ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF SEXUAL BEHAVIOR AND KNOWLEDGE OF STI AND HIV/AIDS AMONG HIGH SCHOOL ADOLESCENTS IN JARDEGA JARTE WOREDA, OROMIA REGIONAL STATE, ETHIOPIA, 2014

By

Kumera Bekele (B.Sc.)

A thesis submitted to the school of graduate studies of Addis Ababa University, College of health science, school of allied health science, department of nursing and midwifery in partial fulfillments of the requirements for the degree of masters in child health nursing.

June, 2014

Addis Ababa, Ethiopia

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Advisor: Mr.Yohannes Ayalew (RN, BSc.N, MSc.N)

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Approved by Board of Examiners

This thesis by Kumera Bekele is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters in Child health Nursing.

Internal Examiner

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Full name	Rank	Signature	Date

Acknowledgements

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First and foremost, I would like to thank the Lord Jesus Christ for giving me the opportunity and strength to continue with my education.

Secondly, I would like to express my heart full gratitude to my respectful advisor Mr.Yohannes Ayalew for his unreserved, invaluable and constructive comments and continuous support throughout the whole work of this research

I would also like to thank Addis Ababa University, Department of Nursing and midwifery for its financial and material support without which this thesis work would not be successful.

My thank also goes to Jardega Jarte woreda administration office of Education, Alibo and Jardega high school administrative officials ,the teachers and students for their brotherly help and support. I would also like to thank all data collectors and facilitators participated in this study.

The last but not the least, I am grateful to my parents, my brothers and my sisters, for their encouragement, moral support, financial support and sacrifice in all years until now. This thesis is dedicated to them indeed.

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List of abbreviation

AIDS= Acquired human deficiency syndrome

AAU= Addis Ababa university

AOR=Adjusted Odd Ratio

BSS= Behavioral surveillance survey

CDC=Centre for Disease Control

CI=Confidence interval

COR=Crude Odd Ratio

CSA= Central Statistical Agency

CSW=Commercial Sex Worker

DHS= Demographic and Health Survey,

EDHS=Ethiopian Demographic and Health Survey

ETB=Ethiopian birr

HAPCO=HIV/AIDS prevention and control office

HIV= Human immunodeficiency virus

J/Jarte=Jardega Jarte

KAP= knowledge, Attitude and practice

LGV= Lympho Granuloma Venerium

MOH= Ministry of Health

OR= Odds ratio

RH= Reproductive health

STI= Sexual transmitted infection

STD= Sexual transmitted disease

SRH= Sexual and reproductive health

SPSS= Statistical package for social science.

UNAIDS = United Nations Program on HIV/AIDS

UNFPA= United Nations Population Fund

USA = United States of America

WHO= World health organization

Abstract

Background: Today, adolescents are recognized as groups with special health-related vulnerabilities .They are exposed to various risks such as unprotected sex, early marriage, early pregnancy, sexually transmitted infections (STIs) and HIV/AIDS. Many adolescents are sexually active. These sexual activities put adolescents at risk of various reproductive health problems including STI and HIV/AIDS.STIs have occurred mostly among young people, with the highest reported rates found among those aged 15-24 years.

Objective: The major objective of this study is to assess the sexual behavior and the knowledge of STI and HIV/AIDS among high school adolescents.

Method: A cross-sectional study was conducted on 562 adolescents using a pre tested questionnaires from March to April 2014, among two high schools, in Jardega Jarte woreda, Horo Guduru Wollega zone, west Oromia regional state.

Result: From the total respondents, 38.6 % (53% of male and 47% of female) of adolescents had experienced sexual activity. Among those, only 46.6% of them had used condom the first time they had sexual intercourse. The mean age at first sexual intercourse was 16.24 (16.24 ± 0.682) for male and 15.40 (15.40±0.796) for females. From all sexually active adolescents, 92.2% (97.2% of boys and 86.7% of the girls) had their first sexual intercourse between the ages of 15 and17 years.

The reasons cited for the initiation of their first sexual intercourse were fall in love (37.9%), had desire, 74 (36%), peer pressure, 30 (14.5%), were drunk, 12 (5.8%), to get money or gifts, 5 (2.4%), rape, 4(1.9%), and got married, 2 (0.9%).

Among all adolescents, 45.7% of students have heard about sexual intercourse other than vaginal while 54.3% of students have not heard.

98.9% of the respondents claimed to have ever heard about sexually transmitted diseases (STIs), of which, HIV/AIDS (96.6%), gonorrhea (75.8%), Syphilis, (74.3%) and Chancroids (40.1%), were the most commonly known types of STI.

The most commonly cited sources of information for HIV/AIDS were media, such as radio and TV, (78.3%), school clubs,(74.5%) and followed by school teachers, (62.9%).

The majority of the adolescents mentioned the modes of HIV/AIDS transmission to be through unprotected sexual intercourse (96.4%), sharing contaminated instruments (81.8%) followed by from mother to child (68.4).

Conclusions and recommendations: from this study, one can conclude that substantial proportion of the adolescents ever had sexual intercourse was higher. Moreover adolescents are practicing risky sexual behaviors such as unprotected sex, multiple sexual partners, and sex at early age. Therefore, an integrated effort needs to be initiated to address such adolescents' sexual and reproductive health problems through establishing and strengthening school anti AIDS clubs, providing in service training for teachers on adolescent reproductive health and establishing youth centers.

CHAPTER ONE

INTRODUCTION

1.1 Background

The World Health Organization (WHO) defines adolescents as people between 10 and 19 years of age. Individuals within this age range have passed through childhood but are not yet considered adults. Adolescence is an important transitional phase, during which humans experience rapid physical, mental, and social development. This stage of human development is also marked by increased experimentation, as adolescents are keen to try new things, often without thought for their consequences. This second decade of life is thus fraught with dangers, including threats to health (1).

Today, adolescents are recognized as a group with special health-related vulnerabilities (2). Many people have sexual intercourse for the first time in their teen years, Lack of information and knowledge encourage sexual risk behavior, thus increasing individuals' chances of acquiring STIs (3). In recent years, STIs have occurred mostly among young people, with the highest reported rates found among those aged 15-24 years.

Approximately 60% of new cases of human immunodeficiency virus (HIV) and half of HIV-infected people were found in this age group (2). To protect adolescents from these diseases, there is a need to educate them on STI prevention by providing them with relevant information and equipping them with the life skills that will enable them to put knowledge into practice STD-prevention education programmes implemented by governments and international organizations in the developing and developed countries have had positive impacts on adolescents (3).

How to make these programmes meet the needs of different groups of adolescents is a challenge facing authorities and programmers.

Because of social or religious custom adolescents in many developing countries rarely discuss about sexual matters explicitly with their parents. As a result the lives of them are at risk because they do not have the information; skills, health services and support they need to go through sexual development during adolescent (4).

Sexually transmitted diseases (STIs) amongst adolescents are a worldwide growing health problem. Approximately one million people contract sexually transmitted infections every day and 50% of them are adolescents aged 15-24 years (5).

STIs include many different sexually transmittable infectious diseases such as chlamydia, gonorrhoea, genital herpes, human papilloma virus (HPV), human immunodeficiency virus (HIV), and syphilis. STI is transmitted through vaginal, oral and anal sexual contact as well as through blood products. STIs can also be transmitted from mother to child during childbirth. Untreated Chlamydia and gonorrhea can lead to salpingitis for women and to epididymitis for men, which can affect fertility and in worst case lead to sterility. Hepatitis B and C, genital herpes, HPV and HIV are still incurable infections. HPV can lead to cervical cancer and HIV to premature death. STI is only prevented by consistent use of condom (6).

The HIV pandemic remains the most serious infectious disease and a challenge to public health intervention. Globally, the epidemic has regional, population and gender disparity. Sub-Saharan Africa remains the most affected region in the global AIDS epidemic in which Ethiopia is one of the hardest hit sub-Saharan countries. Most of the deaths attributed to HIV/AIDS were because of inadequate access to HIV prevention and treatment services.

Adolescents in Ethiopia are also exposed to various risks such as unprotected sex, early marriage, early and unwanted pregnancy, sexually transmitted infections (STIs) and HIV/AIDS, unemployment, drug abuse and crime (7).Moreover, studies show that in Ethiopia, 60% of adolescents' pregnancy is unwanted or unintended pregnancies resulted from unprotected sexual intercourse (7).

1.2 Statement of the problem

Limited access to targeted RH care and services for adolescent people contributes to, and exacerbates, many of the RH problems. Over a quarter of all pregnant youth and adolescents feel that their pregnancies are mistimed, reflecting this population's limited access to FP and RH services. (8).

Many adolescents are sexually active. These Sexual activities put adolescents at risk of various reproductive health problems. Adolescents are disproportionately affected by STIs including HIV/AIDS because of their engagement in unsafe sexual practices such as multiple sexual partnerships, casual sex and inconsistent condom use. Evidences show that worldwide more than three million people are newly infected with STIs annually and 70% of the infections occur among young people (9)

Statistics on STIs show no sign of abating; the ever-increasing number of STIs and deaths due to HIV/AIDS are common now, particularly in developing countries. As the time goes on the trend of STIs is becoming a big problem among the youth (10).

Because of cultural taboos adolescents in many developing countries rarely discuss sexual matters explicitly with their parents. Studies also suggest that adolescents have a limited knowledge about sexual and Reproductive health and know little about the natural process of puberty. This lack of Knowledge about reproductive health including STI and HIV/AIDS may have a great consequence. (11).

On the other hand, young people often face with enormous pressure to engage in sex, especially from peers' exposure to unlicensed erotic video films and the desire for economic gain. As the result of these, significant numbers of adolescents are currently sexually active at their earlier ages. This indicate that the necessity of reproductive health interventions at an earlier age.

The reproductive health problems of young people in Ethiopia are multifaceted and interrelated. Lack of education, unemployment, and extreme poverty exacerbates and perpetuate the sexual health problems faced by Ethiopian youth. (12).

The highest prevalence of HIV in Ethiopia is also observed in the age groups 15 to 24; indicating recent infection still widely going on. The same report indicated that as in other Sub-Saharan Africa, the route of transmission in Ethiopia is heterosexual. Moreover, other sexually transmitted diseases and having multiple sexual partners are the two most important factors promoting the transmission of HIV (13).

In Ethiopia, sexual activity with all the associated risks such as STIs including HIV infection will sets on during adolescence period. Ethiopia is a country with highest HIV infection rate in the world. It is estimated that 20% of youth/adolescent population is found in the age group of 15–24 years of which 2.9% is HIV infected. Youths and adolescents are at greatest risk of STIs/HIV infection because of individual, biological and cultural factors. Girls start having sex earlier than boys; those female youths/adolescents that would have sexual relation with older men usually don't have experience in negotiating safer sex (8, 14).

Adolescents in Ethiopia are also exposed to various risks such as unprotected sex, early marriage, early pregnancy, sexually transmitted infections (STIs) and HIV/AIDS, unemployment, drug abuse and crime (14). In order to tackle these problems, adolescents should learn to develop the life skill they need to survive in their environment. Life skill based education enables them to develop an ability in critical thinking, problem solving, self-management and interpersonal communication skills in order to adopt a healthy behavior. Because, when sexuality is discussed openly and when young people learn more about their bodies and their emotions, they are better able to cope with sexual maturations. This implies that a sound education and information can help adolescents to delay sexual practice and avoid risky sexual practice.(14)

Schools are the ideal places where adequate and accurate information be provided along with their formal education. Moreover, peer groups in school play a great role in 3-information dissemination and help students internalize the facts that lead to behavioral change. Actually, this needs the integrated effort of adolescents, school- teachers, the family and other relevant bodies.

1.3-Significance of the study

At the present time adolescents' have confronted with different reproductive health problems. These problems have aggravated by their sexual behavior which they adapted from the socio economic, and cultural environment of the outside world.

Although several studies have been conducted on HIV among Ethiopian youths, unfortunately, research on adolescent attitude and sexual behavior in Ethiopia is very limited. Although research on STIs has increased the last decade there is still more to learn on school adolescents' knowledge of and attitudes to STIs. And nowadays unprotected sex is a growing trend among adolescents and that STIs are still a big problem in Ethiopia.

The few studies that have been conducted among school adolescents in Ethiopia have showed high rates of sexual activity, inadequate knowledge on sexual and reproductive health issues and sexual attitudes that are likely to put them at high risk of HIV and STI (15). Therefore, it is important to increase efforts in reducing the spread of STIs and HIV infection among adolescents as they are the future of the nation.

It is hoped that primarily this study will assist in informing local district policy makers, programme planners, community leaders, educators, about school adolescents' sexual behavior and knowledge on STI and HIV/AIDS. It is further hoped that this study will assist health care providers in developing appropriate preventive and promotive strategies within the district. This will ensure that all health care providers are aware of STI and HIV/AIDS issues related to young people and help them to know the magnitude of the problem.

Knowledge gained from this study will be used to make recommendations regarding to sex education, safe sex practices, STI and HIV/AIDS that could enable institutions to implement policies, strategies and programmes via the curriculum of schools that could help reduce the prevalence of STI and HIV/AIDS among adolescents in this woreda

The findings of this study will also provide a basis for implementing responsible sexual behavior programmes in schools and could serve to review the current health behavior programmes offered in clinics and hospitals in this area.

CHAPTER TWO

LITERATIVE REVIEW

2.1 Adolescent Sexual Behavior

Adolescence is the period between puberty and adulthood and during puberty various endocrine glands produce reproductive hormones which are responsible for body changes and secondary sex characteristics (16). Some of these hormones cause significant remodeling of the brain and hence could explain why adolescents are more likely than adults to engage in risk-taking behaviors (17).

The study of adolescents' sexual behavior has not been that easy. Literature on adolescent sexuality is dominated by survey approaches, mostly based on the KAP –model (Knowledge, Attitudes and Practices) of sexual behavior, which only count sexual acts, without taking the sexual meanings and motivations into account. In short, most studies on adolescent sexual behavior has not been considering the context in which knowledge on HIV/AIDS/STIs and sexuality is gained and sexuality negotiated.

According to WHO report of 2005/2006, there was a high disparity among nations on entry of adolescent's sexual activity, the majority of adolescents enter in to sexual activity when they are teenage. Researches on adolescents' sexual behavior indicated that, the rates of sexual activity are concentrated in the 2 % - 11 % range in various settings in Asia; 12 % -25 % in various settings in Latin America; and 45 % -52 % in settings in Sub-Saharan Africa .A study on some European countries showed that on average 24 % of girls and 30 % of boys aged 15 had had sexual intercourse

Age at first sex is an important indicator of sexual risk among adolescents and therefore marks the onset of individual exposure to HIV infection. Additionally, early sexual debut is a marker of the beginning of exposure to other reproductive health problems such as unwanted pregnancies and other STIs (18).

According to the WHO, 2000 reports, adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure. Previous studies conducted in various African countries showed early sexual debut as low as 10 years for both boys and girls (19).

Sexual activity for many people begins in adolescence. Furthermore, the results of a cross-sectional survey which was conducted in both primary and secondary schools in north-western Tanzania, indicated that 80% of school boys and 68% of girls aged 14 -19 were already sexually active. This study revealed that, some adolescents were involved in different types of sexual practices during their first sexual act including anal and oral sex. However, vaginal sex was the most common first sexual act reported by secondary school students, while for primary school, 40% of pupils reported oral-genital sex and 9% reported anal sex as their first sexual act (20).

Various studies were undertaken in Ethiopia related to reproductive health and sexuality. The findings of most of the studies revealed that many adolescents are sexually experienced including single male and female.

According to the survey result of the 2002 BSS which was done on school adolescents, 19 % of males and 13 % females had ever had sex. The data showed that more than 25 % of in-school younger youth aged 15-19 had had sex by the time they were 15 years old. Most male in-school youth (49.3 %) in this same survey reported that their first sexual partner had been close to their own age on average 16 years old. In contrast, female youth reported that their first sexual partners were often considerably older than they were. Accordingly, about 36 % and 15 % of in-school youth reported their first sexual partner had been 5-10 years older and 10 years older respectively.

Another survey was the 2005 Demographic and Health Survey, showing the proportion of women and men in the age cohort 15-24 years 16 % of young women and 2 % of young men had sex by age 15.While 35 % of young women and 9 % of young men had sex by age18. The data also revealed that among young men and women in Addis Ababa aged 15-24 years, 6.1 % and 2.3 % acknowledged that they had had sexual intercourse respectively (21).

According to the EDHS of 2011, 29% of the women aged 15-49 had their first sexual intercourse before age 15, 62 % before age 18, and by age 25 the majority of Ethiopian women (88%) had had sexual intercourse. The median age at first sexual intercourse for women age 25-49 years was 16.6 years. The median age at first sexual intercourse had increased over the past two decades, from 15.6 years for women currently age 45-49 to 18.8 years for women currently age 20-24.

The second Ethiopian BSS in 2005,among in school youths 9.9% were found to have had sexual experience before marriage, 14.6% of males had had sex compared to 5.3% of females. Of those that had ever had sex, 40.6% had had sex at or before the age of 15. (22)

In Debre Berhan, out of 663 youth respondents, 217(32.7%) reported to have practiced sexual activity in the past, which included 87(28.6%) of the boys and 130 (36.2%) of girls. The mean age at first sexual intercourse was 18.1 (+2.1 SD) years. (23)

Among Agaro high school students, from the total population, 90(25%) of them had history of sexual intercourse prior to the study period. Among males, 70(32.6%) and females 20(13.8%) of them had sexual intercourse in the past 12 months. (24)

According to Zambia Sexual Behavior Survey of 2003 the Percentage of adolescents who had ever had sex increases markedly with age in which a 5.6 fold increase was noted (14% at age 15 to 79% at age 19) (25).But in more urbanized countries like south Africa the percentage increases 48% (26).

Studies conducted on the African continent, showing that the age at first sexual intercourse has become lower almost everywhere in Africa for female adolescents, ranging from 15 to 19 years (27)

Many studies done on sexual behavior revealed that a number of people have sexual experience with more than two persons in their lifetime without use of condom. According to one study conducted in Bale zone, 47.7% of them had more than one sexual partner in the past. Of the sexually active student nearly 21% have reported to have sexual intercourse with CSWs.

Among respondents who have claimed to have sexual intercourse with CSWs, 88.8 % of them did not use condom (28).

Similarly, another study showed that 54% of sexually active students reported that they had had multiple sexual parents including high-risk behavior. While among those sexually active students none or minimal use any protection, especially condom. Only 17.6% used condom during first sexual encounter and among these, only 27.7% used condom consistently. One study conducted in Nekemte showed that 7.6 % of school girls were engaged in sex for money (29).
Adolescence is often a time of experimentation with drugs alcohols and other substance use as well as practicing. For example, in United Republic of Tanzania, young people aged 16 to 24 years who smoke and drink alcohol are four times more likely than own their peers to have multiple sex partners (30). In United States of America, college students who have sexes under the influence of drugs or alcohol are 2.5 times less likely to use protection (30).

In a study conducted in five urban schools (in Baher Dar, Dessie, Awassa, Jimma, and Dire Dawa) to explore the patterns and socio-demographic correlates of sexual initiation, subsequent risk behaviors, and condom use among secondary school youth across Ethiopia, one third (33.3%) of the youth reported having had sexual intercourse prior to the study. The mean age of sexual initiation was 15.3 (SD = 2.5) years. Two-thirds of the sexual initiations were unprotected and some occur with higher risk groups, including much older (15.5%) or casual/commercial sex partners (9.1%). Multi-partner sex (52.7%) and sex with casual (30.4%) or commercial (25.3%) partners were the most commonly reported lifetime risk behaviors. Although 56.7% of the youth ever used condoms, less than half of these used them regularly.(31).

In Ethiopia EDHS 2005/2006 indicated that condom use among adolescent is low, only one percent of young women and 17% of young men used condom during their first sexual intercourse. The potential negative outcomes of people and unsafe sexual practices are high risk of contracting STIs and HIV/AIDS. (32).

Regarding to the sexual issue communication, the study which was conducted in Nekemte found that 76.5% and 70.3% of sexually at risk male and female respectively found to be having low communication with their parents. But on the other side the study made on Nekemte adolescents' showed condom used is less likely among adolescents who have ever discussed about sexual matters with their parents than who discussed it (33).

Research on peer influence on sexual initiation reflects the idea that adolescent's decision about whether or not to initiate sexual activity are strongly bound to social context, with peer playing an important role in creating a sense of normative behavior (34).

According to the study which was done on Nekemte town school adolescents on factors related to initiation of sexual practice, the main reasons of sexual intercourse were fell in love which accounted for 49(33.8%),desire to practiced sexual intercourse 44 (30.3%),peer pressure in 25 (17.2%) (36). Another study among preparatory students in Aleta wondo, according to the FGD participants, there were sexual practices among the students and the main reasons for the early sex were peer pressure, economic problems, being away from family, lack of adequate education on HIV/AIDS and reproductive health in school. Even though it is not much common among students, alcohol and khat consumptions were also mentioned (35).

According to the study which was done in Lalibela town, the main reason for starting sexual intercourse were peer pressure (56.3 %) and due to love affair (17.1%) (36).
The sexual activity of adolescents can be influenced by different socio-economic and demographic factors of their parents. Parental income, parental arrangement, parental monitoring and communication have significant influence on sexual behavior (37).

So many researchers found that family characteristics have significant influence on risky sexual behavior of adolescents. For example, from single parent family, adolescents are more likely to report early sexual activity compared to adolescents from two parent families. Adolescent who perceived a low level of parental monitoring were more likely to be sexually active than males who perceived a high degree of monitoring. Even a medium level of monitoring was associated with increased odds of males being sexually active (38).

2.2 Knowledge about STI/HIV/AIDS

The National Behavioral Surveillance Survey of the National AIDS Control Organization (NACO) indicated that approximately 3% of young males and 5% of young females reported the experience of symptoms of infection (STIs) such as discharge, ulcers or sores in the 12 months preceding the survey. These figures undoubtedly reflected considerable under-reporting (39).

Some study reflected on a very important finding that the risk of STIs/HIV was high among males because they practiced unsafe sex and among females because of lack of knowledge. Information about behavior, attitudes, and knowledge through regular surveys is essential to better understand the dynamics of the STI epidemic. This information is also important in assessing changes over time as a result of prevention efforts.

The study conducted by by Awasthi and Pande assessed the sexual behavior patterns and knowledge of STI among underprivileged 15-21 year old boys. The adolescents had poor knowledge regarding STI prevention, placing them' at high risk for STI/HIV.

According to the study conducted by Harms et al. in Namibia," the causes of the increased rates of STIs/HIV in young people were complex, however, the main reasons included biological factors, risky sexual behavior patterns (early initiation of sex, premarital sex, bisexual orientation and multiple sexual partners), transmission dynamics and treatment-seeking behavior.

Dash (2004) revealed in his study that causes and consequences of reproductive health was low, nearly half of the girls were not aware of hazards of unsafe abortion; knowledge of STI was low. While a study conducted by Sahoo (2004) found that few of the respondents had Knowledge about STI. Knowledge of HIV was better (60%). Women, have a higher incidence of STIs than men because of their greater biological susceptibility.

According to Hartell (2005), 97% of respondents showed a high awareness about HIV and AIDS. However, 10% said that staying with a faithful partner and using a condom will not protect them from HIV/AIDS. Surprisingly, the majority felt that they were not susceptible to HIV infections.

A cross sectional survey which is titled "Study of knowledge, perception and attitude of adolescent girls towards STIs/HIV, safer sex and sex education: of urban adolescent school girls in South Delhi" by McManus and Dhar (2008) indicated that knowledge about STIs other than HIV/AIDS was very poor among adolescents. The majority (71%) had not heard about Genital Herpes and almost half had not heard about Gonorrhea (44%) or Syphilis (43%). This was of particular concern in developing countries like India, as STIs such as Chlamydia, trichomoniasis, Syphilis and Gonorrhea were second only to maternal morbidity and mortality as the cause of death, illness and 'years of healthy life lost' among women in their child bearing years.

A national HIV Prevalence study done by Shishana et al. (2009), found that females aged 15-24 years had the lowest scores at 40.6%, while males in the 15 and older age group had higher levels of accurate knowledge about HIV transmission.

Study which was conducted in Kampala among university students in the title of (KAP about STI) showed that Knowledge of the clinical features of gonorrhea and AIDS was high; most knew the predisposing factors for STIs (multiple sexual partners 90%; unprotected sexual intercourse 93%; rape 81%; sex outside marriage 78%, and sex under the influence of alcohol 73%) but not so for syphilis. Males were three times more likely to contract STIs (27%) than their female (9%) counterparts. Whereas knowledge on methods of prevention was high (>90%) it was not followed by appropriate behavioral patterns. More female (33.5%) students had heard about *Trichomonas vaginalis* than males (23%);
This study has shown that more female than male students got information from their parents while more male students had their information from previous sexual intercourse

Study which was conducted in Tanzania in title of (knowledge of STI among secondary school students) showed that_majority of the students (98%) have heard about STIs; however their knowledge of the symptoms associated with STIs was poor. Similarly 147 (23%) students did not know other means of STIs transmission rather than sexual intercourse. A number of students who were capable of identifying all tracer STIs was comparable between the ordinary (10.5%) and advanced (10.6%) level students ($p<0.001$).

Thirty-two students (8%) were completely unable to identify even a single tracer STI. About 96% respondents said were capable of preventing themselves from contracting STIs, however 38% of them admitted that they were at risk of contracting STIs. Majority (99%) described more than one source of information on STIs, television and radio were the most commonly mentioned sources, whilst none of them cited parents as source of information ($p<0.001$). Regarding vulnerability to STIs, 503 (79%) students said female students were more vulnerable to STIs compared to males.

Studies conducted in Japan and United States among adolescents demonstrated high levels of knowledge concerning HIV and STIs.(40).These noted variations between developed countries and developing countries could be due to accessibility of information. Young people in developed countries have adequate access to HIV information through various sources including media, parents, schools and religious leaders as compared to their counterpart in developing countries (40).

According to EDHS (2005) only around one –fifth of women and one-third of men aged 15- 24 knew all of the basic facts about HIV/AIDS. The level of knowledge about HIV/AIDS did not vary greatly by age within the young population. As revealed in EDHS (2005) Knowledge about HIV/AIDS was much more common among urban than rural youth.

The document also indicated that knowledge about HIV/AIDS rises with the level of education; and youth in the highest wealth quintile were much more likely to had better knowledge than other youth.

In related survey of EDHS (2011) the respondent's knowledge of AIDS was almost universal; 97 % of women and 99% of men age 15-49 have heard of AIDS. From these 96.2% adolescents aged 15-19 has heard about HIV. And the level of awareness of AIDS is 99.2% in urban and 95% in rural areas. This showed that there was a difference between urban and rural regarding to their awareness.

Knowledge of someone who had AIDS or who had died of AIDS may increase an individual's awareness of the consequences of HIV and AIDS and may lead to safer sexual practices including taking voluntary counseling and testing (41).

Despite extensive efforts in promoting condom use, adolescents in sub-Saharan Africa still engage in risky sexual behaviors and condom use remain either relatively low or are used inconsistently. One study from sub-Saharan Africa indicated that in Burkina Faso, Ghana, Uganda and Malawi the proportion of adolescents reporting consistence use of condoms in the 3 months preceding the survey was 38%, 47%, 20% and 36% respectively. Another study finding from a cross-sectional survey conducted in Tanzania among adolescents aged 10-19 years also revealed that only 42% of sexually active adolescents reported having used a condom during their most recent sexual act (42).

2.3 Risky sexual practice

Having multiple sexual partners is one of the greatest known risky sexual practices associated with increased HIV incidences. Evidence from research indicates that, the risk of contracting HIV increase with multiple sexual partners. Unfortunately, several studies indicated that some adolescents in sub Saharan Africa including Tanzania engage in risky sexual practices such as multiple sexual partners (42).

For example, about 15% of sexually active in-school and out of school adolescents in Tanzania reported having multiple sexual partners (42). In another study, 13% of boys and 4% of girls among 1041 adolescents in secondary schools reported that they had multiple sexual partners . Although the reasons for adolescents to engage in multiple sexual partnership is not clear, some studies pointed out that substance use could be one of the responsible factor (43)
Longitudinal surveys in Colombia and Uganda revealed that adolescents with increased drug use were more likely to engage in multiple sexual partnerships (44)

EDHS of 2011 reported that 0.3% of adolescents aged 15-19 had more than two sexual partners in the past 12 months

Conceptual Framework

This conceptual framework is constructed to show the influence of socio economic factor, demographic factors, risky behaviors and risky sexual practice on adolescents' sexual behavior and knowledge of STI and HIV/AIDS.

For this study, socio economic, demographic variables, risky behaviors and risky sexual practices are considered as independent variable where as adolescents sexual behavior and STI and HIV/AIDS knowledge are used as dependent variable. The variables are selected on by using many literature reviews that are assumed as significant relation with adolescents' sexual behavior.

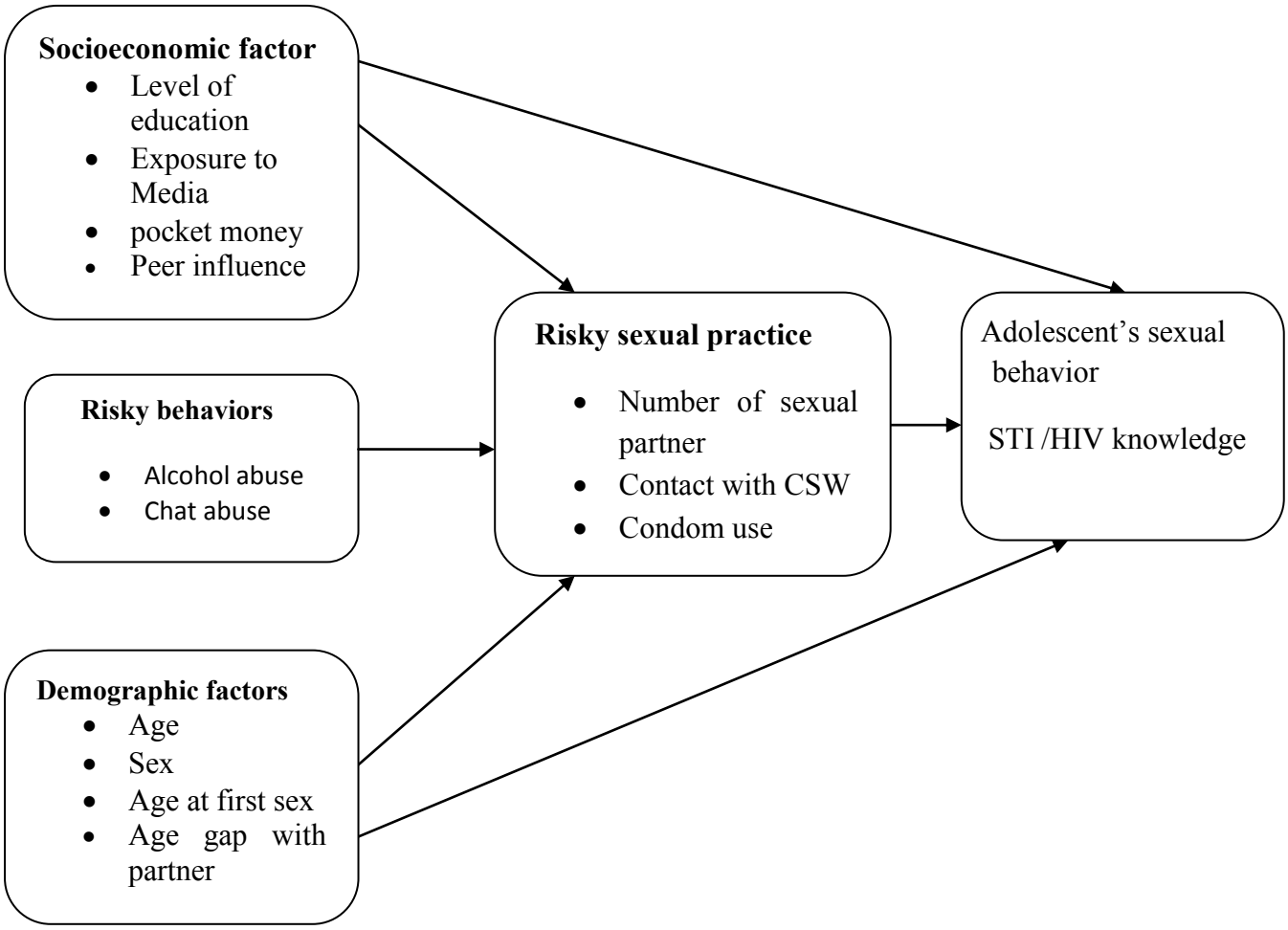

Fig 1: Conceptual frame work of Adolescents sexual behavior and knowledge of STI and HIV/AIDS

CHAPTER THREE

OBJECTIVES

3.1. General Objective

- To assess the sexual behavior and the level of knowledge on STI and HIV/AIDS of high school adolescents in Jardega Jarte woreda of Oromia regional state, Ethiopia in 2014

3.2. Specific Objective

- To describe the sexual behavior of high school adolescents in Jardega Jarte woreda
- To assess factors that initiates early sexual practice of high school adolescents
- To determine the level of knowledge regarding STI and HIV/AIDS amongst high school adolescents
- To investigate the socio-demographic factors that may influence high School adolescents' sexual behavior and level of knowledge on STI and HIV/AIDS.

CHAPTER FOUR

METHODOLOGY

4.1 The Study Area and period

The study was conducted in Jardega Jarte woreda, which is located in Horo Guduru Wollega zone of Oromia regional state. The capital city of this woreda is Alibo and it is found 387 Km in the west of Addis Ababa. It is bordered on the east by Abay chomen, on the south by Horo, on the south west by Abe dongoro, on the west by East Wollega zone, on the North West by Amuru and on the north by the Abay river which separates it from the Amhara region.

According to the 2007 national census, the woreda has a total population of 48,943 of whom 24,475 were men and 24,468 were women. This woreda has four high schools, one preparatory and thirty elementary schools. There are also six health centers in this woreda.

The area of study is selected by its high prevalence of sexual risk behavior, lack of tangible previous research under this topic and its convenience access to the investigator.

The study was carried out between March 11 up to May 10, 2014 at Jardega Jarte woreda

4.2 Study design

A cross - sectional study design was employed on the selected Jardega Jarte woreda high school to assess the sexual behavior of adolescents and their knowledge toward STI/HIV AIDS.

4.3 Source population

All adolescents in the selected two high schools of Jardega Jarte woreda, Oromia regional state.

4.4 Target population

The target populations of this research were all students aged 10 to 19 years attending their education during the study period in the selected high schools.

4.5 Study population

The study populations were all randomly selected students from the two high schools in the woreda.

Eligibility criteria

Inclusion criteria

- All regular and voluntary high school students who were aged between 10-19 years and who were enrolled in 2013/14 academic year.
- Students who were attending the school at the time of data collection.

Exclusion criteria

- Extension students and those students who were not willing to participate.
- Students who were not attending the school at the time of data collection.

4.6 Sample size calculation

To determine the sample size for the study population the following assumption was made. The actual sample size for the study was determined using the formula for single Population proportion by assuming 5% marginal error and 95% confidence interval at alpha (α =0.05) and the population proportion (21%) Which was taken from the previous study of adolescents who were sexually active

So based on the above information the total sample size was calculated by using the following formula. By taking the population proportion P=21%

$$N= \frac{(Z\alpha 1/2)^2 P(1-P)}{d^2}= \frac{(1.96)^2 0.21(1-0.21)}{(0.05)^2}= \underline{\underline{255}}$$

→By assuming non-response rate and incomplete questionnaire taking 10%, the total sample size will be:

N= (255x10%) + 255= 281

The required sample size was the largest one. i.e. 281 and the design effect =281*2= 562

4.7 Sampling procedure

A multi-stage sampling, initially students were stratified by grade, which was from 9-10 and from each grade section; study unit was selected by lottery method. To select the study unit student's roster was used as frame. And to determine the number of students from each grade proportionate allocation to their size was used.

Finally, by using systematic random sampling technique every 3rd student was selected from the list.

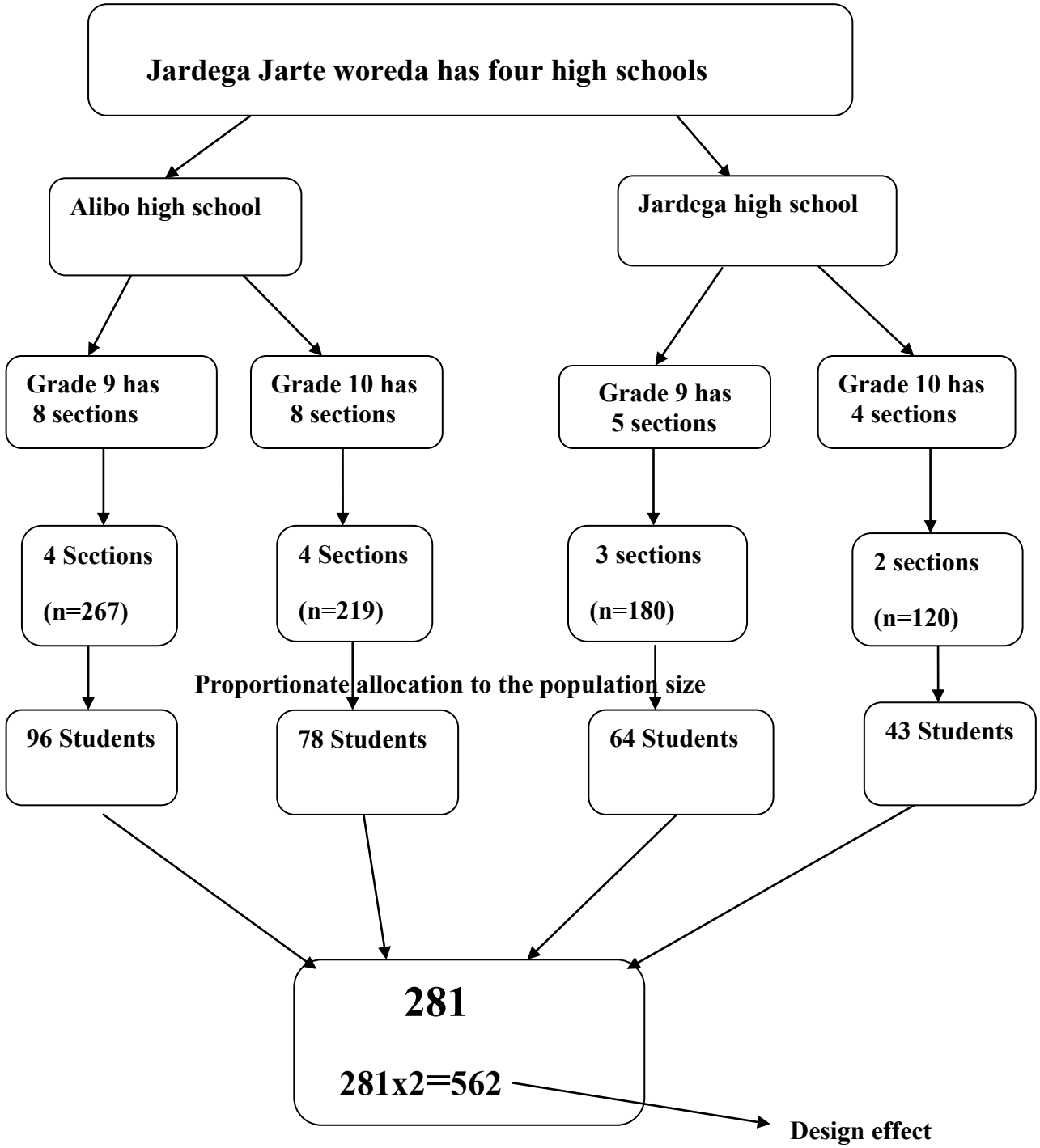

Fig 2. Schematic presentation of the sampling procedure

Note-*: Section and study unit were selected by simple random sampling (lottery method) and the number of students from each grade by proportionate allocation to their size.*

Proportionate to Population Size (PPS) is calculated as-:

N in high schoo**l** = $\frac{\mathbf{n}f \ * \ \mathbf{n} \text{ in high schools}}{\mathbf{N} \text{ total}}$

Where **n** in high school=proportion of students in a given high school

N total= Total number of students in the selected two high schools

nf=Total sample size

N in high school=Number of students in a given high schools

4.8 Data collection tools and procedures

Data was collected through self-administered with structured questionnaire having both close and open ended for quantitative data. The questionnaire was developed in English and first translated to Afan Oromo to insure the clarity of questions for the respondents. After that it was translated back to English to assure its consistency.

The questionnaire contains questions or variables that had discuss some demographic, economic and social characteristics of respondents and their parents, questions regarding sexual behavior and knowledge of HIV/AIDS and STIs were assessed.

Self-administered questionnaire adopted after reviewing different literatures with some modifications based on stated objectives. The questionnaire was pre-tested on 10 % of high school students prior to the date of data collection and those students were excluded from the study. The result of the pre test was discussed & some corrections and changes were made on the questionnaires. Any error, related to clarity, ambiguity incompleteness, misunderstanding, etc were solved on the following day before beginning next day activities.

Four data collectors were recruited. Two supervisors were selected and they were responsible to lead the whole situation of data collecting process, to check the data collected for Consistence, completeness, editing, and suspicious of irregularity. Training was given for both data collectors and the supervisors for one day before the pretest regarding to the objective of the study; discussing the content of the questionnaires one by one, the methodology in relation to reaching the intended goals, and more importantly how to keep confidentiality and privacy.

4.9 Study Variables

Dependent Variables

- Sexual behavior and knowledge of STIs and HIV/AIDS.

Independent Variables

Socio economic and demographic characteristics like

- Age. Sex. grade, ethnic group, parents educational status, Parents job status and With whom they are living.
- Risky sexual practices.(such as having multiple sexual partner, inconsistent use of condoms, chewing chat and drinking alcohol).

4.10 Data quality assurance

To assure the data quality, one day training was given for four data collectors and two supervisors. Appropriate information and instruction on the objective; relevance of the study was given for the respondents. The data collectors were stay with respondents until all questions were filled and remained respondents to re-check the completeness of the questionnaire before submitted to them

4.11 Data analysis procedure

For quantitative data, data was cleared and coded manually. After data was cleared and coded, it was entered into EPI-info 3.5.3 and transported to SPSS 21 version for analysis. Univariate analysis and multivariate logistic regression models were to check crude and independent effect of variables by using Odds Ratio with a 95% Confidence Interval (C.I). Chi-square trend analysis was used and p-value less than 0.05 were taken as statistically significant.

4.12 Operational definition

In this section, I define the key terms used in this study.

Adolescent: According to my studies adolescents are young people aged 10 – 19 years

Sexual intercourse: refers to heterosexual vaginal penetration, anal or oral

Ever had sex: - Adolescent who reported ever having had penetrative vaginal, oral or anal sex, at least once in their lifetime.

Never had sex:- Adolescent who reported never having had penetrative vaginal, oral or anal sex in their lifetime.

Sexually active:- refers to both boys and girls who had at least one sexual encounter in the past 12 months before the survey.

Sexual behavior:- the investigation of issues related to sexual intercourse and the number of sexual partners ever had as well as the use of prevention methods of HIV/AIDS.

Risky sexual behavio*r*:- behavior that increases the likelihood of adverse health consequences, namely: non use of condoms, anal sex, oral sex, and having multiple sexual partners

Safe sex- Abstinence before marriage, being faithful to partner, and consistent use of condom during each sex.

Consistent condom use: - use of a condom during every sexual encounter.

Knowledge of STI & HIV Adolescents who cited knowing over 75 % of AIDS and STI knowledge questions were classified as having a good knowledge while those who report less than 75 % of AIDS and STI knowledge questions were categorized as having poor knowledge.

4.13 Ethical consideration

The study was undertaken after the approval of the ethical committee of Addis Ababa University, School of allied health science, department of Nursing and Midwifery and permission of Jardega Jarte woreda administration education bureau. Participation of all respondents was volunteer. Measures were taken to assure respect, dignity and freedom of each individuals participating in the study. Information on the purpose and procedures of the study was explained; issue of confidentiality of information was assured verbally to all study subjects and the importance of their verbal consent before engaging into the study.

4.14 Data dissemination plan

The result of the study will be communicated to relevant bodies including Addis Ababa University, college of health science, department of nursing and midwifery and furthermore, all attempts will be made to present the findings to scientific conference and attempt will be made to publish the finding in local reputable journal.

CHAPTER FIVE

RESULT

5.1 Socio-demographic characteristics of the adolescents

A total of 562 school adolescents were invited to participate in the survey, and the response rate was 100%, but 28(5%) of the responses were excluded from the analysis because of their incomplete responses, while 534 adolescents completed the questionnaires. Among the total of 534 respondents, 282 (52.8%) and 252 (47.2%) were males and females, respectively. The mean age of the respondents was 16.8 ±0.972.

The majority of the respondents, 508 (95.1%), were Oromo, followed by 23 (4.3%), Amhara, and 3 (0.6%) others. By religion, 397 (74.3%), 65 (12.2%), 37 (6.9%), 15 (2.8%) and 20 (3.7%) were Protestant, Orthodox, Muslim, Catholic and others, respectively. Regarding their education level, 276 (51.7%) and 258 (48.3%) of the respondents were attending 9^{th} and 10th grade, respectively.

Among all the respondents, 428 (80.1%), 62(11.6%), 30(5.6%) were living with their parents, single parents and relatives respectively. while the rest live either with friends or alone (Table1).

When the respondents classified based on their parents' economic status, as perceived by the respondents, the majority, 366 (68.5%) of the respondents were from medium families while 119 (22.3%), 27 (5.1%) and 22(4.1%) were from rich, very rich and poor families, respectively.

Ninety two (17.2%) of the respondents reported that they have permanent pocket money while 442 (82.8%) have no pocket money.

Thirty seven (6.9%) and 153 (28.7%) were from the illiterate family i.e. father and mother, respectively. While the rest 121 (22.7%) and 252 (47.2 %7), 79 (14.8%) and 58 (10.9%)

196 (36.7%), and 53(9.9%)), 101(18.9%) and 18(3.4%) were from the families who are able to read and write, primary, secondary, and college and above respectively (Table 2).

The majorities of the students' parents (fathers and mothers) were farmers, 190 (35.6%) and 152(28.5%), respectively (Table2)

Table 1.Socio-demographic characteristics of the study population: Jardega Jarte woreda, 2014.

Variables		Frequency	Percentage
sex	Male	282	52.8
	Female	252	47.2
Age	10-14	6	1.1
	15-19	528	98.9
Grade level	9^{th}	276	51.7
	10^{th}	258	48.3
Religion	Protestant	397	74.3
	Orthodox	65	12.2
	Muslim	37	6.9
	Catholic	15	2.8
	Others	20	3.7
Ethnicity	Oromo	508	95.1
	Amhara	23	4.3
	Others	3	0.6
Currently living with	Both parents	428	80.1
	Single parents	62	11.6
	Relatives	30	5.6
	Friends	5	0.9
	Alone	9	1.7
Pocket money	Yes	92	17.2
	No	442	82.8

Table2.Description of parents of the study population: Family education, occupation & economic status Jardega Jarte woreda, 2014.

Variables		Frequency	Percentage
Fathers education level	Illiterate	37	6.9
	Read and write	121	22.7
	Primary(1-8)	79	14.9
	Secondary(9-12)	196	36.7
	Above 12	101	18.9
Mothers Education level	Illiterate	153	28.7
	Read and write	252	47.2
	Primary(1-8)	58	10.9
	Secondary(9-12)	53	9.9
	Above 12	18	3.4
Fathers' occupation	Daily laborer	21	3.9
	Farmer	190	35.6
	Civil servant	106	19.9
	Employed in private sector	98	18.4
	Has private business	110	20.6
	Others	9	1.7
Mothers' occupation	Daily laborer	82	15.4
	Farmer	152	28.5
	Civil servant	52	9.7
	Employed in private sector	90	16.9
	Has private business	102	19.1
	Others	56	10.5
Perceived family economic status	Very rich	27	5.1
	Rich	119	22.2
	Medium	366	68.5
	Poor	22	4.1

5.2. Sexual history of the adolescents

Among all adolescents aged 10-19years, 206 (38.6%) reported ever having sexual intercourse. The mean age at first sexual intercourse was 16.24 (16.24 ± 0.682) for male and 15.40 (15.40 ± 0.796) for females. From all sexually active adolescents, only 1 (0.49%) of respondents had first sexual intercourse before the age of 14 years, while the large proportion, 109 (100%) of males and 96 (99.5%) of females had their first sexual intercourse after the age of 14 years.

The majority of the adolescents 190 (92.2%), (97.2% of boys and 86.7% of the girls) had their first sexual intercourse between the ages of 15 and17 years.

Among those who were sexually active, 80 (38.8%) were 9th grade while 126 (61.2%) were attending 10th grade at the time of the survey.

When the relationship of the adolescents to their first sexual partners is examined, the majority of the partners were boy/girl friends 119 (57.8%) followed by acquaintance, 72 (35%). (**Table.3)**

Adolescents claimed that the main reasons for the initiation of their first sexual intercourse were fall in love, accounting for 78 (37.9%), had desire, 74 (36%), peer pressure, 30 (14.5%), were drunk, 12 (5.8%), to get money or gifts, 5 (2.4%), rape, 4(1.9%), got married, 2 (0.9%) and due to other factors, 1(0.5%).

One hundred fifty three out of 206 adolescents, who were sexually active, gave response to the question enquiring the number of their sexual partners they had in the past 12 months. Accordingly, 132 (86.3%) had only one sexual partner and 19 (12.4%) had two sexual partners, while 2 (1.3%) had three and more sexual partners.

Among those who were sexually active males, 20(20.4%) had had sexual intercourse with commercial sex workers .Of these 14 (70%) had ever used condom. Among those who ever used condom, 5(35.7%) used condom consistently, 5 (35.7%) used sometime while 4(28.6%) used condom most of the time.

Among all adolescents, 290 (45.7%) of students have heard about sexual intercourse other than vaginal while 244 (54.3%) of students have not heard.

This study indicated that among sexually active adolescents, 21(10.2%), 26(12.6%) of them ever had oral and anal sex, respectively (Table 3)

Table 3.Sexual history among high school adolescents Jardega Jarte woreda, 2014

Variables		Frequency	Percentage
Ever had sexual partner	Yes	362	67.8
	No	172	32.2
Ever had sexual intercourse	Yes	206	38.6
	No	156	29.2
Relation of the first sexual partner	Acquaintance	72	34.9
	Friends	119	57.8
	Fiancé	12	5.8
	Relatives	1	0.5
	Others	2	0.9
Reason to start sex	Fall in love	78	37.9
	Had desire	74	36
	Raped	4	1.9
	Peer pressure	30	14.5
	To get money or gift	5	2.4
	Got married	2	0.9
	Were drunk	12	5.8
	Others	1	0.5
Had sexual intercourse in the past 12 months	Yes	153	74.3
	No	53	25.7
Number of sexual partners in the last 12 moths	One person	132	86.3
	Two	19	12.4
	Three & above	2	1.3
Used condom the first time you had sexual intercourse	Yes	131	63.6
	No	75	36.4
Heard sexual intercourse other than vaginal	Yes	290	45.7
	No	244	54.3
Type of sexual intercourse heard other than vaginal	Oral sex	225	42.1
	Anal sex	252	47.2
Type of sexual intercourse ever had other than vaginal	Oral sex	21	10.2
	Anal sex	26	12.6

Percentage of adolescents who had ever had sex increases with age, and those aged 19 were almost four times more likely to had ever had sex than those aged 14 years.(Table 4).

Table 4.Percentage of adolescents who had ever had sex according to their age

Adolescents age	Frequency	% of ever had sex
14 years	1	20.0
15 years	4	25.0
16years	48	43.2
17years	85	63
18years	57	70
19 years	11	78.6

Regarding to condom use, among adolescents who ever had sexual intercourse, only 96(46.6%) of them had used condom the first time they had sexual intercourse, majority of them 110 (53.4%) did not used. Of the adolescents who were sexually active in the past 12 months, 123 (80.4%) had used any contraception during the last 12 months of whom the majority, 73 (59.3%), had used condom.

5.3 Adolescents' knowledge about STI and HIV/AIDS

Five hundred twenty eight (98.9%) of the respondents claimed to have ever heard about sexually transmitted diseases (STIs), of which, HIV/AIDS 617(96.6%), gonorrhea 405 (75.8%), Syphilis, 397 (74.3%) and Chancroids 214 (40.1%), were the most commonly known types of STI.(Fig.3). The most commonly cited sources of information for HIV/AIDS were media, such as radio and TV, 418 (78.3%), school clubs, 398(74.5%) and followed by school teachers, 336 (62.9%).(Fig 4

The majority of the adolescents mentioned the modes of HIV/AIDS transmission to be through unprotected sexual intercourse 515 (96.4%), sharing contaminated instruments 437 (81.8%) surprisingly 42 (7.9%) of respondents mentioned Mosquito or insect bite can transmit HIV/AIDS.(Table5).

The adolescents were also asked about the prevention methods of HIV/AIDS; and the larger proportion of the respondents 497 (93.1%), 491(92%), 292(54.7%) and 253 (47.4%) mentioned

that abstaining from sexual intercourse, followed by using condom, can prevent HIV/AIDS respectively (Table 5.)

Table 5.Adolescents' knowledge about STI and HIV/AIDS among study subjects

Variables		Frequency	Percentage
Heard about STI	Yes	528	98.9
	No	6	1.1
Type of STI Heard about	Syphilis	397	74.3
	Gonorrhea	405	75.8
	Granuloma inguinal	122	22.8
	Cancroids	214	40.1
	HIV/AIDS	516	96.6
	LGV	34	6.4
	Trichominas	40	7.5
Heard about HIV/AIDS	Yes	531	99.4
	No	3	0.6
Source of information of HIV/AIDS	Parents	170	31.8
	Peers	53	9.9
	Boy/Girl friend	130	24.3
	Health workers	237	44.4
	School teachers	336	62.9
	School clubs	398	74.5
	Religious leaders	26	4.9
	News paper,books	279	52.2
	Media (radio, TV	418	78.3
Modes of transmission of HIV/AIDS	Unprotected sex	515	96.4
	Contaminated sharp materials	437	81.8
	Taking unscreened blood	136	25.5
	From mother-to child	365	68.4
	Insect bite	42	7.9
	Sharing common latrine	2	0.4
	Eating food with PLWHA	15	2.8
	Cures from Good	12	2.2
Transmission of HIV by other than vaginal sex	By Oral sex	114	21.3
	By Anal sex	202	37.8
Means of prevention	Abstain from sex	497	93.1
	Use condom	491	91.9
	Be faithful to one uninfected partner	253	47.4
	Avoid sex with CSW	43	8.1
	Use new needle	292	54.7
	Take VCT	188	35.2

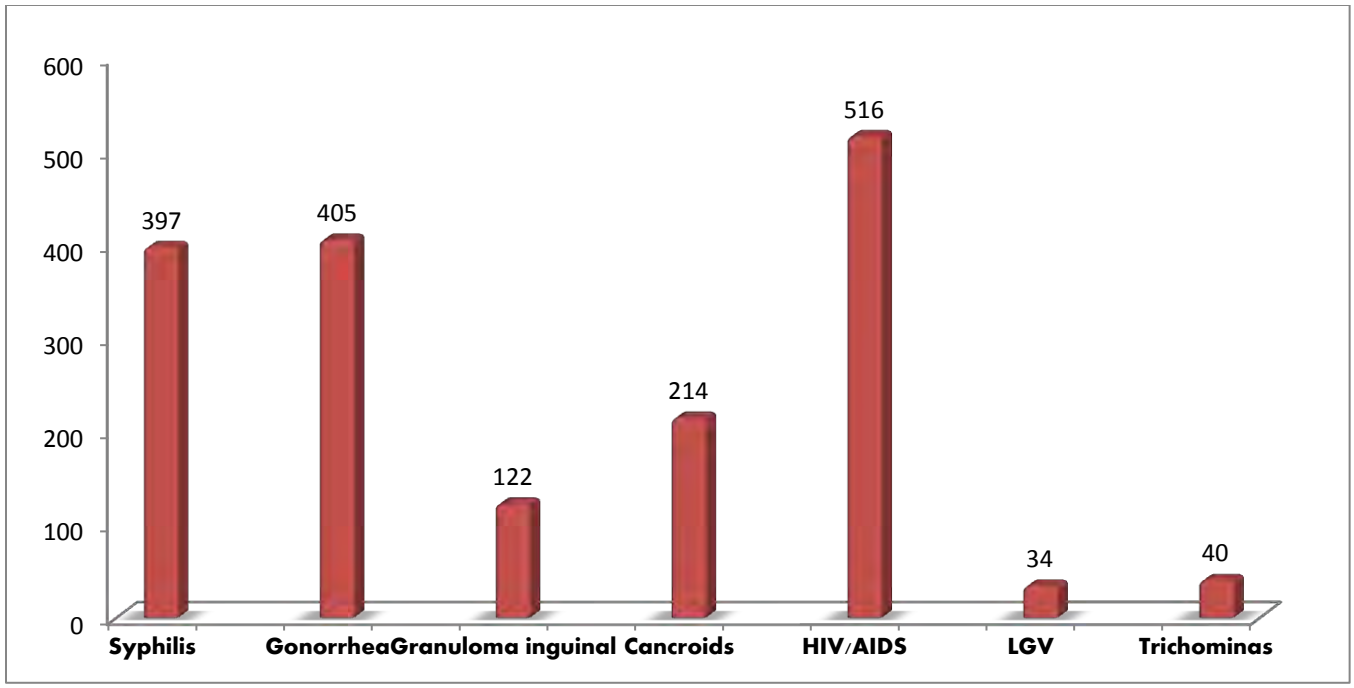

Fig 3. Type of STI's heard among study subjects, J/Jarte woreda, 2014

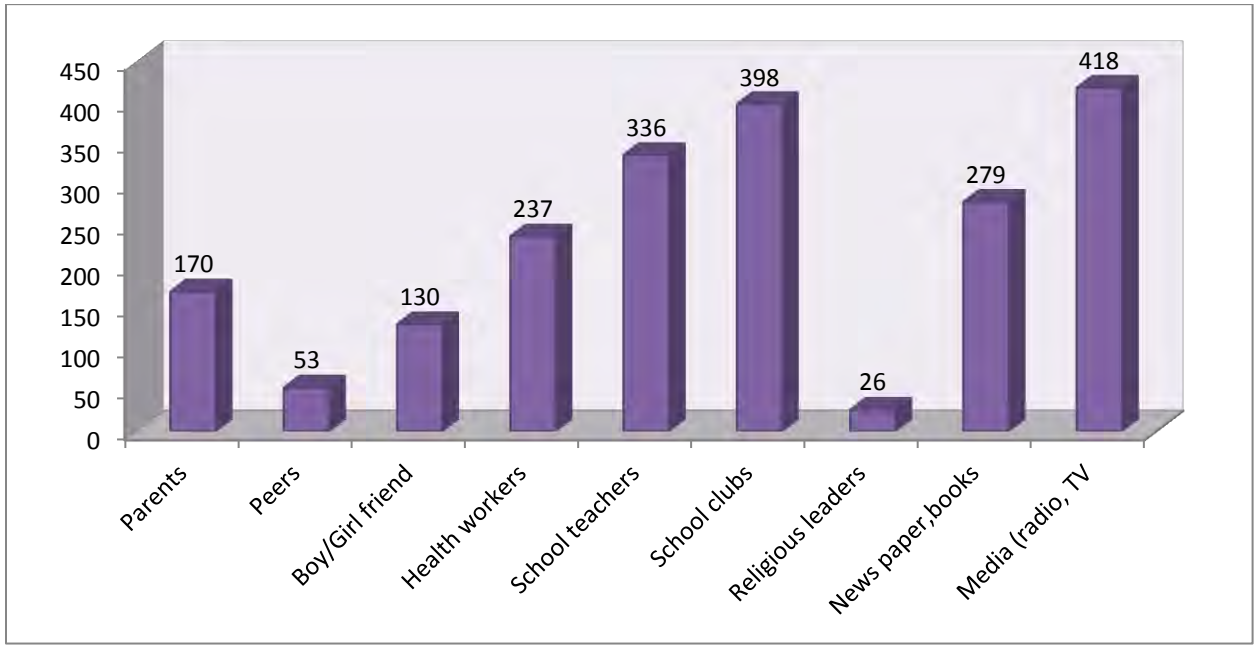

Fig 4. Source of Information on HIV/AIDS Among study subjects, J/Jarte woreda, 2014

Majority of adolescents 366 (68.5%) did not know that Ulcers and/or pus in the genital organ and pain on passing urine are some of the features of STIs other than HIV/AIDS, while 168 (31.5%) of them know the features of STIs. The adolescents were also asked about the complication (outcome) of STI other than HIV if not treated early, and most of respondents 263 (49.3%) ,125(23.4%),40 (7.5%),24(4.5%) mentioned exposure to HIV, sterility, urethral stricture and cancer respectively (**Fig 5**)

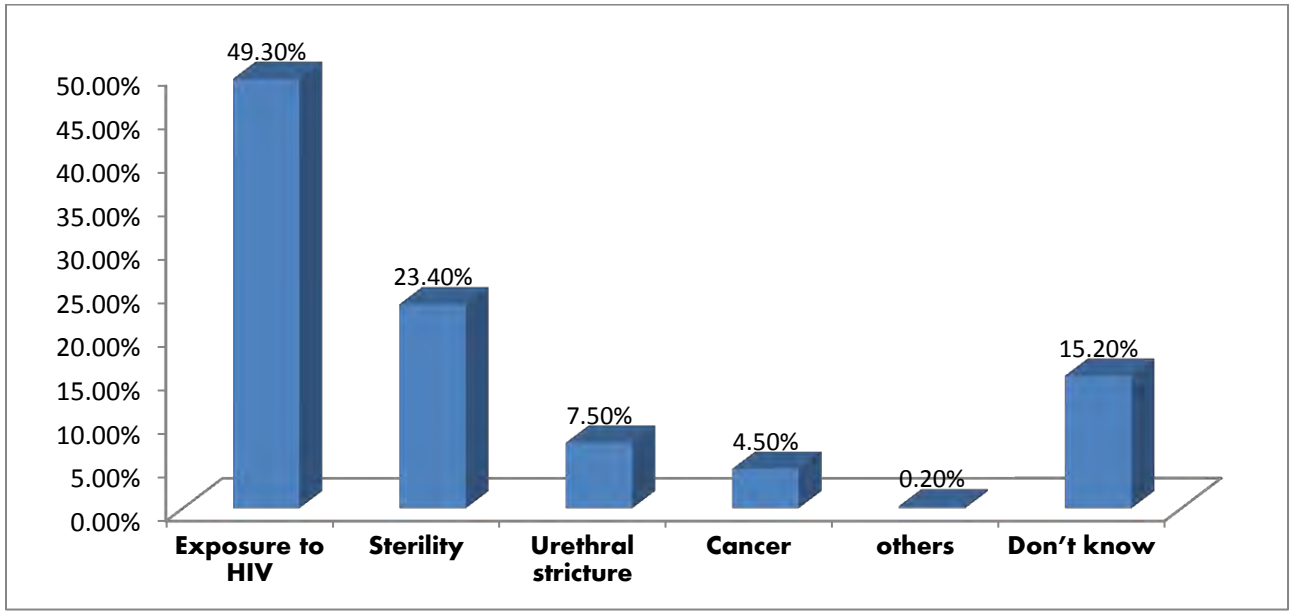

Fig 5. Adolescent's response on Outcome of STI if not treated early

Four hundred forty- fifty one (84.5%) of the adolescents believe that a person can get HIV infection the first time she or he had sexual intercourse. While only 55(12.2%) of the respondents believe that if someone carefully looks at a person she/he can identify that a person is living with or without HIV/AIDS.

Two hundred eighty one (52.6%) of adolescents believe that oral sex cannot transmit HIV/AIDS. Similarly, 203 (38%) of respondents also believe HIV/AIDS cannot be transmitted through Anal sex.(**Fig 6 & 7)**

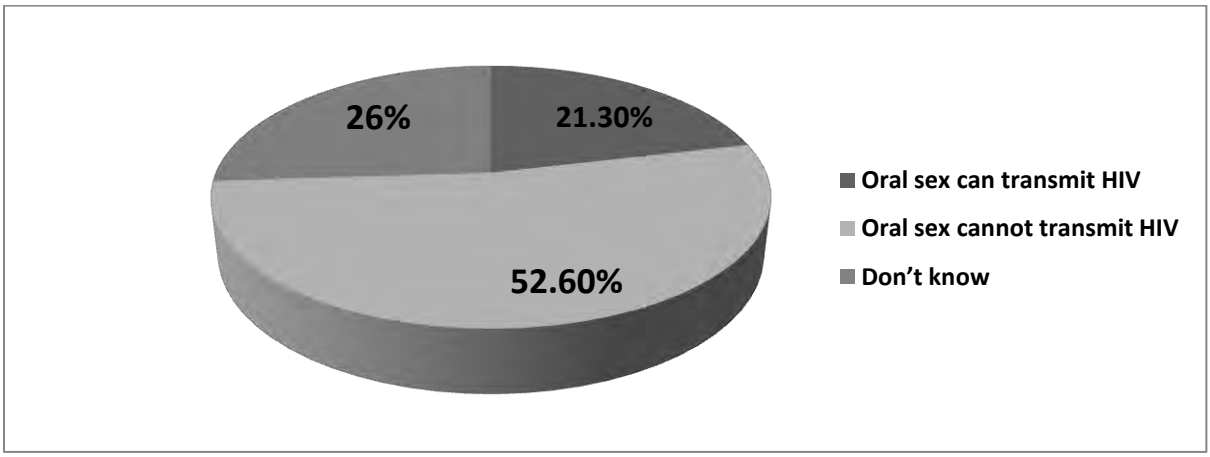

Fig.6: Knowledge of HIV Transmission by oral sex of study subjects

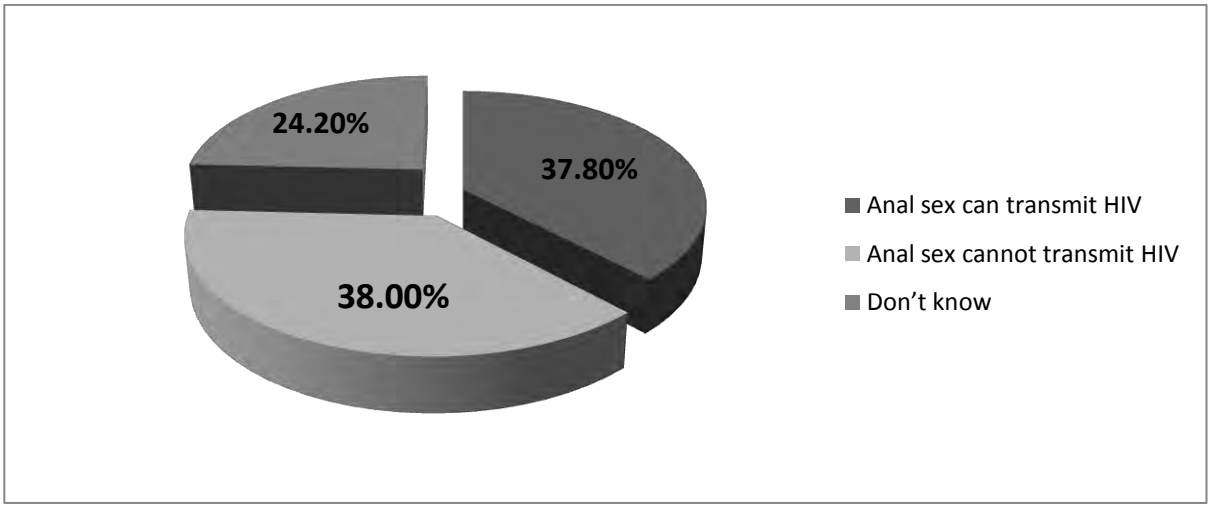

Fig 7. Knowledge of HIV Transmission by Anal sex of study subjects

About 88 (16.5%) of the respondents believed that they had done something that might put them at risk of getting HIV/AIDS infection. The reasons were they have had sexual intercourse without condom, 60 (68.2%), have had more than one sexual partner 23 (26.1%), and had sexual intercourse with commercial sex workers, 5(5.7%).

Table 6.Bivariate Analysis of some variables with sexual behavior & knowledge of STI/HIV

		Sexual behavior		*Odd ratio*	
Variables		**Risky**	**Not risky**	**Crude OR**	***P*-value**
Grade	**9th**	43(15.6)	233(84.4)	**1.00**	
	10th	75(29.1)	183(70.9)	**0.45(.295,0.687) ****	**0.00**
Currently living with	Both parents	85(19.9)	343(80.1)	**1.00**	
	Single parents	22(35.5)	40(64.5)	**0.451(0.254,0.798)****	**0.006**
	Relatives& friends	11(31.4)	24(68.6)	0.541(0.255,1.147)	0.109
	Alone	0(0.0)	9(100%)	400336337.0	0.999
Pocket money	Had no income	86(19.5)	356(80.5)	**2.208(1.3,3.602) ****	**0.002**
	had income	32(34.8)	60(65.2)	**1.00**	
Fathers occupation	Daily laborer	7(33.3)	14(66.7)	**1.00**	
	Farmer	28(14.7)	162(85.3)	**2.893(1.073,7.801) ***	**0.036**
	Civil servant	24(22.6)	82(77.4)	1.708(0.69,4.714)	0.301
	Employed in private Sector	25(25.5)	73(74.5)	1.460(0.529,4.027)	0.465
	Private business	33(30)	77(70)	1.167(0.431,3.155)	0.761
	others	1(11.1)	8(88.9)	4.000(0.414,38.649)	0.231
Mothers occupation	House wife	20(17.1)	97(82.9)	**1.973(1.004,3.878) ***	**0.049**
	Farmer	26(15.3)	144(84.0)	**2.253(1.197,4.239) ***	**0.012**
	Civil servant	4(19.0)	17(81.0)	1.729(0.527,5.672)	0.366
	Employed in private sector	44(30.8)	99(69.2)	0.915(0.506,1.656)	0.770
	Private business	24(28.9)	59(71.1)	**1.00**	
Had sexual partner	Hadn't sexual partner	1(0.6)	172(99.4)	**82.475(11.41,596.13)***	**0.00**
	Had sexual partner	117(32.4)	244(67.6)	**1.00**	
Had sexual intercourse	Had no sexual intercourse	6(3.8)	150(96.2)	**29.787(12.594,70.45)***	**0.00**
	had sexual intercourse	112(54.4)	94(45.6)	**1.00**	
Number of sexual partner	One	54(11.5)	415(88.5)	**1.00**	**0.00**
	Two and more than two	64(98.5)	1(1.5)	**0.002(0.00,0.15) ****	
Drink alcohol	Never drink	38(11.9)	281((88,)	2.28 (1.47,3.53) **	**0.00**
	Drink	80(37.2)	135(62.8)	1.00	
Chew chat	Never chew	74(16.4)	377(83.6)	**1.00**	**0.00**
	Chew	44(53.0)	39(47.0)	**0.174(0.106,0.286) ****	

		STI/HIV knowledge		*Odd ratio*	
Variables		**Poor**	**Good**	**Crude OR**	***P*-value**
Sex	Male	36(12.8)	246(87.2)	**1.00**	
	Female	53(21.0)	199(79.0)	**0.549(0.346,0.873)** *	**0.011**
Family income level	Very rich	9(33.3)	18(66.7)	**1.00**	
	Rich	23(19.3)	96(80.7)	2.087(0.831,5.239)	*0,117*
	Medium	54(14.8)	312(85.2)	**2.889(1.234,6.764)** *	***0.015***
	poor	3(13.6)	19(86.4)	3.167(0.738,13.595)	*0.121*
Pocket money	had no income	64(14.5)	378(85.5)	**2.204(1.297,3.745)****	***0.003***
	had income	25(27.2)	67(72.8)	**1.00**	
Had sexual partner	Had no sexual partner	37(21.4)	136(78.6)	**1.00**	
	Had sexual partner.	52(14.4)	309(85.6)	**1.617(1.013,2.580)** *	***0.044***
Discuss sexual issue with partner	No discussion	58(13.6)	367(86.4)	**1.00**	
	Discussion	31(28.4)	78(71.6)	**2.515(1.526,4.146)****	***0.00***
How easy Discuss sexual issue with partner	Easy	2(18.2)	9(81.8)	**1.00**	
	Difficult	29(29.6)	69(70.4)	**0.376(0.225,0.629)****	***0.000***
Heard STI	Not heard	3(50.0)	3(50.0)	**1**	
	Heard	86(16.3)	442(83.7)	**5.140(1.020,25.890)***	***0.047***

5.4 Results of bivariate analysis

The bivariate analysis for the adolescents' socio-economic and demographic characteristics revealed that grade level, living arrangements. Parent's occupation and pocket money of the respondents have significant relationship with respondents practicing risk sexual behavior. But, variables such as religion and ethnicity do not have significant relationship with dependent variable (Table 7).

As can be observed from table 7, adolescents who had no pocket money were more likely to report safe sexual behavior than those who had pocket money (COR=2.208,95%CI,1.3,3.602)

Adolescents from farmer family (father) were more likely had practiced safe sexual behavior than adolescents from other family. (COR=2.893, 95%CI1.073, 7.80).

Adolescents who had no sexual partner were most likely had safe sexual behavior than adolescents who had sexual partner (COR=82.475, 95%CI, 11.410, 596.137).Similarly those adolescents who ever had sexual intercourse were more likely to report risky sexual behavior than others. (COR=29.787, 95%CI, 12.594, 70.450).

Adolescents who had more than one sexual partner were less likely practiced safe sexual partner than adolescents who had one sexual partner (COR=0.002, 95%CI, (0.00, 0.15).

In other ways sexual behavior of adolescents had an association with risky behavior of adolescents such as drinking alcohol and chewing chat. In that they increased the risky sexual behavior of adolescents.

In addition to sexual behavior, Adolescents knowledge of STI and HIV/AIDS had an association with independent variables like socio demographic & economic variables and some sexual history of the adolescents.

Accordingly, females were less likely had sufficient knowledge on STI and HIV/AIDS than males. (COR=0.549,95%CI,0.346,0.873).

Adolescents who had discussed about sexual issue with their parents were more likely three times had sufficient knowledge than adolescents who had not discussed with their family. (COR=2.515, 95%CI, 1.526, 4.146).Additionally, adolescents knowledge of STI and HIV/AIDS had an association with family income level and ever had sexual partner.

Table 7 Multivariate Analysis of Sexual behavior & knowledge of STI/HIV

	Sexual behavior		OR(95%CI)		
Variables	**Risky**	**Not risky**	**COR**	P=value	**AOR**
Sex					
Male	63(22.3)	219(77.7)	1.00	0.886	0.00
Female	55(21.8)	197(78.2)	1.030(0.684,1.552)		
Grade					
9th	43(15.6)	233(84.4)	1.00		1.00
10th	75(29.1)	183(70.9)	0.45(0.295,0.687)	**0.00**	0.812(0.431,1.527)
Age					
10-14	0(0.0)	6(100.0)	0.00	0.99	0.00
15-19	118(22.3)	410(77.7)			
Parents income level					
Very rich	7(25.9)	20(74.1)	1.00		1.00
Rich	36(30.3)	83(69.7)	0.807(0.314,2.077)	0.657	1.946(0.150,25.227)
Medium	69(18.9)	297(81.1)	1.507(0.613,3.704)	0.372	0.647(0.083,5.040)
Poor	6(27.3)	16(72.7)	0.933(0.26,3.334)	0.915	0.485(0.068,3.460)
Living with					
Both parents	85(19.9)	343(80.1)	1.00		1.00
Single parents	22(35.5)	40(64.5)	0.451(0.254,0.798)		0.666(0.266,1.666)
Relatives& friend	11(31.4)	24(68.6)	0.541(0.255,1.147)		0,804(0.257,2.57)
Alone	0(0.0)	9(100%)	400336337.0		
Fathers education level					
Illiterate	5(13.5)	32(86.5)	1.00		1.00
Read & write	31(25.6)	90(74.4)	0.454(0.162,1.267)	0.131	2.157(0.599,7.764
Primary	12(15.2)	67(84.8)	0.872(0.283,2.687)	0.812	1.292(0.617,2.706)
Secondary	45(23.0)	151(77.0)	0.524(0.193,1.425)	0.205	2.592(1.052,6.386)
College& above	25(24.9)	76(75.2)	0.16(0.167,1.351)	0.163	1.181(0.599,2.332)
Pocket money					
No pocket money	86(19.5)	356(80.5)	**2.208(1.3,3.602)** **	**0.002**	**4.326(1.844,10.152)****
Had pocket money	32(34.8)	60(65.2)	1.00		1.00
Had sexual partner	1(0.6)	172(99.4)	**82.475(11.41,59.14)****	**0.00**	**92.586(7.255,11.81)****
No sexual partner. Had sexual .partner	117(32.4)	244(67.6)	**1.00**		**1.00**

Discuss sexual issue with parent					
Not discuss	87(20.5)	338(79.5)	**0.648(0.401,1.045)**	0.075	**0.47(0.229,0.990 ****
Discuss	31(28.4	78(71.6)	1.00		1.00
Drink alcohol					
Never	38(11.9)	281((88,1)	**2.28 (1.47,3.53) ****	0.00	**2.207(1.03,4.727) ****
drink	80(37.2)	135(62.8)	**1.00**		**1.00**
Chew chat					
Never	74(16.4)	377(83.6)	**0.174(0.106,0.286)**	0.00	1.468(0.589,3.656)
chew	44(53.0)	39(47.0)	**1.00**		1.00
Total number of sexual partner					
One	54(11.5)	415(88.5)	**1.00**	**0.00**	**1.00**
More than one	64(98.5)	1(1.5)	**0.002(0.00,0.15) ****		**0.002(0.000,0.023) ****

NB*=Significant

Adjusted for sex, grade, age, parent's income level, family arrangements, fathers education level, pocket money, had sexual partner, discuss sexual issue with partner, drink alcohol, and chew chat and number of sexual partner.

	STI/HIV knowledge		OR(95%CI)		
Variables	**Poor**	**Good**	**COR**	P-value	**AOR**
Sex					
Male	36(12.8)	246(87.2)	**1.00**		**1.00**
Female	53(21.0)	199(79.0)	**0.549(0.346,0.873)****	0.011	**0.531(0.328,0.859)****
Grade					
9th	43(15.6)	233(84.4)	1.00		1.00
10th	46(17.8)	212(82.2)	0.851(0.539,1.341)	0.486	0.771(0.476,1.250)
Family income level					
Very rich	9(33.3)	18(66.7)	1.00		1.00
Rich	23(19.3)	96(80.7)	2.087(0.831,5.239)	0.117	1.694(0.639,4.494)
Medium	54(14.8)	312(85.2)	2.889(1.234,6.764)	0.015	2.161(0.857,5.451)
Poor	3(13.6)	19(86.4)	3.167(0.738,13.595)	0.121	1.989(0.430,9.210)
With whom you live					
Both parents Single parents Relatives& friend Alone	73(17.1) 10(16.1) 5(14.3) 1(11.1)	355(82.9) 52(83.9) 30(85.7) 8(88.9)	1.00 1.069(0.519,2.201) 1.234(0.463,3.286) 1.645(0.203,13.354)	0.856 0.674 0.641	1.00 1.073(0.505,2.277) 0.822(0.291,2.318) 1.437(0.169,12.250)
Pocket money					
Had not pocket money	64(14.5)	378(85.5)	**2.204(1.297,3.745) ** **	0.003	**1.576(0.869,2.860) ** **
Had pocket money	25(27.2)	67(72.8)	**1.00**		**1.00**
Discuss sexual issue with parents					
Not discuss	58(13.6)	367(86.4)	**1.00**		**1.00**
Discuss	31(28.4)	78(71.6)	**2.515(1.526,4.146) ** **	0.00	**2.114(1.240,3.603) ** **
Had sexual partner					
Had no sexual partner	52(14.4)	309(85.6)	**1.00**		**1.00**
Had sexual .partner.	37(21.4)	136(78.6)	**1.617(1.013,2.580) ** **	0.044	**1.772(1.078,2.912) ** **
Heard STI					
Not heard	3(50.0)	3(50.0)	**1.00**		**1.00**
Heard	86(16.3)	442(83.7)	**5.140(1.020,25.890)**	0.047	**3.335(0.603,18.450)**

NB*=Significant .Adjusted for sex, grade, family income, living arrangements, discussion of sexual issue with parents, had sexual partner and heard of STI.

5.5. Results of multivariate Analysis

To answer the points raised in the objectives section, around investigating the demographic and socio-economic factors, factors related to sexual history and risky behaviors that may influence adolescents' sexual behavior, This paper examined the association between independent variables and dependent variables related to sexual behaviors and level of knowledge of HIV.

This study indicated that adolescents who had no pocket money were more likely to report safe sexual behavior than those who had pocket money (AOR=4.326, 95%CI, 1.844, 10.152).
Adolescents who had no sexual partner were most likely had safe sexual behavior than adolescents who had sexual partner (AOR=92.586, 95%CI, 7.255, 11.81)**.**

Adolescents who had more than one sexual partner were less likely practiced safe sexual behavior than adolescents who had one sexual partner (AOR=0.002,95%CI,0.000,0.023).

Adolescents who had not discussed about sexual issue with their parents were less likely had safe sexual behavior than adolescents who had discussed with their family. (AOR=0.47, 95%CI0.229, 0.990).

Sexual behavior had also an association with adolescent's risk behaviors, accordingly, adolescents who did not drink alcohol were more likely had safe sexual behaviors than those who had drink.(COR=2.28 ,95%CI,1.47,3.53) & AOR=2.207,95%CI,1.03,4.727).

In addition to sexual behavior, Adolescents knowledge of STI and HIV/AIDS had an association with some independent variables. Accordingly, females were less likely had sufficient knowledge on STI and HIV/AIDS than males.(AOR=0.531,95%CI,0.328,0.859).

Adolescents who had discussed about sexual issue with their parents were more likely had sufficient knowledge than adolescents who had not discussed with their family. (COR=**2.515, 95%CI, 1.526, 4.146)** & AOR=2.114, 95%CI, 1.240, 3.603)**.**

Additionally adolescents who had sexual partner were more likely had sufficient knowledge of STI and HIV/AIDS than adolescents who had no sexual partner.(COR=1.617,95%CI,1.013,2.580 &AOR=1.772,95%CI,1.078,2.912).

CHAPTER SIX

DISCUSSION

6.1. Discussion

Sexuality is the area that has long attracted researchers because of the identified relationships between sexual behaviors and certain reproductive health problems.

This study was done on a representative sample of two high schools' adolescents of both sexes aged 10-19 years to assess the sexual behaviors and knowledge of STI and HIV/AIDS among high school adolescents.

The findings of this survey regarding the behavior of sexually active school adolescents raise concerns regarding the likelihood of them contracting HIV and other sexually transmitted infections.

The finding that the Percentage of adolescents who had ever had sex increases markedly with age, (increased almost four fold from 20% at age 14 to 78.6% at age19), concurs with the findings of the Zambia Sexual Behavior Survey of 2003, in which a 5.6 fold increase was noted (14% at age 15 to 79% at age 19) (25).

The proportion of sexual active Jardega Jarte school adolescents (38.6%) is almost similar to the national Zambian proportion of 43% but is lower than the one in urban areas of Zambia of 56% (42) and in more urbanized countries such as South Africa (48%) (26).

In this study it is found that 38.6 % of respondents ever had sexual intercourse in their life time. Experience of sexual intercourse in this study was greater than the previous studies conducted in Debre Berhan which was about 32.7 % (23). This finding is also relatively higher when compared to similar study findings. In Agaro the figure was 25% (24). This finding is higher when also compared to other similar studies done in five urban schools (in Baher Dar, Dessie, Awassa, Jimma, and Dire Dawa) that reveals (33.3%) of the youth reported having had sexual intercourse prior to the study. (31).

Nowadays adolescents are engaged in different behaviors that put them in risky sexual behavior than ever. This might be due to effect of globalization that most of adolescents to be sexually active.

This study indicated that the mean age at first sexual intercourse is 16.24 ± 0.68 years and 15.4 ± 0.80 years for males and for females, respectively.

Different studies done in Ethiopia revealed that the mean age at first sexual debut to be between the age of 13.6 and 19 years.

According to the study which was conducted in Debre berhan,the mean age at first sexual intercourse was 18.1 (+2.1 SD) years. (23) In Similar study conducted in five urban schools (in Baher Dar, Dessie, Awassa, Jimma, and Dire Dawa) the mean age of sexual initiation was 15.3 (SD = 2.5) years.(31).

This study shows that the school girls' mean age at sexual debut is low, 15.24 years. This result is consistent with that of other studies conducted on the African continent, showing that the age at first sexual intercourse has become lower almost everywhere in Africa for female adolescents, ranging from 15 to 19 years.

In this study, 2.4% of the adolescents are engaged in sex for money or gifts in exchange for sex. This finding is lower than the findings of the study done in Botswana that is about one in five in the out of school adolescents reported money in exchange for sex. Similar finding was also reported in Nekemte in which 7.6% of schoolgirls engage in sex for money. This is because of adolescents; especially females are forced to engage in sexual intercourse to satisfy their economic and material needs such as clothing, ornaments and cosmetics that they see on their peers.(29).

In this study some adolescents were involved in different types of sexual practices during their first sexual act including anal and oral sex. However, vaginal sex was the most common first sexual act reported by secondary school students. This finding is in line with previous study done in Tanzania which reported that some of the school adolescents were engaged in oral and anal sex. (20).

In this study among those who were sexually active males, 20.4% had had sexual intercourse with CSWs, of these 70% had ever used condom. Among those who ever used condom, only 35.7% of them were used condom consistently, Similarly in the study done in Bale zone, of the sexually active student nearly 21% have reported to have sexual intercourse with CSWs. among respondents who have claimed to have sexual intercourse with CSWs, 88.8 % of them did not use condom (28).This sexual intercourse with CSWs might be because of alcohol consumption and using other substances like hashish.

Generally In this study, some socio-demographic variables such as pocket money of the respondents, as well as from the behavioral variables, such as alcoholic beverages and some sexual history of respondents were analyzed for possible association with both sexual behavior and knowledge of STI and HIV/AIDS.

Adolescents who had no pocket money were more likely to engage in safe sexual behavior than those who had pocket money (COR=2.208, 95%CI, 1.3, 3.602 and AOR=4.326, 95%CI, 1.844, 10.152). This may indicates that adolescents who have pocket money can have a better exposure to different Medias that initiate sex and adolescents who have money can buy sex.

In similar study which was conducted in Bale zone, among sexually active males 21% have reported to have sexual intercourse with CSWs. This might be the influence of having pocket money.(28).

In this study, Compared to adolescents living with both parents, adolescents living with single parents relatives, friends and fiancé were less likely to be engaged in safe sexual behaviors (COR=0.451, 95%CI, 0.254, 0.798).In similar study so many researchers found that from single parent family, adolescents are more likely to report early sexual activity compared to adolescents from two parent families (38). This Adolescent who perceived a low level of parental monitoring were more likely to be sexually active than males who perceived a high degree of monitoring.

In this study, alcohol was found to be more likely to contribute to risky sexual behavior both before and after controlling other factors. Accordingly adolescents who did not drink alcohol were more likely had safe sexual behaviors than those who had drink.(COR=2.28 ,95%CI,1.47,3.53) & AOR=2.207,95%CI,1.03,4.727).

In similar findings, longitudinal surveys in Colombia and Uganda revealed that adolescents with increased alcohol and drug use were more likely to engage in multiple sexual partnerships (64)

Similarly, other studies report that alcohol drinking and khat chewing are strongly as that associated with rape and early initiation of sex. (29) Studies done in USA shows those students who have sex under the influence of alcohol are 2.5 times more likely not to use protection (30).

This study indicated that adolescents who had more than one sexual partner were less likely practiced safe sexual partner than adolescents who had one sexual partner. (AOR=0.002, 95%CI, 0.000, 0.023).

Having multiple sexual partners gives chance of not using condom during sexual intercourse and leads to high chance of acquiring HIV/AIDS in their lifetimes. In addition to these, adolescents who have multiple sexual partners more likely to abuse drugs, alcohol later in life.

The potential negative outcomes of people and unsafe sexual practices are high risk of contracting STIs and HIV/AIDS, through high rate of unprotected sex with multiple partners (32)

Many studies done on sexual behavior revealed that a number of people have sexual experience with more than two persons in their lifetime without use of condom. According to one study conducted in Bale zone, 47.7% of adolescents had more than one sexual partner in the past. Of the sexually active student nearly 21% have reported to have sexual intercourse with CSWs. Among respondents who have claimed to have sexual intercourse with CSWs, 88.8 % of them did not use condom (28).

This study indicated that adolescents who had not discussed about sexual issue with their parents were less likely had safe sexual behavior than adolescents who had discussed with their family. (AOR=0.47, 95%CI0.229, 0.990).Also in this study adolescents who had discussed about sexual issue with their parents were more likely had sufficient knowledge than adolescents who had not discussed with their family. (COR=2.515, 95%CI, 1.526, 4.146) & AOR=2.114, 95%CI, 1.240, 3.603).

Because of social or religious custom adolescents in many developing countries rarely discuss about sexual matters explicitly with their parents. As a result the lives of them are at risk because they do not have the information; skills, health services and support they need to go through sexual development during adolescent (4).Also discussion of the sexual issue makes adolescents to be aware of sexuality which can help them in their future life. Similarly the study which was conducted in Nekemte found that 76.5% and 70.3% of sexually at risk male and female respectively found to be having low communication with their parents (33).

In this study 99.4% of respondents showed a high awareness about HIV/AIDS. And some adolescents (6.9%, 8.1%) said that staying with faithful partner and using a condom will not protect them from HIV/AIDS respectively. Surprisingly, the majority felt that they were not susceptible to HIV infections. This finding was almost similar with the study done by Hartell (2005), in which 97% of respondents showed a high awareness about HIV and AIDS. And 10% of respondents answered staying with a faithful partner and using a condom will not protect them from HIV/AIDS. In contrast, this finding was greater than the findings of the EDHS (2011) report in which 96.2% adolescents aged 15-19 has heard about HIV.

In this study females were less likely had good knowledge of STI and HIV/AIDS than males (COR=0.549,95%CI,0.346,0.873 and AOR=0.531,95%CI, 0.328,0.859).This might be due to lack of enough access from which they get knowledge of HIV/AIDS as compared to males and cultural influences has also makes females not to participate in sexuality and in related things.
In similar study of EDHS (2005) only around one –fifth of women and one-third of men aged 15- 24 knew all of the basic facts about HIV/AIDS. This finding is consistent with findings of the national HIV prevalence study done by Shishana et al. (2009), found that females aged 15-24 years had the lowest scores at 40.6%, while males in the 15 and older age group had higher levels of accurate knowledge about HIV transmission.

This study indicated that Five hundred twenty eight (98.9%) of the respondents claimed to have ever heard about sexually transmitted diseases (STIs) including HIV/AIDS, of which, HIV/AIDS) is the most commonly known type of STI. 617(96.6%, followed by gonorrhea 405 (75.8%), Syphilis, 397 (74.3%) and Chancroids 214 (40.1%). This may be attributable to the fact that information on HIV/AIDS is being widely disseminated through different Medias and the attention given to the problem in the respective area and the country at large. This finding was similar with the findings of the study conducted in Tanzania in which majority of students (98%) have heard about STIs (42).

In this study the overall knowledge of STI and HIV/AIDS is about 83.3%.This finding was greater than the findings of the study done in Egypt which revealed a general lack of knowledge of sexual issues.96% of male and 96% of female scored zero on STI knowledge. In contrast, studies conducted in Japan and United States among adolescents demonstrated high levels of knowledge concerning HIV and STIs. (40).

In this study, among those sexually active adolescents only 46.6% used condom the first time they had sexual practice, and in the past 12 months, only 35.7% used condom consistently.

In similar findings, one study from sub-Saharan Africa indicated that in Burkina Faso, Ghana, Uganda and Malawi the proportion of adolescents reporting consistence use of condoms in the 3 months preceding the survey was 38%, 47%, 20% and 36% respectively.

Another study finding from a cross-sectional survey conducted in Tanzania among adolescents aged 10-19 years also revealed that only 42% of sexually active adolescents reported having used a condom during their most recent sexual act (42).

In contrast this findings was greater than findings of the study in Nekemte which revealed only 34.5% of adolescents used condom the first time they had sexual practice, and in the past 12 months,.(48) But it is lower than the national finding that 73.6% of in-school adolescents reported to use condom consistently. This finding was also greater than the findings of the EDHS 2005/2006 report in which condom use among adolescent is low, only one percent of young women and 17% of young men used condom during their first sexual intercourse

6.2 .Strength of the study

- This study has tried to assess the magnitude of sexual behavior, knowledge of STI and HIV/AIDS, factor contributing to sexual behavior and knowledge of STI and HIV/AIDS among high school adolescents.
- Appropriate sampling technique was employed and high response rate was achieved.
- The data collection tools were anonymously structured, male and females were made to give their responses in separate classes to maintain privacy and confidentiality of the respondents and to minimize bias.

6.3. Limitations of the study

- Since this study touches very sensitive and very personal issues and the behavioral outcomes are based on self-reported information the possibility of reporting errors and biases cannot be ruled out.
- Qualitative data were not used to collect information because of time constraint.
- This study was not a cohort one and therefore it could not address the extent to which schoolgirls' knowledge, perceptions and attitudes were motivating their sexual behavior.

Despite these limitations, this study is one of the first in Jardega Jarte woreda to provide a broad description and limited, though valuable insight, into school adolescents' sexual behavior and knowledge of STI and HIV/AIDS.

CHAPTER SEVEN

CONCLUSSION & RECOMMENDATIONS

7.1. Conclusion

From this study, it is possible to conclude that a substantial proportion of the adolescents ever had sexual intercourse (57.7% of males and 56,1% of females) which is found to be higher than most of the studies. The adolescents were found to start sexual intercourse at their earlier age with the mean age of 16.24 for males and 15.40 for females. The percentage of sexually active schoolgirls increased markedly with age in this study.

This early onset of adolescents' sexual activity usually leads to increased risk of contracting STI/HIV/AIDS, unwanted and unplanned pregnancy. The most mentioned reasons for adolescents to start their first sexual commencement were; Fall in love, personal desire, peer pressure, economic needs and alcohol drinks.

From the study, it can be concluded that although the study had shown that the large proportion of the respondents had a better awareness of HIV/AIDS (99.4%), only less than half could list the more than three primary prevention methods of HIV/AIDS correctly.

From this study, one can also conclude that adolescents were practicing risky sexual behaviors such as multiple sexual partners, unprotected and early sex and sexual intercourse with commercial sex workers in the study area.

This study showed that from adolescents who ever had sexual intercourse, only 46.6% of them used condom in their first sexual contact.

The study also revealed that the most important source of information on HIV/AIDS were Media (Radio and TV), school anti AIDS clubs, school teachers and health workers. This is an encouraging finding that school anti AIDS clubs; media and schoolteachers are playing an important role in information dissemination schools.

In this study the majority of adolescents have heard STI, However their knowledge of the symptoms associated with STIs was poor. 68.5% adolescents did not know symptoms associated with STIs. Also the knowledge of STIs other than HIV/AIDS was very poor among adolescents.

The majority 93.6%, 92.5%.77% had not heard about LGV, trichomonas and granuloma inguinal respectively.

7.2. Recommendations

Based on the results obtained and the conclusion drawn, the following recommendations are forwarded.

- Government and nongovernmental organizations found in the town, particularly those working on HIV\AIDS might work on interventions that can help in rising age at first sex as well as on appreciating safer sex.
- Establish and strengthen school anti AIDS clubs and give a basic and sounding knowledge through continuous training and make condoms available through school Anti AIDS Clubs
- As schoolteachers have a better proximity to school adolescents they have an extra ordinary opportunity to provide adolescents with necessary information and life-skill education in schools. So, empower them through in-service training on adolescents' sexual and reproductive health.

- Establish youth centers; so that adolescents able to obtain necessary and adequate information & services they need. Furthermore establishing and\or increasing mini-media services for both school and out of school youths may increase access to current and accurate information about the disease.
- Expansion of VCT centers with well-trained counselors in order to promote safe sexual behavior
- Work has to be done by the government and NGOs to encourage the present low parent adolescent communication and to address the negative side of early sexual intercourse and unprotected sex in this woreda.
- It is also recommended that parents and teachers should collaborate in educating the students/children on the reproductive health affairs particularly STDs, in more open and comprehensive way.
- Further study is needed to understand the correlates of risky sexual behavior among socially disadvantaged group such as street youth and CSWs. Different intervention is needed for groups in totally different social contexts.

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Appendixes

Appendix one
English version Questionnaires

INFORMED CONSENT

Dear students!

I am conducting a study on the Assessment of Sexual Behavior and Knowledge of STI and HIV/AIDS among school Adolescent Jardega Jarte woreda as part of my Master Degree in Child Health, with the University of the Addis Ababa, Ethiopia

To ensure the health of adolescents, understanding of the existing health problems and related behaviors of these populations is essential. Owing this, this study is designed to assess Sexual Behavior and Knowledge of STI/HIV among school Adolescent.

You are chosen to participate in this study. The purpose of this study is to generate important information about high school adolescents' sexual behaviors, Knowledge of STI and HIV/AIDS and to propose future school health program interventions.

These study questions will involve various personal and sexual issues of individuals. So, it is your full right to refuse or to participate in this study. If you do not want to participate, you can leave the question papers on the table upside down, & you are kindly requested to remain on your seat until others finish filling the questions. Moreover, I assure you that your responses are completely confidential & non-of your responses will be reported to anybody. Therefore, there is no need to write your names on these survey papers.

However, in order to attain its goal, we kindly request your kind and good will to participate in the survey. So, please take a few minutes to answer the questions.

Would you like to participate? Yes (___) No (___). Mark "X" in the appropriate space

If yes, go to the next page. If no, remain on your seat.

Sincerely,

Mr. Kumera Bekele
Addis Ababa University

Email: kumebek@gmail.com Cell phone: 0913124294

Section 1: Socio economic characteristics

No.	Questionnaire	Coding and Categories	Skip to
1	What is your Sex?	1. Male 2. Female	
2	How old are you? Only in years	_____Years I Don't know	
3	What is your grade level?	1. .9th 2. 10th	
4	What is your ethnic group?	1. Oromo 2 Amhara 3.Tigre 4 Others	
5	What is Your religion?	1. Protestant 2. Orthodox 3 Muslim 4 Catholic 5. Others(specify_____	
6	With whom are you living now?	1. Father and mother 2 Mother only 3 Father only 4 Relatives 5 Friends 6 Alone 7. Others (Specify) _____	
7	What is your father's education level?	1. Illiterate 2. Read and write 3 grade1-6 4 grade 7-12 5. 12+2 6 1st degree 7. Others (specify)___	

8	What is your mother" education level?	1. Illiterate 2. Read and write 3 grade1-6 4 grade 7-12 5. 12+2 6 1st degree 7. Others (specify_____	
9	What is your father's occupation?	1 Daily laborer 2. Farmer 3. Civil servant 4 Employed in private sector 5 Has private business 6. others (specify)_____	
10	What is your Mother's occupation?	1 Daily laborer 2. Farmer 3. Civil servant 4 Employed in private sector 5 Has private business 6. Others (specify)_____	
11	How do you perceive your family status(in relation to your neighbor)	1 Very rich 2 Rich 3.medium 4. Poor	
12	Are you currently having your own income?	1. Yes. 2. No.	
13	If Yes, Where do you get your income?	1. My parents 2. My friends 3. My relatives 4.Others (specify_____	

Section 2: Sexual History

No.	Questionnaire	Coding and Categories	Skip to
14	Have you ever had sexual partner? If No, skip to **22**	1. Yes 2. No	
15	Have you ever had sexual intercourse? If No, skip to **22**	1. Yes 2. No	
16	If yes, at what age did you first had sexual Intercourse?	1. Age in years _____ 2. I don't know	
17	How much older or younger was the person with whom you had first sexual intercourse?	1. More than 10years older 2. 5-10 years older 3. Less than 5 years older 4. Younger than me 5. He was an age like me 6. Do not know	
18	Do you know / think that your sexual partner has another sexual partner?	1.Yes 2. No 3. I do not know	
19	What was the relation of you to your first partner?	1 .An acquaintance 2. A friend 3. Fiancé 4. Spouse 5. A relative 6. Others (specify)_____	
20	Have you used condom the first time you had sexual intercourse?	1.yes 2.No	
21	Why did you decide to have sexual intercourse the first time you had sex?	1 Fall in love 2. Had desire 3. Got married 4. Raped 5. To get money/gifts 6. peer pressure 7. Was drunk 8. Others. (specify)_____	

22	Do you currently have sexual partner? If No, skip to **25**	1 .Yes 2. No	
23	If Yes, Why you decided to engage in sex with your current partner?	1 Fall in love 2. Had desire 3. Got married 4. Raped 5. To get money/gifts 6. Peer pressure 7. Was drunk 8. Others (specify)_____	
24	How many sexual partners have you had so far?	1. One 2. Two 3. Three 4. Four or More	
25	Have you had sexual intercourse in the past 12 months? **If No, skip to 27**	1. Yes 2. No	
26	If **yes**, how many people in the total have you ever had sexual intercourse with during the last 12 months?	1. One person 2. Two persons 3. Three persons 4. Four persons 5. Five and above	
27	Did you use any contraceptive methods the last time you had sex? If No, skip to **29**	1. Yes 2. No	
28	If yes, Which Method did you use?	1. Condom 2. Pills 3. IUD/loop 4. Norplant. 5. Diaphragm 6. Rhythms 7. Others (specify)_____	
29	A) Have you ever been pregnant? (girls only)	1.Yes 2. No	

30	What was the outcome of the pregnancy?	1. Currently pregnant 2. Abortion 3. Live birth 4. Live birth & abortion 5. Others specify…….	
31	(**For Male**) Have you ever had sexual intercourse with commercial sex workers?	1. Yes 2. No	
32	(**For Males**) Have you ever used condom when making sexual intercourse with commercial sex workers? **If No, skip to 35**	1. Yes 2 .No	
33	**(For Males**) if yes, how often did you use condoms?	1. Always 2. Sometimes 3. Most of the time	
34	(**For males**), If you haven't used condom at all or haven't used constantly, what was the reason? **(Multiple answers possible)**	1. Condoms not available 2. Condoms are expensive 3. Ashamed to ask my partners 4. I didn't like them 5. I wanted to get pregnant 6. I ashamed to buy condom 7. I trust my partner 8. I don't know how to use 9. It bursts 10. It decreases satisfaction 11. My religion prohibit 12. I was drunk 13. Others (specify) ----------	
35	Have you heard about sexual intercourse other than Vaginal?	1. yes 2. No	
36	If **Yes** Which type sexual intercourse?	1.Ora sex 2.Anal sex 3.Other (specify_____	
37	Have you ever had sexual intercourse other than Vaginal?	1. yes 2. No	
38	If **Yes** Which type sexual intercourse?	1.Ora sex 2.Anal sex 3.Other (specify_____	

39	Do you think that HIV/AIDS can be transmitted through Oral sex	1.Yes 2.No 3.I don't know	
40	Do you think that HIV/AIDS can be transmitted through Anal sex?	1.Yes 2.No 3.I don't know	
41	Do you discuss about sexual issues with your parents?	**1.Yes** **2. No**	
42	If yes for Q. 301 How easy you find it to discuss about sexual issues with your parents?	1.Easy 2.Difficult	
43	With whom you always prefer to discuss about sexual issues?	1.Both parents 2.Father only 3.Mother only	
44	Do you believe that parents open discussion on sexual issues with adolescents is crucial for future sexual behavior of adolescents?	1. Yes 2. No	

SECTION 3: HIV/AID/STD RELATED QUESTIONS

45	Have you ever heard about STI? **If No, skip to 47**	1. Yes 2. No	
46	If **yes**, which of STI have you ever heard about?	1. Syphilis 2. Gonorrhea 3. Granuloma inguinal 4. Cancroids 5. HIV/AIDS 6. Lymphogranuloma venerium 7. Trichominas 8. None 9. Others (specify) --	
47	Have ever had sign and symptoms of STI? **If No, skip to 52**	1. Yes 2. No	

48	If yes, which of sign and symptoms have you had?	1. Genital ulcer 2. Genital discharge 3. Burning and/pain on urinating 4. Genital swelling 5. Others (specify) ---	
49	If you ever had symptoms of STI, where did you go for treatment?	1. To traditional healers 2. To public health institution 3. Bought medicine from pharmacy 4. To local injectors 5. Others (specify) ---------	
50	Could you tell me why you prefer to seek health care in this place? (More than one answer is possible)	1. Effectiveness of treatment 2. Free treatment 3. Low cost treatment 4. Proximity 5.For confidentiality 6. Others specify…….._____	
51	What additional health problems (complications) can they develop if people do not get early treatments for STIs?	1.Exposure to HIV 2.Sterility 3.Urethral stricture 4.Cancer 5.Others_____ 6.I don't know	
52	Have you ever heard about HIV/ADS?	1. Yes 2. NO	
53	If yes, from where did you get the information? (*Multiple answer possible)*	1. My parents 2. Boy/girl friends/peers 3. Boy/ girlfriends 4. Health workers 5. School teachers 6. School clubs 7. Religious leaders 8. News papers, books 9. Media (Radio, TV) 10. Others (specify)_____	
54	Do you believe that HIV transmits from Person to person? **If No, skip to 57**	1. Yes 2. No	

55	If yes, how it transmits? (***Multiple answers possible***)	1. By sexual intercourse 2. Sharing needles 3. Mosquito/ insect bite 4. Blood transfusion 5. From mother to unborn child 6. Sharing food with HVI+ Person 7. A curse from God 8. Sharing toilet with HIV+ person 9. Others(specify) -------- 10.I don't know	
56	Is there anything a person can do to prevent HIV? (***Multiple answers possible)***	1. Abstain from sex 2. Using condoms 3. Having sex with only one faithful uninfected partner 4. Avoiding sex with CSWs 5. Using new needle and syringe 6. Taking HIV blood test 7. Others (specify)_____ 10 I don't know	
57	I think if carefully you look at a person you can identify if someone has HIV.	1. Yes 2 No 3.I don't know	
58	When do you think there is a high chance for infected mother to transmit the HIV virus to her child?	1.During pregnancy 2.During delivery 3.During breast feeding 4.I don't know	
59	A person can get HIV the first time he/she has sex	1. Yes 2. No 3..Idon't know	
60	What are the symptoms of AIDS? ***(Multiple answers are possible)***	1.Chronic weight loss 2.Fever □□1 month 3.Diarrhea □□1 month 4.Skin lesions 5.Others(specify	

61	Do you believe you have done anything that may have put you at risk of getting HIV/AIDS?	1. Yes 2. No 3. I don't know	
62	If yes, why?	1. Had sex without condom 2. Had more than one partners 3. Had sex with CSW 4. Injured by contaminated materials 5. Others (specify)_____	
63	If no, why?	1. Never had sexual intercourse 2. Had abstain from sex 3. Had one-to-one sexual relation 4. Had no sexual contact with CSW 5. Always use condom 6. Others (specify)_____	
64	Do you think HIV is a punishment from God?	1, Agree 2.Disagree 3.I don't know	
65	Is AIDS curable?	1. Yes 2. No 3. Don't know	
66	Is it possible for a healthy looking person to have the AIDS virus?	1.Yes 2.No 3. I Don't know	
67	Did you ever undergo HIV test?	1 .yes 2. No	
68	Would you want to get tested for HIV/AIDS?	1.Yes 2.No 3.No response	

69	If yes, what is the main reason (advantage) for getting tested?	1.To know for sure 2.To adjust future life 3.Would want to know before Pregnancy 4.Would want to know before getting married	
70	If no, what is the main reason not to get tested?	1.Partner would be shattered 2. Fear of neglect, isolation, abuse. 3.Can live a better life without knowing my status 4. There is no point in knowing the status. 5.Others (specify)	

Section 4 . Questions related to some risk behaviors of Adolescents

71	Do you drink **alcoholic** beverages? like (Tela, Teji,areke or Beer)	1. Never 2 Once or twice a week 3 Drink daily	
72	Do you **smoke** cigarettes	1. Never 2. Once or twice a week 3. Smoke daily	
73	Do you chew chat?	1. Never try 2. Once or twice a week 3. Chew daily 4. Others (specify) ----------	
74	Have ever used drugs such as hashish?	1. yes 2. No 3. No response	

THANK YOU !!!

Appendix Two: Afan Oromo version questionnaire

Godina Horro Guduru wallaggaa aanaa Jardagaa Jarteetti barattota sad.2 ffaaf gaffilee dhimma qunnamtii naf-salaa fi hubannoo HIV/AIDS qorachuuf qopha'e.

Jaallatamtoota barattootaa!

Ani Yunversitii Finfinnee mummee sayinsii fayyaatti galmaan ga'uumsa digirii Mastersiif kan na gargaaru qoratnoo amala qunnamtii naf-saalaa fi hubannoo dargaggootni aanaa Jardega Jartee waa'ee qunnamtii naf saalaa fi HIV/AIDS irratti qaban qorachaan jira.

Tajaajila fayyaa qaama hormaataa dargaggootaa fooyyessuuf rakkoolee fayyaa dhimma wal-qunnamtii naf-saalaa fi amaloota dargaggotaa dhimma kana waliin wal-qabatan gad-fageenyaan qoratanii hubachuun barbaachisaadha.

Sababa kanaaf qoratnoon amala qunnamtii naf-saalaa,beekumsaa fi hubannoo qunnamtii naf saalaa fi kan HIV/AIDS irratti dargaggootni qaban qorachuuf qoratnoon kun qophaa'eera.Isinis qoratnoo kanaaf.carraadhaan filatamtanii jirtu.

Gaaffileen qoratnoo kanaa dhimmoolee dhuunfaa kan ilaallatan waan ta'aniif qoratnoo kana keessatti hirmaachuun fedhii irratti kan hundaa'e ta'a. Kanaafis hirmaachuu fi dhiisuu irratti mirgi keessan kabajamaa dha .Kanaaf hirmaachuun fedhii keessan miti yoo ta'e,waraqaa gaaffichaa gadgalagalchuudhaan minjaala fuula dura keessan jiru irra kaa'aatii hanga warri kaan xumuranitti bakkuma jirtan turaa.

Haata'u malee galmaan ga'umsa kaayyoo qoratnoo kanaa fi fooyya'insa tajaajila fayyaa dargaggootaaf jecha hirmaannaa keessan kabajaan isin gaafatna. Deebiin keessan hundi iccitiitti kan qabamu ta'uu isaa ni mirkaneessina.Kanaafis maqaa keessan waraqaa gaaffii kana irraati barreessuun isin hin barbaachisu.

Kanaaf qoratnnoo kana keessatti himaachuun fedhii keessanii?

Eeyyee (___) **Miti** (___) mallattoo "***X***"galchuudhaan mirkaneessa.Erga kana dubbitanii booda gaaffilee qophaa'an deebisuuf gara fuula itti aanutti darbaa.

Galatoomaa!

Kabaja waliin

Kumarraa Baqqalaa
Yunversitii Finfinnee

Email: kumebek@gmail.com Lakk.bilb: **0913124294**

Kutaa 1: Gaaffilee haala dhuunfaa ilaallatan

Lak.	Gaaffilee	Deebii fi kooddii	
1	Saalli kee maali?	1. Dhiira 2. Dhalaa	
2	Umuriin kee meeqa? (waggaadhaan)	1. Waggaa _____ 2. Hin beeku	
3	Sadarkaan barumsakee meeqa?	1. 9ffaa 2. 10ffaa	
4	Qomoonkee maali?	1.Oromoo 2 Amaaraa 3.Tigiree 4 Gar biro(Ibsi_____	
5	Amantiin kee gosa kamii?	1. Prootestantii 2. Ortodoksii 3. Musliima 4. kaatoolikii 5. Garbiroo (ibsii) ----------	
6	Yeroo ammaa eenyu waliin jiraatta?	1. Abba fi harmee koo waliin 2. Harmee koo waliin 3. Abba koo waliin 4. Fira waliin 5. Kaadhimaa koo waliin 6. Abba manaa /hadha manaa koo waliin 7. Hiriyyaa koo waliin 8. Qofaa koo 9. Garbiroo(ibsi) ----------	
7	Sadarkaan barumsaa abbaa kee hangamii ?	1. kan hin baranne 2. Barreessuu fi dubbisuu 3. kutaa 1-6tti 4. kutaa 7-12 5. 12 +2 6. Digrii jalqabaa 7. Garbiroo (ibsi) --------	

8	Sadarkaan barumsaa harmeekee hangami?	1. kan hin baranne 2. Barreessuu fi dubbisuu 3. kutaa 1-6tti 4. kutaa 7-12 5. 12 +2 6. Digrii jalqabaa 7. Garbiroo (ibsi) --------	
9	Hojiin abbaa kee maali?	1. Hojjetaa guyyaa 2. Qotee bulaa 3. Hojetaa Mootummaa 4. Hojii dhuunfaatti qaxaramanii hojjetu 5. Hojii dhuunfaa qabu 6. Garbiroo(ibsi) ----------	
10	Hojiin harmee kee maali?	1. Hojjettuu guyyaa 2. Qottee bultuu 3. Hojettuu Mootummaa 4. Hojii dhuunfaatti qaxaramtee hojjetti 5. Hojii dhuunfaa qabdi 6. Garbiroo(ibsi) ----------	
11	Sadarkaa jireenya maatii kee sadarkaa kamitti tilmaamta?	1. Baay'ee sooressa 2. Sooressa 3. Giddu galeessa 4. Hiyyeessa	
12	Yeroo ammaa kana Galii mataakeetii ni qabdaa?	1. Eeyyee 2. Lakki	
13	Yoo ni qabda ta'e galii sana eessaa argatta?	1.Maatikoo irraa 2.Hiriyootakoo irraa 3.Firoottankoo irraa 4. Garbiroo(Ibsi_____ _____	

Kutaa 2: seenaa qunnamtii naf-saala ilaalatu

14	Hiriyyaa jaalalaa ni qabdaa turtee? ***Lakki yoo jette gara gaaffii 22 tti darbi***	1.Eeyyee 2.Lakki	
15	Qunnamtii naf-saalaa raawwattee beektaa? ***Lakki yoo jette gara gaaffii 22 tti darbi***	1. Eeyyee 2. Lakkii	
16	**Eeyyee**,yoo jette,yeroo jalqabaaf qunnamtii naf-salaa yeroo raawwattee umuriin kee meeqa ture?	1. Waggaa _____ 2. hin beeku	
17	Hiriyyaan kee ati qunnamti naf-saalaa waliin raawwatte yommas umuriin isaa/ishee meeqa ture?	1.waggaa 10 oliin na hangafa/tti 2.waggaa 5-10 na hangafa/tti 3.waggaa 5 gadiin na hangafa/tti 4.umuriin isaa/ishee kankootii gadidha 5.umurii wal fakkatu qabna 6.hin beeku	
18	Hiriyyaan kee sun hiriyyaa jaalalaa gara biraa ni qabaa?	1.Eeyyee 2.Lakki 3.Hin beeku	
19	Walitti dhiyeenyi ati jaalallee kan jalqabaa waliin qabdu maal ture?	1. Hiriyyaa mana barnootaa 2. Hiriyyaa jaalalaa 3. Kaadhimaa 4. Haadha/abbaa manaa 5. Fira 6. Garbiroo(ibsii)_____	
20	Yeroo jalqaba qunnamtii naf saalaa rawwatte kondomii fayyadamttee turtee?	1.Eyyee 2.Lakki	
21	Yeroo jalqabaaf qunnamtii naf-saalaa raawwachuuf kan si kakaase maal ture?	1. Jaalalli na qabee 2. Fedhii qabaadhee 3. Heerumee/fuudhee 4. Gudeedamee 5. Qarshii/kennaa fudhachuuf 6. Dhiibbaa hiriyyaa 7. Dhugaatii dhugee 8. Garbiroo (ibsii)_____	
22	Yeroo ammaa kana hiriyyaa jaalalaa qabdaa? ***Lakki yoo jette gara gaaffii 24 tti darbi***	1. Eeyyee 2. Lakkii	

23	***Eeyyee***, yoo jette, hiriyyaa jaalalaa qabaachuuf maalif barbaaddee?	1. Jaalalli na qabee 2. Fedhii qabaadhee 3. Heerumee/fuudhee 4. Gudeedamee 5. Qarshii/kennaa fudhachuuf 6. Dhiibbaa hiriyyaa 7. Dhugaatii dhugee 8. Garbiroo (ibsii)_____	
24	Hanga ammaatti hiriyyaa jaalalaa qunnamtii naf-saalaa waliin raawwatte meeqa qabda?	1. Tokko 2. Lama 3. Sadii 4. Afurii fi isaa ol	
25	Ji'oota 12 darban keessa qunnamtii naf-saalaa raawwatteettaa? ***Lakki yoo jette gara gaaffii 29 tti darbi***	1. Eeyyee 2. Lakkii	
26	***Eeyyee*** yoo jette, ji'oota darban 12 keessatti namoota meeqa wajjiin qunnamtii naf-saalaa raawwattee jirta ?	1. Name - tokko 2. Namoota - lama 3. Namoota - sadii 4. Namoota 4 fi isaa ol	
27	Yeroo qunnamtii naf - salaa raawwatte (ji'oota 12 darbankeessa) mala qusannoo maatiitti gargaaramteettaa? ***Yoo lakki jette gara gaaffii 29 tti darbi***	1. Eeyyee 2. Lakki	
28	***Eeyyee*** yoo jette mala isa kam gargaaramte?	1. Kondomii 2. Piilsii 3. Luuppii 4. Noor pilaantii 5. Marfee (dippoo proveraa) 6. Kalandarii 7. Garbiroo (ibsi)	
29	Hanga ammatti ulfooftee ni beektaa? ***(Dubartoota qofaaf)***	1.Eeyye 2. Lakki	
30	Eyyee yoo jette ulfi kee sun amma haala kam irra jira (***Dubartoota Qofaaf***)	1. Ammayyu mucaa garaatti qabadheen jira(ulfadha) 2. Ofirra baaseera 3. mucaa godhadheen jira 4. Gar biroo(Ibsi…….	
31	(**Dhiiraaf**) dubartoota mana bunaa wajjin qunnamtii naf-saala raawwattee beektaa?	1. Eeyyee 2. Lakki	
32	**(Dhiiraaf**) deebiin kee eeyye yoo ta'e kondomiitti gargaaramteetaa? **lakki yoo jette gara gaaffii 37 tti darbi**	1. Eeyyee 2 .Lakki	

33	Deebiin kee yoo'***eeyyee***' ta'e haala kam itti gargaaramte?	1. Yeroo hundaa 2. Yeroo tokko tokko 3. Yeroo baay'ee	
34	(**Warra dhiiraaf**) yoo itti hin fayyadamne ta'e maaliif hin fayyadamne? ***(Deebii tokkoo ol kennuun ni danda'ama***)	1. Kondomin waan hin jirreef 2. Kondomiin mi'aawaa waan ta'ef 3. Jaalallee koo gaafachuu waaniin leeya'eef 4. Kondomii waaniin hin jaallaneef 5. Ulfaa'uu waaniin barbaadeef 6. Kondomi bitachuu waani leeya'eef 7. Jaalalleef koo waaniin amanuuf 8. Itti fayyadama isaa waaniin hin beekneef 9. Waan tarsa'uuf 10. Fedhii ofii waan hir'isuuf 11. Amantiin koo waan na dhorkuuf 12. Dhugaatii dhugee waaniin tureef 13. Gorbiroo (ibsi)_____	
35	Wal qunnamtii saalaa karaa qaama hormaataa ala kan biroo dhagessee ni beektaa?	1. Eeyyee 2. Lakki	
36	Eeyyee yoo jette kam fa'i dhagessetta?	1.Wal qunnamtii karaa Afaanii (Ora sex) 2.Wal qunnamtii karaa hudduu (Anal sex) 3.Gar biro (Ibsi_____	
37	Wal qunnamtii saalaa karaa qaama hormaataa ala kan biro rawwattee ni beektaa?	1. Eeyyee 2. Lakki	
38	***Eeyyee*** yoo jette wal qunnamtii gosa kam rawwatte?	1.Wal qunnamtii karaa Afaanii (Ora sex) 2.Wal qunnamtii karaa hudduu (Anal sex) 3.Gar biro (Ibsi_____	
39	HIV/AIDSn karaa wal qunnamtii afanii (oral sex) ni darba jettee ni yaddaa?	1.Eeyyee 2.Lakki 3.Hin beeku	
40	HIV/AIDSn karaa wal qunnamtii hudduu(Anal sex) ni darba jettee ni yaddaa?	1.Eeyyee 2.Lakki 3.Hin beeku	
41	Waa'ee dhimma saalaa waliin wal qabatu maatii kee waliin ni mari'attuu?	1.Eeyyee 2. Lakki	

42	**Eeyyee** yoo jette Waa'ee dhimma saalaa waliin wal qabatu maatii waliin mari'achuu akkamiin ilaalta?	1.Salphaadha 2.Ulfaataadha	
43	Maatii kee keessaa Eenyu waliin mari'achuu filatta?	1.Abba koo fi Haadha koo waliin 2.Abba koo waliin qofa 3.Harmee koo waliin qofa	
44	Maatii kee waliin dhimma saalaa waliin waal qabatu mari'achuun jireenya kee gara fulduratiif gaariidha jettee ni yaaddaa?	1. Eeyyee 2.Lakki	

Kutaa 3: HIV/AIDS Fi dhukkuboota naf-saalaa ilaalchese

45	Waa'ee dhukkuba ***naf -saalaa*** dhageessee beektaa? **Deebiin kee lakki yoo tahe gara gaaffii 52 tti darbi**	1. Eeyyee 2. Lakki	
46	**Eeyyee** yoo jette,Waa'ee Dhukkuba naf-saalaa isa kam dhageessee beekta?	1. Fanxoo 2. Cabxoo 3. Dhiitoo gudeedaa 4. Muraa/Karkir 5. HIV/AIDS 6. Gabiroo(ibsi) --------	
47	Mallattoon dhukkuba naf-saalaa si irratti mul'atee beekaa?	1.Eeyee 2.Lakki	
48	***Eeyyee*** yoo jette, mallattoo isa kam?	1. Madaa'uu naf-saalaa 2. Dhangala'aa naf-saalaa 3. Gubaatii fincaanii 4. Dhiita'insa naf-saalaa 5. Garbiroo(ibsi) -------	
49	Mallattoon dhukkuba naf-saalaa yeroo si irratti mul'ate,eessatti yaalamte?	1. Ogeessa aadaa biratti 2. Dhaabbata fayyaatti 3. Farmaasii 4. Warra ganda keessatti marfee waraanan 5. Garbiroo (ibsi) -------	
50	Yoo mana yaalaa demteetta ta'e maaliif mana yaalaa deemuu filatte?	1. Tajaajila gaarii waan kennaniif 2. Tolaan waan nama yaalaniif 3. Gatiin itti yaalaman rakasa waan ta'eef 4 Walitti dhiyeenya waanan qabuuf 5.Icitiin isaa akka hin baaneef 6.Waan biro (ibsi…….._____	

51	Dhukubni naaf saalaa yoo nama qabate dafanii yaalamuu diduun rakkoo fayyaa maal namatti fiduu danda'aa?	1.Dhukuba HIV/AIDS'f nama saaxila 2.Maseenummaa 3.Cufamuu ujummoo fincaanii 4.Kanserii 5.Gar biro (Ibsi_____ 6.Hin beeku	
52	Waa'ee HIV/AIDS dhageessee beektaa?	1.Eeyyee 2.Lakki	
53	**Eeyyee** yoo jette odeeffannoo isaa eessa dhageesse? (***Deebii tokkoo ol kennun ni danda'ama***)	1. Maatii koo irraa 2. Jaalallee koo irraa 3. Hiriyyoota koo irraa 4. Ogeessota fayyaa irraa 5. Barsiisota irraa 6, Gumii Farra AIDS irraa 7. Waldaa amantii irraa 8. Gaazaxaa fi kitaaba irraa 9. Meediyaa(TV,Raadiyoo) irraa 10. Garbiroo(ibsi) --------	
54	HIV'n nama irraa namatti ni darba jettee yaaddaa?	1. Eeyyee 2. Lakki	
55	"**Eeyyee**" yoo jette, akkamiin daddarba jetta? (***Deebii tokkoo ol kennun ni danda'ama***)	1. Qunnamtii naf-saalaa 2. Marfee faalameen 3. Ilbiisotaan(bookee busaa,titisa…) 4. Dhiiga arjoomuudhaan 5. Haadha irraa-gara mucaatti 6. Nama vaayirasii AIDS waliin jiraatu waliin nyaata nyaachuudhaan 7. Abaarsa waaqayyoo tiin 8. Mana fincaanii tokkotti waliin gargaramudhaan 9. Garbiroo(ibsi) --------- 10 .Hin beeku	
56	HIV of irraa ittisuuf namoonni maal gochuu qabu jetta? (***Deebii tokkoo ol kennun ni danda'ama***)	1. Qunnamtii naf-saalaa irraa of qusachuu 2. Kondomitti gargaaramuu 3. Tokkoo fi tokkoo walamananii waliin jiraachuu 4. Dubartoota mana bunaa wajjin qunnamtii nafsaalaa raawwachuu dhiisuu 5. Marfee haaraatti gargaaramuu 6. Qorannoo dhiigaa HIV godhachuu 7. Garbiroo (ibsi) 8. Hin beeku	

57	Nama tokko ijaan ilaaluu qofaan HIV waliin jiraachuu isaa beekuun ni danda'ama?	1. Eeyyee 2. Lakki 3. Hin beeku	
58	Vayiresiin HIV hedduminaan haadha vayiresichaan qabamte irraa gara mucaa isheetti kan darbu yoom?	1.Yeroo ulfa irra jirtu 2.Yeroo dahumsaa 3.Yeroo harma hoosistu 4. Hin beeku	
59	Namni tokko qunnamtii naf-saalaa al-tokkootiin HIVtiin faalamuu ni danda'a?	1. Eeyyee 2. Lakki 3..Hin beeku	
60	Namni tokko AIDS'n yoo qabame mallattoo akkamii agarsiisuu danda'a? (***Deebii tokkoo ol kennun ni danda'ama***)	1.Ulfaatina qaamaa hir'isuu 2.Ho'ina qaamaa ji'a tokkoo oliif qabaachuu 3.Nama teesisuu {ji'a tokkoo oliif) 4.Mada'uu gogaa qaamaa 5.Garbiroo(Ibsi_____	
61	HIV /AIDS dhaaf kan si saaxilu hojjedheera jettee yaaddaa?	1. Eeyyee 2. Lakki 3. Hin beeku	
62	"**Eeyyee**" yoo jette maal fa'i?	1. Kondomii malee qunnamti naf-saalaa raawadheera 2. Jaalallee tokko ti-ol qaba 3. Dubartoota mana bunaa waliin qunnameera 4. Meeshaa faalameen wal'aanameera 5. Garbiroo (ibsii)_____	
63	**Lakki** yoo jette, maaliif ?	1.Qunnamtii naf saalaa raawwadhee hin beeku 2. Yeroo amma qunamtii nafsaalaa dhiiseera 3. Tokkoo-fi tokkoon jaalallee koo wajjiinin nan jirradha 4. Dubarti mana bunaa qunnamee hin beeku 5. Yeoo hundaa kondomitti fayyadameera. 6. Garbiroo(ibsi)	
64	HIV/AIDS'n abaarsa waaqaati jettee ni amantaa??	1, Eyyee 2.Lakki 3.Hin beeku	

65	AIDS'n fayyuu ni danda'aa?	1. Eeyyee 2. Lakki 3. Hin beeku	
66	Namni fayya fakkatu tookko vayirasii AIDS of keessaa qabaachuu ni danda'aa?	1.Eeyyee 2.Lakki 3. Hin beeku	
67	HIV qoratamtee ni beektaa?	1 .Eyyee 2. Lakki	
68	Yoo hin qoratamne ta'e gara fuula duraatti qoratamuu ni barbaddaa?	1.Eeyye 2.Lakki 3.Deebii hin kennu	
69	Yoo deebiin kee ***eeyyee*** ta'e, maaliif qoratamuu barbadde?	1.Sirritti of baruuf 2.Jireenya koo haalaan gaggessuuf 3.Ulfa'uukoon dura of baruuf 4.Ga'eelaan dura of baruuf	
70	Yoo qoratamuu hin barbaddu ta'e, sababni kee maali?	1.maatiinkoo waan natti dhekkamaniif 2.Namoonii akka adda na hin baasneef (qoodneef) sodaadheeni 3.Otoo of hi n bariin jireenya gaarii jirachuuf 4.Sababni ani itti of baruu barbaadu waan hin jirreef 5.Waanbiroo(Ibsi____	

Kutaa 4 : Gaaffilee Amaloota dargaggootaa hubaatii qaban ilaala

71	Dhugaatii alkooli ni dhugdaa?(farsoo, booka,biiraa ykn araqee)	1. Lakki 2. Torbanitti guyya 1ykn 2 3. Yeroo hunda	
72	Sigaaraa ni xuuxxaa?	1. lakki 2.Torbaanitti guyyaa 1ykn2 3. Yeroo hunda	
73	Caatii ni qamaataa?	1. Lakki 2. Torbanitti guyyaa 1ykn 2 3. Yeroo hunda	
74	Qoricha kan akka hashiishiifaa ni fayyadamtaa?	1. Eeyyee 2. Lakki 3. Callisa	

GALATOOMAA!!

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- Published on European Review for Medical and Pharmacological Sciences web site in 2009, volume 13, No. 5 on page from 331-339

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Declaration

I the undersigned declare that this MSc. thesis is my original work and it has not been presented for a degree in any other university. All source materials used for the thesis have been duly acknowledged.

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