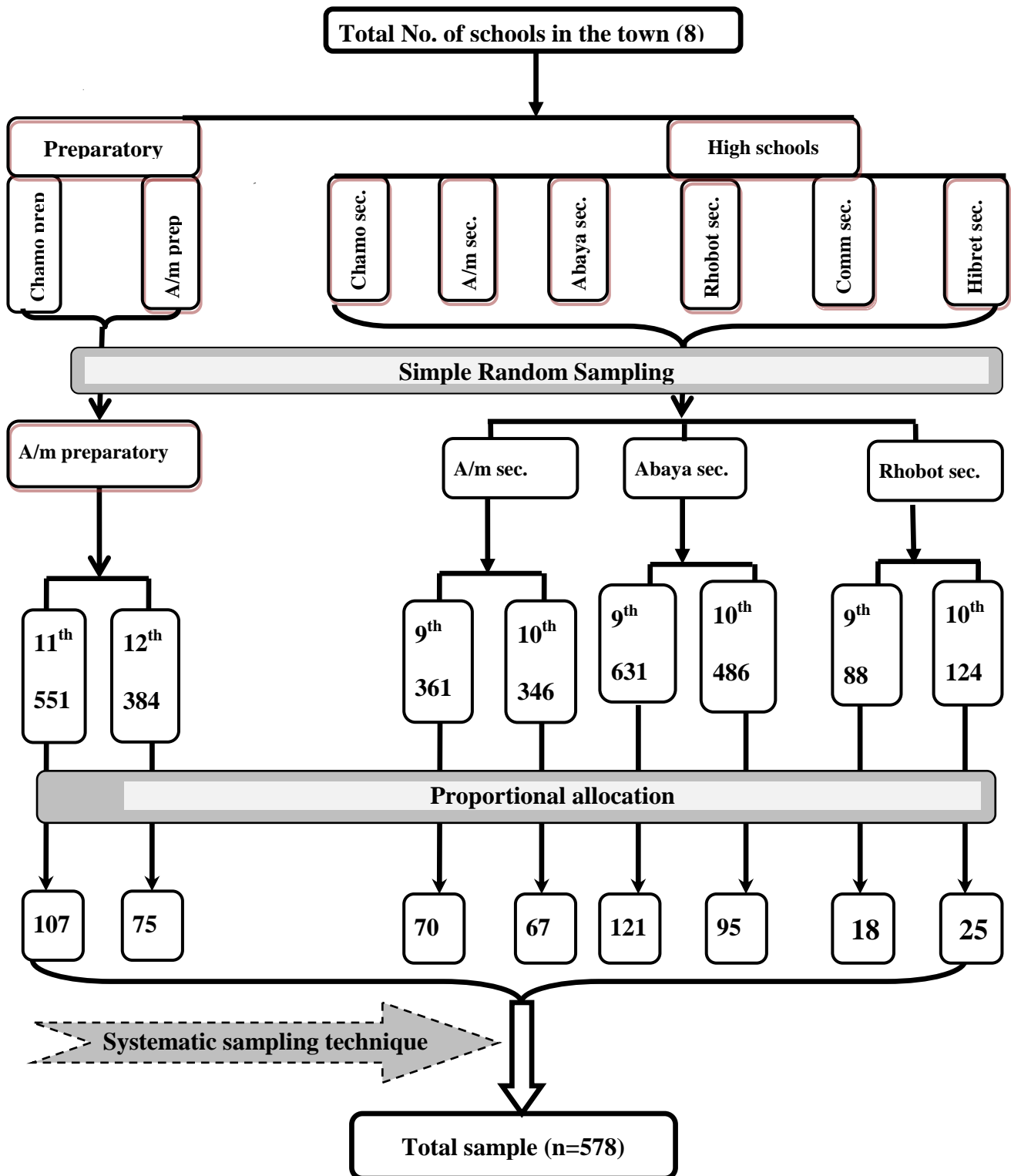


Figure 2 Schematic presentation of the sampling process

4.6 Variables

Dependent variable: Adolescent pregnancy

Independent variables:

Sociodemographic variables

- Age
- Marital status
- Educational status
- Religion
- Ethnicity
- Residence

Individual level factors

- Age at sex
- Age at menses
- No. of sexual partners
- Attitude of schooling
- Religious participation
- Knowledge of fertile days in their menstrual period.
- Use of modern contraceptive methods
- Exposure to media
- Alcohol, chat or cigarette use

Family level factors

- Parental structure
- parental occupation
- Parental educational status
- Parent-daughter interaction

Peer level factors

- Perception of threat from peers
- Peer pregnancy & peer marital status
- Use of alcohol, chat, cigarette
- Sexual violence/rape by peers

4.7 Data collection procedure

One week before the actual data collection process, 7 data collectors and 1 supervisor (all of them are college completed individuals working in different institutions) attended one day training. The questionnaire was translated in to Amharic version and the principal investigator and one data collector conducted a pre-test on 30 students selected from Mirab Abaya High School (45 km far from Arbaminch). Participants were randomly taken from each grade level from those students available at the time of data collection. Before distribution of the questionnaire, male students and those females older than 19 years were told to be out of the class and the sitting was arranged in such a way that one female student per seat. Then a structured, self-administered questionnaire was distributed after short orientation provided to the students. The whole process of data collection was done under supervision by the supervisor and principal investigator. Each day data was collected from each grade level and completed in 8 days.

4.8 Operational definitions

Age: age is measured in completed years as reported by the respondent.

Adolescent: a female student whose age is reported as being between in the age range of 15-19 completed years.

Exposure to media: assessed by asking respondent the question ‘do you watch TV, listen to the radio and read newspaper?’ and then the media exposure score was computed and categorized as 1=yes, if the respondent have exposure to either of the three media outlets (radio, TV, newspaper), 0=no, if the respondent have no exposure to at least one of the three media outlets.

Ever pregnancy: is measured by asking the respondent ‘have you ever been pregnant?’ which includes pregnancies that ended in live birth, still birth and abortion. Then the response was categorized as 0=no and 1=yes.

Current pregnancy is measured if the respondent answered ‘yes’ to a question ‘are you pregnant now?’ and ‘how do you know that you are pregnant now?’. The response categorized as: 1= Possible pregnancy (if the respondent answered either of the following signs and symptoms; missed periods for at least 1 month, nausea and vomiting,

breast enlargement, breast tenderness), 2=*Probable pregnancy* (if the respondent answered either of the following; abdominal size increases and/or urine test positive for HCG hormone), 3=*Confirmed pregnancy* (if the respondent reported checked by ultrasound for fetal movement in the hospital).

Emergency Contraceptives: as an emergency measure, women can take special pills to prevent pregnancy within three days after they have unprotected sexual intercourse.

Parental structure: measured by asking the respondents about whom they are living with and the response was coded as 1=live with both biological parents, 2=live with either of biological parents and 3= live with neither of biological parents.

Knowledge of fertile period in the menstrual cycle: respondents was asked a ‘yes-no’ question’’ Do you know the high risk days of your menstrual period to get pregnant?’’ and ’’when are those days in the menstrual period?’’. Then the responses was categorized as 1= know (if she answer the 2nd question correctly) and 2= don’t know (if she answer the 2nd question incorrect).

Multiple sexual partnership: is measured if the respondent answered ‘two or more’ for a question “‘with how many individuals do you have sexual intercourse so far?’”.

Parent-daughter interaction: measured by asking the following four questions; ‘‘do your parents communicate with you on issues related to sexuality, love and friendship openly?’’, ‘‘do your either parents know about your love or sexual partner?’’, ‘‘do your parents follow you where and with whom you stay when you are out of home?’’ and ‘‘do your parents like your love and sexual relationship with a boyfriend?’’. The median score from the four questions was computed (i.e.; 1) and levelled as ‘1= *poor interaction (if scored ≤ 1)* and ‘2= *good interaction (if scored >1)*.

Parents educational status: assessed by asking the respondent the highest educational level completed by the mother and the father.

Religious participation: measured by asking the respondent a series of questions about how often they participate in religious programs, way of participation, frequency of attendance of programs, frequency of praying, perceived importance of religion to one self. Then the median of the religiosity score was computed (i.e.; 12) and levelled as

1=strong participation (if scored 12 and above) and 2=weak participation (if scored below 12) and 3=no participation (if scored 0)

Residence (kebele): the usual place where a participant came from for learning. Categorized as 1=urban and 2=rural.

4.9 Data quality management

To assure the quality of the data; properly designed and pre-tested data collection instrument was used. Training was given for facilitators and supervisors of data collection process. Every day the data collection was done under strict supervisions. Before the analysis process, the data was checked for completeness and for any missing values. Then coded and entered in to 'Epidata' computer software. The questionnaire which is incomplete and/or with inconsistent response was omitted.

4.10 Data analysis procedure

The data was analysed using SPSS V-16 statistical software. Assumptions for logistic regression were checked, multicollinearity diagnostics were seen. Descriptive statistics of sociodemographic, individual level, family level and peer level variables was done and the results were displayed using tables, charts and graphs. The outcome variable was dichotomized as 0=no and 1=yes. Binary logistic regression was carried out. First; bivariate analysis was done to see the crude effect of each independent variable on outcome variable and only those variables with P value < 0.25 were selected and then multivariate analysis was carried out to identify the independent predictors. P-value \leq 0.05 was considered statistically significant. Adjusted odds ratio was used to identify factors independently associated with adolescent pregnancy.

4.11 Ethical considerations

This research has been reviewed and approved to be conducted by the ethical clearance board of Jimma University. Official letter of permission was obtained from Gamo-gofa zone Educational Department and Arbaminch town Administration Educational Office. Three days before data collection, consent letter and information sheet was sent to parents of the study subjects and signed by. Participants were informed of the reason why data is collected and consent form was signed.

4.12 Result dissemination plan

The results of this study will be presented to Jimma University, college of Medicine and Public Health. The result will also be communicated to Gamogofa Zone Health Department, Gamogofa Zone Educational Department, Arbaminch town Administration Health Office, Arbaminch town Administration Educational Offices in order to help them to take action towards the identified problems. Finally, attempts will be made to publish the research in journals.

CHAPTER FIVE

5. RESULT

5.1 General information

From the total sample 578, 560(96.9%) respondents completed the questionnaire. Five hundred and twenty, (92.9%), were from public schools and 40(7.1%) were from private schools. Majority 349(62.3%) of the respondents were from high schools (grade 9 and 10) and the remaining were from preparatory schools.

5.2 Sociodemographic characteristics of the respondents

From the total of 560(96.9%) students with complete information included in the analysis, 397(70.9%) were from urban and 163(29.1%) from rural respectively. Majority of respondents were at age 18, with the median age of 17 ± 2 years. Majority of the respondents 498(88.8%) were single. Majority 217(38.8%) of respondents were orthodox by their religion and Gamo is the major ethnic group accounting for 292(52.1%) of the total respondents. Concerning the educational status (grade level) of the respondents, 201(35.9%) and 180(32.1%) were from 9th and from 10th grade respectively (Table 1).

Table 1: The distribution of Socio-economic characteristics of respondents in high school and preparatory schools of Arbaminch town, March 2014

variables	Number	Percent
Usual place of residence(n=560)		
Urban	397	70.9
Rural	163	29.1
Age of the respondents(n=560)		
15-17 years	302	53.9
18-19 years	258	46.1
Marital status(n=560)		
Single	498	88.9
Ever married	62	11.1
Religion (n=560)		
Orthodox	217	38.8
Protestants	210	37.5
Muslim	110	19.6
others	23	4.1
Ethnicity(n=560)		
Gamo	292	52.1
Gofa	114	20.4
Wolayta	71	12.7
Amhara	38	6.8
others	45	8.0
Educational status(grade level) (n=560)		
9 th	201	35.9
10 th	180	32.1
11 th	105	18.8
12 th	74	13.2

5.3 Individual level characteristics of the respondents

From the total participants, 480(85.7%) reported they like learning, 239(42.7%) of the respondents have weak religious participation, 307(54.8%) do not know the fertile days in their menstrual cycle. Majority 466(83.2%) has seen their first menstrual flow when they were in the age range 13-15 years. From the total 124(22.1%) who were sexually active, majority, 78(62.9%), had their first sexual experience when they reach age 17 or above. Sixty-eight (54.8%) out of 124 sexually active participants had ever used any modern contraceptive methods (excluding emergency methods) and 69(55.6%) ever used emergency contraceptives to prevent pregnancy. Only 24(19.4%) of sexually active adolescents reported they used condom every time during sexual intercourse while 57(46.0%) used sometimes and the rest do not used at all (table2).

Table 2. The distribution of individual level characteristics among school adolescents in Arbaminch town, March 2014

variables	Number	Percent
Like learning (n=560)		
Yes	480	85.7
No	80	14.3
Religious participation (n=560)		
Strong participation	254	45.4
Weak participation	239	42.7
no participation	67	12.0
Know fertile period of the menstrual period (n=560)		
Know correctly	253	45.2
Don't know	307	54.8
Age at first menses (n=560)		
11-12 years	94	16.8
13-15 years	466	83.2
Ever had sexual intercourse(n=560)		
Yes	124	22.1
No	436	77.9
Age at first sex (n=124)		
16 yrs and below	46	37.1
17 yrs and above	78	62.9
Have sex last 12 months (n=124)		
Yes	54	43.5
No	70	56.5
Know time to take emergency contraceptives(n=560)		
Yes	321	57.3
No	239	42.7
Ever use modern contraceptives (n=124)		
Yes	68	54.8
No	56	45.2
Ever used emergency contraceptives (n=124)		
Yes	69	55.6
No	55	44.4
Number of sexual partner so far (n=124)		
One	101	81.5
More than one	23	18.5
Use alcohol/chat/cigarette (n=560)		
Yes	107	19.1
No	453	80.9
Condom use at sex (n=124)		
No	43	34.7
Sometimes	57	46.0
Every time during sex	24	19.4
Watch pornographic movies (n=560)		
Yes	125	22.3
no	435	77.7

5.4 Family and peer level characteristics of the respondents

From a total of 554 and 559 respondents properly filled their fathers and mothers educational status, about 191(34.5%) and 165(29.5%) mentioned that their fathers and mothers completed some secondary education respectively. Most, 168(30.0%), of fathers were government employed while majority, 185(33.6%), of the mothers were housewife. Majority, 366(65.4%) of respondents live with both biological parents whereas 228(63.2%) of respondents mentioned as having poor parent-daughter interaction concerning issues of sexuality, love and pregnancy.

Regarding peer level characteristics, majority 452(80.7%) of respondents have peers do not use alcohol, Khat or cigarette and 443(79.1%) of peers have no ever experience of living in union or being pregnant (Table 3).

Table 3. The distribution of family and peer level characteristics of respondents among school adolescents in Arbaminch town, March 2014

Variables	Number	Percent
Educational status of the father(n=554)	69	12.5
No formal education	115	20.8
Primary education	191	34.5
Secondary education	179	32.2
College/university education		
Education status of the mother(n=559)		
Illiterate + read and write	78	14.0
Primary education	163	29.2
Secondary education	165	29.5
College/university education	153	27.4
Occupation of the father(n=556)		
Gov't employed	168	30.2
Merchant	138	24.8
Farmer	106	19.1
Daily laborer	46	8.3
Other	98	17.6
Occupation of the mother(n=551)		
Housewife	185	33.6
Gov't employed	153	27.8
Merchant	131	23.2
Daily laborer	72	13.1
Other	13	2.4
Whom live with(N=560)		
Both biological parents	366	65.4
Either of biological parents	104	18.6
neither of biological parents	90	16.0
Parent-daughter interaction(n=519)		
Good interaction	191	36.8
Poor interaction	328	63.2
Have peers married or pregnant(n=560)		
Yes	117	20.9
No	443	79.1
Peers use of alcohol/Khat/cigarette(n=560)		
Yes	108	19.3
No	452	80.7

5.5 Prevalence and factors influencing adolescent pregnancy

5.5.1 Prevalence of adolescent pregnancy

Of the total 560 respondents, 124(22.1%) have ever experience of sexual intercourse with male partner of which 43(7.7%) reported having ever experience of pregnancy. From these 12(27.9%) wanted their pregnancy while the rest, 31(72.1%), did not want it. Five (0.9%) of total respondents reported that they were pregnant at the time of data collection; one of them reported as having checked her pregnancy status by urine HCG^{+ve} result, three of them reported having checked by urine HCG^{+ve} result and missed periods for at least 1 month while the remaining one mentioned experience of only abdominal size increment as evidence for their current pregnancy status.

Regarding the reasons mentioned; right time to have pregnancy, to strengthen love and relationship and b/c married and live in union were among reasons mentioned for wanted pregnancy where as friends encouraged, to comply with peer norm and contexts, fear of threat from partners, rape and happened unknowingly were among reasons mentioned for unwanted pregnancy (figure 4 & 5 below).

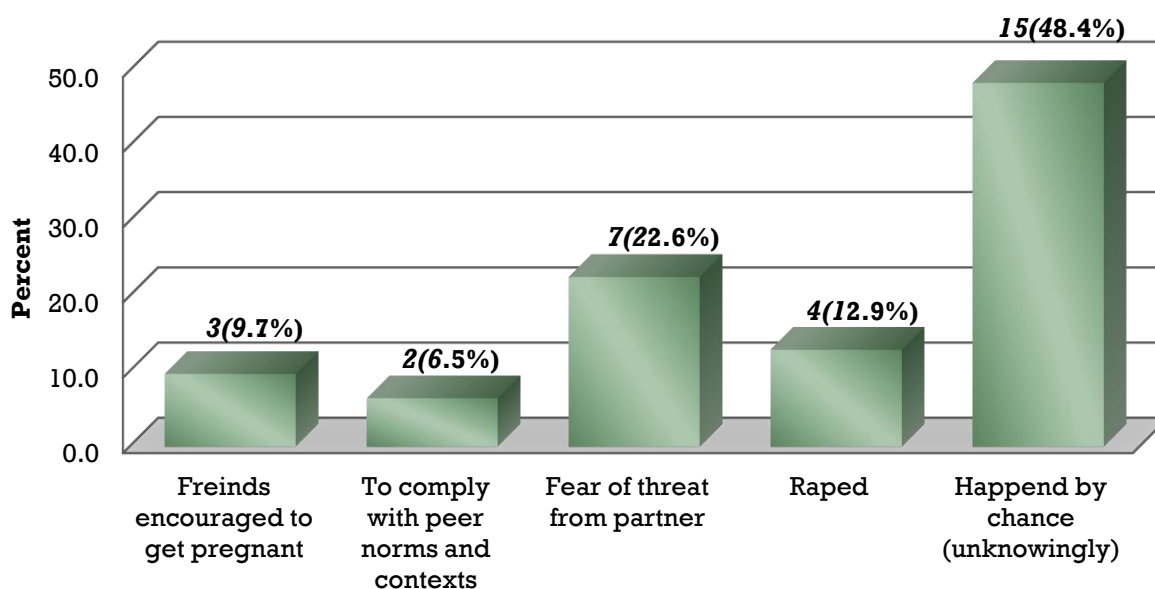


Figure 3. Reasons mentioned for unwanted pregnancy among school adolescents in Arbaminch town, March 2014

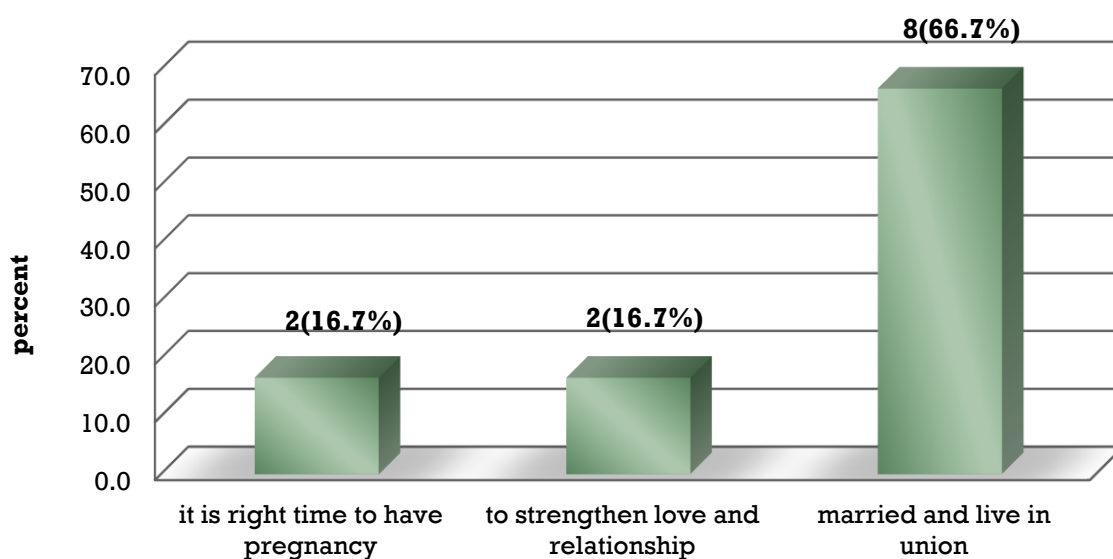


Figure 4. Reasons mentioned for wanted pregnancy among school adolescents in Arbaminch town, March 2014

5.5.2 Factors influencing adolescent pregnancy

In this study, both bivariate and multiple logistic regressions were done and those variables with P-value < 0.25 on bivariate analysis were selected and entered into multiple logistic regression using ‘back-ward stepwise’ method of variable selection. The overall significance of the model to predict the probability of experiencing adolescent pregnancy was statistically significant [-2loglikelihood=196.2, model $X^2=94.1$, df=25] and the overall prediction of the model was 92.8%.

On multiple logistic regression, while some of the variables related to sexual activities and contraceptive use (age at first sex, condom use and sex with in last 12 months) were not included because of many system missing despite significant on bivariate analysis, grade level, peer use of alcohol/chat/cigarette, know time to take emergency contraceptive, having peers ever married or pregnant, whom adolescents live with and parent-daughter interaction were found to be significant predictors of adolescent pregnancy in this study whereas age, marital status, religious participation, alcohol/chat/cigarette use by the respondent, age at first menses, watching pornographic movies and educational status of the father and mother showed significant association after controlling confounders (Table 4).

The prevalence of adolescent pregnancy is higher among preparatory schools than high schools; it was 13.5% among 12th graders, 15.2% among 11th graders, 5.0% among 10th graders and 4.0% among 9th graders. The odds of being pregnant was 4.6 and 5.8 times as much among 11th and 12th [AOR=4.6, 95%CI (1.4, 9.3) and 5.8, 95%CI (1.3, 14.1) respectively] than those 9th and 10th graders. Adolescent who have peers use alcohol, chat or cigarette were more likely to face pregnancy than those who have peers do not use [AOR=3.1, 95% CI (1.1, 8.8)] while use of alcohol/khat/cigarette at individual level showed no significant association after controlling for confounders. Respondents who have peers ever married or pregnant were 3.6 times more likely to experience adolescent pregnancy [AOR=3.6, 95% CI (1.6, 8.4)] as compared to those do not have peers ever married or pregnant. The odds of being pregnant for those who do not know the right time to take emergency contraceptive was 3.3 times higher as compared to those know correctly [AOR=3.3, 95%CI(1.4, 7.5)]. Living with neither of biological parents and either of biological parents was a significant factor to contribute for adolescent pregnancy when compared to living with both biological parents with AOR=3, 95% CI (1.2, 9.5) and AOR=3.1, 95% CI (1.1, 8.7) respectively (Table 4).

Table 4. Bivariate and multivariate logistic regression of factors affecting adolescent pregnancy among school adolescents in Arbaminch town, March 2014

Variables	Ever pregnant(N=560)		COR(95%CI)	AOR(95%CI)
	Yes (%)	No (%)		
Grade level				
9 th	8(4.0%)	193(96.0%)	1	1
10 th	9(5.0%)	171(95.0%)	-	-
11 th	16(15.2%)	89(84.8%)	4.3 (1.8, 10.5)	4.6(1.4, 9.3)*
12 th	10(13.5%)	64(86.5%)	3.8(1.4, 10.0)	5.8(1.3, 14.1)*
Age group(yrs)				
15-17	14(4.6%)	288(95.4%)	1	
18-19	29(11.2%)	229(88.8%)	2.6 (1.4, 5.1)	-
Marital status				
Single	31(6.3%)	467(93.7%)	1	
Ever married	12(17.4%)	50(82.6%)	3.6 (1.7, 7.5)	-
Like learning				
Yes	30(6.2%)	450(93.8%)	1	
No	13(16.2%)	67(83.8%)	2.9(1.5, 5.9)	-
Religious participation				
Strong	13(5.1%)	241(94.9%)	1	
Weak	18(7.5%)	221(92.5%)	-	
No	12(17.9%)	55(82.1%)	4.1(1.8, 9.3)	-
Use alcohol/chat/cigarette				
Yes	18(16.8%)	89(83.2%)	3.5(1.8, 6.6)	
No	25(5.5%)	428(94.5%)		-
Peer use alcohol/khat/cigarette				
Yes	21(19.4%)	87(80.6%)	4.7 (2.5, 9.0)	3.1 (1.1, 8.8)*
No	22(4.9%)	430(95.1%)	1	1
Age at first menses(yrs)				
13-15	29(6.2%)	437(93.8%)	1	
11-12	14(14.9%)	80(85.1%)	2.6 (1.3, 5.2)	-
Age at first sex ^a				
Age 17 and above	18(23.1%)	60(76.9%)	1	
Age 16 and below	25(16.0%)	21(45.7%)	3.97(1.8, 8.7)	
Have sex last 12 month ^a				
Yes	24(44.4%)	30(56.6%)	2.1(1.0, 4.6)	
No	19(27.1%)	51(72.9%)	1	
Ever used condom ^a				
Yes	20(24.7%)	61(75.3%)	1	
No	23(53.5%)	20(46.5%)	3.5(1.6, 7.7)	
Watch pornographic films				
Not at all	27(6.2%)	408(93.8%)	1	
Sometimes	14(12.4%)	99(87.6%)	2.1(1.1, 4.2)	-
At least once/week	2(16.7%)	10(83.3%)	3.0(0.6, 14.5)	-
Know fertile period in menstrual cycle				
Yes	29(11.5%)	224(88.5%)	1	
No	14(4.6%)	293(95.4%)	0.3 (0.2, 0.6)	-

Bivariate and multivariate logistic regression continued...

Know time to take emergency contraceptives				
Yes	19(5.9%)	302(94.1%)	1	1
No	24(10.0%)	215(90.0%)	1.8(1.0, 3.3)	3.3 (1.4, 7.4)*
Have peers ever married or pregnant				
Yes	21(17.9%)	96(82.1%)	4.2(2.2, 7.9)	3.6(1.5, 8.4)*
No	22(5.0%)	421(95.0%)	1	1
Educational status of the father				
No formal education	11(15.9%)	58(84.1%)	4.7 (1.7, 12.6)	-
Primary education	14(12.2%)	101(87.8%)	3.4(1.3, 8.7)	-
Secondary education	11(5.8%)	180(94.2%)	-	-
College/university	7(3.9%)	172(96.1%)	1	-
Educational status of the mother				
No formal education	10(12.8%)	68(87.2%)	3.6 (1.3, 10.3)	-
Primary education	18(11.0%)	145(89.0%)	3.0(1.2, 7.9)	-
Secondary education	9(5.5%)	156(94.5%)	-	-
College/university	6(3.9%)	147(96.1%)	1	-
Live with parents				
Both biological parents	17(4.6%)	349(95.4%)	1	1
Either of bio. Parents	12(11.5%)	92(88.5%)	2.7(1.2, 5.8)	3.3(1.2, 9.5)*
Neither of bio. parents	14(15.6%)	76(84.4%)	3.8(1.8, 8.0)	3.1 (1.1, 8.7)*
Parent-daughter interaction				
Good	8(4.2%)	183(95.8%)	1	1
Poor	33(10.1%)	295(89.9%)	2.6(1.2, 5.7)	3.7 (1.3, 10.2)*

* *Significant at P value <0.05*

^a *Not included in multiple logistic regression model due to many system missing*

CHAPTER SIX

6. DISCUSSION

Teenage pregnancy is one of the most unfavorable and usually unplanned outcomes of adolescent sexual activity. In this study, the prevalence of sexual activity was found 124 (22.1%) which is comparable to result found in Gondar town (23.5%), Nekemt town among school adolescents (21.5%)(47, 68) but slightly lower than that from EDHS 2011 report (24.2%) and a study in Ilorin high schools, Nigeria, (28.2%) (7, 33). This discrepancy might be due to the difference in educational backgrounds of the study populations (EDHS included adolescents in the general population whereas this study focused only school adolescents with all at higher level of formal education).

Though the characteristics of study populations were different, the prevalence of adolescent pregnancy found in this study, 43(7.7%) was comparable to that reported by EDHS 2011(7.9%) for SNNPR and also the prevalence among sexually active adolescents in this study, 34.7%, was comparable to the national figure reported by EDHS where 34% of women were either mothers or pregnant with their first child by age 19 (7) and a study in Owerri province, Nigeria, where 31.6% of adolescents who ever had sex experienced teenage pregnancy but it is much higher than that found in Ilorin, same country, among high school adolescents in which case only 5.7% of those sexually active female students had experience of teenage pregnancy (33). This might be due to the inclusion of preparatory students which contributed to majority of adolescent pregnancy in this study and also the difference in age range of study populations as the reference study included adolescents 10-19 years.

Regarding the factors contributing to adolescent pregnancy, students from grade 11 and 12 were more likely [AOR=4.6, 95%CI (1.4, 9.3) and 5.8, 95%CI (1.3, 14.1) respectively] to be pregnant at teenage as compared to students from grade 9 and 10. Both the proportion of sexual activity and adolescent pregnancy was seen generally increasing with increase in grade level with in the sample population. Similar pattern of sexual activity result was reported in USA by CDC (32% of grade 9, 43% of grade 10, 53% of grade 11 and 63% of grade 12) (46) and in Nekemt town(46% of 9th graders and

53% of 10th graders) (47). Studies reported the inverse relationship between females educational attainment and adolescent pregnancy rate; education is a major protective factor for early pregnancy, the more years of schooling, the fewer early pregnancies (10, 37, 41) but the finding from this study was seen to contradict this; adolescents in preparatory level were seen to be significantly more likely to experience pregnancy than those in high schools. This might be due to the effects of increasing levels of sexual activity among preparatory students than among high schools (33.0% versus 15.5%) since this variable was not controlled and also the time and grade level pregnancy occurred was not known (the prevalence in this study was a cumulative number).

Adolescents who have peer groups using alcohol/chat/cigarette were found to be more likely to experience early pregnancy. One female student in every five faces the challenges of early pregnancy provided she has friend who drink, chew or smoke. Though alcohol/chat/cigarette use at individual level was found not significant, this finding is supported by a finding from systematic review of factors associated with teenage pregnancy in European Union countries done by *Imamura, et al* where many health-compromising lifestyles (risky sexual behaviours, alcohol, drug or tobacco use) were shown to have association with teenage pregnancy (50). In south Africa, use of drugs and alcohol encourage unintended sexual activity as intoxicated adolescents often forget to use protection; young people are twice as likely to have unprotected sex while under the influence of alcohol or drugs compared to when they are sober (51). A study by Cook et al in Liverpool has also shown association between alcohol attributable hospital admissions in both males and females with teenage pregnancy; the occurrence of at least one alcohol-attributable hospital admission in females was found to predict the occurrence of one or more births to teenage girls [AOR=1.3, 95%CI, 1.2-1.4] and male alcohol attributable admission to hospital also predicted births to teenage girls [AOR=1.2, 95% CI (1.2-1.3)] (52).

Marital status is seen as a precondition to have pregnancy and child in Ethiopia and most researchers reported the significant association b/n marital status and pregnancy. In this study, adolescents who have peer groups ever married or pregnant were significantly more likely to experience pregnancy as compared to those who do not have peers married or pregnant [AOR=3.6, 95% CI (1.6, 8.4)] but marital status of the respondents has

shown no significant association after controlling for confounders while the probability of facing pregnancy among married is much higher than singles (0.17 vs 0.06). Studies reported similar findings; the direct relationship between early marriage, frequency of sexual activity and adolescent pregnancy. The frequency of sexual activity is higher in adolescents who are in stable relationships, marriage or union, than in those who are not, hence the greater likelihood of pregnancy in the absence of contraception (10). A community based study by Envulado EA et al in Nigeria, among 13-19 years adolescents, have also shown the significant association between teenage pregnancy and marital status where majority teenage pregnancy occurred among married adolescents, 69%, while it was only 11.1% among singles (48).

The fact that correct timing of taking contraceptive methods increases the effectiveness of the method in preventing pregnancy, and emergency contraceptives were proven to prevent unwanted pregnancy is strongly supported by the finding from this study. The probability of experiencing ever pregnancy among those who have correct knowledge was about 6% while it was 10% for those who have no correct knowledge. The odds of being pregnant was 3.3 times as much among adolescents who do not know the correct time to take emergency contraceptives than those know the correct time. According to the report by WHO, lack of knowledge about sex and family planning and lack of skills to put that knowledge into practice put adolescents at risk for pregnancy (10).

Adolescents lived with either of biological parents and neither of biological parents were found to be more likely to face teenage pregnancy as compared to those live with both biological parents. The proportions of adolescents experienced ever pregnancy increased across the categories of parental structure, 4.6% for those lived with both parents, and 11.5% and 15.6% for those lived with either of and neither of biological parents respectively. A study in Mechakal district, Ethiopia, has revealed those adolescents lived with single parents and husbands were less likely to have better Reproductive Health knowledge [AOR=0.9, 95% CI (0.6, 1.5) and AOR=1.0, 95% CI (0.5, 1.9) respectively] when compared to those lived with both parents which may in turn lead to low RH service utilization and hence higher likelihood of pregnancy (8). This result is also comparable to the finding by Martinez, 2011 report in USA where adolescents lived with both biological parents at age 14 had a positive impact on delaying the age at first birth

(59). A WHO report on risk and protective factors affecting adolescent RH in developing countries highlighted also living with both parents as a protective factor for the occurrence of adolescent pregnancy (60). Another study in USA also reported parental separation in early childhood and changes in caretaking situation to be associated with timing of menarche, first sexual intercourse, first pregnancy, and duration of first marriage (61).

This study has shown the decreasing probability of experiencing pregnancy with increase in parent-daughter interaction score. Adolescents who lived in poor parent-daughter interaction conditions regarding issues of sexuality, love and pregnancy were 3.7 times more likely to experience pregnancy as compared to those who live under good parent-daughter interaction conditions. This finding is supported by a study in British Columbia by Moretti M and Pelled M which reported that parents play a key role in influencing their adolescent's behaviour. Secure adolescent-parent attachment is associated with less engagement in high risk behaviours, enhanced social skills and coping strategies (64) and also by a study in Canada where parental factors that appear to offer strong protection against the onset of early sexual activity include an intact family structure; parents' disapproval of adolescent sex; teens' sense of belonging to and satisfaction with their families; parental monitoring; and parent-child communication about teen sex and its consequences (65).

Limitations of the study

Besides the limitations of the cross sectional study design, this study has the following limitations:

- Since teen pregnancy is a sensitive issue especially for those unmarried adolescents, some amount of social desirability bias may not be ruled out.
- Self reported data on the status of pregnancy, especially current pregnancy, may lead to less precise estimates of prevalence as respondents may not be sure about their status of pregnancy during early phases.
- Study utilized data from a single source, students only. Triangulating data from different sources like health institution records and interviews with informants may provide better information.

CHAPTER SEVEN

7. CONCLUSION AND RECOMMENDATION

7.1 CONCLUSION

Over all, the prevalence of sexual activity, as well as, adolescent pregnancy in the study population was alarming even though it is comparable to most literature reports in Ethiopia. About 1 in every 5 (22.1%) adolescents was at risk of getting pregnancy because of sexual activity. The prevalence of ever experience of adolescent pregnancy among school adolescents in the study area, 7.7% from the total participants and 34.7% among those sexually active, was very high to cause public health challenges to adolescents in the in the study area, especially in these days where much effort has been put into reduce maternal mortality as part of MDG.

Regarding factors independently associated with adolescent pregnancy, being a student in grade 11 and 12, having peer groups who use alcohol, chat or cigarette and having peers ever married or pregnant were factors significantly associated with higher likelihood of experiencing adolescent pregnancy whereas correct knowledge of time to take emergency contraceptives, lived with both biological parents and have good parent-daughter interaction were factors significantly associated with lower likelihood of experiencing adolescent pregnancy.

7.2 RECOMMENDATION

- Urban Health Extension Workers should incorporate information dissemination plans with special emphasis on the importance of parent-daughter communication on the issues of sexuality and RH to halt the problem as part of their routine community based ANC and FP activities.
- Arbaminch town Women's Affairs Office and legal bodies should strengthen their effort on women empowerment so as to reduce teenage pregnancy occurring due to rape and fear of threat from partners.
- Local Medias should share the effort by disseminating IEC/BCC in the community at large focusing on the risks and benefits of contraceptive use, alcohol, chat or cigarette use and adolescent marriage.
- Further researches at large scale should be conducted at community level to better see the extent of problem in the general population.

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ANNEXES

ANNEX I: Information sheet and consent form

Dear respondent, my name is Samuel Mathewos, a student in Jimma University studying for Masters Degree in Reproductive Health. I am conducting a research on adolescent pregnancy and its associated factors among female students in schools of Arbaminch town. The purpose of this survey is to investigate the prevalence (magnitude) of adolescent pregnancy and factors why adolescents get pregnant so that to provide the information for decision makers to act on the problem. The information you provide will be kept highly secure and private that no one knows (except you) what your responses are. Please bear in mind that your agreement to participate and provide genuine information means a great contribution to the efforts to tackle the problems in the community. Therefore; you are kindly requested for participation and, if you agree to participate, please put your signature in the space below. If you are not willing to participate, you can say 'no'.

Your sign. _____

Thank you!

<u>Part I. Sociodemographic information of the respondent</u>		
1.1	Age in years	_____ years
1.2	Usual residence (kebele)	1. Urban 2. rural
1.3	Grade level	1. 9 th 2. 11 th 3. 10 th 4. 12 th
1.4	Marital status	1. Single 3. Divorced 2. Married 4. Widowed 5. Other, specify _____
1.5	Religion:	1. Orthodox 2. Protestant 3. Muslim 4. Other, specify _____
1.6	Ethnicity:	1. Gamo 4. Amhara 2. Gofa 6. Other, specify _____ 3. Wolayta

Part II. Questions to assess individual and peer level factors

2.1	Do you like schooling?	1. Yes 2. No
2.2	Do you participate in religious activities in the community?	1. Yes 2. No
2.3	If your answer is 'yes' to question 2.2, answer the following three questions;	
	A. How often you participate in religious activities?	1. Every time when participation needed 2. Some times 3. Not at all
	B. In what way you participate? (Multiple response possible)	1. Attend programs only 2. have leadership roles, 3. contribute money, labor or material for church 4. Not at all 5. Other, specify _____
	C. How often you attend religious programs?	1. Every time when program is available 2. At least once per week 3. Sometimes only 4. Not at all
	D. How often you pray?	1. At least once per week 2. Sometimes only 3. Don't pray at all
	E. How important religion for you? (perceived importance of the religion)	1. Very important 2. Important but not that much 3. Not important

2.4	Do you have radio or Television in your home?	1. Yes 2. No
2.5	How often you listen radio?	1. Do not listen at all 2. Sometimes only 3. At least once per week
2.6	How often you watch TV?	1. Do not watch at all 2. Sometimes only 3. At least once per week
2.7	How often you read newspaper?	1. Do not read at all 2. Sometimes only 3. At least once per week
2.8	Do you drink alcohol?	1. Yes (_____ times in the last 30 days) 2. No
2.9	Do you chew Khat?	1. Yes (_____ times in the last 30 days) 2. No
2.10	Do you smoke cigarette?	1. Yes (_____ times in the last 30 days) 2. No
2.11	Do your friends smoke cigarette?	1. Yes 2. No 3. I don't know
2.12	Do your friends chew chat?	1. Yes 2. No 3. I don't know
2.13	Do your friends drink alcohol?	1. Yes 2. No 3. I don't know
2.14	Do you watch pornographic movies (explicit sexual films)?	1. Yes 2. No
2.15	If 'yes' to question 2.14; how often do you watch it?	1. Sometimes only 2. At least once per week

Part III. Questions to assess sexual activity, pregnancy status and reproductive health behavior

3.1	How old are you when you saw your first menstrual flow?	_____ Years.
3.2	Have you ever had sexual intercourse with a male partner?	1. Yes 2. No
3.3	If 'yes' for question 3.2; answer the following three questions;	
	A. At what age you had first sexual intercourse?	_____ years
	B. Have you had it within the last 12 months?	1. Yes 2. No
	C. If yes to Question B; how many times in the last 12 months?	_____ times

	D. Have you used condom during sex?	1. Yes, every time during sex 2. Yes, sometimes 3. No
	E. With how many people did you have intercourse so far?	1. One 2. Two or more
	F. Have you ever used any modern family planning methods to prevent pregnancy?	1. Yes 2. No
	G. If your answer is 'yes' for question F; which method you used?	1. Oral pills 2. Injectables 3. Implants 4. IUCDs 5. Other, specify; _____
	H. Have you used emergency contraceptive methods to prevent pregnancy?	1. Yes 2. No
	I. If "yes" for Q H; have you used it in the last 12 months after unprotected sex?	1. Yes 2. No
3.4	What is the right time to take emergency contraceptives to prevent pregnancy?	1. Immediately after sex 2. Within 3 days of unprotected sex 3. After 3 days of unprotected sex 4. At any time after sex 5. I don't know
3.5	Do you know the fertile days in your menstrual period to get pregnant?	1. Yes 2. No
3.6	If 'yes' to question 3.5; when are those days?	1. When there is menstrual flow 2. Immediately after flow ends 3. In the middle of the period 4. Few days just before flow starts 5. At any time after sexual intercourse
3.7	Do you have best friends married or in union?	1. Yes 2. No
3.8	Do you have friend who ever been pregnant?	1. Yes 2. No 3. Not sure
3.9	Have you ever been pregnant? (includes all pregnancy whether ended in live birth, still birth, or abortion)	1. Yes 2. No
3.10	If "yes" for Q 3.14; Are you pregnant now?	1. Yes 2. No 3. Not sure

3.11	If your answer is 'yes' for question 3.10; how did you know that you are pregnant now? (multiple responses possible)	<ol style="list-style-type: none"> 1. Missed periods at least for 1 month 2. Nausea and vomiting started 3. Breast tenderness 4. Abdominal size increases 5. Urine tested HCG⁺ in the health institution 6. Examined by ultrasound in the Hospital 7. ,Other, specify: _____
3.12	If your answer is "Not sure" for question 3.15, and do you felt any of these sign and symptoms?	<ol style="list-style-type: none"> 1. Missed periods at least for 1 month 2. Nausea and vomiting started 3. Breast enlargement and tenderness 4. Abdominal size increases 5. Other, specify: _____
3.13	If "yes" for Q 3.9; When you got pregnant, did you want to get pregnant at that time?	<ol style="list-style-type: none"> 1. Yes 2. No
3.14	If your answer is 'yes' for question 3.13; why you wanted to get pregnant?	<ol style="list-style-type: none"> 1. To check whether I am fertile or not 2. I perceived that it was the right time to get pregnant 3. To strengthen love and relationship 4. Because married 5. Other; specify _____
3.15	If your answer is 'No' for question 3.13; why you got pregnant then?	<ol style="list-style-type: none"> 1. My friends encouraged me to get pregnant 2. Some of my friends were pregnant and I want to comply with them. 3. My partner wanted pregnancy and I feared that he will beat me otherwise. 4. I was raped 5. Happened unknowingly 6. Other, specify: _____

Part IV. Questions to assess family level factors

4.1	Educational status of the father	<ol style="list-style-type: none"> 1. Illiterate 2. Read and write . 3. grade 1- 4 4. grade 5-8 5. grade 9-10 6. grade 11-12 7. College/university level
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4.2	Educational status of the mother	<ol style="list-style-type: none"> 1. Illiterate 2. Read and write 3. grade 1- 4 4. grade 5-8 5. grade 9-10 6. grade 11-12 7. College/university level
4.3	Family type (whom you are living with?)	<ol style="list-style-type: none"> 1. Both biological parents 2. Biological mother only 3. Biological father only 4. Live with step father and biological mother 5. Live with step mother and biological father 6. Live alone 7. Other specify _____
4.4	Occupational status of the father?	<ol style="list-style-type: none"> 1. Government employee 2. Merchants 3. Daily laborer 4. Driver 5. farmer 6. Other specify _____
4.5	Occupational status of the mother?	<ol style="list-style-type: none"> 1. House wife 2. Government employee 3. Merchants 4. Daily laborer 5. Driver 6. Other specify _____
4.6	Do you communicate with your parents on issues related to sexuality, love and pregnancy openly?	<ol style="list-style-type: none"> 1. Yes 2. No
4.7	Do your parents follow you where and with whom you stay when you are out of home?	<ol style="list-style-type: none"> 1. Yes ----- always 2. Yes ----- sometimes 3. No
4.8	Do your parents like your love and sexual relationship with a male partner?	<ol style="list-style-type: none"> 1. Yes 2. No 3. Don't know
4.9	Do your either parents know about your love or sex partner?	<ol style="list-style-type: none"> 1. Yes 2. No 3. I have no boyfriend

የምርምሩ ዓላማ መረጃ ሰጪና የተሳትፎ ስምምነት መፈረሚያ ፎርም

ወድ የምርምሩ ተሳታፊ! ስሜ ሳሙኤል ማቴዎስ ሲሆን በጅም ዩኒቨርሲቲ የስነ-ተዋልዶ ጤና የማስተርስ ዲግሪ ተማሪ ነኝ። የዚህ ምርምር ዋና ዓላማዉ በአርባምንጭ ከተማ ዉስጥ በሚገኙ የ2ተኛ ደረጃና መሰናዶ ት/ቤት እየተማሩ ያሉ ወጣት ሴት ተማሪዎች መካከል የሚከሰተውን እርግዝና፣ ተያያዥ ችግሮችንና መንስዔያቸውን ለመለየትና ለችግሮች የመፍትሔ እርምጃ ለመወሰድ ነዉ።

እርስዎ አሁን የሚሰጡን መረጃ በተማሪዎች መካከል ያለዉን ችግር በትክክል እንድናወቅ የሚያስችለን ስለሆነ እባክዎትን እያንዳንዱን ጥያቄ በደንብ አንብበዉና ተረድተዉ የራስዎን ሁኔታ በተመለከተ እዉነተኛ ምላሽ እንድሰጡን እንጠይቃለን። የእርስዎን መልስ (መረጃ) ከራስዎ ወጭ ማንም ሰዉ ሊያወቅ ስለማይችል ምንም ዓይነት ስጋት አይደርብዎት። ምስጥርዎን ለመጠበቅ ስለሆነ በጥያቄ ወረቀት ላይ ስም አይጻፉ። ለመሳተፍ ፈቃደኛ ከሆኑ ከታች ባለዉ ባዶ ቦታ እንዲፈርሙልን እየጠየቅን ፈቃደኛ ካልሆኑ መተዉ እንደሚችሉም እንገልጻለን።

ፊርማ -----

2.4	በቤታችሁ ሬዲዮ ወይም ቴሌቪዥን አለ?	1. አዎ 2. የለም
2.5	ምን ያህል ጊዜ ሬዲዮ ታዳምጧልህ?	1. ምንም አላዳምጥም 2. አልፎ አልፎ ብቻ 3. ቢያንስ 1 ጊዜ በሳምንት
2.6	ምን ያህል ጊዜ ቴሌቪዥን ትከታተይላለህ?	1. ምንም አልከታተልም 2. አልፎ አልፎ ብቻ 3. ቢያንስ 1 ጊዜ በሳምንት
2.7	ምን ያህል ጊዜ ጋዜጣ ታነቢያለህ?	1. ምንም አላነበም 2. አልፎ አልፎ ብቻ 3. ቢያንስ 1 ጊዜ በሳምንት
2.8	አልኮል ትጠጫለህ (ቢራ፣ አረቄ፣ ጠጅ ወዘተ)?	1. አዎ (ባለፉት 30 ቀናት----- ጊዜ ጠጥቻለሁ) 2. አልጠጣም
2.9	ጫት ቅመሽ ታውቂያለህ?	1. አዎ (ባለፉት 30 ቀናት ውስጥ ----- ጊዜ ቅምያለሁ) 2. አልቅምም
2.10	ስጋራ አጨሰሽ ታውቂያለህ?	1. አዎ (ባለፉት 30 ቀናት ውስጥ ----- ጊዜ አጭሽያለሁ) 2. አላጨሰም
2.11	ጓደኞቻችሁ አልኮል ይጠጣሉ?	1. አዎ 2. አይጠጡም 3. አላውቅም
2.12	ጓደኞቻችሁ ጫት ይቅማሉ?	1. አዎ 2. አይቅሙም 3. አላውቅም
2.13	ጓደኞቻችሁ ስጋራ ያጨሳሉ?	1. አዎ 2. አያጨሱም 3. አላውቅም
2.14	ግልጽ የሆነ የግብረ-ሥጋ ግንኙነት “ሴክስ” የሚሰየብ ፊልም አይተሽ ታውቂያለህ?	1. አዎ 2. አላውቅም
2.15	ለጥያቄ ቁጥር 2.14 መልስዎ “አዎ” ከሆነ ምን ያህል ጊዜ ታይያለህ?	1. አልፎ አልፎ ብቻ 2. ቢያንስ 1 ጊዜ በሳምንት

3. ስነ-ምግባር፣ እርግዝናና የስነ-ተዋልዶ ጤና ሁኔታን የሚመለከቱ ጥያቄዎች

3.1	ለመጀመሪያ ጊዜ የወር አበባሽን ያየሽው በስንት ዓመትሽ ነበር?	በ----- ዓመት
3.2	ከተቃራኒ የታ ጋር የግብረ-ሥጋ ግንኙነት አድርገሽ ታውቂያለህ?	1. አዎ 2. አላውቅም
3.3	ለጥያቄ ቁጥር 3.2 መልስዎ “አዎ” ከሆነ የሚከተሉትን 3 ጥያቄዎች መልሱ፤	
	ሀ. የመጀመሪያ የግብረ-ሥጋ ግንኙነት የፈጸምሽው በስንት ዓመትሽ ነው?	በ----- ዓመት
	ለ. ባለፉት 12 ወራት ውስጥ የግብረ-ሥጋ ግንኙነት አድርገሻል?	1. አዎ 2. አላደረሁም
	ሐ. የጥያቄ ቁጥር “ለ” መልስዎ “አዎ” ከሆነ ባለፉት 12 ወራት ውስጥ ስንት ጊዜ አድርገሻል?	-----ጊዜ
	መ. የግብረ-ሥጋ ግንኙነት ስታደርጉ ኮንዶም ተጠቅማችሁ ታውቃላችሁ/ታውቂያለህ?	1. አዎ ----- ሁል ጊዜም እንጠቀማለን 2. አዎ----- አልፎ አልፎ እንጠቀማለን 3. አንጠቀምም
ሠ. እስከዛሬ ድረስ ከስንት ወንዶች ጋር የግብረ-ሥጋ ግንኙነት አድርገሻል?	1. አንድ 2. ሁለትና ከዚያም በላይ	

	ረ. የእርግዝና መከላከያ ዜዴ ተጠቅመሽ ታውቂያለሽ	1. አዎ 2. አላውቅም
	ሰ. የጥያቄ ቁጥር “ረ” መልስዎ “አዎ” ከሆነ የትኛውን መከላከያ ዜዴ ተጠቅምሽ?	1. በአፍ የሚወሰድ ክኒን 2. በክንድ ላይ በመርፌ የሚሰጠውን (ዲፖ) 3. በክንድ ላይ የሚቀበረውን 4. በማህፀን ውስጥ የሚቀመጠውን 5. ሌላ ከሆነ ጥቅሽ -----
	ሸ. ድንገተኛ የእርግዝና መከላከያ ዜዴ ተጠቅመሽ ታውቂያለሽ?	1. አዎ 2. አላውቅም
	ቀ. የጥያቄ ቁጥር “ሸ” መልስዎ “አዎ” ከሆነ ባለፉት 12 ወራት ውስጥ የግብረሥጋ ግንኙነት ካደረግሽ በኋላ ድንገተኛ የእርግዝና መከላከያ ዜዴ ተጠቅመሻል?	1. አዎ 2. አልተጠቀምኩም
3.4	ድንገተኛ የእርግዝና መከላከያ ዜዴ መቼ ይወሰዳል?	1. ልቅ የግብረሥጋ ግንኙነት ከፈፀሙ በኋላ ወዲያው ይወሰዳል። 2. ልቅ የግብረሥጋ ግንኙነት ከፈፀሙ በኋላ በ3 ቀናት ውስጥ ይወሰዳል። 3. ልቅ የግብረሥጋ ግንኙነት ከፈፀሙ 3 ቀናት ከቆዩ በኋላ ይወሰዳል። 4. ልቅ የግብረሥጋ ግንኙነት ከፈፀሙ በኋላ በማንኛውም ቀናት። 5. አላውቅም
3.5	ከአንድ የወር አበባ ጊዜ እስከሚቀጥለው ድረስ ባሉ ቀናት ውስጥ ልቅ የሆነ የግብረሥጋ ግንኙነት ቢታደርጊ ወዲያው እርግዝና የሚፈጠርባቸው ቀናት እንዳሉ ታውቂያለሽ?	1. አዎ 2. አላውቅም
3.6	የጥያቄ ቁጥር “3.5” መልስዎ “አዎ” ከሆነ መቼ መቼ ነው?	1. የወር አበባ በሚፈሰባቸው ቀናት ውስጥ 2. የወር አበባ ፍሰት እንዳይበቃ ወዲያውኑ ቀጥሎ ባሉ ቀናት ውስጥ 3. የወር አበባ ፍሰት ከቆሜ በኋላ ሁለት ሳምንት (10-18 ቀናት) ሲሆን 4. የወር አበባ ፍሰት ከመጀመሩ ቀድሞ ባሉ ጥቂት (1-5) ቀናት ውስጥ 5. የግብረሥጋ ግንኙነት ከፈፀሙ በኋላ በማንኛውም ቀናት።
3.7	በጣም ከሚትቀርቢያቸው ጓደኞችሽ ያገቡ አሉ	1. አዎ 2. የለም
3.8	በጣም ከሚትቀርቢያቸው ጓደኞችሽ ያረገዝ አለ	1. አዎ 2. የለም 3. አላውቅም
3.9	እርግዘሽ ታውቂያለሽ?(ሞቶ የተወለደ፤ ወርጃ ወይም በህይወት የተወለደ ህፃን ሁሉንም ያጠቃልላል)	1. አዎ 2. አላውቅም
3.10	የጥያቄ ቁጥር “3.9” መልስዎ “አዎ” ከሆነ አሁን እርጉዝ ነሽ?	1. አዎ 2. እርጉዝ አይደለሁም 3. እርግጠኛ አይደለሁም
3.11	የጥያቄ ቁጥር “3.10” መልስዎ “አዎ” ከሆነ እርጉዝ መሆኑን እንደት አረጋገጡ? (ከአንድ በላይ መምረጥ ይችላሉ)	1. የባለፈው ወር የወር አበባን አላየሁም 2. የማቅለሽለሽ፣ የትውከት፣ ድካም ወዘተ ይሰማኛል 3. ጡቴን ይጠዘጠዘኛል ወይም ያመኛል፤ 4. ሆዴ እየጨመረ (እየገፋ) ነው 5. ሽንት ምርመራ ተመርምሮ እርጉዝ መሆኔን አረጋገጥኩ 6. ሆስፒታል ሄጄ በሶግግራፊ (አልትራሳውንድ) ታይቻለሁ 7. ሌላ ከሆነ ጥቅሽ -----

3.12	የጥያቄ ቁጥር “3.10” መልስዎ “እርግጠኛ አይደለሁም” ከሆነ ከሚከተሉት ውስጥ ለእርስዎ የሚሰማ ስሜት ካለ ይምረጡ (ከአንድ በላይ መምረጥ ይችላሉ)	<ol style="list-style-type: none"> 1. የባለፈው ወር የወር አበባዬን አላየሁም 2. የማቅለሽለሽ፣ የትውከት፣ ድካም ወዘተ ይሰማኛል 3. ጡቴን ይጠዘጠዘኛል ወይም ያመኛል፤ 4. ሆዴ እየጨመረ (እየገፋ) ነው 5. ሌላ ከሆነ ጥቅሽ -----
3.13	የጥያቄ ቁጥር “3.9” መልስዎ “አዎ” ከሆነ እርግጠኛዎን ፈልገው ነው ያረገዙት?	<ol style="list-style-type: none"> 1. አዎ ፈልጌ ነው 2. አልፈለኩም ነበር
3.14	የጥያቄ ቁጥር “3.13” መልስዎ “አዎ ፈልጌ ነው” ከሆነ ለምንድነው ፈልገሽ ያረገዝሽው?	<ol style="list-style-type: none"> 1. ማርገዝ እንደሚችል ለማረጋገጥ 2. ማርገዝ ያለብኝ ትክክለኛው ጊዜ (ዕድሜዬ ስለደረሰ) ስለመሰለኝ 3. ፍቅራችንን ለማጠናከር ፈልጌ ነው 4. ባለትዳር ስለሆንኩ 5. ሌላ ከሆነ ጥቅሽ -----
3.15	የጥያቄ ቁጥር “3.13” መልስዎ “አልፈለኩም ነበር” ከሆነ ለምንድነው ሳትፈልጉ ያረገዝሽው?	<ol style="list-style-type: none"> 1. ጓደኞቼ እንዳረግዝ አበረታቱኝ 2. ጓደኞቼ ስላረገዙ እንደነሱ ለመሆን ፈልጌ ነው 3. ካላረገዝጉ ፍቅረኛዬ ይጣላኛል ብዬ ፈርቼ ነው 4. ተደፍራ ነው ያረገዝኩት 5. ድንገት ሳላውቅ አረገዝኩ 6. ሌላ ከሆነ ጥቅሽ -----

4. የቤተሰብ ሁኔታን የሚመለከቱ ጥያቄዎች

4.1	የአባትሽ የት/ት ደረጃ	<ol style="list-style-type: none"> 1. ምንም ያልተማሪ 2. ማንበብና መጻፍ የሚችል 3. 1ኛ-4ኛ ክፍል የተማሪ 4. 5ኛ-8ኛ ክፍል የተማሪ 5. 9ኛ-10ኛ ክፍል የተማሪ 6. 11ኛ-12ኛ ክፍል የተማሪ 7. ኮሌጅ/ዩኒቨርሲቲ የተማሪ
4.2	የእናት የት/ት ደረጃ	<ol style="list-style-type: none"> 1. ምንም ያልተማሪ 2. ማንበብና መጻፍ የሚችል 3. 1ኛ-4ኛ ክፍል የተማሪ 4. 5ኛ-8ኛ ክፍል የተማሪ 5. 9ኛ-10ኛ ክፍል የተማሪ 6. 11ኛ-12ኛ ክፍል የተማሪ 7. ኮሌጅ/ዩኒቨርሲቲ የተማሪ
4.3	ከማን ጋር ነው የሚትኖሪው?	<ol style="list-style-type: none"> 1. ከወላጅ አባቴና እናቴ ጋር 2. ከወላጅ አባቴ ብቻ ጋር 3. ከወላጅ እናቴ ብቻ ጋር 4. ከወላጅ አባቴና እንጀራ እናት ጋር 5. ከወላጅ እናቴና እንጀራ አባት ጋር 6. ብቻዬን ነው የሚኖረው 7. ሌላ ከሆነ ጥቅሽ -----
4.4	የአባትሽ ሥራ ምንድነው?	<ol style="list-style-type: none"> 1. የመንግሥት ሠራተኛ 2. ነጋዴ 3. የቀን ሠራተኛ 4. የመኪና ሾፌር 5. ገበሬ 6. ሌላ ከሆነ ጥቅሽ -----

4.5	የእናትሽ ሥራ ምንድነው?	<ol style="list-style-type: none"> 1. የቤት እመቤት 2. የመንግሥት ሠራተኛ 3. ነጋዴ 4. የቀን ሠራተኛ 5. የመኪና ሾፌር 6. ሌላ ከሆነ ጥቅሽ -----
4.6	ከወላጆቻችሁ ጋር ስለጾታ ግንኙነት፣ ፍቅር፣ የወር አበባ ሁኔታና እርግዝና በግልጽ ትወያያላችሁ/ትነጋገራላችሁ?	1. አዎ 2. አንወያይም
4.7	ከቤት ወጭ በሚትቆይበት ጊዜ ሁሉ የት እንደሚትወይና ከማን ጋር እንደሚትቆይ ወላጆቻችሁ ይከታተላሉ/ይቆጣጠራሉ?	<ol style="list-style-type: none"> 1. አዎ ----- ሁል ጊዜ 2. አዎ----- አልፎ አልፎ ብቻ 3. አይከታተሉም/አይቆጣጠሩም
4.8	ከወንድ ጓደኛሽ/ፍቅረኛሽ ጋር ለሚታደርገው ግንኙነት ወላጆቻችሁ ምን ዓይነት አመለካከት አላቸው?	<ol style="list-style-type: none"> 1. ይወዳሉ 2. ይቃወማሉ 3. አላውቅም
4.10	አባትሽ፣እናትሽ ወይም አሳዳጊዎቻችሁ የፍቅር ጓደኛሽን ያወቃሉ?	1. አዎ 2. አያውቁም 3. የወንድ ጓደኛ የለኝም

ለትብብርዎ ከልብ እናመሰግናለን!!