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Assessment of the Reproductive Health Needs of Unmarried Out-of-school Adolescents in Amhara Region South Wollo Zone, Dessie Zuria woreda

By
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Addis Ababa
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By

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Dedication

This paper is dedicated to my baby son, *Adonias Tibebu*, for giving me enormous psychological satisfaction and devotion to work hard when I need it most.

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I would like to pass my heart felt thanks to my advisor **Dr. C. Ramanujam** for his unreserved, enriching and continuous support through out the study period.

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LIST OF ACRONYMS/ABBREVIATIONS

ARH	Adolescent Reproductive Health
AYRH	Adolescent and Youth Reproductive Health
BSS	Behavioral Surveillance Survey
CSA	Central Statistical Authority
CSWs	Commercial sex workers
EDHS	Ethiopian Demographic and Health Survey
ESOG	Ethiopian Society of Obstetrics and Gynecology
FGM	Female Genital Mutilation
HEWs	Health Extension Workers
HIV/AIDS	Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome
ICPD	International Conference on Population and Development
IEC	Information, Education and communication
ISY	In-School Youth
MOH	Ministry of Health
MTCT	Mother to Child Transmission
NGOs	Non-Governmental organizations
OSY	Out-of-School Youth

PAI	Population Action International
PRB	Population Reference Bureau
RH	Reproductive Health
RTI	Reproductive Tract Infections
SES	Socio-Economic Status
STIs	Sexually Transmitted Infections
TBA	Traditional Birth Attendants
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children Fund
WHO	World Health Organization

Abstract

Assessment of reproductive health needs of unmarried out- of- school adolescents who are 10-19 years is required to prepare them as a responsible and healthy persons at later life.423 samples respondents selected from Dessie Zuria Woreda by stratified systematic random sampling method were interviewed.

Majority of respondents knows about physical changes during puberty. There is poor knowledge about risk of conception during menstruation. Knowledge about legal age at marriage is at moderate level but more among females than males. Majority believed that any intercourse will not result in pregnancy. Though problem of premarital sex is known, first sexual intercourse (38 percent) happened at mean age of 16 years. Abortion and rape are known to majority of respondents. Correct knowledge about contraception is known to more males than females. Injectables, oral pills and condom are known in higher proportion.

Knowledge about STI and HIV is at relatively moderate and low level respectively. Knowledge on modes of HIV transmission is at very low level. Health extension workers are the major source of knowledge on reproductive health matters. Knowledge on RH matters does not differ significantly between male and female adolescents. Less knowledge about availability of health centre and less accessibility to health centre are observed. Treatment seeking behavior of adolescents has to be improved. There is a need to create awareness about the importance of later age at marriage; knowledge on risk of conception, safe period, contraception, avoiding premarital sex, and mode of transmission of STI/HIV. In addition to the general population, Muslims, literates and those in low standard of living needs more attention in providing information on RH matters through IEC programmes to be implemented by governmental, non-governmental and community based organizations.

CHAPTER ONE

I. INTROUDCTION

1.1 Background of the Study

WHO defines reproductive health as a condition in which reproduction is accomplished in a state of complete physical, mental and social well-being and not merely as the absence of disease or infirmity of the reproductive process. (WHO, 1992)

Reproductive health implies people are able to have satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. It encompasses: providing access and choice in family planning, caring for women before, during and after pregnancy and controlling sexually transmitted diseases including HIV/AIDS, Preventing the health of adolescents and supporting positive health practices. (Habtamu, 1998)

The broad concept of reproductive health was propagated intensively after the 1994 Cairo ICPD when governments ratified the Cairo programme of action, which focused on the delivery of a comprehensive and client centered review of RH for the promotion of RH in addition to family planning. The dimension of reproductive ill-health encompasses problems such as female genital mutilation(FGM), malnutrition, anemia, abortion, reproductive tract infections (RTI) including sexually transmitted infections and HIV/AIDS, infertility, unregulated fertility, maternal morbidity and mortality , sexual and gender violence and other related problems . (Daniel A.Mesganaw F. Yamane B., 2007)

Although it had been apparent that the definition of Reproductive Health (RH) by the International Conference on Population and Development (ICPD) has been accepted by many developing countries including Ethiopia, many people have poorly understood the RH concept. The word RH covers the well-being of men, women and young people as it concerns their reproductive function. An important part of RH is making sure that men and women have a safe and enjoyable sexual relationship and can decide freely if, when and how often they want to have babies, it's equally important that a woman should be able to go

through pregnancy and childbirth without danger to herself or to her baby. In addition, the newborn baby and the mother should receive adequate care and support immediately after childbirth. It also involves the prevention of unintended pregnancies and diseases through sexual intercourse. (Tekle-Ab, 2001.)

On the other hand, adolescence is considered by WHO as the period between 10 and 19 years. WHO defines adolescence as progression form appearance of secondary sexual characteristics to sexual and reproductive maturity and transition from total socio-economic dependence to relative independence. (WHO, 1995) It is a major transitional stage during which a progressive disengagement from the family is combined with the desire to test one's independence, parting through risky conduct, which often takes the form of risky sexual behavior. (Potard C., R.courtois and E. Rusch 2008)

Adolescence is a time of natural experimentation, abstract thought contemplating the future, empathy and idealism. It is also a time increasing self-consciousness, building self-esteem a time of self-criticism and the questioning of others. A time of burgeoning sexual feelings and impulses, combined with the beginning of the capacity to reproduce. It is a time when new skills and knowledge are needed for positive relationship with others and to begin life in the workplace. A time to enjoy life before the responsibilities of adulthood begins in a way, which does not threaten their health and well-being. (WHO, 1999)

Adolescence is a period in human development characterized by rapid physical, social and psychosexual changes. It is a time when sexual exploration, intimacy and feelings of independence begin to have prime importance despite a hostile and unwelcoming physical and social environment. (Abebe, 2001)

1.2 Statement of the problem

Adolescents, having survived all childhood health problems, have been enjoying a relatively low morbidity and mortality period in the past. At present, due to changing conditions of civilization, urbanization and life style, the health of adolescents is increasingly at stake. Sexually transmitted diseases, HIV/AIDS

and other reproductive health problems are the greatest threats to their well-being. (Frehiwot B.etal, 2005)

Addressing adolescent problems is important because behaviors which start in adolescence frequently lead to health problems which may emerge in later life, at immense cost to the individual themselves and their society. Hence promoting and protecting adolescent's health is in fact an excellent investment, both in the short term and long term which is potentially low cost and with high return.

A number of programs are being implemented to meet the reproductive needs of adolescents in Ethiopia, but these programs tend to serve primarily urban populations, many of whom are also enrolled in formal schooling. With 84% of the country's youth and adolescents residing in rural areas and only 15% enrolled in school, the vast majority of young people remain underserved . (MOH, 2006)

With little or no knowledge and skills for negotiating sexual and reproductive preferences and needs, they embark on their sexual and reproductive lives. This in turn will expose them to early marriage and unprotected sex resulting in unwanted or mistimed pregnancies and unsafe abortion, sexually transmitted infections HIV/AIDS and early child bearing. (CORHA, 2007)

Though there are very limited number of studies conducted based on out –of – school adolescents, most were carried out in bigger urban centers. Therefore, there is lack of systematically collected and sound information on the reproductive health needs of adolescents in general and out-of-school and rural adolescents in particular. In addition, This study will focus on the reproductive health needs of adolescents because it is crucial to know their RH needs and problems to met their needs and bring cultural and behavioral changes in them and basically adolescents can influence the coming generation.

Out-of-school youths comprise a majority of the youth population and exposed to high risk as far sexual activity and its consequences are concerned and there are no previous studies conducted on this issue in the study area.

1.3 Significance of the study

Initiating sexual activity is a natural transition made nearly by all humans. Most sexual intercourses during this period are unprotected. Lack o accurate knowledge about reproduction and sexuality, lack of access to health services including contraception, and lack of other social services put adolescents at the highest risk. Moreover, the rapid social changes like urbanization, forced idleness, lack of parental support or oversight, places adolescents at considerable risks of unwanted pregnancy, unsafe abortion and STD including HIV.

Addressing the reproductive health needs of out of school rural adolescents often remains difficult since they are considered as hard to reach. So the findings of this study may help policy makers and adolescent reproductive health providers to know the reproductive health conditions of out of school adolescents and formulate appropriate strategies and programs to address their needs.

Furthermore, such kind of research has not been conducted in the study area so it will be a spring board for other researchers to conduct similar studies.

1.4. Objectives of the study

1.4.1 General objective

The broad objective of the study is to assess the knowledge and attitude about reproductive health components among out-of-school rural adolescents in Dessie Zuria woreda.

1.4.2 Specific objectives

The study has the following specific objectives:

- To describe the socio-economic and demographic characteristics of out-of-school rural adolescents;
- To assess knowledge and attitude of Adolescents' Reproductive health components;
- To identify factors influencing adolescents knowledge on reproductive health; &
- To assess the conditions of adolescent health services in the study area.

1.5 Research Questions

By assessing the reproductive health needs of out-of-school rural adolescents, the researcher wants to answer the following questions:

1. What knowledge and attitude about RH that adolescents have?
2. What factors influence adolescents' knowledge on RH?
3. Are there any RH services for Adolescents?

CHAPTER TWO

II.REVIEW LITERATURE

Reproductive health and health in general, is predetermined by the socio economic conditions in the society in which people are born and in which they live. It can be promoted or undermined by the individual's own lifestyle and improved by health care services and information and technological advances made through health research.

Our world currently carries a historic highest number of adolescents; about 1.2 billion adolescents need proper education, health and other life skill to ensure a better future for themselves and their countries. (UNFPA, 1998)

Reproductive Health (RH) in general and adolescent reproductive health (ARH) in particular is of growing concern in most developing countries. Sub-Saharan Africa is the youngest region of the word, with 44% of its population under age 15 in 2006. (PRB, 2007)

Adolescents are the forgotten millions in reproductive health programs. Although the numbers of young people who need information and services are enormous, services are scarce, fragmented and nonexistent. Recent research shows an increasing trend in sexual activity among adolescents in both developed and developing countries. This marked change of sexuality among teenagers is mainly caused by socioeconomic changes as urbanization and modernization, improved health and nutritional status resulting in low age at menarche, earlier sexual maturity ,low level of knowledge concerning human reproduction, liberalization of attitudes regarding sexuality, relaxation of mechanisms of tradition and control over sexuality and ignorance about sex and family planning . (UN, 1989)

Several countries in Sub-Saharan African have large and increasing adolescent population that exceed those from other parts of the world , the estimated total population of the 42 African countries that lie south of Sahara is 610 million. Approximately, 20% of this population (120 million) is adolescents aged 10-19 year. With an overall population growth rate of 2.7% in the continent, it is

projected that this adolescent population will double in the next 25 years. (F.E. Okonofua and R.C.Snow, 2000)

The adolescent population in Ethiopia has been increasing during the last few decades. They constitute about 24% while young adults (10-24 years) constitute about 30% of the total population. (CSA, 1995). Eleven percent of the population in 2007 is age 15-19 and 20% is age 15-24.Moreover, since Ethiopia is typical of a country with a youthful population 43% of the population of Ethiopia in 2007 is under 15 years of age .(U.S. census Bureau, International Data Base,2001)

Ethiopian youth face many challenges. Sexual initiation often occurs at an early age due to traditions and poor living conditions. Traditional practices such as early marriage, marriage by adduction, and female genital cutting adversely affect the health and well being of young people. Rape and sexual coercion are common among young women in both urban and rural settings. Sexually transmitted diseases pose considerable risk to the youth population because of the practice of having multiple sexual partners and the limited use of condoms, unintended pregnancies, pregnancies that occur within short intervals and abortions pose serious health risks to young women.

2.1 Physical changes during adolescence

Puberty is defined as a period during which secondary sexual characteristics develop, menstruation begins and psychological outlook of adolescents changes as they develops a more adult aspect to themselves. The end result of puberty is the establishment of the fully physically mature adult person capable of reproductive performance and fully psychologically developed as an adult. (Edmonds, 1999)

With the onset of puberty and sexual development, adolescents of both sexes are eager for information about their own reproductive systems and their physical, emotional and intellectual development. Boys tend to be concerned about masturbation and sexuality, while girls wonder about menstruation and their eventual roles as mothers. (UNICEF and UNAIDS, 2002).

Puberty occurs and terminates 2 years earlier in girls than in boys. The mean ages for the on set and termination for girls 12-14 years and 17 years, and for boys 15 years and 21 years. There are, however, considerable variations between the various cultural groups. (Mekdes, 1999)Among the major physical changes that happened during adolescence are: deepening of voice, growth of public, pelvic and facial hair, muscle strength, enlargement of breast etc.

Menstruation is the periodic (usually every 28 days) shedding of the inner lining (i.e. endometrium) of the womb (or uterus), and in practical terms, this shedding reveals itself as vaginal bleeding. The first menstrual period (menarche) normally beings between the ages of 11 and 16 years while cessation occurs at about the age of 45 to 52 years. Two to seven days of vaginal bleeding is usually considered normal (Mekdes, 1999)

Menarche is a feature of puberty and refers to the first menstrual period in woman's life-time. Normally it begins some 2 to 3 years after the start of breast development (which is 10-11 years).Like all features of puberty, the on set of menarche is influenced by a variety of factors. Notable among these factors are racial and familial tendencies , birth order , social class, diet and the overall health status of the individual .(ibid)

The results of few surveys conducted in Ethiopia on the problems of adolescent RH have shown that adolescents have a limited knowledge about their growth, development and maturation. The adolescent's knowledge of reproductive processes was particularly poor, and younger women had inaccurate perceptions of the function of menstruation. As girls enter adolescence and go through menarche, they need education on the physical and psychological change they are experiencing as well as information on menstrual hygiene, anemia, nutrition, and the connection between menstruation and conception. (Mehryar etal, 2003).

Although menstrual hygiene is an issue that every girl and woman has to deal with in her life , there is lack of information on the process of menstruation, the physical and psychological changes associated with puberty and proper requirements for managing menstruation. The taboos surrounding this issue in

the society prevent girls and women from articulating their needs and the problem of poor menstrual hygiene management have been ignored or misunderstood. (UNICEF, 2008).

Good menstrual hygiene is crucial for the health, education and dignity of girls and women. This is an important sanitation issue which has long been in the closet and there was a long standing need to openly discuss it. Equipping adolescent girls with adequate information and skills on menstrual hygiene and its management is seen as empowering them with knowledge which enhances their self-esteem and academic performance (ibid.)

According to a study conducted in India, Kerela, among the study subjects majority (60.8 percent) dealt with menstruation unhygienically. A statistically significant association was seen between menstrual hygiene maintenance and education, socio-economic status, knowledge prior to menarche, type of protection and accessibility to water, bathroom facilities and menstrual disorders. Hygiene related practices of women during menstruation are of considerable importance as it has a health impact in terms of increased vulnerability to infection. (Anuradha, 2007)

2.2 Adolescent Sexual Behavior

Adolescent sexual behaviors is an area of great interest because the period between sexual initiation and marriage is for many young people a time of sexual experimentation that may involve high-risk behaviors associated with STIS and HIV/AIDS.(CRDA, 2005)

Sexual behavior influences many aspects of reproductive health, notably pregnancy risk and the incidence of STIs, including HIV infection. It is determined in turn by the cultural and social context in which it takes place (WHO, 1992)

Among Ethiopian women age 25-49, 32% had sexual intercourse before age 15, 65% before age 18, and by age 25 most Ethiopian women have had sexual intercourse. The median age at first sexual intercourse for women age 25-49 years is 16.1 years, which is identical to the median age at first marriage. This

suggests that Ethiopian women generally begin sexual intercourse at the time of their first marriage. (EDHS, 2006)

A study conducted in Bahirdar, Dessie, Awassa, Jimma and DireDawa indicated that 33% of the youth reported to have had sexual intercourse prior to the study. Mean age of sexual initiation was 15.3 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%).Multiple partners were the most commonly reported lifetime risk behaviors. Although 56.7% of the youth ever used condoms, only less than half of these used them regularly. On the positive note, 83.4% of the youth expressed intentions to use condoms in the future.(Rahel A.et al,2003)

Nearly half of males and one-fifth of females participated in the study conducted in Harar reported to have ever experienced sexual intercourse.Fourty-eight percent of males and 37.8% of females had their first sexual intercourse at the ages of 15-17 years. The mean age at first sexual intercourse is found to be 17.2 years among unmarried youths,16.9 years for male and 18 years for females .(Antenahe K. And M.Haile, 2007)

According to a surveillance survey conducted in Ethiopia, among those who were sexually active smaller proportion of in-school-youths (ISY) (16.9%) than out-of-School youths (OSY) (35.1%) reported having more than one sexual partner in the previous 12 months. A grater proportion of males than females OSY had more than one sexual partner. (49.7 males and 22.4% of females). The percentage of ISY reporting more than one sexual partner in the previous 12 months (16.9%) was significantly lower than OSY (25.3%).Non commercial partners were reported by 52.5% of the OSY and 52.9% of ISY.In comparison commercial partners were reported by 19.5 of OSY and 1.5% of ISY.(MOH,2003)

2.3 Unintended Pregnancy and Unsafe Abortion

Globally, more than 10% of all births are to women 15-19 years old. In ten out of 11 sub-Saharan African countries, at least one out of every five adolescents had one or more children or is currently pregnant (Tadesse E.Gundufa A. And Mengistu G.1996)

Adolescent abortions are estimated to be between 1 million and 4 million per year and most are unsafe because they are performed illegally and under hazardous circumstances by unskilled practitioners. Adolescents account 24-37% of all hospitalized abortion patients in small studies in Malawi, Uganda, and Zambia. (Bongaart J and Cohen B, 1998)

The findings of EDHS 2005 indicated that more than one in three births to adolescent mothers was either unplanned or unwanted. Adolescent pregnancy predisposes to long-term unfavorable socio-economic outcome and is associated with increased risk of maternal morbidity and mortality as well as neonatal and infant mortality.

Unsafe abortion is mostly common among the adolescents because of early sexuality and unintended pregnancy. In Ethiopia abortion is illegal. The poor, the uneducated and the young females that encountered unwanted pregnancy indulge themselves to the traditional and untrained practitioner to induce abortion. The unsafe abortion thus may result in several complications such as sepsis, psychological stress and even death. (EPHA, 2003)

Studies carried out in Ethiopia indicated that complication from unsafe abortion account for almost 55% of all recorded maternal deaths, some 13% of which occur among women under the age of 20. (Korra A.Haile M.1999) Unsafe abortion is a preventable tragedy and is one of the neglected problems of health care in developing countries. The moral and religious controversies about abortion have continued to obscure its dimension as a serious public health problem. In Ethiopia 16.2% of the women presented with abortion were below age 20 and over 45% of all abortions occurred in adolescents and the younger age groups that are more likely to have irregular , unplanned , hurried and clandestine sexual behavior .(ESOG,2002)

2.4 STI and HIV/AIDS

Adolescents especially in developing countries are exposed to unsafe and early sex. Poverty and lack of appropriate information, which is very common in developing countries, makes the adolescents vulnerable for STI including HIV/AIDS. As a group, the adolescents tend to be uniformed or misinformed

about sexuality and reproductive health and reluctant to take action to protect them. Each year more than one out 20 adolescents contract curable STD, excluding viral infections. Globally more than half of all HIV infections are among 15-24 years old. (Bongart J. And Cohen B.1998)

Worldwide, more than 10 million young people aged 15 to 24 have HIV/AIDS every year, almost half of all new HIV infections and at least one-third of all new STIs occur among people under age 25 of the 14,000 new HIV infections acquired per day in 2003, almost 6,000 occurred among young people aged 15 to 24 the majority of them women. (PAI, 2004).

The Ethiopian Demographic and Health survey (2005) indicated that young women are particularly Vulnerable to HIV infection compared with young men. Among women age 15-19 the HIV prevalence level is 0.7% compared with 0.1% for men of he same age group. Among sexually active youth age 15-24,6 percent of women and 37 percent of men were engaged in higher risk sexual activity, only one quarter of these women and half of the men reported condom use in the last higher risk encounter. As most of them are engaged in high risk sex without any protection, they will be at increased risk of contracting HIV/AIDS and other STIs. Despite high awareness of HIV/AIDS, the level of comprehensive knowledge is low: only one-fifth of women and one-third of men age 15-24 have comprehensive knowledge about HIV/AIDS.

2.5 Contraceptive Use

The adolescent in developing countries are seen to be poor in the utilization of contraceptive. The reported reasons for not using contraceptives are lack of knowledge, lack of support from the community and cultural, religious and traditional objections and in accessibility of the service is some of the other reasons. (EPHA, 2003)

A study conducted to assess the determinants of contraceptives use among urban youth in Ethiopia reported that there is a large discrepancy between knowledge and actual practice of contraception. Only 15% of males used condom and 39% of females used contraceptives respectively. (Tesfaye, 1996)

Another study conducted in North Western Ethiopia among out of school youth revealed that the proportion of sexually active never married adolescents who used modern contraceptives was 57% compared to only 12% of those who had ever married. Only 13% of the rural and 35% of urban sexually actives had ever used condom. (Anteneh, 2001)

Obtaining contraception is one of the most serious problems confronting adolescents particularly those in rural areas. The 2005 EDHS result depicted that the level of actual contraceptive use was only 9 percent among married adolescents and 15 percent among young women age 20-24. The total unmet need for family planning among adolescents is 38 percent (30 percent for spacing and 8 percent for limiting)

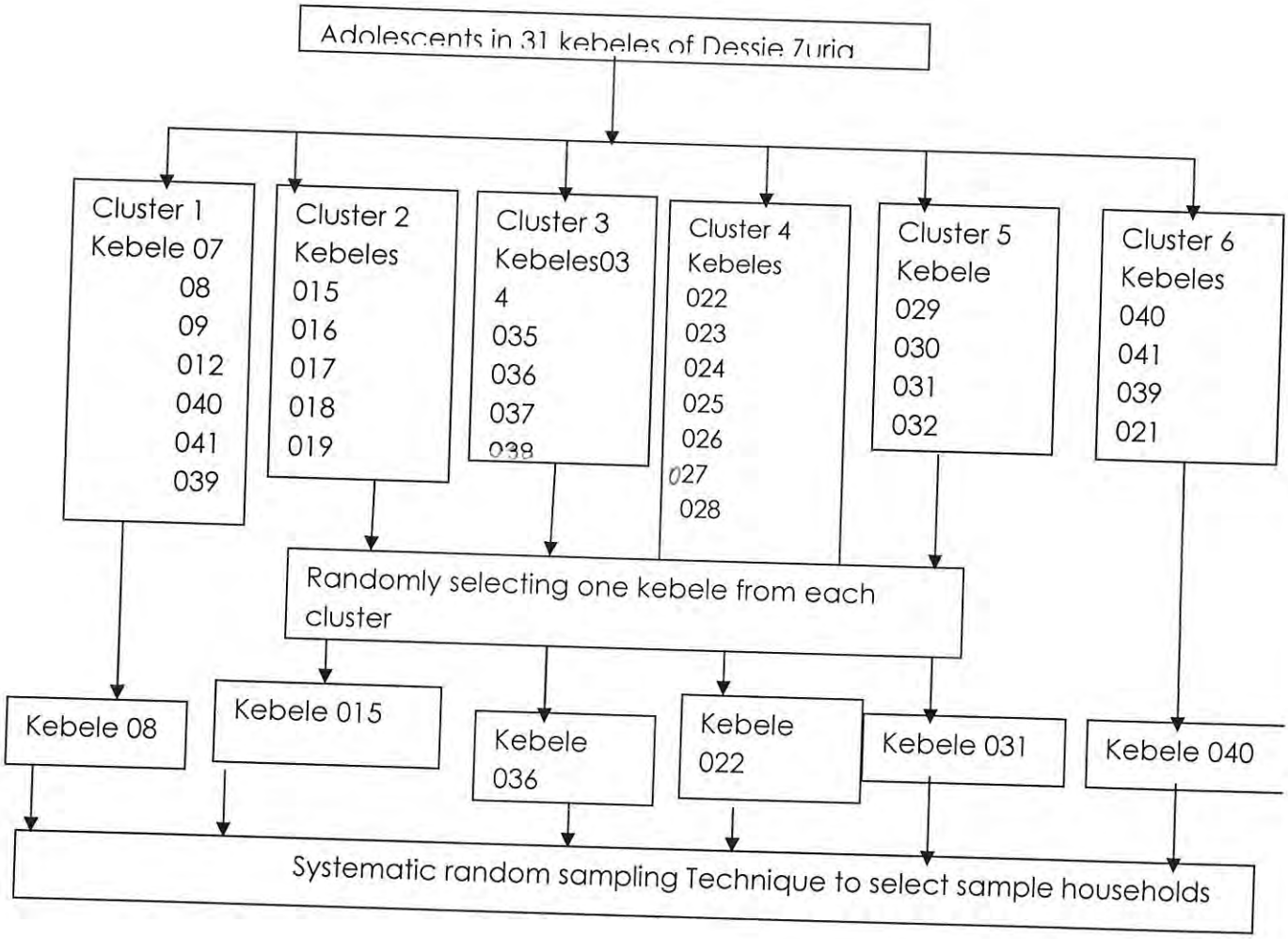
According to BSS (2003), among the OSY who had non-commercial partners in the previous 12 months, 55.7 said that they had used a condom at their last sexual encounter and 39% had used condoms consistently. During their last sexual encounter with non-commercial partners, 52.4% of ISY had used a condom and 73.6% had used condoms consistently during the previous 12 months. (MOH, 2003).

2.6 Access to Information and Health Service Utilization

Young people rarely have access to detailed and accurate information about sexuality and reproduction. As a result, they often are ill-prepared for sexual relations or unable to protect themselves from unintended pregnancy and sexually transmitted infections (STIs). In Botswana, where more than one-third of the population is HIV positive and almost all young people are at least aware of the virus ,nearly two-third of girls still have misconceptions about transmission . Among married Ethiopian girls aged 15 to 19 only one-third knows that condom can protect against HIV/AIDS.(PAI,2004)

As a result of a cultural taboo, adolescents in many developing countries rarely discuss sexual matters explicitly with their parents. Most information for their patchy knowledge often comes from peers of the same sex, who may themselves be uniformed or incorrectly informed. Findings suggest that young people's knowledge on aspects of their sexuality is incomplete and not enough to

Figure 1: Schematic Representation of the sampling procedure



3.4 Sample size Determination

The prevalence of knowledge of reproductive health needs among study subjects is not known from previous surveys. Therefore, it's assumed that the prevalence to be 50% and the level of confidence interval 95% (possible error to be 5%).

$$n = \frac{P(1-p)\,(z)^2}{e^2}$$

Where:

n - The sample size

p - Prevalence of knowledge of RH among the study subjects

$(z)^2$ - Number of standard error units which is found from the normal probability table to correspond to be 1.96.

e^2 - margin of error or limit of accuracy which will be tolerated i.e. 5%

$$n = \frac{P(1-p)\,(z)^2}{e^2}$$

$$n = \frac{0.5)\,(1-0.5)\,(1.96)^2}{(0.05)^2} = 384$$

Considering a 10 percent non-response rate,

the sample size is 384+39 = 423

3.5 Definition of Variables and conceptual framework

Based on the reviewed literatures and the objectives, the dependent and independent variables to be included in the study identified.

3.5.1 Independent variables

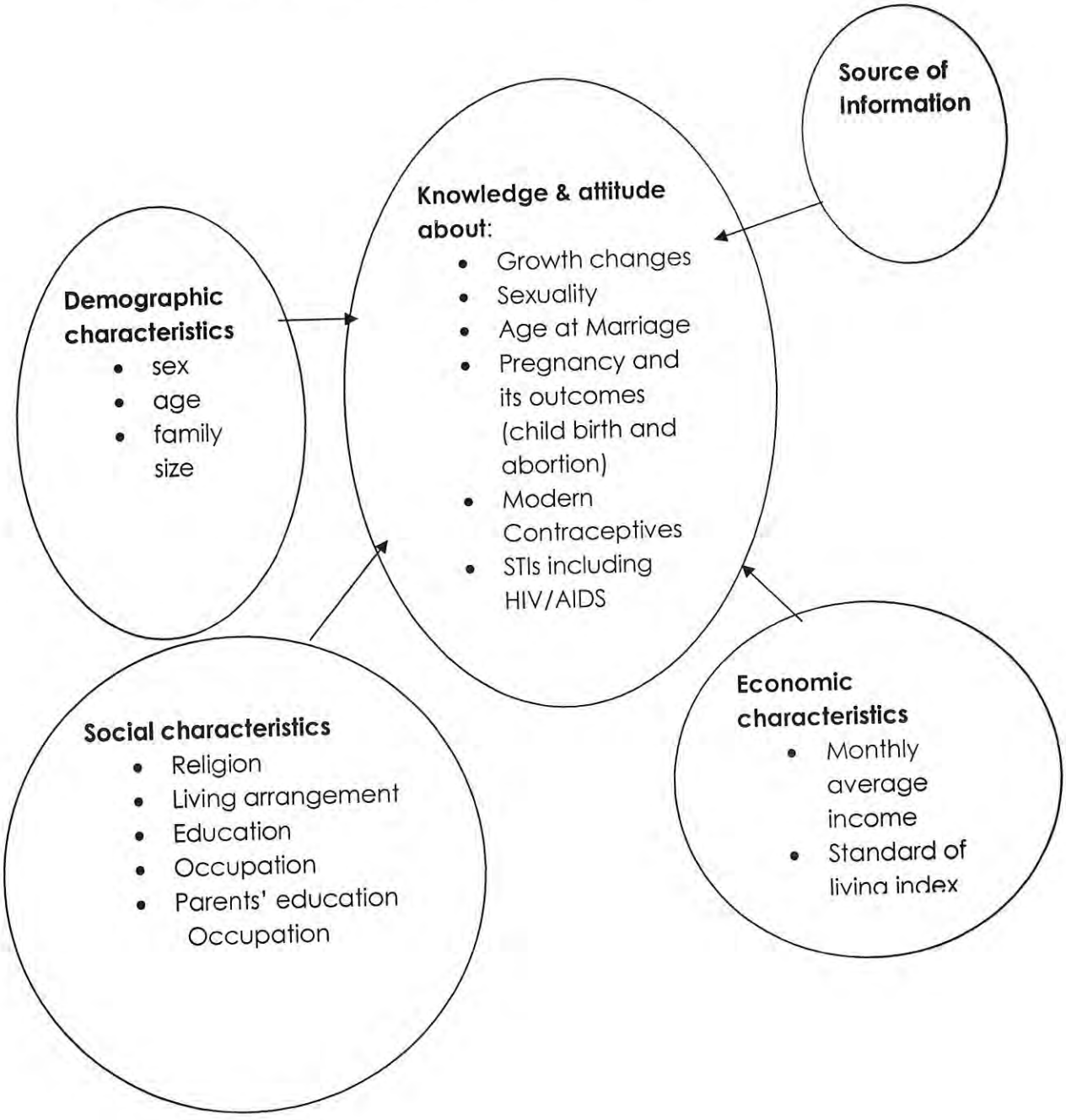
Independent variables are factors influencing or explaining variations to be included in the dependent variables. Under this lie the socio-economic & demographic characteristics of respondents and source of information about RH matters

- Demographic characteristics: Sex (male, female), age (10-14 and 15-19), family size (2-4, 5-6 and 7+).
- Social characteristics: religion (Muslim, Christian), living arrangement (with both parents, one parent, others), education (Illiterates, 1-4, 5-8 and 9+), occupation (working, non-working), mother education, father education, mother occupation, father occupation.
- Economic characteristics: Monthly average income(less than or equal to 120 birr per month(low),121-250 birr per month(medium) and greater than or equal to 251 birr per month(high)),Standard of living index(less than or equal to 9(low),10-11(medium) and greater than or equal to 12(high))
- Source of information about reproductive health components

3.5.2 Dependent variable

These are outcome variables to be influenced by the independent variables: Adolescents' knowledge, attitude and experience of growth changes, sexuality, marriage, pregnancy and its outcomes, contraceptives, STIs including HIV, drug and alcohol use, access to health services, reproductive morbidities and health seeking behavior.

Figure 2: Conceptual Framework of the study



Source: Researcher's own, 2009.

3.6 Method and instruments of data collection

Both quantitative and qualitative methods of data collection are employed. Semi-Structured questionnaire was prepared to gather quantitative information and focus group discussion guide was also prepared to collect qualitative information. To prepare the questionnaire, variable chart was developed based on the specific objectives of the study. After identifying the variables the respective questions are framed.

After preparing the first draft of the questionnaire, it was submitted to the advisor and valuable suggestions obtained. The final English version of the questionnaire, including the suggestions, was framed and translates to Amharic Version to undertake the pretest. The questionnaire had 117 questions categorized in ~~six~~ Five parts. All questions don't concern every respondent. There were about 5 questions restricted only to one of the sexes and 11 questions only for those who had sex before. In addition there are 19 questions with skip rules.

Before undertaking the actual data collection, six data collectors were recruited and get training on the purpose of the study and the questionnaire. The data collectors were 3 females and 3 males, not more than 25 years old and all were at least 10th grade complete. A pretest of the questionnaire was made right after finishing training of data collectors. A total of 20 adolescents, 10 males and 10 females, are interviewed from the nearest selected kebele. There were some clarity and appropriateness problems on the questions and some alternatives were not provided appropriately. The actual data collection was undertaken form February 1 to 20, 2009. During the data collection period, the researcher closely supervised the process and supported the data collectors. Focus group discussion was also undertaken side by side. It was conducted by forming same sex adolescent groups (male group and female group) among the 6 selected Kebele adolescents (one from each). Each group consisted 8-12 adolescents, note taker and one moderator.

3.7 Data management and analysis

After the completion of data collection it was coded and entered to computer using SPSS version 15 software. Data was cleaned by running one way tables for missing and inconsistent values. Descriptive techniques like frequencies, percentages, means, and cross tabulations are used to describe the socio-economic and demographic variables of respondents and to describe some of the dependent variables.

Bivariate technique of data analysis, particularly, chi-square test and calculating p-value was undertaken to check the statistical significance of the association between dependent and independent variables. Finally, Multivariate technique of data analysis is also made to assess the net effect of independent variables on the dependent variables.

3.8 Ethical considerations

Before undertaking both the qualitative and quantitative data collections, participants were told about the purpose and objectives of the study. The participants' verbal consent was obtained and they were also assured about the confidentiality of their personal information to be used only for academic purpose. Furthermore, each respondent was told his/her right to participate or not to participate and also his/her right to interrupt the interview at any time they wish.

3.9 Data quality Assurance

To keep the quality of the data, proper training was given for data collectors and a pretest of the questionnaire was conducted before the actual data collection. Furthermore, the researcher gives close supervision and support for the data collectors to solve problems which may encounter on the spot.

percent and 18 percent are respectively working in farm and non-farm activities. Working mothers are found to be more for male respondents than female respondents. (See table 2)

The above results reveals that there is difference in religion, living arrangement, education, occupation, age, family size and standard of living between male and female respondents, this is why it's proposed to analyze male and female separately in relation to variables considered in this study .

Table 2: The social characteristics of respondents

Social characteristics	**Male**		**Female**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Religion						
Muslim	177	91.7	220	95.7	397	93.9
Christians	16	8.3	10	4.3	26	6.1
Total	193	100.0	230	100.0	423	100.0
Living with:						
With both parents	135	69.9	190	82.6	325	76.8
With one parent	37	19.2	34	14.8	71	16.8
Others (relatives, boy/girl friend , peers, alone)	21	10.9	6	2.6	27	6.4
Total	193	100.0	230	100.0	423	100.0
Education of the respondents						
Illiterates	6	3.1	6	2.6	12	2.8
1-4 grades	25	13.4	54	24.1	79	19.2
5-8 grades	112	59.9	152	67.9	264	64.2
9 and above	50	26.7	18	8.0	68	16.5
Total	193	100.0	230	100.0	423	100.0

Social characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Mean	7.17		6.42		6.76	
Standard Deviation	2.533		2.278		2.423	
Education of father						
Illiterates	99	51.3	96	41.7	195	46.1
1-4Grades	61	64.9	54	40.3	115	50.4
5-8 grades	21	22.3	66	49.3	87	38.2
9 and above	12	12.8	14	10.4	26	11.4
Total	193	100.0	230	100.0	423	100.0
Mean	4.5		5.67		5.21	
Standard Deviation	2.831		2.461		2.671	
Education of mother						
Illiterates	137	71.0	119	51.7	256	60.5
1-4Grades	31	55.4	57	51.4	88	52.7
5-8 grades	17	30.4	40	36.0	57	34.1
9 and above	8	14.3	14	12.6	22	13.2
Total	193	100.0	230	100.0	423	100.0
Mean	4.89		4.81		4.84	
Standard Deviation	2.89		2.675		2.74	
Occupation of the respondent						
Not working	48	24.9	66	28.7	114	13.9
Farming	66	45.5	86	52.4	152	34.2
Non farming	36	24.8	19	11.6	55	18.7
Other business	43	29.7	59	36.0	102	22.3
Total	193	100.0	164	100.0	309	100.0

Social characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Occupation of father						
Not working	12	6.4	5	2.2	17	4.1
Farming	149	79.3	182	80.5	331	80.0
Non farming	4	2.1	6	2.7	10	2.4
Other business	23	12.2	33	14.6	56	13.5
Total	188	100.0	226	100.0	414	100.0
Occupation of mother						
Non-working	6	4.7	2	0.9	8	1.9
House wife	83	43.0	133	57.8	226	53.4
Farming	64	33.0	60	26.1	124	29.3
Non-farming	40	20.7	35	15.2	75	17.7
Total	193	100.0	230	100.0	423	100.0

Source: Filed survey, 2009

4.1.2 Demographic and economic characteristics of respondents

Among the total respondents included in the study, 54 percent are females and 45.6 percent males. The eligible subjects of the study are adolescents of age between 10-19.The mean ages of the respondents are found to be 16 years. (For boys 16.8 and for girls 15.3).Twenty-four percent are in 10-14 years age group and 76 percent in 15-19 years age group. More females (31 percent) than males (16 percent) are in 10-14 years. Whereas, more males (85 percent) than females (69 percent) are in 15-19 age groups. The average family size of the total respondents is 5.3 persons. Family size of 7 or more is reported by 27 percent of the respondents. It is reported by more male (31 percent) than female (24 percent) respondents.

Respondents were asked to guess their family's average monthly income. The mean monthly income was 290 Birr per month. Average monthly income of 251 or more Birr is reported by 36 percent of the respondents. It is also reported by more female (44 percent) than male (30 percent) respondents. Thirty-two percent of the respondents reported their family's average monthly income as 120 or less Birr per month.

The standard of living index is developed using the variables such as source of drinking water, type of house, source of lighting, cooking material, toilet facility, ownership of some key household items, and availability and amount of land ownership (See annex ii). Mean standard of living for the respondents is medium (11). Forty–two percent of respondents are in high standard of living, 27 percent in medium and 32 percent in low standard of living. The proportion of respondents in low and high standards of living differs. For example, more female (44 percent) than male (31 percent) respondents are in high standard of living (See table 3).

Table 3: Demographic and economic characteristics of respondents

Characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Demographic characteristics:						
Sex of the respondent						
Male					193	45.6
Female					230	54.4
Age of the respondent						
10-14	30	15.5	71	30.9	101	23.9
15-19	163	84.5	159	69.1	322	76.1
Total	193	100.0	230	100.0	423	100.0
Mean	16.8		15.27		15.97	
Standard Deviation	2.204		1.857		2.167	
Family size						
2-4	78	40.4	74	32.2	152	35.9
5-6	56	29.0	102	44.3	158	37.4
7 and above	59	30.6	54	23.5	113	26.7
Total	193	100.0	230	100.0	423	100.0
Mean	5.32		5.37		5.34	
Standard Deviation	2.079		1.53		1.8	
Economic characteristics : Monthly average income						
<=120 birr (low)	59	40.7	25	22.7	84	32.9
121-250 Birr (medium)	43	29.7	37	33.6	80	31.4
>=251 (high)	43	29.7	48	43.6	91	35.7
Total	145	100.0	110	100.0	255	100.0
Mean	276.5		307.8		290.0	
Standard Deviation	300.1		295.3		298.0	

Characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Standard of living index						
<=9 low	66	34.9	65	29.3	131	31.9
10-11 medium	50	26.5	59	26.6	109	26.5
>=12 high	73	38.6	98	44.1	171	41.6
Mean		10.96	11.03		11.0	
Standard Deviation		3.59	3.33		3.45	
Total	189	100.0	222	100.0	411	100.0

Source: Field survey, 2009

4.2 BIVARIATE ANALYSIS

4.2.1 Adolescent Knowledge about growth changes

Respondents were asked about their knowledge on the physical changes that will happen during puberty. Their responses are presented in table 4. Among the total respondents, 93 percent knows about the change in voice of males and 33 percent change in the voice of females. Religion of respondent only differentiates the level of knowledge. It's more among Christians than Muslims. Both male and female respondents knew more about the change in voice of males than females. Also there is no such difference in the knowledge between male and female respondents about both sexes voice change. Growth of pelvic hair for male is known by 75 percent of respondents and that of female is known to 87 percent of respondents. More males (87 percent) than females (65 percent) knew about growth of pelvic hair for males. Whereas more female (91 percent) than male respondents (81 percent) knew about growth of pelvic hair for female. None of the background characteristic of the respondents differentiates the level of knowledge.

Growth of pubic hair for male is known to 83 percent and for female it's known to 81 percent of respondents. Respondents belong to males, Muslims, in age 15-19 years with relatively higher education and non- workers are likely to have more knowledge about the growth of pubic hair than their counterparts. Enlargement of breast for female is known to 93 percent of total respondents. More female (98 percent) than male respondents (87 percent) knew it. More Christian and non- working respondents knew about this change.

Change in muscle strength for male is known to 87 percent of total respondent and for female it's known for 42 percent of respondent. The knowledge on change in muscle strength for males is more or less the same among both male and female respondents. But this knowledge for female is reported more by male (47 percent) than female (37 percent) respondents. Religion, age, education and occupation of respondents differentiate their knowledge on change in muscle strength during puberty. Knowledge on change in muscle strength of male is reported more by Christian's, respondents 15-19 years, less educated and non-working respondents compared to their counter parts. For the change among female, the knowledge is more among Muslims, older (15-19 years) and working respondents compared to their counterparts.

According to 95 percent of total respondents, menstruation indicates attainment of puberty for female. This is confirmed by more females (98 percent) than males (91 percent).The background characteristics of respondents are not making any difference in the knowledge about menstruation at time of puberty. Generally, less knowledge about the change that happens for the opposite sex and more knowledge about themselves have been observed.

Table 4:- percent distribution of respondents by their characteristics and their knowledge on Physical changes during puberty

Charac - teristics		Physical changes during puberty									
		Voice change		Pelvic hair		Pubic hare		Enlargement of breast	Muscle strength		Menst Ruation
	n	Male	Female	Male	Female	Male	female	Female	Male	female	Female
Sex											
Male	193	94.9	32.7	86.6	80.9	93.8	75.1	86.6	85.4	47.1	90.6
Female	230	91.7	33.5	64.8	91.3	72.2	86.5	98.3	88.7	37.8	98.2
Age											
10-14	101	92.1	31.7	69.3	87.1	70.3	82.2	92.1	87.1	30.7	96.0
15-19	322	93.5	33.5	76.4	86.3	86.3	81.1	93.1	87.2	45.6	94.2
Religion											
Muslim	397	92.6	33.7	74.5	87.1	82.9	81.6	92.4	86.9	42.3	94.7
Christian	26	100	23.1	76.9	79.9	76.9	79.9	100	92.3	38.5	96.2
Education											
Illiterate	12	100	-	75.0	75.0	75.0	75.0	100	100	75.0	100
1-4	79	97.5	39.2	81.0	89.9	81.0	86.1	93.7	91.1	30.4	89.9
5-8	264	92.0	27.7	68.6	85.6	81.0	79.1	92.5	88.3	40.5	96.6
9+	68	91.2	52.9	91.2	88.2	91.2	85.3	92.7	76.5	55.9	92.6
Occupation											
Working	309	92.6	35.9	72.8	86.7	81.2	80.6	91.6	84.8	50.2	94.5
Nonworking	114	94.6	25.5	79.8	86.0	86.0	83.3	96.5	93.8	20.1	95.6
All	423	93.1	33.1	74.7	86.5	82.5	81.3	92.9	87.2	42.1	94.8

Source: Field survey, 2009

n=number of respondents

4.2.2 Perception about menstruation

Respondents are asked about their perception about menstruation and materials used during menstruation. Majority (88 percent) perceived the correct meaning of menstruation and the remaining perceived wrongly or don't know (11 percent)(Table 5).More females (92 percent) than males (86 percent) understood the correct meaning of menstruation. But the duration of menstruation is reported as more than 5 days by 17 percent, 3-5 days by 58 percent and less than 3 days by 25 percent of respondents. Either more than 5 days or less than 3 days is reported by more females than males.

About 9 percent of respondents (10 percent of males and 9 percent of females) fells that menstruation is a sign of promiscuity. Forty percent of both male and female respondents wrongly understood that a girl can get pregnant during menstruation period.

Out of two hundred thirty female respondents, 55.2 percent already experienced menstruation. The mean age at menarche is 15.9 years. When they were asked about the materials used during menstruation, 50 percent used the cloth and reused it after washing, 46 percent used and throw cloth, 3 percent changed underwear after bath and 2 percent didn't respond.

Table 5: Perception about menstruation related matter and materials used during menstruation

Perception on	Male		Female		Total	
	No.	%	No.	%	No.	%
Menstruation means:						
disintegration of the uterus wall	121	62.7	126	54.8	247	58.4
If the egg cell can't meet the sperm cell	28	14.5	72	31.3	100	23.6
Both can be the definition	16	8.3	14	6.1	30	7.1
It's a proof of being female	3	1.6	3	1.3	6	1.4
I don't know	25	13.0	15	6.5	40	9.5
Duration of menstruation in a monthly cycle :						
<3 days	45	31.7	42	20.5	87	25.1
3-5 days	65	45.8	135	65.9	200	57.6
>5 days	32	22.5	28	13.7	60	17.3
Menstruation as a sign of promiscuity						
Agree	19	9.8	18	7.8	37	8.7
Disagree	174	90.2	212	92.1	386	91.2
A girl can get pregnant at the time of menstruation						
Agree	76	39.4	92	40.0	168	93.7
Disagree	117	60.7	138	60.0	255	60.3
Experience of menstruation:						
Yes			127	55.2		
No			103	44.8		
Total			230	100.00		
Management of menstruation:						
Use and throw			58	45.7		
Using by washing			63	49.6		
Taking bath and changing underwear			4	3.2		
No response			2	1.6		
Total			127	100.0		

Source: Field survey, 2009

4.2.3 Adolescents perception about safe sex

The respondents are asked about the perception about safe sex. Their responses are analyzed in relation to their back ground characteristics and the results are presented in table 6.

According to the respondents , safe sex means abstaining from sex before marriage(43.7 percent), using condom always and consistently (23.4 percent) and not having more than one partner 8.0 percent and 13.5 combination of the above ones about 15 percent of respondents replied that they don't know what safe sex mean.

The perceived safe sex is significantly associated with age of respondent, religion, education and family monthly income/ standard of living. Generally perception about safe sex as abstinence is more among younger age (10-14 years), Christians relatively high level of education, working and respondents living in medium standard of living compared to their counterparts.

Knowledge on not having more than one partner and use of condom is reported more by female respondents than males. This pattern exists even after controlling the effect of background characteristics of respondents as seen from table 6.

Table 6: Distribution of Respondents by perception Safe Sex and their Characterstics

characteristics	Male							Female							Total							X^2
	n	1	2	3	4	5	6	n	1	2	3	4	5	6	n	1	2	3	4	5	6	
Age																						
10-14	30	53.3	67	20.0	6.7	-	13.3	71	49.3	2.8	16.9	8.5	2.8	19.7	101	50.5	4.0	17.8	7.9	2.0	17.8	X^2=28-496
15-19	163	44.2	4.9	20.9	2.5	14.7	12.9	109	39.0	13.8	29.6	1.9	1.3	14.5	322	41.6	9.3	25.2	2.2	8.7	13.7	P=0.000
Religion																						X^2= 17.630 P=.024
Muslim	177	45.5	5.6	18.7	3.4	11.3	14.1	220	41.4	10.9	25.9	4.1	1.8	15.9	397	44.1	8.6	22.4	3.8	6.0	14.7	
Christian	16	25	-	50	-	25.0	-	10	60.0	-	20.0	-	-	20.0	26	38.5	-	38.5	-	2.0	7.7	
Education																						X^2= 66.824 P=.000
Illiterates	6	-	-	50	-	-	50.0	6	-	50.0	-	-	-	50.0	12	-	25	25	-	-	50.0	
1-4	25	25	36	8	16	16.0	24	54	25.9	13.0	18.5	7.4	7.4	27.8	79	29.1	11.4	17.7	5.1	10.1	26.6	
5-8	112	54.5	5.4	18.8	1.8	7.1	12.5	152	49.3	9.2	27.0	3.3	-.	11.2	264	51.5	7.6	23.5	2.7	3.0	11.7	
9+	50	36	4	24	8	24.0	4.0	18	44.4	-	44.4	-	-	11.1	68	38.2	2.9	29.4	5.9	17.6	5.9	
Occupation																						X^2 = 11.003 P=.202
Working	145	51	6.9	15.2	4.1	12.5	10.3	164	40.2	9.8	26.8	1.8	1.2	20.1	309	45.3	8.4	21.4	2.9	6.4	15.5	
Not-work	48	29.2	-	37.5	-	12.5	2.8	66	47	12.1	22.7	9.1	3.0	6.1	114	39.5	7.0	28.9	5.3	7.1	12.3	
Monthly average Income																						X^2= 30.0732 P= 006
< 120 (low)	59	45.8	6.8	23.7	-	17.0	6.8	25	24	20	48	-	-	8.0	84	39.3	10.7	31.0	-	11.9	7.1	
121-250 (medium)	43	46.5	-	30.2	4.7	9.3	9.3	37	43.2	-	35.1	-	5.4	16.2	80	45	-	32.5	2.5	7.5	12.5	
>251 (high)	43	48.8	-	25.6	4.7	4.7	16.3	48	39.6	25	18.8	-	4.2	12.5	91	44	13.2	22	2.2	4.4	14.3	
SLI																						X^2= 32.674 p= 003
<9 (low)	66	56.1	3.0	16.7	3.0	9.1	12.1	65	52.3	9.2	21.5	-	-	16.9	131	54.2	6.1	19.1	1.5	4.6	14.5	
10-11 (medium)	50	40	12	22	-	12.0	14.0	59	32.2	16.9	35.6	3.4	-	11.9	109	35.8	14.7	29.4	1.8	5.5	12.8	
>12 (high)	73	39.7	2.7	2.7	5.5	13.7	13.7	98	44.9	6.1	20.4	5.1	4.0	19.4	171	42.7	4.7	22.2	5.3	8.2	17.0	
All	193	45.6	5.2	20.7	3.1	12.4	13.0	230	42.2	10.4	25.7	3.4	5.7	16.1	423	43.7	8.0	23.4	3.5	6.7	14.7	

Source: Field survey, 2009

1. Abstaining from sex before marriage
2. Not having more than one partner
3. Using condom always and consistently
4. Having sex with a CSW
5. combination (more than one) of the above
6. I don't have any idea

n = number of total respondents

Characteristics	n	agree	disagree	DK	
9+	68	26.5	70.6	2.9	
Occupation					X2=9.392
Working	309	30.4	42.4	27.2	P=.025
Non-working	114	26.3	31.6	42.1	
Monthly average income					X2=32.972
<120 low	84	32.1	47.6	20.0	P=.000
121-250 medium	80	288	52.5	18.8	
>251	91	27.5	24.2	48.4	
Standard of living					X2=7.367
<9 low	131	33.6	38.2	28.3	P=.288
10-11 medium	109	31.2	33.9	34.8	
>12 high	171	26.9	39.8	33.4	
All	423	29.3	39.5	27.4	

Source: Field survey, 2009 DK = don't know

Opinion on discussing about condom with adolescents promotes promiscuity is probed with respondents. The result of the analysis in relation to characteristics of respondents is presented in table 9. Twenty percent of respondents agreed that discussing condom with adolescents promotes promiscuity, 47 percent disagreed and 33 percent did not given any opinion.

Disagreement is reported more by respondents in 15-19 years (52 percent), Christians (54 percent), studied 9 & more grades (65 percent), working (49 percent), in medium family income group (58 percent) and medium standard of living (48 percent) compared to their counterparts.

The proportion of disagreement is reported little more among male (48 percent) than female (45 percent) respondents. But considerable difference in the proportion of disagreement is found among respondents who belong to Christians, 5-8 and 9 & more grades of education, not working, medium and high family income /standard of living. It seems that religion, education, occupation and income/standard of living differentiating the stated opinion.

Table 9: Percentage distribution of respondents by their opinion on discussing condom or contraceptives with adolescents promotes promiscuity by their characteristics.

Characteristics	n	Agree	Not agree	Don't know	Chi – square
Age					
10-14	101	8.9	28.7	62.4	X^2=52.375
15-19	322	23.6	52.2	24.2	P=.000
Sex					
Male	193	27.5	48.2	24.3	X^2=17.264
Female	230	13.9	45.2	40.9	P=.046
Religion					
Muslim	397	19.9	46.1	34.0	X^2=5.464
Christian	26	23.1	53.8	23.1	P=.141
Education					
Illiterates	12	-	50.0	50.0	
1-4 grades	79	19.0	27.8	53.1	X^2=29.587
5-8grades	264	21.2	47.3	31.5	P=.000
9 and above	68	20.6	64.7	14.7	
Occupation					X^2=25.343
Working	309	22.3	49.5	28.1	P=.000
Not working	114	14.0	38.6	47.3	
Monthly average income					
<=120(low)	84	23.8	48.8	27.3	
121-250 (medium)	80	23.8	57.5	18.8	X^2=25.155
>=251 (high)	91	11.0	38.5	50.6	P=.000

friend, than females (68.5 percent). Slightly more females had it with casual boy friend (11 percent) and family member (11 percent).

Majority of the respondents replied that they have one sexual partner out of which 70 percent is female and 66 percent is male respondents. Generally, males tend to respond to have more than one partner (20.5 percent) than female (9.9 percent).

Respondents were also probed about the age of their partner with whom they had sex for the first time. About 49 percent responded that he /she was older than them and 37 percent replied as they are of the same age. Only 15 percent of the respondents responded as their first sexual partner was below their age.

When we compare respondents by their sex, more female (56 percent) than male (42 percent) respondents had their first sex with a person who is older than them. Whereas, more males (47 percent) than females (25 percent) had sexual intercourse with same age partner. Nineteen percent of females had their first sex with younger boy than 11 percent of male respondents.

Table 10: Ever having sex, Age at first sex, reason for first Sex, relationship, number of partner and age of partner

Sexual behavior	Mae		Female		Total	
	No.	%	No.	%	No.	%
Ever had sex						
Yes	88	45.6	73	31.7	161	38.1
No	99	51.3	143	62.2	242	57.2
Non-response	6	3.1	14	6.1	20	4.7
Total	193	100	230	100.0	423	100.0
Age at first sex						
<10 years	2	2.3	8	11.0	10	6.2
10-15 years	31	35.2	36	49.3	67	41.6
>15 years	55	62.5	29	39.7	84	52.2
Mean	16.51		14.9		15.79	
Median	17.0		15.0		17.0	
Standard Deviation	2.1		3.2		2.8	
Total	88	100	73	100	161	100
Reason for first sex						
Love	64	72.7	30	41.1	94	58.4
Self interest	7	8.0	13	17.8	20	12.4
Desire to marry	4	4.5	7	9.6	11	6.8
Being forced	5	5.7	15	20.5	20	12.4
Peer influence	8	9.1	8	11.0	16	9.9
Total	88	100	73	100	161	100
Relationship						
steady boy/girls	66	75.0	50		116	72.0
Casual boy/girl friend	8	9.1	9	68.5	17	9.9
Family member	5	5.7	8	11.0	13	8.1

Sexual behavior	Male		Female		Total	
	No.	%	No.	%	No.	%
Don't remember	9	10.2	7	11.0	15	9.3
Total	88	100	73	100	161	100
Number of sexual partners						
Only 1	58	65.9	51	69.9	109	67.7
2	10	11.4	4	5.8	14	8.7
>3	8	9.1	13	4.1	11	6.8
Don't remember	12	13.6	15	20.5	27	16.8
Total	88	100	73	100	161	100
Age of the partner						
same age	41	46.6	18	24.7	59	36.6
Older than me	37	42.0	41	56.1	78	48.5
Younger than me	10	11.3	14	19.2	24	14.9
Total	88	100.0	73	100.0	161	100

Source: field survey, 2009

4.2.5.1 Recent Sexual activity

In addition to ever having sex, respondents were also enquired about their recent (past three months) sexual activities (Table11). One hundred fourteen (27 percent) of the total respondents had sex three months prior to the survey time. More males (33 percent) tend to have sex than females (22 percent) during the period. Majority (62.3 percent) of those who have sex during the past three months have it only with one partner. Twelve percent of the respondents have sex with two partners and 9 percent with three partners. Generally females tend to have sex with more than one partner (35.3 percent) than males (9.5 percent). Seventy percent of those who had sex during the three months prior to the study period had it with their steady boy/girl friend, (74 percent males and 59 percent females).

Table11: having sex, numbers of sexual partners and relationship with the partner during the last three months.

Sexual behavior	Male		Female		Total	
	No.	%	No.	%	No.	%
Have sex						
Yes	63	32.6	51	22.2	114	27.0
No	124	64.2	165	71.7	289	68.3
Non response	6	3.1	14	6.1	20	4.7
Total	193	100.0	230	100.0	423	100.0
How many partners						
1	51	81.0	20	39.2	71	62.3
2	2	3.2	12	23.5	14	12.3
3	4	6.3	6	11.8	10	8.8
Don't remember	6	9.5	13	25.5	19	16.7
Total	63	100.0	51	100.0	114	100.0
Relationship						
steady boy/girl friend	50	79.4	30	58.8	80	70.2
Casual boy/girl friend	10	15.9	11	21.6	21	18.4
Family member	2	3.2	7	13.7	9	7.9
CSWs	1	1.6	-	-	1	0.9
Total	63	100.0	51	100.0	114	100.0

Source: Field survey, 2009

4.2.5.2 Adolescents recent sexual experience, relationship with Partner and Number of sexual partners

Respondents are also asked about their experience of sexual intercourse during the past three months (Table 12). It's significantly more among the males (32.6 percent) than female (22.2 percent). It's also significantly higher in age 15-19 (33.9%) than 10-14 (5%). The experience is more among Christians (39 percent) than Muslims (26 percent). Education of respondents is positively associated with sexual experience. Sexual experience is significantly higher among working (30.4 percent) than non- working (18 percent) groups. But sexual experience is not significantly associated with economic status and standard of living of respondents.

When respondents probed about the number of sexual partners they had during the past three months prior to the study, 62.3 percent reported to have only one sexual partner and this is higher for males (81 percent) than females (39 percent). Those who had two sexual partners are 12.3 percent of which females are the majority (23.5 percent) than males (3.2 percent). The number of sexual partners is strongly associated with age, education & occupation. Regarding the relationship of sexual partner, 73 percent of respondents' haven't mentioned the relationship of sexual partner. Steady boy/girl friend is predominant (18.9 percent) sexual partner followed by casual boy/girl friend (5 percent), and family member (2.1 percent).The steady boy/girl friend is reported in higher proportion by males, respondents in 15-19 years, Christians, studied 9 + grades, working, low income and high standard of living than their counterparts.

When respondents are asked use of condom during intercourse during the past three months, those who replied always are 15.6 percent, sometimes 4.3 percent never 10.6 percent and the majority (69.5 percent) didn't report anything. Using condom always is found more among males, 15-19 years, Christians, studied 9+ grades, working, low income and medium standard of living compared to their counter parts.

Table 12: sexual Behavior of respondents during the past 3 months and their characteristics

Characteristics	Had sex				No. of sexual partners				
	n	Yes	No	X2	1	2	3	4	X2
Sex									
Male	193	32.6	67.4	X2=9.433	81.0	3.2	6.3	9.5	X2=11.014
Female	230	22.2	77.8	P=.0009	39.2	23.5	11.8	25.5	P=.051
Age									
10-14	101	5.0	95.0	X2=37.912	-	60.0	–	40.0	X2=37.912
15.19	322	33.9	66.1	P=.000	65.1	10.1	9.2	15.6	P=.000
Religion									
Muslim	397	26.2	73.8	X2=1.583	62.5	13.5	7.7	16.3	X2=.356
Christian	26	38.5	61.5	P=.453	60..0	-	20.0	20.0	P=.996
Education									
Illiterates	12	25.0	75.0	X2=24.317	-	100	-	-	X2=31.732
1-4	79	20.3	79.7	P=.000	62.5	12.5	-	25.0	P=.001
5-8	264	23.1	76.9		54.1	14.8	6.6	24.6	
9+	68	50.0	50.0		82.4	-	17.6	-	
Occupation									
Working	309	30.4	69.6	X2=11.176	60.6	14.9	8.5	16.0	X2=18.393
Notworking	114	17.5	82.5	P=.004	70.0	-	10.0	20.0	P=.001
Monthly average income									
< 120	84	42.9	57.1	X2= 5.073	66.7	11.1	5.6	16.7	X2=23.764
121-250	80	21.3	78.8	P=.280	70.6	-	11.8	17.6	P=.342
>250	91	27.5	72.5		72.0	12.0	16.0	-	
SLI									
< 9	131	22.1	77.9	X2=2.573	62.1	17.2	13.8	6.9	X2=87.92
10-11	109	26.6	73.4	P=.280	65.5	6.9	13.8	13.8	P=.658
>12	171	29.2	70.8		60.0	10.0	4.0	26.0	
Total	423	27.0	73.0		62.3	12.3	8.8	16.7	

n=number of respondents

Table 12: sexual Behavior of respondents during the past 3 months and their characteristics(Continued)

Characteristics	Type of sexual partner						Used condom			
	1	2	3	4	5	Chi-Square	Yes Always	Sometimes	Never	Don't tell
Sex										
Male	25.9	5.2	1.0	0.5	67.4	X2=9.45	21.8	5.2	11.4	61.7
Female	13.0	4.8	3.0	1.3	77.8	P=.051	10.4	3.5	10.0	76.1
Age										
10-14	2.0	-	3.0	-	95.0	X2=38.50	2.0	-	4.0	94.1
15.19	24.2	6.5	1.9	1.2	66.1	P=000	19.9	5.6	12.7	61.8
Religion										
Muslim	18.6	4.8	2.3	0.5	73.8	X2=4.78	714.6	4.5	10.8	70.0
Christian	23.1	7.7	-	7.7	61.5	P=.310	30.8	-	7.7	61.5
Education										
Illiterates	18.7	5.1	2.2	1.0	75	X2=49.96 p	-	-	-	100.0
1-4	10.1	5.1	2.5	2.5	79.7	=.000	5.1	5.1	20.3	69.6
5-8	14.8	4.9	2.7	0.8	76.9		14.4	3.8	6.4	75.4
9+	44.1	5.9	-	-	50.0		35.3	5.9	17.6	41.2
Occupation										
Working	20.7	5.5	2.9	1.3	69.6	X2=14.751	16.8	5.2	12.6	65.4
Not working	14.0	3.5	-	-	82.5	P=.011	12.3	1.8	5.3	80.7
Monthly average income										
< 120	28.6	9.5	2.4	2.4	57.1	X2=9.857	21.4	9.5	14.3	54.8
121-250	18.8	2.5	-	-	78.8	P=.275	18.8	-	16.3	65.0
>250	17.6	-	7.7	2.2	72.5		8.8	4.4	8.8	78.0
SLI										
< 9	16.0	4.6	-	1.5	77.9	X2=5.359	15.3	4.6	4.6	75.6
10-11	16.5	4.7	3.7	1.8	73.4	P=.719	17.4	3.7	12.8	66.1
>12	21.6	4.7	29	-	70.8		13.5	3.5	14.6	68.4
Total	18.9	5.0	2.1	0.9	73.0		15.6	4.3	10.6	69.5

Source:Field survey,2009

Key 1. Steady boy/girl friend 2. Casual boy/girl friend 3. Family member

4. I don't remember 5. Don't tell

4.2.5.3 Sex with Commercial Sex Workers

Male respondents' were probed whether they had sex with commercial sex workers or not (Table13). Only 2.4 percent replied that they had sex while the remaining 43.3 percent respondents didn't have sex with CSWs.Fourty -percent of those who replied to have sex with CSWs used condom always. Whereas another 40 percent of them used condom sometimes and 20 percent never used condom while having sex with CSWs.

Table13: Percent distribution of males by sex with CSWs. and condom use

Variable	**No.**	**%**
Sex with CSWs		
Yes	10	5.2
No	183	94.8
Total	193	100
If yes, did you use condom?		
Always	4	40
Sometimes	4	40.0
Never	2	20.0
Total	10	100

Source: Field survey, 2009

4.2.6 Knowledge about legal age at first marriage and attitude Towards premarital sex

Fifty one and fifty two percent of male and female respondents, respectively, responded as they know about the enacted law specifying the minimum age at marriage for boys and girls. (table14).Among these respondents 8 percent of male and 5 percent of females reported the legal minimum age at marriage for boys to be below 18 years and 40 percent of the respondents (43 percent male and 38 percent female) mentioned 18 and more years. The enacted legal age for boys as 18 years is reported by 53 percent of all the respondents. More female (58 percent) than male (48 percent) of the respondents reported 18years.

Fifty three and 85 percent of total respondents respectively, mentioned the exact age at marriage to be 18 years for both boys and girls. More females (87.5 percent) than males (79.5 percent) mentioned the legal age for girls (Table 15). But the legal age at marriage of less than 18 years for girls is reported by only 7 percent male and 8 percent of female respondents. Only 6 percent of the total respondents reported the legal age at marriage for girls to be more than 18 years (8 percent males and 4 percent females).

Table 14: respondent's knowledge about legal age at marriage

Variable	Male		Female		Total	
	No.	%	No.	%	No.	%
Enacted law on age at marriage for:						
Boys						
Yes	97	50.3	118	51.3	215	50.8
No	96	49.7	112	48.7	208	49.2
Total	193	100	230	100	423	100
Girl						
Yeas	81	42.0	139	60.4	220	52.0
No	102	58.0	91	39.6	203	48.0
Total	193	100	230	100	423	100
Legal age at marriage for:						
Boys						
< 18years	8	8.4	5	4.5	15	6.2
18 years	46	48.4	65	57.5	111	53.4
>18 years	41	43.2	43	38.0	54	40.4
Total	95	10	113	100	210	100
Girls						
<18 years	10	2.1	11	8.1	21	9.5
18 years	66	79.5	119	87.5	185	84.5
>18 years	7	8.4	6	4.4	13	5.9
Total	83	100	136	100	219	100

Source: Field survey, 2009

4.2.6.1 Ideal age at First marriage

Seventy- one percent and 38 percent of respondents propose the ideal age for girls and boys to be 18 years, respectively (table 15) Majority (45 percent) of respondents prefer more than 18 years for boys to be the marriage age compared to only 9.3 percent for girls.

Slightly more male respondents prefer the boy's marriage age to be above 18 years (48 percent) than females (43 percent) whereas, 73 percent of males prefer girls to marry at age 18 compared with 69 percent for female respondents.

Table 15: Respondents knowledge about ideal age at marriage boys and girls

Variable	Male		Female		Total	
	No.	%	No.	%	No.	%
Ideal age at marriage for Boy						
<18 years	2	1.2	2	1.1	4	1.2
18 years	68	39.8	70	36.8	138	38.2
>18 years	82	48.0	81	42.9	163	45.1
Don't know	19	11.0	37	19.2	56	15.5
Total	191	100.0	190	100.0	361	100.0
Girls						
<18 years	12	7.4	8	4.0	20	5.7
18 years	118	73.3	136	68.7	254	70.8
>18 years	17	10.6	19	8.6	36	9.3
Don't know	14	8.7	37	18.7	51	14.2
Total	161	100	200	100	361	100

Source: Field survey, 2009

4.2.7 Knowledge & attitude about pregnancy

Ninety-two percent of total respondents (92.2 percent males and 92.6 percent of females) are considering that premarital pregnancy is a problem (Table 16). Twenty- eight percent of both male and female respondents understood that any sexual intercourse will result in pregnancy. But, seventy two percent of respondents perceived that any sexual intercourse will not result in pregnancy.

Table16: Perception about premarital pregnancy and any sexual intercourse will result in pregnancy

Perception on	**Male**		**Female**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Premarital pregnancy is not a problem						
Yes	15	7.8	17	7.4	32	7.6
No	178	92.2	213	92.6	391	92.4
Total	193	100.0	230	100	423	100.0
Any sexual intercourse result in pregnancy						
Yes	54	28.0	65	28.3	119	28.1
No	139	72.0	165	71.8	304	71.9
Total	193	100.0	230	100.0	423	100.0

Source: Field survey, 2009

When respondents are asked about the ideal age for first conception, majority (90 percent) reported less than 25 years as an ideal age for first conception (table 17). The mean ideal age at first conception is 19.9 years (19.8 years by male & 20 years by female respondents).

Regarding the ideal age at last conception, 49 percent of the respondents reported less than thirty years, 20 percent between 30-35 years, 17 percent between 36-40 years and 14 percent between 41-45 years. The mean ideal age at last conception is reported to be 32 years (32.8 by male & 31.2 by female respondents).

Table 17: Ideal age at first and last conception for a girl

Ideal age	**Male**		**Female**		**Total**	
	No	**%**	**No**	**%**	**No**	**%**
First conception						
< 25 years old	127	88.2	171	91.2	298	89.6
25-30 years old	13	9.0	14	7.5	27	8.2
>30 years old	4	2.8	3	1.6	7	2.2
Total	144	100.0	188	100.0	332	100.0
Mean		19.8		20		19.9
Standard Deviation		4.7		3.1		3.9
Last conception						
< 30 years old	44	35.9	72	38	116	49.1
30-35 years old	21	17.2	33	21.3	54	19.5
36-40 years old	30	24.6	16	10.3	46	16.6
41-45 years old	20	16.4	1811.6	38	13.7	
>45 years old	5	5.7	16	10.3	23	8.3
Total	122	100	155	100	277	100
Mean		32.8		31.2		32.0
Standard Deviation		10.8		11.2		11

Source: Field survey, 2009

4.2.8 Knowledge and attitude towards Abortion

For eighty-one percent of respondents' abortion means terminating the pregnancy and 19% don't know about the meaning of abortion, which is at the same level among both male and female respondents. Regarding the types of abortion, induced and spontaneous abortions are known to 33 and 24 percent of respondents, respectively. (Table18) The knowledge on induced abortion is more among males than females and spontaneous abortion is more in females than males. Three forth of respondents are disagree with deliberate termination of pregnancy. This attitude is more among females (82 percent) than males (67 percent).

Table 18: Knowledge & attitude towards abortion

Variables	Male		Female		Total	
	No.	%	No.	%	No.	%
Abortion means:						
Terminating pregnancy	147	76.2	173	75.2	320	75.7
Terminating Pregnancy because of illness	7	3.6	8	3.5	15	3.5
Using traditional medicines	-	-	6	2.6	6	1.4
I don't know	39	20.2	43	18.7	82	19.4
Types of abortion you know:						
induced abortion	68	35.2	69	30.0	137	32.4
Spontaneous abortion	36	18.7	63	27.4	99	23.4
Deliberately Terminating pregnancy						
Agree	30	15.5	22	9.6	52	12.3
Disagree	130	67.4	188	81.7	318	75.2
Don't have day idea	33	17.1	20	8.7	53	12.5

Source: Field survey, 2009

4.2.9.1 Future use of contraceptives

Respondents were probed about their willingness to use contraceptive methods in the future (before and/or after marriage) (table 21). Out of the total respondents, 45.5 percent males and 54 percent females, want to use contraceptives in the future. Among these future users, 60 percent want it after marriage and the remaining 40 percent want it before marriage. More males (48 percent) than females (34 percent) want to use contraceptives before marriage.Wheareas, more females (67 percent) than males (53 percent) want to use it after marriage.

Respondents were further asked which method they will use in the future. Condom is the most favored (39 percent) method of contraceptive (of course also to protect oneself from HIV/to be used before marriage. Sterilization (37.5 percent), pills (34.7 percent) and injectables (3.6 percent) are methods most preferred to be used after marriage.

Among the male methods condom is most preferred (80 percent) to be use before marriage and sterilization (37.5 percent). Pills (34.7 percent) and injectables (30.6 percent) are methods most preferred to be used after marriage. Female respondents prefer Norplant (67.6 percent) to use both before and after marriage similar with pills to use after marriage. Females also prefer injectables (59.5 percent) and IUD (40.5 percent) to use after marriage.

Table 21: willingness to use contraceptive method in the future (before and after marriage

Use of Contrastive	Male		Female		Total	
	No.	%	No.	%	No.	%
Want to use contraceptives						
• Before marriage	77	47.5	65	3.5	142	39.9
• After marriage	85	52.2	129	66.5	214	60.1
Total	162	100.0	194	100	356	100.0
Which method:						
Pills						
Before	-		12	32.4		
After	-		25	67.6		
Both	-					
Total			37	100.0		
Condom						
Before	28	80.0				
After	5	14.3				
Both	2	5.7				
Injectables	35	100.0				
Before			8	21.6		
After			22	59.5		
Both			7	18.9		
Total			37	100.0		
IUD						
Before			1	2.7		
After			15	40.5		
Both						
Total			16	43.2		
Sterilization						
Before						
After	16	45.7	11	29.7	27	37.5
Both	-					
Total	16	45.7	11	29.7	27	37.5
Norplant			3	8.1		
After			9	24.3		
Both			25	67.6		
Total			37	100		

Source: Field survey, 2009

4.1.10 Knowledge and attitude about STIs

The knowledge about STIs among respondents is presented in table 22. Two-thirds of respondents reported that STI is transmitted through sexual intercourse. It's reported more by male (78percent) than female (55 percent) respondents. Vaginal fluid and smelling (26 percent), itching of sex organs (19 percent) and more than one symptom (13 percent) is reported as the signs and symptoms of STIs.

Regarding the knowledge and types of STIs, 18 percent of respondents didn't know about it and 53 percent of respondents know that HIV/AIDS is one type of STI. This implies that there is a need to impart knowledge to adolescents on signs and symptoms and types of STI.

Table 22: knowledge about STIs.

Variable	Male		Female		Total	
	No.	%	No.	%	No.	%
Disease transmitted through sexual intercourse						
Yes	151	78.3	126	54.8	277	65.5
No	42	27.3	104	45.2	146	34.5
Total	193	100	230	100	423	100
Signs and symptoms of disease						
Vaginal fluid and smell	55	28.5	56	24.4	111	26.3
Itching of sex organs	34	17.6	46	20.0	80	18.9
More than one symptoms	27	14.0	28	12.1	55	13.0
Types of STIs						
Syphilis	8	4.1	10	4.3	18	4.3
HIV/AIDS	106	54.9	119	51.7	225	53.2
Gonorrhea	4	2.1	8	3.5	12	2.8
More than one	46	23.8	46	20.0	92	21.8
I don't know	29	15.0	47	20.4	76	18.0
Total	**193**	**100**	**230**	**100**	**423**	**100**

Source: Field survey, 2009

4.2.10 Knowledge and attitude towards HIV/AIDS

Most adolescents don't have accurate information about HIV/AIDS. The different modes of transmissions and preventions are not well known. This lack of adequate and proper knowledge will make them vulnerable.

In this study, respondents were asked whether they ever heard about HIV/AIDS or not. Among the total respondents, 71.6 percent replied that they already heard about it. Thirty– nine percent of the adolescents knew about the modes of transmission (table 23)

When knowledge about HIV/AIDS was categorized by respondents' characteristics, religion, education and standard of living have significant association with knowledge on HIV/AIDS. Slightly higher proportion of males 74.6 percent than females (69 percent) replied that they heard of HIV/AIDS before. It's the older adolescents 15-19 years old who heard about HIV 74.2 percent than the younger 10-14 years old ones (63.4 percent).

Christians seems to have significantly more knowledge than Muslims. Education of adolescents is significantly associated with knowledge of HIV/AIDS. Half of those adolescents who didn't go to school ever heard about HIV/AIDS. Ninety-four percent of adolescents who are 9 and above graders have heard about it. Respondents family's average monthly income and their knowledge about HIV/AIDS are positively related in which low percentage of 67.9 percent those who had low monthly income have responded as they heard about it than those who have medium (70 percent) and higher ones (81.3 percent).But when we consider the standard of living index (SLI) of adolescents' family, high proportion of (78 percent) the respondents in medium standard of living have heard about HIV then the higher ones .(73.1 percent)

Table 23: Percent distribution of respondents by their knowledge about HIV/AIDS and by their characteristics.

Characteristics of respondents		n	Heard about HIV/AIDS		Chi - Square
			Yes	No	
Sex	Male	193	74.6	25.4	
	Female	230	69.1	30.9	X^2=1.67
	Total	4.23	71.6	28.4	P=0.433
Age	10-14	101	63.4	36.6	
	15-19	322	74.2	25.8	X^2= 5.483
	Total	423	71.6	28.4	P=0.064
Religion	Muslim	397	70.3	29.7	
	Christian	26	92.3	7.7	X^2 = 6.301
	Total	423	71.6	28.4	p=0.043
Education	Illiterate	12	50.0	50.0	
	1-4 grades	79	77.2	22.8	
	5-8 grades	264	65.2	34.8	X^2=24.723
					p= 0.000
	9+ grades	68	94.1	5.9	
	Total	423	72.3	27.7	

N=number of respondents

Characteristics of respondents		n	Heard about HIV/AIDS		Chi - Square
			Yes	No	
Work status	Working	309	70.9	29.2	X^{2}=0.366
	Not working	114	73.7	26.3	p=0.833
	Total	423	71.6	28.4	
Monthly average income	Low	84	67.9	32.1	X^{2}=10.717
	Medium	80	70.0	30.0	
	High	9	81.3	18.7	
	Total	255	73.3	26.6	p=0.30
SLI	Low	131	64.9	35.1	X^{2}=12.710
	Medium	109	78.0	22.0	
	High	171	73.1	26.9	
	Total	411	71.8	28.2	p=0.013
All		423	71.6	28.4	

Source: Field survey, 2009

N=number of respondents

The second way of identifying respondents' knowledge about HIV is by checking their knowledge about modes of HIV transmission. This finding is presented in table 24. The reported modes of transmissions are having unprotected sex with HIV positive person (80.6 percent) by contaminated blood transfusion (65.2 percent), contaminated sharp tools (48.5 percent) mother to child during pregnancy and childbirth (30.5 percent) breast feeding (27.7 percent) other insects bite (13.7 percent), hand shaking (2.4 percent) eating together, (1.4 percent) coughing (8.3 percent) and sharing house hold utensils (2.6 percent).

The reported modes of transmissions like mosquito and other insects bite, hand shaking, eating together, coughing and sharing household utensils are wrongly perceived by the respondents.

Age, education and standard of living of the respondents are significantly associated with knowledge on having unprotected sex with HIV infected person. Knowledge on contaminated blood transfusions significantly associated with education of respondents. The knowledge on contaminated sharp tools is significantly associated with education and occupation of respondents. Knowledge on mother to child transmission (MTC) during pregnancy and child birth is significantly associated with all the characteristics of respondents, except family's monthly income.

Generally, it's observed that the correct knowledge about the modes of transmission for HIV/AIDS is more among females, 15-19 age groups, Christians studied 9 grades, working, and high monthly income / medium standard of living compared their counterparts.

Table 24: Percent distribution of respondents by their knowledge about Modes of HIV transmission

Characteristics	n	1		2		3		4		5	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Sex											
Male	193	79.3	.276	61.1	.100	48.7	.002	24.4	.000	22.3	.000
Female	230	81.7		68.7		48.3		35.7		31.2	
Age											
10-14	101	72.3	.027	61.4	0.436	47.5	.059	35.6	.000	29.7	.029
15-19	322	83.2		66.5		48.8		28.9		27.0	
Religion											
Muslim	397	80.4	.832	64.5	.422	47.1	.075	30.5	.016	27.5	.022
Christian	26	84.6		76.9		69.2		30.8		30.8	
Education											
Illiterate	12	75	.000	75.0	.000	-		-	.000	-	.000
1-4	79	81		62.0		38.0		20.3		17.7	
5-8	264	76.5		59.8		48.1		33.7		29.9	
9+	68	97.1		88.2		70.6		35.3		35.3	
Occupation											
Working	309	81.6	.446	66.7	.379	50.2	.012	33.3	.037	30.7	.031
Not working	114	78.1		61.4		43.9		22.8		19.3	

Characteristics	n	1		2		3		4		5	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Monthly average income											
<120	84	79.8	.116	66.7	.227	57.1	.636	35.7	.458	31.0	.621
121-250	80	77.5		65.0		46.3		25.0		25.0	
>251	91	87.9		73.6		52.7		36.3		34.1	
SLI				68.6							
<9	101	74.0	.034	58.0	.104	39.7	.126	22.9	.051	16.8	.10
10-11	109	87.2		69.7		56.0		40.4		34.9	
>12	171	82.5		67.8		49.1		28.7		29.8	
ALL	423	80.6		65.2		48.5		30.5		27.7	

Key: modes of HIV transmissions

1. Having unprotected sex with HIV positive person
2. contaminated blood transfusion
3. contaminated sharp tools
4. mother to child transmission
5. breast feeding

n=number of respondents

--Continued

Characteristics	n	6		7		8		9		10	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Sex											
Male	193	17.6	.082	3.1	.207	2.1	.181	9.8	.284	4.1	.060
Female	230	10.4		1.7		.9		7.0		1.3	
Age											
10-14	101	5.9	.018	2.0	.061	-	.012	6.9	.045	-	.010
15-19	322	16.1		2.5		1.9		8.7		3.4	
Religion											
Muslim	397	13.1	.307	2.5	.166	1.5	.217	8.8	.026	2.8	.140
Christian	26	23.1		-		-		-		-	
Education											
Illiterate	12	-	.000	-	.000	-	.000	-	.000	-	.000
1-4	79	101		5.1		7.6		10.1		5.1	
5-8	264	6.8		2.3		-		8.0		1.1	
9+	68	47.1		-		-		8.8		5.9	
Occupation											
Working	309	16.2	.017	3.2	.033	1.3	.221	10.0	.057	3.6	.036

Characteristics	n	6		7		8		9		10	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Not working	114	7.0		-		1.8		3.5		-	
Monthly average income											
<120	84	21.4	.247	2.4	.540	4.8	.042	4.8	.307	2.4	.262
121-250	80	15.0		2.2		-		11.3		3.8	
>251	91	11.0		1.6		-		6.6		-	
SLI											
<9	101	13.7	.052	-	.006	1.5	.071	8.4	.016	1.8	.001
10-11	109	14.7		5.5		1.8		18.3		5.3	
>12	171	14.0		2.3		1.2		8.8		2.7	
ALL	423	13.7		2.4		1.4		8.3		2.6	

Source: Field survey, 2009

Key: modes of HIV transmissions

6. Mosquito and other insects bite
7. Hand shaking
8. Eating together
9. Coughing
10. Sharing house hold utensils

n=number of respondents

The third way of identifying adolescents' knowledge about HIV/AIDS is by checking their knowledge about the prevention of HIV/AIDS.(Table 25). Eighty-three percent of all the adolescents know at least one way of preventing HIV/AIDS. Among which 45.6 percent reported abstaining as a means of prevention. Being faithful to partner (20.0 percent) and Use of condom always and consistently (17.7 percent) are reported as means of prevention, respectively.

Table 25: Percentage distribution of respondents by their knowledge about modes of HIV prevention

Modes of prevention	**Number**	**Percent**
Abstaining from sex before marriage	193	45.6
Using condom always and consistently	75	17.7
Being faithful to partner	84	19.9
Don't know	71	16.8
Total	423	100.0

Source: Field survey, 2009

In addition to the knowledge about HIV, attitude of adolescence towards HIV/AIDS is assessed by asking the respondents whether healthy looking person can have HIV/AIDS; every body should have HIV test, and the respondents' undergone HIV test. Among thee total respondents, 53.7 percent of the adolescent felt that a healthy looking person can have HIV. Seventy-three percent believe that all adolescents should have HIV test and 56 .7 percent themselves had undergone HIV test (table 26).

Even though both males and females had considerable level of correct attitude towards HIV, males seem to have slightly better understanding than females.

Males believe that even a healthy looking person can have HIV (56.5 percent) compared to 51.3 percent females. They also believe that all adolescents should have HIV test (75.6 percent) compared to 70.4 percent of females and they themselves had already undergone the test (62.5 percent) than 51.7 percent of females at least once.

More older adolescents(56.8 percent)than younger once(43.6 percent) believe that healthy looking persons can have HIV with regard to having HIV test, 74.8 percent of older adolescents and 66.3 percent of the younger once they agreed that all adolescents to have the test. When asked about whether thy had HIV test, it's again the order adolescents (65.8 percent) who replied to have HIV test at least once compared with 27.7 percent of the younger once. Considering that the religious affiliations of the respondents Christians, though only 26 have positive attitude towards HIV/AIDS than Muslim.

Generally speaking educational level and attitude toward HIV/AIDS have positive relationship. As educational level of respondents increased their attitude towards HIV/AIDS becomes improved except for the illiterate who have an inflated percentage most probably due to their small numbers. There is no as such significant variation among respondents based on their work status with regard to their attitude towards HIV/AIDS.

When we categorize the adolescents based on their family's economic status, the relationship is not consistent. Those adolescents who responded on their family's average monthly income is less than or equal to 120 birr seems to have slightly better attitude in which they agree on the idea that any healthy looking person can have HIV. Again these adolescents have strongly agreed with the idea that all adolescents should have to have HIV test. When we see whether they undergone HIV test or not, it is the middle income adolescents (121-250 birr per month) who had at least one test (71.3 percent)

A large proportion of medium living standard of index adolescents agreed on a healthy looking person can have HIV(71.6 percent), all adolescents should have HIV test (78.9 percent) and they themselves undergone the test (63.3 percent)

Generally favorable Attitude towards HIV/AIDS is found more among males, older ones, Christians, higher level of education, non-working, low level of family income, and adolescents working in medium standard of living families.

Table 26: Percentage distribution of respondents by their attitude towards HIV/AIDS and their characteristics.

Characteristics	Healthy person can have HIV			All should have HIV test			Undergone HIV test		
	n	Yes	No	N	Yes	No	n	Yes	No
Sex									
Male	193	56.5	43.6	193	75.6	24.4	193	62.7	37.3
Female	230	51.3	48.7	230	70.4	29.6	230	51.7	48.3
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Age									
10-14	101	43.6	56.5	101	66.3	33.6	101	27.7	72.5
15-19	322	56.8	43.2	322	74.8	25.2	322	65.8	34.1
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Religion									
Muslim	397	51.6	48.4	397	72.5	27.4	397	55.4	44.6
Christian	26	84.6	15.4	26	76.9	23.1	26	76.9	23.1
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Education									
Illiterates	12	50.0	50.0	12	50.0	50.0	12	25.0	75.0
1-4	79	49.4	50.7	79	70.9	29.1	79	53.2	46.8
5-8	264	48.5	52.58	264	70.5	29.5	264	51.9	48.1
9 and above	68	79.4	20.6	68	88.2	11.8	68	85.3	14.7
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3

4.2.11 knowledge and attitude about rape

Respondents were asked about meaning of rape, attitude towards rape and experience of rape among females the results are presented in table 27. Among the total respondents, 83.5 percent knows what exactly rape mean. They responded as it is an act of having sex with girl or women by force. The remaining 15.5 percent responded as they don't know about rape. When we consider sex of the respondents about equal percentage of both sexes (83 percent) have knowledge about rape.

Half of the respondents (51.3 percent) have the opinion that rape is a crime. This opinion is more among the females (54.3 percent) than males (48 percent). Rape is viewed as sexual abuse (23 percent) and rape

Psychologically affects the victim and exposed to HIV (13 percent) these two opinions does not differ significantly between male and female respondents.

Table 27: Knowledge and attitude towards rape

Variables	**Male**		**Female**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Meaning of rape:						
Having sex with a girl/women By force	162	83.9	195	84.8	357	84.5
I don' know	31	16.1	35	15.2	66	15.5
Opinion on rape:						
It's a sexual abuse	49	25.4	46	20.0	95	22.5
It is a crime	92	47.7	125	54.3	217	51.3
psychologically affects The victim and expose to HIV	28	12.5	25	10.9	53	12.5

Source: Field Study, 2009

Table 28: source of information about reproductive health component

Source of information	Safe sex				Menstruation				Pregnancy				Contraception				Rape				STIs/HIV/AIDS			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	N	%	N	%	n	%	N	%	N	%	N	%	N	%	N	%	n	%	n	%	n	%	n	%
Boy /girl friend	47	24.4	27	11.7	34	17.6	11	4.8	24	12.4	19	8.3	10	5.2	15	6.5	14	7.3	10	4.3	26	13.5	23	10.0
Peers	13	6.7	5	2.2	4	2.1	18	7.8	3	1.6	8	3.5	-	-	8	3.5	10	5.2	17	7.4	8	4.2	26	11.3
Parents	10	5.2	31	13.5	15	7.8	34	14.8	23	11.9	26	11.3	12	6.2	14	6.1	18	9.3	13	5.7	22	11.4	34	14.8
Other family members	4	2.1	-	-	13	6.7	11	4.8	7	3.6	8	3.5	13	6.7	6	2.6	10	5.2	3	1.3	6	3.1	2	0.9
Health personnel	35	18.1	39	17.0	36	18.7	41	17.8	46	23.8	59	25.7	78	40.4	81	35.2	55	28.5	64	27.8	179	92.7	183	79.6
Traditional healers	2	1.0	-	-	4	2.1	14	6.1	6	3.1	3	1.3	6	3.1	11	4.8	4	2.1	13	5.7	10	5.2	18	7.8
School	4	2.1	2	0.9	4	2.1	-	-	4	2.1	-	-	2	1.0	-	-	-	-	-	-	2	1.0	2	0.9
Media (radio, newspaper and TV)	11	5.7	26	11.3	11	6.7	10	4.3	8	4.1	11	4.8	12	7.3	24	10.4	26	13.4	23	10.0	48	24.5	31	13.4
More than one source	16	8.2	19	8.3	13	6.6	14	6.1	13	6.6	8	3.5	9	4.6	10	4.4	12	6.3	14	6.4	26	13.5	22	9.6

4.2.13 Treatment Seeking Behavior

Respondents are asked whether they experienced any health problem during the post three months prior to the survey table 30 shows that 8 percent of total respondents (7.3 percent males and 8.7 percent of females) experienced health problem. Among persons experienced health problem, 62 percent (78.6 percent of male and 50.0 percent of female) had treatment and the remaining 38 percent didn't have any treatment (21.4 percent of male and 50.0 percent of female). They had treatment in higher proportion in private clinic (43 percent) followed by government health center (24 percent), traditional healer (19 percent) and FGAE clinic (14 percent)

Table 30: percentage distribution of respondents by treatment seeking behavior

Variable	Male		Female		Total	
	No	%	No	%	No	%
Had health problem						
Yes	14	7.3	20	8.7	34	8.1
No	178	92.2	210	91.3	38.90	91.9
Total	193	100.0	230	100.0	423	100.0
Had treatment						
Yes	11	78.6	10	50.0	21	61.8
No	3	21.4	10	50.0	13	38.2
Total	14	100	20	100.0	34	100.0
Place of treatment: government health center	3	21.4	2	10.0	5	14.7
Private clinic	7	50.0	2	10.0	9	26.5
FGAE clinic	1	7.1	2	10.0	3	8.8
Traditional healer	-	-	4	20.0	4	11.8
Combination of government and private health facilities	3	21.4	10	50.0	13	38.2
Total	14	100.0	20	100.0	34	100.0

Source: Field survey, 2009

5.2 Conclusion

The study results leads to the following conclusion.

Physical changes during puberty, menstruation, safe sex, rape and abortion are well known to respondents. On the other hand, awareness about legal age at marriage ,knowledge about oral pills, condom and IUD, knowledge about STI, its mode of transmissions and its curability are less among respondents .Higher level of knowledge about HIV/AIDS and its prevention but lower level of knowledge on modes of transmission and misconception about modes of transmission prevails among respondents .Negative perception about the use of condom and wrong belief that any sexual act will not result in pregnancy are found among respondents . Generally the correct knowledge about reproductive health matters does not differ significantly between male and female adolescents.

Positive attitude regarding optimum period of child bearing, use of contraception in future, and HIV testing are observed among respondents. Practice of early premarital sex with less use of contraception is reported. Health worker seems to be the major source of information of reproductive health matters. Less knowledge about availability of health centre and less accessibility to health centre are found. There is a need to improve the treatment seeking behavior of adolescents. In addition to the coverage of general adolescents, more concentration of Muslims, literates and low standard of living group of adolescents should be made while imparting knowledge on reproductive health matters through IEC programmes with joint effort of government, NGOs and other community based organizations.

5.3 Recommendations

- Adolescents' knowledge on safe period for sex during menstruation, conception, legal age at marriage, contraceptive methods, modes of preventions and transmission of STI /HIV /AIDS and related misconcepts should be improved by governmental and non-governmental organizations working on adolescent reproductive health issues .
- Ministry of Health and NGOs should improve adolescents' awareness about reproductive health issues by using highly effective sources of information like health workers and mass media.
- Health extension workers should increase adolescents' knowledge and access to reproductive health services and provide the services with privacy.
- Educate adolescent girls through informal education regarding consequences of premarital sex by using health extension workers.
- Ministry of health should incorporate adolescent reproductive health education in the health extension programme to create awareness about reproductive health matters and improve the utilization of health services among them.
- The government and the community should empower adolescent girls to

  Safeguard their sexual and reproductive health rights.

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Annex I

Questionnaire

Part I. Socio Economic and Demographic Variables

No.	Questions	Possible Answers
101	Sex	1.Male 2.Female
102	How old are you at your last birthday?	---------- Years
103	Family size	1.Male 2.Female 3 Total
104	What's your religion?	1. Orthodox 2. Protestant 3. Catholic 4. Muslim 88.Others ,specify____
105	With whom do you live most of the time	1. With both parents 2. With either of parents 88. Others ,specify _
106	Have you ever been at school?	1.Yes 2.No skip to Q.108
107	If yes, what's the highest grade you completed?	Write actual grade
118	Is your father educated?	1.Yes 2. No Skip to Q.110
109	If yes, what's the highest grade he completed?	Write actual grade _____

No.	Questions	Possible Answers
110	Is your mother educated?	1. yes 2. No –skip to Q.112
111.	If yes, what's the highest grade she completed?	_____
112	Are you presently working	1. yes 2.No skip to Q.114
113	If yes, what's your occupation?	1. Farming 2.Non-Farming 88.Others , specify ___
114	What is your father's occupation?	1. Not working 2. Farming 3. Non-Farming 88. Others ,specify ___
115	What's your mother's occupation?	1. House Wife 2. Farming 3. Non-farming 88.Others ,specify
116	How much is your family's average monthly income ?(Enter number)	_____ birr

117. In order to develop the standard of living index (SLI), the following scores related to response categories for each question were given.

Questions	**Possible Answer**	**Value**
Source of drinking water	1. Tap (own)	3
	2. Tap shared	2
	3. Hand pump well	1
	4. Others	0
Type of house	1. Grass roof & soil floor	0
	2. Tin roof & soil floor	2
	3. Tin roof, stone wall & cement floor	4
Source of Lighting	1. Electricity	2
	2. Kerosene	1
	3. Other	0
Fuel for Cooking	1. Kerosene	2
	2. Wood	1
	3. Others	0
Toilet facility	1. Own pit toilet	4
	2. Shared toilet	2
	3. No toilet	0
Ownership of:	1. Refrigerator	2
	2. Sofa	2
	3. Television	3
	4. Telephone	3
	5. Shop	4
	6. Car	4
	7. Tractor	4
	8. None	0

Questions	**Possible Answer**	**Value**
Availability of land	1 3+ timad	3
	2 1-3 timad	2
	3. <1 timad	1
	4. no land	0

Source:Dr.c.Ramanujam(with major modification)

Par II: Questions regarding adolescents' knowledge, attitude and experience of puberty, sexual behavior, menstruation, conception, contraception, abortion. STIs , HIV\AIDS and rape.

	Puberty and menstruation	
No	**Questions**	
118	What are the physical changes adolescents' experiences during puberty?	1. Voice change 2. pelvic hair 3. Pubic hair 4. Enlargement Breast 5. Muscle strength 6. Muscle strength 88. Others ,specify
	Sexual Behavior	
119.	What do you understand by safe sex	1. Not having more than one partner
		2.Using condom consistently
		3. Not having sex with a

		commercial sex workers 88.others ,specify _____
120	Do you like to use condom while having sex with any person?	1 Yes 2 No
121	Some people argue as, using condom is a sign of not trusting your partner?	1. Agree 2. Not agree 3.I don't know
122.	Some people argue as, discussing condom or contraceptive with adolescents promotes promiscuity	1.Agree 2.Not agree 3. I don't know
123.	Did you ever had sex	1.Yes 2.No skip to Q.144
124	If yes , at what age did you had your first sex	----------
125	Why did you decided to have sexual intercourse for the first time? (more than one answers is possible)	1. Fall in love 2. Have desire 3. Wanted to get married 4. Forced to do so 5. To get money and other gifts 6. Friends doing it 88. Others , specify
126	What was your relationship with a person you have sex for the first time?	1. Steady boy/girl fried 2. Casual 3. Family member 4. CSW 88.Ohters ,specify 99.I don't remember

127	How much older or younger was the person with whom you had your first sexual experience?	Male Female Older Older 1.1-2 1. 1-2 2.3-4 2. 3-4 3.5+yrs 3. 5+yrs Younger Younger 4.1-2 4. 1-2 5.3-4 5.3-4 6.5 +yrs 6.5 +yrs
128	With how many partners have you ever had sexual intercourse ?(Enter number)	---------- 99 I don't remember
129	Have you ever had sexual intercourse during the last three months?	1.Yes 2.No skip to Q.144
130	If yes, with whom?	1 Steady boy /girl fried 2. Casual partner 3.Family member 4. CSW 88.Others ,specify
140	During the last three months, with how many partners do you have sexual intercourse? (Enter number)	--------- 99.I don't remember

	(Enter number)	
141.	Have you ever used condom when having sexual intercourse?	1. Yes , always 2.Sometimes 3.Never
142	Have you ever had sexual intercourse with CSWs?(only for boys)	1.Yes 2. No
143	If yes ,have you used condom	1. Yes ,always 2. Sometimes No
144	Do you know the government enacted law on age at 1st marriage for boys and girls	Boys 1.Yes 2.No Girls 1.yes 2.no
145	If yes , what's the legal age at marriage for boys and girls	Boys ---------- Girls ----------
146	Whether a girl can have sex before marriage?	1.Yes 2. No
147	Whether a boy can have sex before marriage	1.Yes 2.No
148	In your Opinion, what is the ideal age for a girl to marry?	

149	In your opinion, what is the ideal age for a boy to marry?	
Menstruation		
150	What's menstruation	1.Monthly bleeding disintegration of a prepared uterus wall 88. Others , specify
151	For how many days did a girl have the menstrual flow with in a month	---------- Write actual days
152	Among the monthly menstrual cycle, which specific days are the safe periods when she can't get pregnant? If she had sexual intercourse?	----------
153	Menstruation is a sign of promiscuity	1.Yes 2.No
154	A girl can get pregnant while having the menstrual flow	1.Yes 2.No
155	What are the materials you are using during menstrual flow?	1.Use and throw cloths 2.Reusing used cloths 3.Buying modus monthly

		88. Others ,specify
Conception		
156	What do you means by conception	1. The fusion of egg cell and **sperm cell in the** uterus 88. Others , specify
157	What is the deal age a girl to get her first pregnancy?	
158	What is the ideal age for a girl to get her last pregnancy	---------- Years ---------- Years
159	Premarital pregnancy is not a problem	1.Yes 2.No
160	Do you think that any sexual intercourse will lead to pregnancy?	1. Yes No
161	Have you ever been pregnant? (only for females)	1. Yes No skip to Q. 166
162	If yes, how many times? (only for females	----------
163	If yes, was it planned?	1.Yes 2.No
164	If yes , by whom did you get pregnant	1. Steady boy/girl friend 2. casual partner 3. Family member 88.Others, specify
165	What was the result of the pregnancy? (More than one answer possible)	1. induced abortion 2. Spontaneous abortion 3. Live birth

		Still birth
Contraception		
166	Did you know any methods to prevent or postpone pregnancy?	Yes No skip to Q.175
167	If yes, what are they? (More than one answer is possible)	1.Oral contraceptive fills 2.Condome 3.Injectables 4.IUDs 5.Sterilization 6.Norplant 88.Others , specify
168.	If the answer is yes , who can use the methods	1.Oral contraceptive pills 2.Condome 3.Injectables 4.IUDS 5.Sterilization 6.Norplant 88.Others , specify
169	Would you like to use Contraceptives?	1.Yes 2.No

		88. Others, specify
Abortion		
175	What do you mean by abortion?	----------
176	What are the different types of abortion?	----------
177	A woman deliberately terminating pregnancy?	1. I agree 2. I disagree
178	If yes, under what circumstances a woman can have abortion?	1. Raped and conceived 2. Unwanted pregnancy 3. Affecting mothers health 4. No preconditions are necessary Others, specify
179	If no, why?	1. It's a sin to kill human being 2. It's a crime to kill human being 88.Others, specify
180	Have you ever had abortion? (only Females)	1.Yes 2. No- skip to Q.177
181	If yes, what type of abortion did you have?	1. Induced Spontaneous
182	If yes, how many times?	1. Induced 2 Spontaneous

170	If yes , which method (s)	Oral contraceptive pills Condom Injectables IUDs Sterilization Norplant 88.Others , specify
171	If not, why?	1. I have health problem 2. I want to get pregnant 3.Fear of side effects
172	Have you ever used modern contraceptives ?(only those who ever had sex)	1.Yes 2.No
173	If yes , what type of methods do you used ?(only those who ever had sex)	1. Oral pills 2. Condom 3. Injections 88.Others , specify
174	If no, why not? (more than one answer is possible)	4. I don't have frequent sex 5. Partner opposed 6. Lack of knowledge about contraceptive 7. Fear of side effects 8. Difficult to obtain contraceptive 9. Method was expensive

183	Where did you have abortion service	1. At a health center 2. Traditional abortionist 3. At home without any body helping 88.Others, specify
	STIs.	
184	Do you know any diseases which can be transmitted through sexual intercourse?	1. Yes No Skip to Q.189
185	If yes, what are the signs and symptoms?	1. Vaginal discharge 2. Genital smelling 3. Itching 88.Others, specify _____
186	If yes, what are the diseases?	1. Gonorrhea 2. HIV/AIDS 3. Cancroids 4. Syphilis 5. Lymph Granuloma venerum 88.Others,specify____
187	Can we prevent STIs?	1.Yes 2.NO
189	Have you ever had STIS?	1.Yes 2.NO
190	If yes, what type	1.Syphills 2. Gonorrhea 88. Others, specify

	HIV/AIDS	
191	Have you ever heard about HIV/AIDS	1.Yes 2.No Skip to Q.198
192	If yes , what's it	1. A disease that weaken the boy's ability to protect itself form disease 2. A disease monthly transmitted by sexual intercourse 88.Others, specify
193	Please mention all the ways you believe a person can get AIDS(multiple answers are possible)	1. Usage sexual intercourse 2. Sharing needles and razors 3. Blood transfusion 4. During pregnancy and child birth 5. Mosquito and Other insect bit 6. Through breast milk 7. Casual contract with a person (hand shaking, sharing

		food , coughing) 88. Others , specify _____
194	How can HIV/AIDS be prevented?	1. Abstaining from sex 2. Being faithful for a partner 88. Others, specify
195	A healthy looking person can have HIV	1.Yes 2. No
196	Did you ever undergo HIV test If you what is the matter?	1.Yes 2.No
197	Do you think that all boys /girls should undergo HIV/test before marriage?	
	Rape	
198	What do you understand by rape?	1. Forcing a women to have sex 88. Others, specify
199	What do you think of rape?	1. It's a sexual abuse 2. It's a crime 88. Others ,specify
200	Have you ever been raped ?(Only for girls)	1.Yes 2. No _____ Skip to Q.202

201	If yes, who did it to you?	1. Steady boy 2. Casual boy 3. Family member 4. Somebody I don't know 88.Others ,specify _____

211	Where or from whom did you hear about conception for the 1st time	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9. From TV 88.Others, specify _____ 99. I don't remember
212	Where or from whom did you hear about contraception for the 1st time	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio

		8. From newspaper 9.From TV 88.Others,specify 99. I don't remember
213	Where or from whom did you hear about abortion for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify 99. I don't remember

214	Where or from whom did you hear about STI for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Otherfamily members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify 99. I don't remember

No	Questions	Possible Answers
215	Where or from whom did you hear about HIV/AIDS for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify

		99. I don't remember
206	Where or from whom did you hear about rape for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Otherfamily members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify 99. I don't remember
207	Is there a health center in your kebele to provide RH services for adolescents?	1.Yes 2.No skip to Q.211

208	If yes , how far is it	1.More than 1 hr by walk 2. 1 hour by walk 3.30 minutes by walk 4. Less than 30 minutes by walk
209	Is there any payment to get RHS?	1.Yes 2. No Skip to Q.211
210	If yes, how much you paid and for which service?	
Part V. Health Seeking behavior		
211	During the last 3 months, have you experienced reproductive health problems?	1.Yes 2. No ~~skip to Q.225~~
212	If yes , what type of problem /complication	1. STIs 2.Aboration
213	Did you have treatment?	1.Yes 2. No

215	If yes, where	1. government 2.Privatehealth institution 3.FGAE clinic 88. Others
216	If you want to visit a health post, which one do you choose?	1.government health post 2. private health post 3.FGAE clinic 4. Traditional healer 88.Others, specify
217	Why did you choose that	1.Effective service treatment 2. Free /no payment 3. Less payment 4. It's too near 5. For keeping my secrets 6. Told by my parents 88. Others, specify

THANK YOU!!

Annex II

In order to develop the standard of living index (SLI) , the following scores related to response categories for each question were given.

Standard of living index		
Variable	Categories	Scores
Source of drinking water	Own tap water	3
	Shared tap water	2
	Hand pump + well	1
	Others	0
Type of house	Grass roof and soil floor	4
	Tin roof and soil floor	2
	Tin roof , stone wall and cement floor	0
Source of lighting	Electricity	2
	Kerosene	1
	Others	0
Fuel for cooking	Kerosene materials	2
	Wood	1
	Others	0
Toilet facility	Own fit toilet	4
	Shared pit toilet	2
	No toilet	0
Ownership of items	Refrigerator	2
	Sofa	2
	TV	3

Variable	Categories	Scores
	Telephone	3
	Local shop	4
	Car	4
	Tractor	4
	None of the above	0
Land ownership	None	0
	Less than 1 Timad (less than 0.4 hectare)	1
	1-3 'Timad' (0.4-1.2 hectare)	2
	More than 3 Timad (more than 1.2 hec)	3

Source: Dr. C. Ramanujam with slight modification, 2009

The total of the scores may vary from the lowest of 0 to a maximum of 40. On the basis of the total, score, households are divided in to three categories:

1. Low : if total score was less than or equal to 9
2. Medium : if to tal score was between 10 up to 11
3. High : if total score was greater or equal to 12

Annex III

Composite Index for correct knowledge on RH

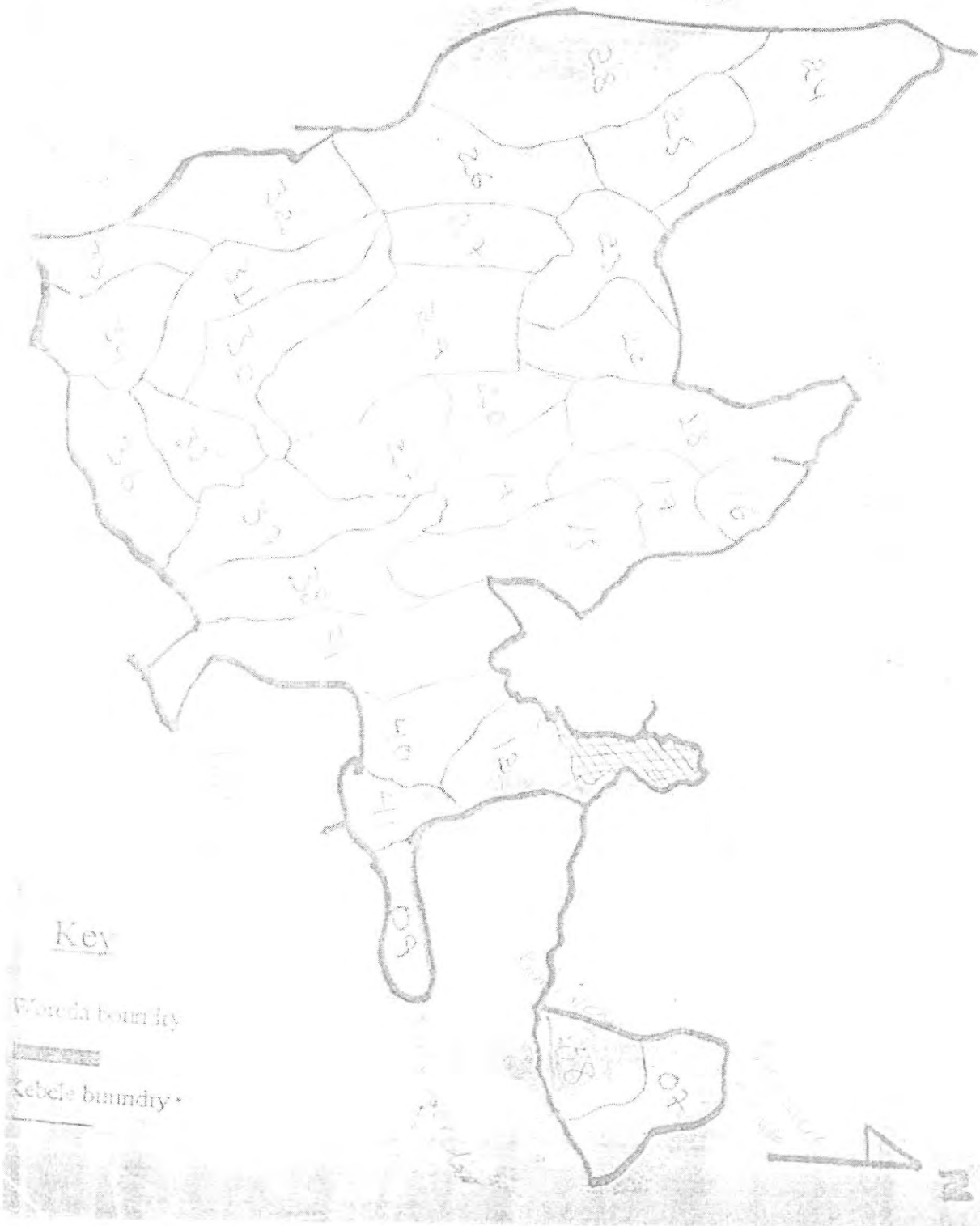
Abortion	Yes	1
	No	0
Signs and Symptoms of STIS	Yes	1
	No	0
Prevention of STIs	Yes	1
	No	0
STI Can be Cured	Yes	1
	No	0
Heard about HIV/AIDS	Yes	1
	No	0
What is HIV/AIDS	Yes	1
	NO	0
	Others	0
Modes of HW Transmission of by having intercourse in HIV Positive person	Yes	1
	No	0
By contaminates transfusion	Yes	1
	No	0

By contaminated sharp tools	Yes	1
	No	0
From mother to child	Yes	1
	No	0
By Breast feeding	Yes	1
	No	0
By hard shaking	Yes	0
	No	1
By insect bite	Yes	0
	No	1
By eating together	Yes	0
	No	1
Sharing HHID utensils	Yes	0
Preventive method of HIV/AIDS	No	1
Meaning of rape	1	1
	others	0
Range of Score		0-32

0-16=0

17-32=1

MAP OF DESSIE ZURIYA WOREDA



Declaration

The thesis is my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Tibebu Dejene		03/07/09
Student	Signature	Date

I confirm that this thesis has been submitted with my approval as the supervisor of the same.

Dr. C. RAMANUJAM		03-07-09
Advisor	Signature	Date