

**INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK
PRACTICES AMONG ADOLESCENTS IN ETHIOPIA**

by

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submitted in accordance with the requirements

for the degree of

DOCTOR OF LITERATURE AND PHILOSOPHY

in the subject

HEALTH STUDIES

at the

UNIVERSITY OF SOUTH AFRICA

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November 2015

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DECLARATION

I declare that **INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK PRACTICES AMONG ADOLESCENTS IN ETHIOPIA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before any other degree at any other institution.



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INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK PRACTICES AMONG ADOLESCENTS IN ETHIOPIA

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ABSTRACT

BACKGROUND: Studies done in both developed and developing countries have reported the tendencies of adolescents to engage in risky behaviours. Such behaviours include indulging in early and unsafe sexual activities, having multiple sexual partners, alcohol and drug use and dropping out of school among others.

PURPOSE: The main aim of the study was to develop intervention strategies for reducing sexual risk practices among adolescents in Ethiopia.

METHODS: A mixed method approach using quantitative and qualitative approaches was employed in order to investigate the risks of sexual practices among urban and rural adolescents in the selected area. A cross-sectional survey was used to gather data quantitatively and focus group discussions were used for the qualitative part of data collection.

A total of 449 students and 72 FGD participants were selected for quantitative and qualitative study respectively using systematic random sampling technique. Logistic regression was done to identify possible factors associated with knowledge on emergency contraceptive, condom utilisation, pre-marital sex practices and perception of risky sexual practices.

RESULTS: One hundred and seventy (37.9%) respondents had experienced sexual intercourse at the time of the study. The higher proportion (42.6%) of those who had

engaged in sexual relationships was from the rural school compared to 33.1% in the urban schools. The proportion of sexually active respondents was higher among males (44.8%) compared to (29%) females. Multiple partners were higher in rural adolescents (44.7%) compared to 31.8% among urban adolescents. Sexually Transmitted Diseases were reported by 28.6% of the sexually active adolescents and the prevalence was higher among males (73.5%) compared to 27% females. 87% of the sexually active adolescents rarely used a condom.

CONCLUSION: The study identified a knowledge gap on ASRH which limited adolescents to access reproductive services. Social, cultural and economic factors contributed to adolescent engagement in risky sexual behaviours. Based on the major findings of this study, intervention strategies targeting behavioural, biomedical and structural interventions were proposed.

KEYWORDS: Adolescence; condom use; emergency contraception; intervention strategies; reduction of sexual risk practices; rural and urban schools; sexual reproductive health; sexually transmitted diseases.

ACKNOWLEDGEMENTS

First of all I would like to thank the almighty God for his continued mercy upon my life and for giving me the opportunity to complete this study.

I would also want to acknowledge the following people for their tremendous support, effort and encouragement during the study period:

- Prof Gloria Thupayagale-Tshweneagae and Prof Yohana Mashalla, my supervisors at UNISA, for the tireless efforts in teaching and assisting me.
- Mr Gerbaba (Ambo University lecturer of bio-statistics) also deserves special appreciation for his support during data entry.
- My wife (Tigist Kebede Abomsa) and Children (Firaol and Abdi), who were always with me and dedicated their time to continuously supporting and encouraging me and their eagerness to see me complete my study.
- My brothers (Lemi and Bedada) also deserve special thanks for their continuous support during the whole of my study.
- My colleagues, Tadesse Mekala, Solomon Balcha, Abera Fita, Abate Argew, Girma Demisse, for their direct and indirect assistance during my study period.
- All my data collection facilitators, supervisors and study participants also deserve great appreciations.
- The Office of Education and high school directors for allowing me to conduct the study among the urban and rural secondary school adolescents (Ambo and Meti High Schools) in Ethiopia.
- To all those that I could not have mentioned but in one way or another had contributed to the completion of this study, I wish you God's blessings in your future endeavours.

Dedication

I dedicate this thesis to:

*My late father and mother, Mr Bane Furry and Mrs Yadeshí Chubeta
and my late brother Tekalign Feyisa Furry
who did not live to see me accomplish my studies to this level.*

*My loving spouse, Tigist Kebede Abomsa and
my lovely daughter and son, Firaol and Abdi.*

With love.

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LIST OF ABBREVIATIONS

AIDS:	Acquired Immune Deficiency Syndrome
ASRH:	Adolescent Sexual and Reproductive Health
BCC:	Behavioural Change Communication
ECC:	Emergency Contraceptive
FHAPCO:	Federal HIV/AIDS Prevention and Control Office
FHI:	Family Health International
FMOE:	Federal Ministry of Education
FMOH:	Federal Ministry of Health
FP:	Family Planning
HIV:	Human Immune Deficiency Virus
IEC:	Information, Education and Communication
KAP:	Knowledge, Attitude and Practice
MCH:	Maternal and Child Health
RH:	Reproductive Health
SRH:	Sexual and Reproductive Health
STDs:	Sexually Transmitted Diseases
STIs:	Sexually Transmitted Infections
UNAIDS:	United Nations program on HIV and AIDS
UNFPA:	United Nations Fund for Population Activities
UNICEF:	United Nations International Children Emergency Fund
USAID:	United States Agency for International Development
WHO:	World Health Organization

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Adolescent is a word derived from the Latin verb “adolescere”, which means grow to” maturity”. Adolescence is defined as a period in which a person is no longer a child, and not yet an adult (WHO 2010:11). It is an age of transition when an individual experiences rapid growth and development, both physically and psychologically, and changes from being a child to an adult. World Health Organization (WHO 2010:12) has defined adolescence as an age of 10 to 19 years.

Adolescence is a period of time marked by exploration, self-discovery, and risk taking (Thupayagale-Tshweneagae 2009:11). For most, these activities will eventually lead to positive outcomes with nothing more costly than a few exciting memories and tales of accidents (Li 2009:16). For some individuals, however, the cost of experimentation and risk taking behaviour will lead to problems like drug and alcohol use, sexual victimisation, peer victimisation, serious health injury, unwanted pregnancy, additional mental health problems, or death. These outcomes may result in significant costs to the individual in the form of mental and physical injury, reduced academic progress, and a reduction in the quality of life (Yan, Lil, Biy & Li 2010:37). In addition, family and friends of the individual may experience a loss of productivity in the workplace, conflict with significant others, and financial stress in helping to support adolescents who have been involved in these problematic activities (Yan et al 2010:38).

Young people are more mature physically than mentally or emotionally, so that they will easily engage in risky behaviours like early and unsafe sexual activities, having multiple sexual partners, use of alcohol and drugs, violence and dropping out of school which places their health at risk (Adhaikari & Tamang 2009:243). In addition young people are socially inexperienced and dependent on others which hinder their decision making by themselves and they are influenced by peers in ways that increase their engagement in risky behaviours which may result in being infected by sexually transmitted infections

(STIs) including Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) (Adhaikari & Tamang 2009:243).

Risky sexual behaviour is any behaviour that increases the probability of negative consequences associated with sexual contact, including HIV and AIDS or other STDs, abortion and unplanned pregnancy (Kassa, Tesfaye & Alamrew 2013:299). It also includes behaviours like, having multiple partners, having risky casual or unknown sexual partners, early sexual initiation and failure to discuss risk topics prior to intercourse and failure to take protective actions, such as use of condoms and birth control (Kassa et al 2013:296-303).

Adolescents are also vulnerable because they lack knowledge and skills to avoid risky behaviour and lack of access to acceptable, affordable and appropriate reproductive health information and services. The consequences of alcohol and drug use are especially serious for adolescents because substance abuse affects a person's ability to make judgments about sexual behaviour, thus increasing the risk for sexually transmitted infections, sexual assault and pregnancy (Abdisa 2012:7).

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

Today approximately one-fifth of the world's population are adolescents (10-19 years of age) and this phase of life is marked by special attributes including development of the reproductive system, sexual maturation, formation of identity, gender roles and related problems (Anjali, Bhagyalaxmi & Shikha 2009:12). The age between 10 and 19 years is also characterised by a series of physiological emotional and psychological changes to which young people need to adjust within the changing socio-cultural environment (Ethiopian Public Health Association (EPHA) 2009a:17). Adolescence is often characterised by a pattern of thinking in which immediate needs tend to take priority over long-term implications, and it is a period of dynamic change representing the transition from child hood to adult hood and is marked by emotional, physical and sexual maturation (EPHA 2010:17). Sexual activity among adolescents has been reported to be on the increase worldwide. Globally, puberty is occurring earlier for both boys and girls, and the age at which people marry is getting younger and younger for some countries. These create a widening gap of time during which young adults can potentially engage

in premarital sexual activity. Most young people will engage in sexual intercourse by age 20, whether married or unmarried (Family Health International (FHI) 2012:6).

Although adolescents and young adults aged 15 to 24 represent only 25% of the sexually active population in the United States, they have the highest incidence of STDs. Young men and women in this age group have the highest rates of Chlamydia, gonorrhoea, and syphilis, especially among the African American population. Adolescent risk factors include having a history of pregnancy or STDs, being arrested or incarcerated, substance abuse, early sexual debut and having four or more lifetime sexual partners (Schantz 2012:4).

Studies conducted in different parts of the world also show that the younger boys and girls are less likely to report that they or their partners have used protection during sexual relationships (Blanc & Way 1998; Awusabbo-Asare et al 2006; Guiella & Woog 2006; Munthali et al 2008; Neema et al 2006). In a nationally representative sample of 12-14 years old in Ghana, 0% and 6% of boys and girls aged 12-14 years respectively used a condom at first sexual intercourse compared with 15% and 24% of those aged 15-19 years. In a survey on the use of protection in one region of Ethiopia, one-fifth of younger boys and girls and one-third of the older cohort used protection (Karim et al 2003:14). In KwaZulu-Natal South Africa, 14% of girls who first had sexual intercourse at 14 years or younger used a method of pregnancy prevention at first sexual intercourse and 10% used a method of STI/HIV prevention. The 2011 WHO survey on student use of condoms during sexual intercourse among the 13-15 year male students ranged from 21% in northwest Namibia to 88% in Uruguay (WHO 2011a:25). Demographic Health Survey (DHS) tabulations of sexually active unmarried 15-19 year old boys on using a condom at first sexual intercourse showed that 4-50% of the boys used a condom at first sexual intercourse and 16-61% used a condom at their most recent sexual intercourse, compared with 1-28% at first intercourse and 7-50% at most recent sexual intercourse among girls (WHO 2011a:25). The many societal, situational and individual factors underlying these patterns are neither easy to distinguish nor always clear whether condoms are used for STI or pregnancy prevention or both (Khan & Mishra 2008:18). These studies are necessary for informing the current study.

In a study conducted among 4,653 boys and 4,687 girls with a mean age of 15 years in Catalonia, Spain indicates that a total of 38.7% of students had had sexual relations at

least once and 82.3% of boys and 63.0% of girls were engaged in sexual risk behaviours. The prevalence of sexual relations and risk behaviours was generally higher in boys than in girls. Boys had more sexual partners ($P<.001$) and used condoms as a contraceptive method less frequently than girls ($P<.001$). Alcohol consumption was also a risk factor in boys (Puentes, Zabaleta, Blanco et al 2011:13-19).

Another study done in USA on Changes in Sexual Risk Perception and Risk Taking Among Urban African American indicates that higher proportions of older adolescent (ages 17 and 18) reported engaging in risky behaviours including drinking alcohol, using marijuana, having sex and having multiple sexual partners, compared to younger adolescents (ages 15 and 16). Males reported higher proportions of engaging in risky behaviours than females, but also higher proportions of condom use (Steen 2012:11).

Because of cultural taboos and sensitivity of the topic adolescents in many developing countries rarely discuss sexual matters explicitly with their parents. Most information for their patchy knowledge comes from peers of the same sex who may themselves lack adequate information or are incorrectly informed (Sime & Wirtu 2008:167-173). Studies also suggested that adolescents have limited knowledge about sexual and reproductive health and know little about the natural process of puberty. This lack of knowledge about reproductive health may have grave consequences. Moreover, sexual activities are occurring in the midst of an HIV and AIDS pandemic that disproportionately affects adolescents and young adults. On the other hand, young people often face enormous pressure to engage in sex, especially from peers, exposure to unlicensed erotic video films and the desire for economic gain. The result of this is significant numbers of adolescents who are involved in sexual activities at an early age (Sime & Wirtu 2008:167).

In Mwanza, United Republic of Tanzania, approximately 50% of both male and female primary school children aged 12 years and over who had “ever had sex” said their first act was vaginal sex; 10% anal sex; and 40% oral sex (WHO 2008:23). In the 2002 National Survey of Family Growth in the United States, 54% of 15–19-year-old females and 55% of boys had ever had oral sex and 10% had ever had anal sex. These activities tended to follow rather than precede first coitus, that is, were additions rather than substitutions (WHO 2008:23).

In Benin City, Nigeria, young people in focus groups said that girls commonly started having intercourse at 11–13 years compared with 14–15 years (WHO 2011a:24). In a Caribbean survey, about 40% of all male students aged 10–18 years and 9% of females said they were 12 years or younger when they first had sexual intercourse (WHO 2011a:24).

In Sub-Saharan Africa, among young men who had ever had sexual intercourse, more than 20% of them had had multiple partners in the past 12 months, compared with fewer than 10% of young women (Khan & Mishra 2008:18). Although data are more limited for Latin America, 5% of women or fewer report multiple partners except in Colombia, where 8% of women report multiple partners in the past year. In contrast, 19% of Guyanese men, and more than 30% of Bolivian and Dominican men, report multiple partners (Khan & Mishra 2008:19).

The study done in Ambo High School in Oromia Region, Ethiopia revealed that from a total 59 female high school children who had already experienced sexual intercourse, 18 (30.5%) had become pregnant at least once prior to the study, out of which 12 (66.7%) reported history of abortion. The existence of risky sexual practice including pre-marital sex, unprotected sex with non-marital partners, sex after drinking alcohol and sex with female commercial sex workers were reported by school adolescents. Condom use during the last sexual intercourse in the study done on premarital sexual practices among adolescents was 23%. The findings could be due to lack of information about sexuality and reproductive health (Bane 2006:31).

On the other hand, the study done among Ambo female university students in Ethiopia, shows that 28 (16.8%) of the study group had the history of pregnancy prior to the study out of which 15 (53.6%) reported history of abortion. Only 3% of the total sexually active respondents had used condom consistently and 7.2% of the respondents had used condom during their first sexual contact. About 11.5% also had history of self-reported symptoms of sexually transmitted disease (Abdisa 2012:36).

Similarly a study done among 3543 school adolescents in Addis Ababa in Ethiopia revealed that 377 (10.6%) of the study participants were involved in risky sexual behaviours in the past 12 months (Cherie & Berhane 2012:2). A total of 574 (79.4%) of the sexually active students had reported that they have been sexually active in the 12

months preceding the survey, 262 (45.6%) had sex with more than one sexual partner, 319 (55.6%) did not use condom consistently and 118 (20.6%) were involved in sex at the exchange of money (Cherie & Berhane 2012:2-6).

A study conducted on risky sexual behaviours and associated factors among male and female students of Jimma zone in Ethiopia shows that female students living away from their parents were 3 times more likely to be at risk than students living with their parents (OR 95% CI 3.0 (1.48-6.34)). Female students who consumed alcohol were 7 times more likely to be at risk than those who did not consume alcohol (OR 95% CI 7.27 (3.36-15.7)). Male students who consume alcohol were 2.8 times more likely to be at risk than those who did not consumed alcohol (OR 95% CI, 2.81 (1.3-6.06)). Male students who chewed khat were 4.6 times more likely to be at risk than students who did not chew khat (OR 95% CI, 4.58 (1.95-10.76)) (Fentahun & Mamo 2014:3-7).

On the other hand, a study done among 3543 school adolescents in Addis Ababa in Ethiopia revealed that 377 (10.6%) of the study participants were involved in risky sexual behaviours in the past 12 months (Cherie & Berhane 2012:2). A total of 574 (79.4%) of the sexually active students had reported that they have been sexually active in the 12 months preceding the survey, 262 (45.6%) had sex with more than one sexual partner, 319 (55.6%) didn't use condom consistently and 118 (20.6%) were involved in sex at the exchange of money (Cherie & Berhane 2012:2-6).

A study conducted to assess the Knowledge of, and attitudes towards, Voluntary HIV Counselling and Testing services amongst adolescent high school students of Addis Ababa city in Ethiopia also revealed that thirty-two percent of respondents rated themselves at risk of HIV infection and 35.2% were not willing to disclose their HIV-positive status to anybody (Gatta & Tshweneagae 2012:4-5).

Similar study done among Ambo High School adolescents in Ethiopia indicates that among sexually active respondents, 29 (16.5%) male students reported experiencing sexual intercourse with female commercial sex workers. From 29 students who had sexual intercourse with commercial sex workers only 8 (27.6%) reported consistent condom use and 13 (44.8%) never used condom during sex with commercial sex workers (Bane 2006:13). Other study conducted in Ambo University in Ethiopia among 650 female students revealed that thirty one (18.6%), of the study subjects claimed they

started sex before the age of 15 years and from the total of 167 sexually active respondents only 5 (3%) reported history of using condom consistently (Abdisa 2012:9).

In yet another study done on factors influencing exposure to HIV and AIDS among high school students of Dessie town in Ethiopia showed that from the total 756 students involved on the study, 84 (11.10%) of them had already developed a risk sexual behaviour practice. Such practices included substance use, and lack of condom use during sexual intercourse (EPHA 2011:107).

1.3 STATEMENT OF THE PROBLEM

Adolescents have limited access to reproductive health services that focus on their special needs. Inadequate knowledge about young peoples' sexual behaviour, cultural influences, and the limited capacity of implementers hinder the provision of reproductive health education and services to adolescent (Abdisa 2012:16). It is therefore essential to have data on the extent of adolescent sexual activity and contraceptive use, pregnancy rates, and other reproductive health issues in order to have a clear understanding of the situation.

Adolescents face many sexual and reproductive health risks, stemming from early, unprotected, or unwanted sexual activity. Key factors underlying such risks are lack of accessible, affordable, and appropriate contraception services and the absence of sexuality research to support the development of evidence-based interventions to improve sexual and reproductive health worldwide (WHO 2012:2).

Adolescents that have sex earlier in life are more likely to continue to be risky into young adulthood, including more sexual partners and less condom use. This, in turn, puts them at more risk of unwanted outcomes of sexual activity, including unintended pregnancy or sexually transmitted diseases (Houck, Hadley, Tolou-Shams & Brown 2010:728).

The vast majority of sexual intercourse during adolescence period is unprotected (FMOH 2011:23) and therefore the risk of unwanted pregnancy, unsafe abortion, and STIs including HIV and AIDS is very high. Lack of accurate information about reproductive health and sexuality, lack of access to health services including

contraception, and vulnerability to sexual abuse put adolescent at highest risk (FMOH 2011:23).

There are only four studies that have been done on adolescent sexual and reproductive health in urban areas in Ethiopia. The researcher did not find any studies done in the country which compared the risk level related to sexual practices between urban and rural in-school adolescents. There is therefore a need to generate more information on sexual behaviour and practices of adolescents living in different settings in the country.

1.4 AIM OF THE STUDY

The section will list the research purpose, objectives and questions that the research intends to answer.

1.4.1 Research purpose

The purpose of this study is to

- develop intervention strategies for the reduction of sexual risk practices among adolescents in Ethiopia

1.4.2 Research objectives

In order to realise the purpose of the study the following objectives were met:

- To determine factors associated with sexual risk practices among in-school adolescents of Ambo and Meti High Schools
- To assess the perception and level risks related to sexual activities among the study subjects
- To assess and compare the knowledge of adolescents on major STIs
- To assess and compare the level of STIs, induced abortion and unwanted pregnancy among rural and urban in-school adolescents
- To assess and compare the knowledge and practices of the study participants on emergency contraceptive

- To identify the barriers related to safe sex practices among sexually active adolescents in rural and urban schools

1.4.3 Research questions

The study aims to answer the following questions:

- What are the factors associated with sexual risk practices among in-school adolescents of Ambo and Meti High Schools?
- What are the perceptions of adolescents toward risks related to sexual practices?
- What is the level of knowledge on STIs among adolescents?
- Is there any difference between rural and urban adolescents on the rate of STI/HIV, induced abortion and unwanted pregnancy among rural and urban in school adolescents assessed?
- How the knowledge and practices of adolescents on emergency contraceptive is assessed?
- What are the barriers related to safe sex practices among sexually active in-school rural and urban adolescents?

1.5 SIGNIFICANCE OF THE STUDY

Addressing the sexual and reproductive health of adolescents in both rural and urban areas would allow for both health and policy officers to take their needs into cognisance as they are usually considered difficult to reach as well as to be accessed for different health information activities. Further understanding of the pattern of risk sexual practices of rural and urban school going adolescents in relation to socio-cultural and economic factors that determines their sexual behaviour would help in designing appropriate strategies for the reduction of sexual reproductive risks. In addition, information obtained from this study is likely to provide insight in to the sexual and reproductive health of adolescents which could contribute to carefully designed initiatives that target at addressing the reproductive health needs and problems by taking into consideration the educational status, place of residence and family background of the adolescents.

The results of this study can also serve as a basis for a larger, more detailed study on prevention strategies to be designed to bridge the gap between knowledge, attitudes and the practices on the reduction of sexual risk practices among adolescents.

1.6 DEFINITIONS OF KEYTERMS

An operational definition is "a strategy through which a set of characteristics essential to the connotative meaning of a concept is identified" (Burns & Grove 2011:133). This helps the researcher to describe what is to be studied and how it will be investigated. Burns and Grove (2011:133) further define a concept as "a term that abstractly describes and names the object, thereby giving it a separate identity or meaning". In this study, the following terms are used within the context described in this section.

1.6.1 Adolescence

The transition from childhood to adulthood that is marked by distinct biological, cognitive, and socio-cultural changes (Ajdukovic 1998:120). According to Boswell and Baggaley (2002:15), the Constitution of the Republic of South Africa (Act 108 of 1996) still regards any person from 0 to 18 years as a child. The WHO (2010:12) has also defined adolescence as an age of 10 to 19 years, and as a period of life marked by special attributes. However, for the purpose of this study an adolescent will refer to secondary school students, aged 15–19 years, in Ambo district and Ambo town administration in Ethiopia.

1.6.2 Intervention

A specific activity (or set of related activities) intended to change the knowledge, attitudes, beliefs, behaviours, or practices of individuals and populations, to reduce their health risk. An intervention has a distinct process, outcome objectives, and a protocol outlining the steps for implementation (Hayes 2009:5).

1.6.3 Knowledge

Kartz (1960:260) defines knowledge as a function of attitude. It is accumulated external and explicit information belonging to the community, being leveraged by tacit, intrinsic

insights which originate within individuals who may act alone or cooperatively in order to control or integrate with their environment (Drucker 1993:25). For the purpose of this study, adolescents who can mention all the three methods of HIV/STIs prevention as well as those who can mention at least one method of emergency contraceptive including the right time to use it will be considered knowledgeable.

1.6.4 Risk sexual practices

The risky sexual practices among adolescents can be defined as early sexual debut, having multiple sexual partners, engaging in unprotected sexual intercourse, engaging in sex with older partners and consumption of alcohol and illicit drugs (Dancy, Kaponda, Kachingwe & Norr 2009:27).

1.6.5 Strategy

A strategy is a particular method or approach consistently used in the course of the intervention activities. An example of a strategy would be to use peers to provide the instruction during a group level intervention presentation (Hayes 2009:7).

1.7 THEORETICAL FOUNDATION OF THE STUDY

In this section the research paradigms and the conceptual framework adopted for the study are discussed.

1.7.1 Research paradigm

According to Bowling (2009:129), a research paradigm is a perspective based on a set of assumptions, concepts, values, and practices that are held by a researcher, and it is essentially an approach to thinking about and doing research. In this study, the research paradigm will be a positivist paradigm. The paradigm underlying the traditional scientific approach, assumes that there is a fixed, orderly reality that can be objectively studied. This method allowed the researcher to ask all the respondents the same questions with predetermined responses, which allowed objective data to be collected throughout the study.

According to Taylor, Kermode and Roberts (2007:5), a paradigm is “a broad view or perspective of something”. Additionally, Weaver and Olson’s (2006:460) definition of paradigm means how research could be affected and guided by paradigms and they state that, “paradigms are patterns of beliefs and practices that regulate inquiry within a discipline by providing lenses, frames and processes through which investigation is accomplished”.

According to Lincoln and Guba (1985:65), paradigms can be characterised through their: *ontology (What is reality?)*, *epistemology (How do you know something?)* and *methodology (How do to go about finding out?)*. These characteristics create a holistic view of how we view knowledge: how we see ourselves in relation to this knowledge and the methodological strategies we use to discover it.

The qualitative methodology shares its philosophical foundation with the interpretive paradigm which supports the view that there are many truths and multiple realities (Weaver & Olson 2006:461). Additionally, the interpretive paradigm is associated more with methodological approaches that provide an opportunity for the voice, concerns and practices of research participants to be heard (Cole 2006:26). Cole further argues that qualitative researchers are “more concerned about uncovering knowledge about how people feel and think in the circumstances in which they find themselves, than making judgments about whether those thoughts and feelings are valid (Cole 2006:26).

On the other hand, quantitative research is a quantifiable research approach in which raw data are collected and turned into usable information by mathematical manipulation that leads to forward-looking predictions. Statistical comparisons and percentages are common numerical metrics used in quantitative research (Kokemuller 2014:2).

The main idea behind quantitative research is to be able to separate things easily so that they can be counted and modelled statistically, to remove factors that may distract from the intent of the research. A researcher generally has a very clear idea about what is being measured before they start measuring it. Quantitative is ideal for testing hypotheses, and for hard sciences trying to answer specific questions (Burns & Grove 2009:357).

One of the main benefits of quantitative research compared with qualitative research is that it is more precise and easy to analyse. Qualitative research requires more subjective evaluation. Quantitative data also tend to offer a more efficient picture of the results; they are also usually more objective as researchers are not able to manipulate the numbers or scores when the studies are conducted accurately and without bias (Kokemuller 2014:3).

1.7.2 Conceptual framework

The conceptual framework for this study has been developed by the researcher after reviewing different relevant literatures and using personal experience in the field of public health.

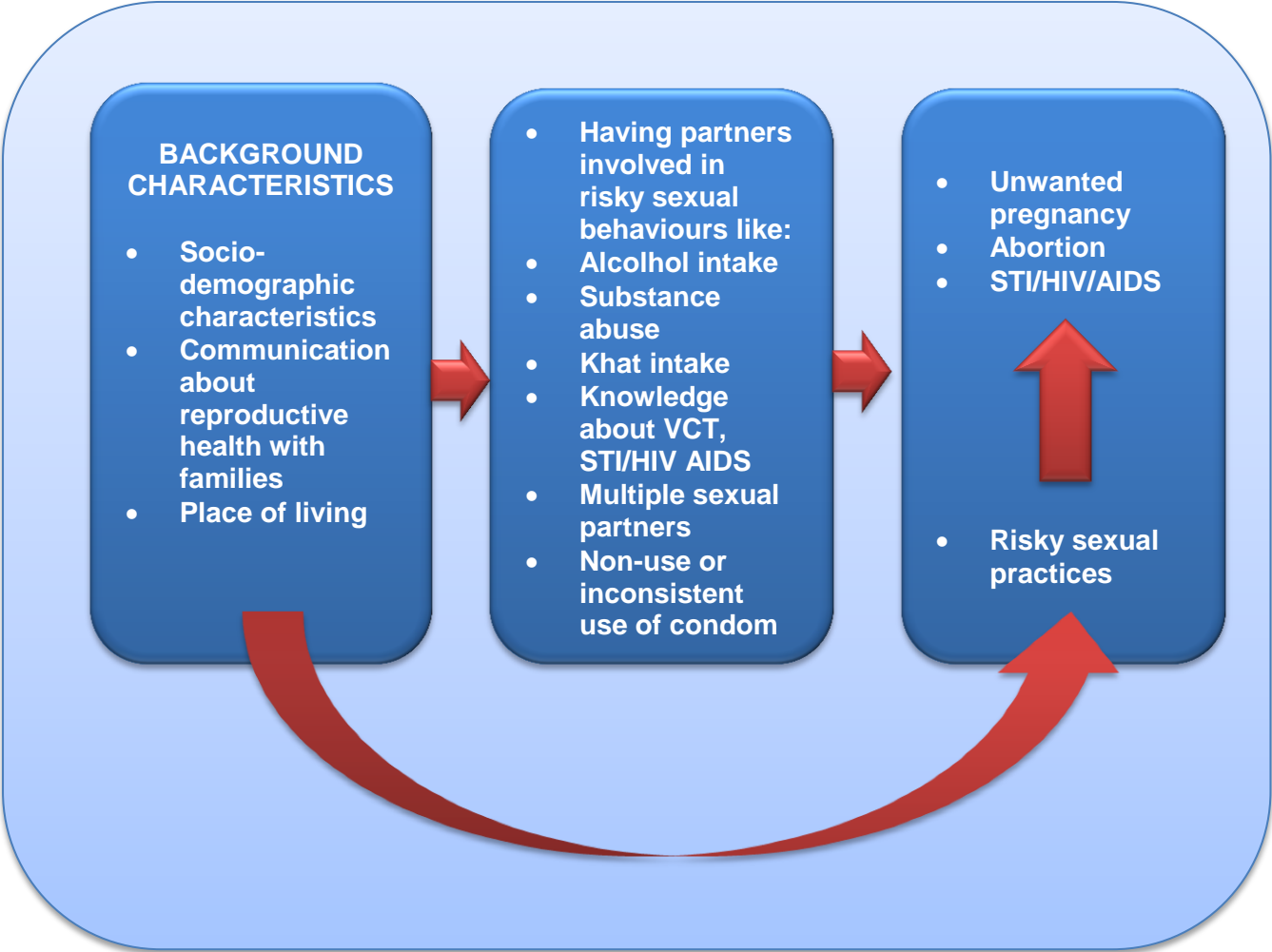


Figure 1.1: Study framework developed by researcher 2014

1.8 CONCLUSION

The orientation of the study chapter discussed the concept of adolescents and the many risks that they face in their daily lives. The study framework was also introduced and was applied throughout the study. The rationale for doing the study was also discussed under the statement of the problem and the significance of the study. The research purpose, objectives and questions the study purports to answer are also discussed in the first chapter.

CHAPTER 2

LETRATURE REVIEW

2.1 INTRODUCTION

Chapter 1 gave the orientation of the study. This chapter presents the review of literature accessed from many sources. Sources used included, books, journals, articles, monographs and government reports and dissertation done in topics related to adolescent sexual practices and interventions used. Studies done on adolescence as a phase were also reviewed. Topics in this review covered adolescence as a concept reproductive health; adolescence sexual risk practices; adolescence pregnancy and its consequences; sexually transmitted infections and contraceptive utilisation. In order to place the study in context and to rationalise the importance of researching risky sexual behaviours maternal mortality and morbidity were also included in the review

2.2 ADOLESCENCE AS A CONCEPT

The term "adolescence" is a concept first popularised in the early 20th century by researchers such as psychologist, Stanley Hall. Generally it refers to the period of transition from childhood to young adulthood, but its exact meaning is imprecise (Conklin 2012:1).

The word adolescence is derived from the Latin verb – *adolescere* which means grow to maturity. Adolescence is defined as a period in which a person is no longer a child, and not yet an adult. It is an age of transition when an individual experiences rapid growth and development, both physical and psychological, and changes from being a child to an adult (WHO 2010:11). The WHO (2010:12) has defined adolescence as age of 10 to 19 years and in terms of a phase of life marked by special attributes. It is also a period when development of the reproductive system, sexual maturation, formation of identity, gender roles and related problems arise (Anjali et al 2009:14).

Adolescent is also a period between childhood and young adult life as reflected in an individual's different areas of psychosocial functioning. Sebola (2014:22) and

Pyrjmachuk (2011:333) describe adolescence from a biological view. The authors refer to it as a developmental phase with a set of mini stages in an individual's life that separate childhood from adulthood. Developmental challenges that characterise adolescence include development of psychological autonomy, establishing of intimate relationships, and developing sense of identity (Petersen, Bhana & Swartz 2012:413).

Adolescents are a critical target population with regard to influencing global public health outcomes. Young people below 25 years of age represent almost 50% of the world's population (WHO 2011a:12). Adolescence marks the period between childhood and adulthood when hormonal changes transform boys and girls into young men and women able to have their own children. Increasingly, adolescents wait until they reach the age of maturity before they have sex (WHO 2011a:12). However, this finding has not been translated in Ethiopia (observation by researcher). This may be due to the influence of culture.

Globally, the adolescent population is estimated to be 1.25 billion. Among these, 513 million are between 15–19 years old (WHO 2008). Furthermore, nearly 85% of the world's adolescent population lives in developing countries. In a number of countries in sub-Saharan Africa, population below 15 years of age is five times greater than the population over 55 years of age (WHO 2011a:12-15). This subset of the world's population is often disproportionately affected by social and economic inequities that characterise the development landscape which makes them more vulnerable to poor health outcomes, especially outcomes related to sexual and reproductive health (WHO 2011a:12).

Under normal circumstances, an adolescent has to attain positive mastery of these key developmental challenges without any interference. Though disparities between adolescent's cognitive, emotional, social and physical development may exist, these can be resolved as the adolescent moves towards maturity and independence. But at times these together with heightened emotional arousal which may compromise rational decision making, can act as vulnerabilities that predispose adolescents to a range of internalising mental disorders such as anxiety and depression and externalising behavioural disorders such as conduct disorder and aggression (Petersen et al 2012:413; Rawatlal & Petersen 2012:346; Sebola 2014:22). Individual capacity to deal

with these adversities is dependent on the availability of support in the immediate social environment as well as coping skills.

During the transition from childhood to adulthood, adolescents establish patterns of behaviour and make lifestyle choices that affect both their current and future health. Serious health and safety issues such as motor vehicle accidents, violence, substance use, and risky sexual behaviours can adversely affect adolescent and young adults (Shantz 2012:5).

Young people between the ages of 10 and 19 years are often thought of as a healthy group. Nevertheless, many adolescents do die prematurely due to accidents, suicide, violence, pregnancy related complications and other illnesses that are either preventable or treatable. Many more suffer chronic ill-health and disability. In addition, many serious diseases in adulthood have their roots in adolescence. For example, substance use, sexually transmitted infections including HIV, poor eating and exercise habits, lead to illness or premature death later in life (Floyd & Latimer 2010:65).

Besides the demands posed on the adolescent by this critical life period, a significant number of them do also experience mental distress due to exposure to traumatic life events and violence, as well as harsh, inconsistent or abusive parenting factors, family breakdown, bullying and loss due to death of significant others which could weaken their emotional stability (McKenzie, Murray, Prior & Stark 2011:67; Petersen et al 2012:413).

Research has shown that given the right tools, young people have the potential to take responsibility for their sexual and reproductive health. Parental involvement and culturally competent programs that provide complete and accurate information can go a long way toward helping youth make good decisions; but socioeconomic, cultural, and educational disparities must be redressed in order for all youth to lead successful and healthy lives (Thupayagale-Tshweneagae 2009:113).

Because they are in developmental transition, adolescents and young adults are particularly sensitive to environmental factors that is, contextual or surrounding influences (Thupayagale-Tshweneagae & Mokomane 2013:23). Environmental factors, including family, peer group, school, neighbourhood, policies, and societal cues, can either support or challenge young people's health or well-being. Addressing the positive

development of young people facilitates their adoption of healthy behaviours and helps to ensure a healthy and productive future adult population (McNeely & Blanchard 2010:116).

In addition, adolescents are more likely to engage in risk-taking behaviours than either younger children or adults (Schwarz 2010:3). These significant factors underline the importance of meeting the reproductive and sexual health needs of this age group.

Adolescents and youths in Ethiopia are highly affected by HIV and sexual and reproductive health related problems. Various studies show that these segments of the population in Ethiopia are prone to various forms of sexual and reproductive health problems such as: early marriage, sexual coercion, female genital mutilation, unwanted pregnancy, abortion and sexually transmitted infections including HIV (FHAPCO & MWCYA 2013:5).

2.3 REPRODUCTIVE HEALTH

Reproductive health is defined as a state of physical, mental, and social well-being in all matters relating to the reproductive system, at all stages of life (WHO 2014:52). Good reproductive health implies that people are able to have a satisfying and safe sex life, the capability to reproduce and the freedom to decide if, when, and how often to do so (WHO 2014:52). Men and women should be informed about and have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health care services that enable women to safely go through pregnancy and childbirth. Reproductive Health has been an area of interest globally. Therefore, it is essential to research on it by both low- and middle-income countries (Belizan & Munford 2015:28).

Within the framework of WHO's definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and system at all stages of life. Reproductive health, therefore, implies that people are able to have a responsible, 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 (WHO 2014:17). Reproductive health care is also defined as the constellation of methods, techniques and

services that contribute to reproductive health and well-being by preventing and solving sexual health problems (Roudi-Fahimi & Ashford 2008:23).

The reproductive and sexual health needs of adolescents differ from those of adults (WHO 2010:16). During adolescence, the body undergoes significant developmental changes, most notably puberty, the bodily changes of sexual maturation, and the formation of sexual identity (National Institute of Health 2007:3). Achieving reproductive and sexual health requires more than preventing unwanted pregnancy and sexually transmitted infections, it includes developing the ability to form and maintain meaningful relationships with others and with one's own body. Psychological, social, educational, environmental, and economic factors, among others, all play a role (Schwarz 2010:1-4).

According to the World Health Organization (2011a:22) adolescents have limited knowledge about SRH and know little about the natural process of puberty. This lack of knowledge about reproductive health may have grave consequences. There is little doubt that younger female and male adolescents are highly vulnerable to violations of their rights to bodily integrity. Among the many reasons for this are the attractiveness of their developing sexual bodies, their willingness to trust others, their sexual curiosity and their sometimes limited capacities to critically analyse potentially harmful situations, foresee consequences and take a course of protective action (WHO 2011a:22).

Many health risk behaviours are established during adolescence, and often maintained into adulthood, affecting health and wellbeing in later life. In the United Kingdom (UK), the major problematic risk behaviours among young people include tobacco, alcohol and illicit drug use and sexual risk behaviour. Although some behaviours, such as smoking, have declined among young people in the UK over the past 10–20 years, health survey data indicate that the levels of most risk behaviours are still high, especially compared with other high-income countries (UNICEF 2007:7).

According to the National Research Council and Institute of Medicine, in the U. today, "Most adolescents are thriving, but many engage in risky behaviour, develop unhealthy habits, and experience physical and mental health conditions that can jeopardise their immediate health and contribute to poor health in adulthood (Conklin 2012:6).

Youth aged between 10 to 24 years comprise nearly one-third of Jamaica's total population of over 2.6 million. Early sexual activity, combined with a lack of relevant information, services, and skills to avoid risky situations, place Jamaican youth at risk of unintended pregnancies, sexually transmitted infections (STIs) including HIV, and other threats to their sexual and reproductive health. Violence (including physical and sexual abuse) and substance abuse are also a part of many young people's lives (Whitesell, Bachand, Peel & Brown 2013:5).

Sexual coercion may also be more common when adolescent girls are approached by men older than themselves. In a recent South African study, adolescent girls were asked if they had had sex willingly, or through persuasion, trickery, force or rape. Among a group of almost 800 adolescent girls, some 66% said sex had been undertaken willingly, 20% said they were persuaded, 4% tricked and 10% forced or raped. Those aged 10-12 at first sex were forced or raped by men some 9-11 years older than themselves, while those who had first sex at age 13 were forced by men 3-5 years older than themselves (Dehne & Reider 2005:28).

In Ethiopia, over 65% of the population is under 25 years of age. Ethiopia is a nation whose youth have profound reproductive health needs and are disadvantaged in their access to sexual and reproductive health information and services (Setgn, Abile & Melku 2013:184-188).

According to Helpdesk Report on Adolescent Reproductive Health in Ethiopia (2011): Sexual health is a major issue for young people in Ethiopia despite decades of health campaigns. Rates of new HIV infections are starting to fall, but still as many as 8% of people are living with the disease in urban areas. Teenage pregnancy is widespread: more than half of girls have had two babies by the age of 18 (Setegn, Abulie & Melku 2013:185). "*There are so many misconceptions about sex in Ethiopia,*" says Elsabet Samuel, producer of the *Abugida* show. "*I recently met a girl who was beaten by her parents because she started menstruating. They thought it meant that she had started having sex.*"

Risky sexual behaviours that might be practiced by adolescents are due to low awareness and/or low knowledge. Discussants affirmed that those who have lack of awareness and/or low knowledge about sexual and reproductive health related issues

are highly likely to face sexual and reproductive health problems easily. Lack of assertiveness, practicing unsafe sex, having multiple sexual partners and ever increasing trend of substance use are apparent risks of sexual and reproductive health problems (Setegn et al 2013:187).

2.5 ADOLESCENT SEXUAL RISK PRACTICES

Risky sexual behaviour is any behaviour that increases the probability of negative consequences associated with sexual contact, including HIV/AIDS or other sexually transmitted diseases (STDs), abortion and unplanned pregnancy (Kassa et al 2013:298). It also includes behaviours like, having multiple partners, having risky casual or unknown sexual partners, early sexual initiation and failure to discuss risk topics prior to intercourse and failure to take protective actions, such as use of condoms and birth control (Kassa et al 2013:297).

Young people's behaviours are influenced at the individual, peer, family, school, community, and societal levels. Because many sectors of society contribute to adolescent health, safety, and well-being, a collaborative effort that engages multiple partners is necessary. Such joint efforts can also help to promote a more comprehensive approach in addressing adolescent health — one that views each adolescent as a whole person, recognising and drawing upon his or her assets and not just focusing on risks (Kotchick, Shaffer & Forehand 2012:495).

Adolescents face many sexual and reproductive health risks, stemming from early, unprotected, or unwanted sexual activity. Key factors underlying such risks are lack of accessible, affordable, and appropriate contraception services and the absence of sexuality research that support the development of evidence-based interventions to improve sexual and reproductive health worldwide (WHO 2012:2).

Increasingly, adolescents wait way past the age of maturity to engage in sex. In United States of America, teen age pregnancy and birth rates have drastically reduced. Still, almost half of all high school students reported that they had had sexual intercourse in 2013 (Kotchick et al 2012:493) and three in ten adolescent females will become pregnant before turning 20 (CDC 2013:15).

Study conducted among 4,653 boys and 4,687 girls with a mean age of 15 years in Catalonia, Spain indicates that a total of 38.7% of students had had sexual relations at least once and 82.3% of boys and 63.0% of girls were engaged in sexual risk behaviours. The prevalence of sexual relations and risk behaviours was generally higher in boys than in girls (Puento, Zabaleta, Blanco, Cabans, Monteagudo & Mercader 2011:13-19). Boys had more sexual partners ($P<.001$) and used condoms as a contraceptive method less frequently than girls ($P<.001$) (Puento et al 2011:13-19).

The majority of adolescents aged 15 to 19 years in Canada and the United States (US) report having had sexual intercourse at least once. In addition, 23.9% and 45.5% of adolescent females from Canada and the United States, respectively, report having had 2 or more sexual partners in the past year. Likewise, 32.1% of Canadian males in this age group report having had 2 or more partners, while 50.8% of American males report the same (*Topics in Advanced Practice Nursing Journal* 2004:4). Another study done on adolescent sexual health and behaviour in United State of America indicates that widespread concerns about adolescents' exposure to sexually explicit images sent by Smart phone or internet – commonly known as “sexing” – appear to be based on exaggerated reports. A national survey of 1,560 minors aged 10-17 revealed that roughly 7 percent had received “nude or nearly nude” pictures or videos, and only about 2 percent had appeared in or created such images. Females were more likely to create or appear in such images, and over half of such images were generated between senders and recipients as part of a romantic relationship (Conklin 2012:2).

In Mwanza, United Republic of Tanzania, approximately 50% of both male and female primary school children aged 12 years and over who had “ever had sex” said their first act was vaginal sex; 10% anal sex; and 40% oral sex (WHO 2011a:23). In the National Survey of Family Growth in the US, 54% of 15–19-year-old females and 55% of boys had ever had oral sex and 10% had ever had anal sex. These activities tended to follow rather than precede first coitus (WHO 2011a:23).

A number of studies have also highlighted persistent patterns of sexual harassment, manipulation and coercion of both male and (more commonly) female students by teachers, as well as by other students (Mirsky 2003:16-25). In Mwanza, the United Republic of Tanzania, for example, 9% of sexually active primary school girls aged 12 years and over and 3% of sexually active boys reported having being forced by a

teacher to have sexual intercourse, while 36% of sexually active girls and 14% of boys said they had been forced by their peers to have sexual intercourse (Matasha et al 1998). In Benin City, Nigeria, young people in focus groups said that girls commonly started having intercourse at 11–13 years compared with 14–15 years. In a Caribbean survey, about 40% of all male students aged 10–18 years and 9% of females said they were 12 years or younger when they first had sexual intercourse (WHO 2011a:24).

Study conducted in Tanzania among unmarried adolescents revealed that, about 32% of adolescents reported being sexually active; a higher proportion being males than females. The only inquired and reported sexual practices include vaginal sex, masturbation, oral and anal sex. About 15% of sexually active adolescents reported having multiple sexual partners (Kazaura & Masatu 2009:1).

In KwaZulu-Natal, South Africa, 14% of girls who first had sexual intercourse at 14 years or younger used a method of pregnancy prevention at first sexual intercourse and 10% a method of STI/HIV prevention; the use of such methods rose by single years of age to 48% and 46%, respectively, for girls who first had sexual intercourse when they were aged 19 years (Manzini 2001:27). Condom use at most recent sexual intercourse among 13–15-year-old boys in the WHO student health surveys ranges from 21% in northwest Namibia to 88% in Uruguay. DHS tabulations of sexually active unmarried 15–19 year olds in 12 sub-Saharan African countries show 4–50% of boys using a condom at first sexual intercourse and 16–61% at most recent sexual intercourse, compared with 1 – 28% at first sexual intercourse and 7–50% at most recent sexual intercourse among girls (WHO 2011a:25).

Young women are less likely than young men to engage in high-risk sexual behaviours (Khan & Mishra 2008:16). In Sub-Saharan Africa, among young men who had ever had sexual intercourse, more than 20% of them had had multiple partners in the past 12 months, compared with fewer than 10% of young women (Khan & Mishra 2008:18). Although data are more limited for Latin America, 5% of women or fewer report multiple partners except in Colombia, where 8% of women report multiple partners in the past year. In contrast, 19% of Guyanese men, and more than 30% of Bolivian and Dominican men, report multiple partners (Khan & Mishra 2008:19).

Adolescent girls and boys are less likely to report use of protection during sex (Blanc & Way 1998; Awusabo-Asare et al 2006; Guiella & Woog 2006; Munthali et al 2008; Neema et al 2006). In a nationally representative sample of 12–14 year olds in Ghana, for example, 0% of sexually active boys and 6% of girls currently aged 12–14 years used a condom at first sexual intercourse, compared with 15% and 24% of those aged 15–19 years; at most recent sexual intercourse, one-fifth of younger boys and girls and one-third of the older cohort used protection (Karim et al 2003:23).

Study conducted in Dares Salaam, Tanzania among 304 youths 18 to 25 years of age attending STI clinic indicates that 93.2% of male youth reported more than one sexual lifetime partner compared to 63.0% of the females. Only 50% of males compared to 43% of females had ever used a condom and fewer than 8.3% of female youth used other contraceptive methods. 27.1% of pregnancies were unplanned and 60% of abortions were induced. 42.0% of female youth had received gifts/money for sexual favours. The HIV prevalence was 15.3% and 7.5% for females and males respectively. Among male youth, use of alcohol or illicit drugs was associated with increased risk of HIV infection (Urassa, Moshiro, Chalamila, Mhalu & Sandstrom 2008:8, 159).

A study done among Mada Walabu University students in Ethiopia revealed that, risk behaviours were identified as themes of sexual and reproductive health problems that prevailed in the university community. Such risky behaviours included substance use /alcohol consumption, multiple sexual partners, early sexual initiation, etc), low awareness/knowledge, STIs/HIV infection, unwanted pregnancy/abortion and gender based violence/sexual harassment (Setegn, Abulie & Melku 2013:3).

Other studies (Shiferaw Getahun & Asres 2014:2) conducted among high school adolescents in Ethiopia revealed that two hundred sixty two (38.1%) students believed that it is normal and acceptable to have sexual feeling during adolescence. Majority of the respondents 607 (88.2%) believe sexual intercourse should be delayed till marriage. However; 118 (17.2%) of the respondents had premarital sex. Engaging in sexual activity before marriage was reported by 87 (25.4%) male respondents compared to 31 (9%) female respondents. The mean age of sexual commencement was 15.2 ± 3 SD and the median was 16 years old (Shiferaw et al 2014:2).

On the other hand, a study done among 3543 school adolescents in Addis Ababa in Ethiopia revealed that 377 (10.6%) of the study participants were involved in risky sexual behaviour in the past 12 months (Cherie & Berhane 2012:2). A total of 574 (79.4%) of the sexually active students had reported that they have been sexually active in the 12 months preceding the survey, 262 (45.6%) had sex with more than one sexual partner, 319 (55.6%) did not use a condom consistently and 118 (20.6%) were involved in sex at the exchange of money (Cherie & Berhane 2012:2-6).

According to the study result of 273 randomly selected preparatory students of Jimma zone in Ethiopia, one hundred and fifteen (42.1%) students had sexual risk behaviour. Thirty six (30.8%) student's reports they had two or more sexual partners in their lifetime and out of 117 students, 13 (11.2%) students used condom always. One hundred one (37%) students were consumed alcohol. Higher likelihood of risky sexual behaviour significantly associated with higher levels of alcohol consumption and low frequency of religious visit (Kassa et al 2013:298).

A similar study done among Ambo High School adolescents in Ethiopia indicates that among sexually active respondents, 29 (16.5%) male students reported experiencing sexual intercourse with female commercial sex workers. From 29 students who had sexual intercourse with commercial sex workers only 8 (27.6%) reported consistent condom use and 13 (44.8%) never used condom during sex with commercial sex workers (Bane 2006:13). Another study conducted in Ambo University in Ethiopia among 650 female students revealed that thirty one (18.6%), of the study respondents claimed to have started sexual relations before the age of 15 years and from the total of 167 sexually active respondents only 5 (3%) reported history of using condom consistently (Abdisa 2012:9). All these studies were carried out in urban areas. The current study compared both the urban and the rural schools.

2.6 ADOLESCENT PREGNANCY AND ITS CONSEQUENCES

About 16 million adolescent girls between 15 and 19 years of age give birth each year. Babies born to adolescent mothers account for approximately 11% of all births worldwide, with 95% occurring in developing countries (Valdez 2012:19). An estimated 16 million adolescents aged 15–19 give birth each year (Valdez 2012:23). Complications from pregnancy and childbirth are the leading cause of death in girls aged 15-19 in Low

and Middle Income Countries (LMIC) where almost all of the estimated 3 million unsafe abortions occur. Prenatal deaths are significantly higher among babies born to adolescent mothers than those born to mothers aged 20–29 years, as are other problems such as low birth weight (Chandra-Mouli, Camacho & Michaud 2013:517).

In 2012, just over 305, 500 babies were born to adolescents girls between the age of 15 and 19. Child bearing during adolescence negatively affects their parenting, their children, and society compared with their peers who delay child bearing (US Department of Health and Human Sciences 2015). In 2013, just over 273,000 babies were born to adolescent girls between the ages of 15 and 19. Childbearing during adolescence negatively affects the parents, their children, and society (Hamilton, Martin, Osterman & Curtin 2015:6). Because a substantial proportion of adolescent pregnancies are unwanted, many end in abortions – often unsafe abortions. An estimated 3 million unsafe abortions occur globally every year among adolescent girls aged 15–19 years (Ahman & Shah 2011:121-126).

Adolescent pregnancy contributes to maternal, prenatal and infant mortality, and to a vicious cycle of poverty and ill-health. Reducing adolescent pregnancy is vital for achieving the Millennium Development Goals that relate to childhood and maternal mortality, and to the overall goal of poverty reduction. National reproductive health policies of a growing number of countries have identified tackling adolescent pregnancy as a priority. However, the approaches adopted are in many cases not as comprehensive as they should be and often not based on sound evidence (Valdez 2012:24).

For some of the young women, pregnancy and childbirth are planned and wanted, but for many others they are not (WHO 2011b:22). The adverse effects of adolescent childbearing also extend to the health of their infants. Unwanted /unplanned pregnancy followed by unsafe abortion is one of the major worldwide health problems, which has many consequences on the health and well-being of adolescents (EPHA 2011:18).

Among the 21 countries with complete statistics, the pregnancy rate among 15- to 19-year olds was the highest in the United States (57 pregnancies per 1,000 females) and the lowest rate was in Switzerland. Rates were higher in some former Soviet countries with incomplete statistics; they were the highest in Mexico and Sub-Saharan African

countries with available information. Among countries with reliable evidence, the highest rate among 10- to 14-year olds was in Hungary. The proportion of teen pregnancies that ended in abortion ranged from 17% in Slovakia to 69% in Sweden (Sedgh, Finer, Bankole, Elires & Singh 2015:223-230).

About 90 percent of adolescent births (12.8 million) occur each year in developing countries. In sub-Saharan Africa and southern Asia, 28 to 29 percent of women give birth by age 18 (Graczyk 2007:1).

An estimated 2.0–4.4 million adolescents in developing countries undergo unsafe abortions each year. Additionally, adolescent mothers are more likely to have low birth weight babies who are at risk of malnourishment and poor development. Infant and child mortality is also highest among children born to adolescent mothers (WHO 2011b:12). Parenting at any age can be challenging, but it can be particularly difficult for adolescent parents.

Compared with their peers who delay childbearing, teen girls who have babies are: Less likely to finish high school; more likely to rely on public assistance; more likely to be poor as adults; and more likely to have children who have poorer educational, behavioural, and health outcomes over the course of their lives than do children born to older parents. This findings show the magnitude of the sexual risky behaviours and its consequences in life (Hoffman & Maynard 2008:2).

An estimated 2.0–4.4 million adolescents in developing countries undergo unsafe abortions each year. Additionally, adolescent mothers are more likely to have low birth weight babies who are at risk of malnourishment and poor development (WHO 2011b:2).

The good news is that adolescents' birth rates in the United States have declined almost continuously since the early 1990s including a six percent drop from 2011 to 2012 further decreasing from 2011's historic lows. Between 1991 and 2012, the adolescents birth rate decreased by more than half in the United States (from 61.8 to 29.4 per 1,000 teens). Despite this decline, the US adolescents' birth rate is still higher than that of many other developed countries, including Canada and the United Kingdom (US Department of Health and Human Sciences 2015:15).

Each year, at least two million young women in developing countries undergo unsafe abortion. Unsafe abortion can have devastating consequences, including cervical tearing, perforated uterus, haemorrhage, chronic pelvic infection, infertility, and death (Graczyk 2007:2). The proportion of women aged 15–19 years in Africa who have had an unsafe abortion is higher than in any other region; almost 60% of unsafe abortions in Africa are among women aged less than 25 years and almost 80% are among women below age 30 (Graczyk 2007:2).

Over one third (37%) of Kenyan adolescents aged 15–19 years have engaged in sex, and by age 19, 36% of the girls have given birth according to the 2008–2009 Kenya Demographic and Health Survey (KDHS 2008-2009). In over half of first pregnancies, the mother is unmarried, and those pregnancies are 2.4 times more likely to be reported as unintended, compared with repeat pregnancies (KDHS 2008-2009). In Ethiopia about 25,000 women die every year due to pregnancy and child birth complications, and abortion is estimated to account for about 32% of these deaths (Kassa et al 2013:298).

Unsafe abortion is one of the leading causes of maternal morbidity and mortality in Ethiopia and nearly one third of pregnancy related deaths are caused by the complications of unsafe abortion (Human Development Resource Centre: HDRC & UK Aid 2011:15). Studies done in Ethiopia have shown that unsafe illegal abortion is most prevalent among single women, teenagers, students, and factory workers and this trend clearly demonstrates that the country still lags behind in delivering family planning services due to infrastructural and policy constraints that impede effective service delivery (Human Development Resource Centre: HDRC & UK Aid 2011:16).

Data obtained from the study done among female adolescents in Ethiopia shows that, of the 3,266 adolescent women, 443 (13.6%) had given birth at least once prior to the study and 133 (4.1%) were pregnant and of the 443 adolescents who had at least given birth, the majority (72.7%) had one child while about a quarter (23.2%) had 2 live births and the rest 1.0% gave four live births with a mean number of child ever born of 1.33 ± 0.6 (Yesus & Fentahun 2010:84).

In Ethiopia childbearing begins at an early age, 45% of the total births in the country occur among adolescent girls and young women, 60% of adolescent pregnancies are unwanted or unintended and participants who did not found it easy to discuss about

important matters with their parent were more likely to initiate sex-earlier (Shiferaw et al 2014:16).

A study conducted among Adama university female undergraduate students in Ethiopia revealed that 63 (9.4%) had history of pregnancy and 49 (7.4%) had history of abortion (EPHA 2011:19). Other study done among Ambo University students in Ethiopia revealed that twenty-eight (16.8%) of sexually active respondents got pregnant at least once prior to the study period out of which 15 (53.6%) reported history of abortion (Abdisa 2012:9). Another study done among high school adolescents in Ethiopia indicated that from the total female students who have already experienced sexual intercourse, 18 (30.5%) have got pregnant at least once prior to the study, out of which 12 (66.7%) reported history of abortion. Whereas, male students who had already experienced sexual intercourse, 23 (24.4%) have impregnated at least once prior to this study (Bane 2006:30).

2.7 SEXUALLY TRANSMITTED INFECTIONS (STIs)

Sexually transmitted infections (STIs) are infections that are spread primarily through person-to-person sexual contact. There are more than 30 different sexually transmissible bacteria, viruses and parasites. The most common conditions they cause are gonorrhoea, chlamydial infection, syphilis, trichomoniasis, chancroid, genital herpes, genital warts, HIV infection and hepatitis B infection. Some of these infections, particularly HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth, and through blood products and tissue transfer (WHO 2015).

Globally, rates of sexually transmitted infections among young people are soaring: one-third of the 340 million new STIs each year occur in people under 25 years of age. Each year, more than one in every 20 adolescents contracts a curable STI. More than half of all new human immunodeficiency virus (HIV) infections occur in people between the ages of 15 and 24 years (Shiferaw et al 2014:11-22).

STIs in general, and among adolescents in particular, are of paramount concern to all people who work on improving the health status of populations. Worldwide the highest reported rates of STIs are found among people between 15 and 24 years; up to 60% of

the new infections and half of all people living with HIV globally are in this age group (Dehne & Riedner 2005:10).

Adolescents aged 15-24 years account for nearly half of the 20 million new cases of STD's each year. Today, four in 10 sexually active teen girls have had an STD that can cause infertility and even death. Although rates of HIV are very low among adolescents, males make up more than two-thirds of HIV diagnoses among 13- to 19-year-olds (Forhan, Gottlieb, Sternber, Datta & Quillan et al 2009:1505).

While STDs affect individuals of all ages, STDs take a particularly heavy toll on young people. Centre for Disease Control (CDC) estimates that youth aged 15–24 make up just over one quarter of the sexually active population, but account for half of the 20 million new sexually transmitted infections that occur in the United States each year (CDC 2013).

Epidemiological evidence is very limited on the prevalence of various STIs and HIV in adolescent populations in the developing world, and virtually non-existent for boys and girls aged under 15 years (Dehne & Riedner 2005:113-116). Much of what is known comes from clinic-based samples of young women in sub-Saharan Africa: among 14–22-year-old women (not disaggregated by age) receiving antenatal care in Bangui, the Central African Republic, for example, 34% had at least one STI (gonorrhoea, chlamydia, trichomonas, syphilis, bacterial vaginosis or candida) and 12% were also HIV positive (WHO 2011c:26).

In Sub-Saharan Africa many young adolescents do not know how to protect themselves and their partners against HIV/AIDS and other STDs. For instance, despite that AIDS awareness is relatively high among youth in Ethiopia, one in four young women and more than one in ten young men have not heard of AIDS or know whether AIDS can be avoided. While 45% of young women are aware that using a condom in every intercourse prevents HIV, only 2 percent of them report having used condom at last intercourse (Shiferaw et al 2014:12).

In a household survey in Kisumu, Kenya (where about half of males and females had initiated sex before the age of 15 years), 4% of 15–19-year-old boys and 27% of girls in the same age group tested HIV positive; in Ndola, Zambia (where about one third had

sexual intercourse before 15 years), 3% of boys and 21% of girls were HIV positive (WHO 2011c:26).

A study conducted among high school adolescents in Ethiopia indicates that about 16 (10.12%) of the sexually active respondents were reported history of sign/or symptoms of STIs. The proportion of reported STIs was higher in males 10 (62.5%) than in females 6 (37.5%) (Bane 2006:38).

Another study conducted in Ethiopia reported that the vast majority of Ethiopians, more than nine in ten, have never been tested for HIV. The proportion of young women aged 15–24 who have been tested and who have received results is somewhat higher than that of older women age 25–49 (Moore, Govvindasamy, DaVanza, Bizuneh & Themme 2008:99).

Similarly another study conducted among university students in Ethiopia reported that 75 (11.5%) of the sexually active respondents reported to have sign and symptoms of sexually diseases (Abdisa 2012:9).

2.8 CONTRACEPTIVE UTILISATION

According to United Nations Population Fund (UNFPA) (2003), family planning services are defined as the right of all couples and individual to decide freely and responsibly the number and spacing of their children and to have the information and means to do so. Indeed, family planning services (FPS) are regarded as a basic human right to attain the highest standard of sexual and reproductive health, free of discrimination, coercion and violence (UNFPA 2003).

Globally, family planning services are an essential element of reproductive health care and have saved the lives and protected the health of millions of women and children (UNFPA 2003). However, family planning services are facing a complicated process, entangled in social, political, moral and cultural network in many African countries (Richey 2008). An estimated 14 million adolescents give birth globally each year and more than 90% of these live births occur in developing countries and adolescents in the Sub-Saharan Africa region have low family planning utilisation rates and limited knowledge of reproductive health (RH) services (WHO 2012:3).

Adolescents who are married, or in a formal union, need contraceptive services, because early pregnancy is associated with increased maternal and neonatal morbidity and mortality. Sexually active adolescents who are not in a formal union also have a need for contraceptives, which is likely to be unmet and often goes unmeasured and unacknowledged. Moreover, substantial numbers of adolescents experience coercive sexual intercourse, or are forced into transactional sexual intercourse, with limited opportunities to protect themselves (WHO 2012:23).

Worldwide, over 200 million women have no access to modern, effective contraception. In the developing world, lack of access to family planning results in some 76 million unintended pregnancies each year (Graczyk 2007:2).

Among unmarried sexually active adolescents in Sub-Saharan Africa, contraceptive use ranges from as low as 3% in Rwanda to as high as 56% in Burkina Faso. Unmet need for contraception, or non-use of methods despite the desire to limit births or delay them for at least two years, is high among unmarried adolescents in Sub-Saharan Africa (more than 40% in most countries). In comparison, 10–31% of unmarried adolescents in Latin America are considered to have unmet need (Khan & Mishra 2008:19).

Modern contraceptive use has increased but remains low among sexually active young women in many developing countries. For example in Haiti, 33% of single sexually active young women and 9% percent of their married peers used a modern method of contraception and among sexually active female Nigerian High School students, 47% used the rhythm method of contraception; 21 percent, oral contraceptive pills; and six percent, condoms (Graczyk 2007:1).

Condom use at most recent sexual intercourse among 13–15-year-old boys in the WHO student health surveys ranges from 21% in northwest Namibia to 88% in Uruguay, DHS tabulations of sexually active unmarried 15–19 year olds in 12 sub-Saharan African countries show 4–50% of boys using a condom at first sexual intercourse and 16–61% at most recent sexual intercourse, compared with 1–28% at first sexual intercourse and 7–50% at most recent sexual intercourse among girls. (WHO 2011c:25)

In Kenya, although contraceptive prevalence rate of modern method is 39% for married women 15–49 years, contraceptive use among women 20–24 is only 23.6% and 4.9% for all women 15–19-years-old (KNBS et al 2010:3). Ethiopia is among the sub-Saharan African countries with the highest total fertility rate at 4.8 births per woman (EDHS 2011). Moreover, high percentage of adolescent are sexually active and practice unsafe sex, consequently , the majority of them are highly vulnerable to sexual and reproductive health problems that include unwanted pregnancy, early child bearing , complications of unsafe abortions, and sexually transmitted infections, including HIV/AIDS (EDHS 2011).

A study conducted in Ethiopia revealed that Contraceptive knowledge increased markedly between 2000 to 2005 among youth, especially among those age 15–19 but, over three quarters of sexually experienced women aged 15–24 have never used a contraceptive method (Moore et al 2008:47). Young respondents aged 15-19 are generally less knowledgeable about contraception than are respondents aged 20 or older (Moore et al 2008:48).

According to the 2011 Ethiopian Demographic and Health Survey, contraceptive use among currently married women of 15–19 years of age was only 23%, with 0% utilisation of permanent methods, 1.6% and 2.5% utilisation of implants and IUD, respectively. Contraceptive use was lower when compared with other age groups.

A study conducted among Adama university female undergraduate students in Ethiopia indicates that about 628 (95.2%) have knowledge about regular modern contraceptives and only 67 (10.2%) had used modern contraceptive methods. On the other hand 309 (46.8%) of the students had heard about emergency contraceptives and only 31 (4.7%) had used emergency contraceptive (EPHA 2011:19).

Data from the National Survey of Family Growth in Ethiopia showed that 37% of teenagers aged 15 to 19 used condoms for contraception. Condoms are the second most commonly used contraceptive in this age group, Condom failure is usually caused by breakage (up to 6.7% of failures) and slippage (up to 6.4%). Oral contraceptives are the most common method of contraception used by adolescents, 44% of sexually active teenagers aged between 15 and 19 years use them.

2.9 MATERNAL MORBIDITY AND MORTALITY

Maternal death refers to the death of women during pregnancy, childbirth and the first 42 days of the postpartum period from any cause related to or aggravated by pregnancy (Berhan 2014).

Maternal mortality statistics underscore how societies have failed women, especially young women in developing countries. As many as 529,000 women die each year from complications of pregnancy and childbirth pregnancy is the leading cause of death for young women ages 15 through 19. The reproductive health of adolescent women depends on biological, social, and economic factors. Programs must provide education, family planning services, and pre- and postnatal care to reduce morbidity and mortality among young women (Kraczyk 2007).

Globally, there were an estimated 289 000 maternal deaths in 2013, a decline of 45% from, 1990. The sub-Saharan Africa region alone accounted for 62% (179 000) of global deaths followed by Southern Asia at 24% (69 000). At the country level, the two countries that accounted for one third of all global maternal deaths are India at 17% (50 000) and Nigeria at 14% (40 000). The global MMR in 2013 was 210 maternal deaths per 100 000 live births, down from 380 maternal deaths per 100 000 live births in 1990 (WHO 2014:1). More than 70% of all maternal deaths are due to five major complications: haemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labour. The majority of maternal deaths (61%) occur in the postpartum period, and more than half of these take place within a day of delivery (Abdella 2010:115-122).

Maternal mortality is unacceptably high globally. About 800 women die from pregnancy- or childbirth-related complications around the world every day. In 2013, 289 000 women died during and following pregnancy and childbirth. Almost all of these deaths occurred in low-resource settings, and most could have been prevented (WHO 2014:384). Infant and child mortality is also highest among children born to adolescent mothers (WHO 2011c:2).

The maternal mortality ratio in developing countries in 2013 was 230 per 100 000 live births versus 16 per 100 000 live births in developed countries. There are large

disparities between countries, with few countries having extremely high maternal mortality ratios around 1000 per 100 000 live births. There are also large disparities within countries, between women with high and low income and between women living in rural and urban areas (WHO 2014:384). Prenatal deaths are 50% higher among babies born to mothers under 20 years of age than among those born to mothers aged 20–29 years. Babies of adolescent mothers are also more likely to be of low birth weight, with the risk of associated long term effects (WHO 2011a:9).

Adolescents' maternal mortality and morbidity represent a substantial public health problem at the global level. Adolescents who are 15–19 years of age are twice as likely to die during pregnancy or child birth compared to women over 20 years of age. Adolescents under 15 years of age are five times more likely to die during pregnancy or child birth (WHO 2011a:12).

The risk of maternal mortality is highest for adolescent girls under 15 years of age and complications in pregnancy and childbirth are the leading cause of death among adolescent girls in most developing countries (Patton, Coffey, Sawyer, Viner, Haller, Bose, Vos, Ferguson & Mathers 2009:881).

Women in developing countries have on average many more pregnancies than women in developed countries, and their lifetime risk of death due to pregnancy is higher. A woman's lifetime risk of maternal death – the probability that a 15 year old woman will eventually die from a maternal cause is 1 in 3700 in developed countries, versus 1 in 160 in developing countries (WHO 2014:384).

Ethiopia is among the least-developed countries with multi-faceted maternal health problems, especially among the youth. Childbearing begins early in life, about 45% of total births in the country occurring among adolescent girls and young women) (Patton et al 2009:889). The Government of Ethiopia is committed to achieving Millennium Development Goal 5 (MDG5), to improve maternal health, with a target of reducing the maternal mortality ratio (MMR) by three-quarters over the period 1990 to 2015. Accordingly, the FMOH has applied multi-pronged approaches to reducing maternal and new-born morbidity and mortality. Improving access to and strengthening facility-based maternal and new-born services is one such approach, and is also a Health Sector Development Plan (HSDP) strategic objective (FMOH 2011). The findings of the current

study will compare with the reviewed studies. The researcher hopes that the current study may bridge gaps identified in previous studies.

2.10 CONCLUSION

In this chapter different literatures and study findings related to adolescent sexual and reproductive health were reviewed. Study findings related to adolescent sexual and reproductive health at global, regional and country levels were sequentially presented in this chapter. Moreover; the level of ARH service utilisations and the extent of risky sexual practices in different countries including developed and developing countries were reviewed from study findings and included mainly to demonstrate the extent of the services and the problems as well as to be used for comparison with this study findings during the discussion component of the study chapter. Factors that facilitate and/or hinder adolescent sexual and reproductive health service utilisation and predispose them to risky sexual practices were reviewed from literatures and included in the chapter.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

The purpose of this chapter is to provide a comprehensive description of the research design and the methods used to achieve the purpose and objectives of the study and answer the research questions.

3.2 RESEARCH DESIGN

According to Bowling (2009:158), research design refers to the overall structure of how the researcher intends conducting the research and focuses on the logic of research. The research design is a blueprint for maximising control over factors that could interfere with the study's outcomes. The type of design directs the selection of the population, sampling procedures, methods of measurement, and a plan for data collection and data analysis.

The research design guides the researcher in planning and implementing the study in a way that will most likely achieve the intended goals. This control increases the probability that the study results are accurate reflections of reality. A good design strengthens the study such that it can effectively contribute to the evidence base for practice. The research design must therefore be appropriate to the purpose of the study, feasible given realistic constraints and effective in reducing threats to validity (Burns & Grove 2009:218, 226). A cross-sectional comparative school-based design using quantitative and qualitative methods was adopted in order to describe and compare risks of sexual practices among urban and rural in-school adolescents attending Ambo and Meti High Schools in Ethiopia.

3.2.1 Quantitative research

Burns and Grove (2009:42-59) define quantitative research as the process that involves conceptualising a research project, planning and implementing that project, and communicating the findings. This process involves identifying research problem,

purpose of the study, development of a study framework and objectives. Creswell, Klassen, Plano-Clark & Clegg-Smith (2010:4) define quantitative research as a method of inquiry often used for deductive research, where the goal is to test theories or hypotheses, gather descriptive information, or examine relationships among variables. These variables are measured and yield numeric data that can be analysed statistically. Quantitative data have the potential to provide measurable evidence; help to establish (probable) cause and effect; create the possibility of replication and generalisation to a population; facilitate the comparison of groups, and provide insight into a breadth of experiences.

Just like qualitative research, quantitative research may also be viewed as exploratory although it does so through measurement of variables and statistical analysis. This approach it is argued can be limiting in exploring and explaining reasons why a particular phenomenon occurs which however can be easily achieved in qualitative research.

3.2.2 Qualitative research

The qualitative methodology shares its philosophical foundation with the interpretive paradigm which supports the view that there are many truths and multiple realities (Burns & Grove 2009:257). Additionally, the interpretive paradigm is associated more with methodological approaches that provide an opportunity for the voice, concerns and practices of research participants to be heard (Cole 2006:26). Cole further argues that qualitative researchers are “more concerned about uncovering knowledge about how people feel and think in the circumstances in which they find themselves, than making judgments about whether those thoughts and feelings are valid” (Cole 2006:26).

The qualitative approach to data collection is viewed to be one of the most reliable research methods in studying health service and its delivery (Parahoo 2006:63). Parahoo further highlights that qualitative research has a distinctive feature of exploration which is necessary in providing in-depth understanding of people’s perceptions, emotions, intentions, behaviour and experience. Qualitative research uses interactive, inductive and flexible ways of data collection and analysis (Parahoo 2006:63).

3.2.3 Mixed method research

Mixed methods approach begins with the assumption that investigators in seeking to understand the health and social world, gather evidence based on the nature of the question and theoretical orientation (Cresswell 2008). Social inquiry is targeted toward various sources and many levels that influence a given problem (such as, policies, organisations, family, and individual). Quantitative (mainly deductive) methods are ideal for measuring pervasiveness of "known" phenomena and central patterns of association, including inferences of causality (Pasick, Burke, Barker, Galen, Bird & Otero-Sabogal et al 2009:13S). Qualitative (mainly inductive) methods allow for identification of previously unknown processes, explanations of why and how phenomena occur, and the range of their effects (Pasick et al 2009:11S). Mixed methods research, then, is more than simply collecting qualitative data from interviews, or collecting multiple forms of qualitative evidence such as, observations and interviews or multiple types of quantitative evidence (for instance, surveys and diagnostic tests). Mixed methods involve the intentional collection of both quantitative and qualitative data and the combination of the strengths of each to answer research questions.

In mixed methods studies, investigators intentionally integrate or combine the quantitative and qualitative data rather than keeping them separate. The basic concept is that integration leads to maximising the strengths of the quantitative and qualitative data and minimising their weaknesses (Creswell & Clark 2007:16). The choice on which mixed methods to use depends on factors such as the nature of the study, availability of study participants, financial and other resources. According to Johnson Christensen (2012:234), mixed methods allows for the study of multiple perspectives, conditions, contexts and factors as they interact. Mixed methods approach can also be expensive and time consuming as the researcher seeks to solicit views from many sources. However, mixed methods can be quite comprehensive and provide complementary outcomes because the different approaches (qualitative and quantitative) have different strengths and weakness as stated by Johnson and Christensen (2012:233) and Parahoo (2006:89). The authors report that by using mixed methods, the probability of missing out on important and relevant findings due to method limitations is reduced.

3.3 RESEARCH METHOD

In this section, the research methods that were used to conduct the study were described. These included the study setting and period, population, sampling, data collection and analysis, external validity and ethical consideration of the study. Thus research methods are procedures and strategies that were used in a study to collect, analyse and interpret data (Holloway & Wheeler 2010:293).

3.3.1 Setting

The study was conducted in the Ambo district and Ambo town of Ethiopia. The actual setting was the two Meti high schools, one in the rural area in the Ambo district and one in the urban area in Ambo Town. The Ambo Town is located in the central part of Ethiopia in the Oromia National Regional State, Ambo Wereda 114 km from the capital Addis Ababa. In the 2007 census in Ethiopia Ambo district had a population of 94 342 people of which 25% were adolescents aged 15-24 years (Population Census of Ethiopia 2012).

3.3.2 Population

Burns and Grove (2009:42) state that a population is all the elements (individuals, objects or substances) that meet certain criteria for inclusion in a given universe. The site population for this study was all high schools in the zone.

3.3.2.1 Sample

The target sample of this study were all school going adolescents aged 15-19 years in one urban and one rural high school of Ambo district and Ambo town administration.

3.3.2.1.1 Sampling method

Johnson and Christensen (2012:197) define sampling as a process of drawing study subjects from the population. Sampling allows the researcher to study the characteristics of a sub set of the larger population to understand the characteristics of the entire population. Provided that the researcher selects a representative sample and

that the findings obtained through the sample can be generalised to the population (LoBiondo-Wood & Haber 2005:242).

There are two types of sampling that are used in research, probability and non-probability sampling. In probability sampling sample elements are automatically selected by some scheme under where a particular constituent of that particular sample in the specified population has a known probability of being selected. This approach uses some form of random selection when choosing the sample units (Basavanthappa 2007:195). Careful sample selection using one of the methods of probability sampling enhances the likelihood of a representative sample.

Non-probability sampling techniques are those where items or people being sampled do not have a known probability of being selected. The sample elements are arbitrarily selected by the sampler because in their judgment the elements thus chosen will most effectively represent the population. Here elements are chosen by non-random methods. Essentially there is no way of ensuring that every element has a chance for inclusion in the non-probability sample (Burns & Grove 2011:385).

However, all forms of non-probability sampling suffer from the distinct and damaging disadvantage of inability to estimate sampling error which implies that the accuracy of the result or inaccuracy of the result obtained can never be determined (Handcock & Gile 2011:367).

3.3.2.1.2 Sampling frame

According to Burns and Grove (2009:348), a sampling frame is the list or quasi list of elements from which a probability sample is selected from. When drawing a random sample, the researcher must have a complete list of the sample population from which he wants to draw the sample. Burns and Grove (2009:348) state that for each person in the accessible population to have an opportunity to be selected as a sample, each population must be identified.

The list of all urban and rural high schools was obtained from the Zone education department. From this list, two high schools, one each of urban and rural set ups was

selected using the lottery method. Moreover, the list of school going adolescents in different sections and was identified and obtained from the selected high schools.

3.3.2.1.3 Sample size

Using a 95% confidence level of certainty ($\alpha=0.05$) as an assumption, the computed actual sample size for the study was calculated using the one sample proportion formula (Joubert & Ehrlich 2007:347). Eighty percent was the expected power ($1-\beta$) for the study because it could allow for generalisation of results. Also, at this level is the probability that a test will produce a significant difference at a given significance level if there was in fact a difference (Joubert & Ehrlich 2007:346).

The proportion of the expected prevalence of risk sexual practices was adopted from a similar study on other high school children in the country, where the proportion of the expected prevalence of risk sexual practices was estimated at 33.3% (Asirat 2009).

Accordingly, the required sample size, n , at confidence interval of 95% with 4% degree of precision will be calculated based on the formula,

$$n = \frac{(Z \cdot \alpha / 2)^2 P (1-p)}{d^2}$$

Where, p = (proportion of risk sexual practices from previous study), $d=0.04$ (assumed standard error)

+ 10% non- response rate

$$\text{Then, } n = \frac{(1.96)^2 \cdot 0.333 (1-0.333)}{(0.04)^2} = 449$$

Plus 10% nonresponsive rate=449+45=494

3.3.2.1.4 Sampling technique:

The qualitative and quantitative research was carried out concurrently (at the same time) and a selection of the respondents participated in both the quantitative and qualitative aspects of the study. According to Johnson and Christensen (2012:238), this approach is called “an identical concurrent sample relation criterion. Burns and Grove (2009:361) states that in quantitative research, the sample size must be large enough to identify relationships among variables or determines differences between groups and generalising the result. That means the findings can be applied to more than just the sample under study. The sampling criterion to allow generalisation power is the capacity of the study to detect difference or relationship that actually exists in the population (Burns & Grove 2009:357). A sample is usually much smaller in size than population; hence sampling can save time and money, staff and resources, at the same time helping provide more in-depth information and better quality data (Bowling 2009:196).

The two high schools in the zone (one urban and one rural) were selected by the lottery method. Multi-stage sampling technique was then employed to select the study units and probability proportionate to sample size (PPS) was also used to determine the sample proportion for each grade (grades 9-10). According to Van Dalen (1999:23), proportional sampling provides the researcher with a way of achieving greater representativeness in a sample of the population. Fifty percent of sections from each grade were identified using simple random sampling and by systematic random sampling study units were identified from the selected sections. In selecting participants for the focus group discussions, the list of male and female students from the total selected sections for the qualitative study was taken separately and then from this list, 36 female adolescents and 36 male adolescents were selected using systematic random sampling.

3.3.2.2 Inclusion criteria

Inclusion criteria refer to the set of conditions that must be met for a respondent to be included in the sample (Polit & Beck 2004:290). Determining the inclusion criteria is essential for the delineation of the study sample (Polit & Beck 2004:290). The inclusion criteria for this study were:

- Daytime school going adolescents
- Aged 15-19 years of age
- Doing grade 9-10
- Attending one of the government schools (Meti Schools)
- Willing to participate in the study.

The 15-19 age group was so chosen due to the fact that this age group's knowledge and attitudes are constantly changing as they mature (Griesel-Roux 2004:51). Government high schools were selected since they are the majority when compared to non-governmental high schools in the zonal administration.

3.3.2.3 Exclusion criteria

School going adolescents were excluded if they were:

- Night time students
- Seriously ill or absent at the time of data collection
- Unwilling to participate

3.4 DATA COLLECTION

The section will discuss the development of the research instrument and how it was pilot tested. According to Parahoo (2006:282), a research instrument is a tool used to collect data.

3.4.1 Development and testing of the data collection instrument

A self-developed questionnaire was used for data collection. This structured questionnaire was developed by the researcher after extensive review of relevant literature and consultation with experts in the field. The questionnaire was sent to the researcher's supervisors and experts in the area of sexual reproductive health for validation. After the questionnaire was found suitable, it was then given to an individual fluent in both English language and Afan Oromo language (Regional official language) for translation. The questionnaire was then translated back into English by another

individual who had the same language ability in order to ensure validity and reliability of the data collection instrument.

3.4.2 Pretesting of the questionnaire

Pre-testing of the questionnaire occurred a month before the actual data collection. The pretesting of the tool was done by the researcher and two research assistants. Pre-test of the questionnaire was carried out at Ginchi High School which is far from the study high schools but has similar socio-demographic characteristics to the study schools. The result of the pre-test was assessed and some changes were made accordingly in section C on reproductive questions, which were incorporated into the final questionnaire.

3.4.3 Validity

Validity, as stated by LoBiondo-wood and Haber (2005:314), refers to whether a measurement instrument accurately measures what it is supposed to measure. Validity also refers to the degree of closeness between a measurement and the true value of what is being measured. When an instrument is valid, it truly reflects the concept it is supposed to measure. To enhance validity of the questionnaire the following measures were adopted:

- Structured questionnaire were developed after comprehensive literature review to incorporate and appropriately measure important variables in the study.
- The researcher and supervisors closely examined the items in the questionnaire to ensure that they can accurately measure the intended variables.
- Respondents for this study were drawn from two high school adolescents located in urban and rural setups.
- Pre-testing of the questionnaire was carried out in other high schools which are far from the study high schools but with almost similar socio demographic characteristics.
- The results of the pre-test were incorporated into the final questionnaire.

3.4.4 Reliability

According to LoBiondo-Wood and Haber (2005:319), the reliability a research instrument is defined as the extent to which the instrument yields the same result on repeated measures. Reliability is therefore concerned with consistency, accuracy, precision, stability, equivalence and homogeneity. Consistency is achieved when all its sub sections measure the same and similar characteristics. For this study reliability was enhanced by the researcher doing the following:

- Training of research assistants. The training addressed the general objectives, method of data collection, content of questionnaire, general technique of interviewing; and more importantly, how to keep confidentiality and privacy of study respondents. These ensured that all research assistants were familiar with the study and were at the same level.
- The questionnaire was pre- tested before commencement of data collection.
- Data collection was through self-administered questionnaires which were facilitated by trained research assistants.

3.5 DATA COLLECTION TECHNIQUES

Data from the study respondents was collected using structured self-administered questionnaires. For data collection 12 nurses and teachers (excluding those teaching at the study schools) who had at least a first degree and an experience in data collection were selected as research assistants. Adequate training was given research assistants by the researcher. The training addressed the general objectives, method of data collection, the content of the questionnaire, general technique of interviewing; and more importantly, how to keep confidentiality and privacy.

The data collection process was led by the trained research assistants in the selected schools. The questionnaire was first explained to the respondents and those who gave consent to participate were given the questionnaire to complete. Those adolescents who required assistance in completing the questionnaire were assisted by the research assistants. Research assistants were also available to answer any questions and provide assistance to the respondents when needed.

3.5.1 Qualitative data collection

Four focus group discussions were held with adolescents aged 15-19 years. The four FGDs were grouped as girls and boys in both urban and rural schools. Participants in both schools were selected by purposive sampling. Thirty-six (36) participants participated in the FGDs conducted in each school and all of these participants had also completed the questionnaires. Annexure 5 list all the aspects covered in the FGDs.

3.5.2 Data quality control issues

To ensure the quality of data, one day training was given on how to best approach the study subjects, objectives of the study, the content of the questionnaire, selection of the study subjects and on issues related to communication on sexual and reproductive health. The researcher also discussed data quality controls with the research assistants, what to do and how to solve potential problems encountered during the data collection process.

3.6 DATA ANALYSIS

This section discusses data analysis process for both quantitative and qualitative data collected from the research instruments.

3.6.1 Quantitative data analysis

After data collection, responses were coded and captured onto a computer using EPI info version 3.5.1 statistical package. Data was checked for consistency and validated using 20% of randomly selected responses. Data was then exported to Statistical Package for Social Sciences (SPSS) version 19 for further analysis. The frequency distribution of dependent and independent variables were computed. Odds ratios were calculated to determine the strength of the associations of selected variables. Logistic regression was applied to control the effects of some variables on the outcome variables using SPSS software

3.6.2 Qualitative data analysis

The interview texts were analysed in several steps, starting with naïve reading and re-reading of the texts. The researcher followed the Bernard (1995:350) strategy that required repeated engagement with the data as a means to understand the adolescents' sexual risk behaviours. The following step included structural and detailed content analysis of the texts. Patterns and themes that emerged from the data were highlighted in different colours. The texts were divided into meaning units, statements that related to the same central meaning and objectives of the study and these statements were then written under a particular part of the identified theme (Lincoln & Guba 1985:171). The meanings units were condensed and abstracted and labeled with codes, which were compared for similarities and differences to develop categories for discussion.

3.7 ETHICAL CONSIDERATIONS

This section discusses the ethical principles followed in this study. The process of obtaining permission to conduct this study is also discussed.

3.7.1 Permission to conduct the study

Before data collection, ethical clearance was sought and granted by the Department of Health Studies at the University of South Africa (Annexure 1). Permission was also sought and granted by the Ethiopian Educational authority (Annexure 2 and Annexure 3). Participating schools also gave verbal permission to the researcher. Finally, the participants signed the consent forms (Annexure 4) before data was collected.

3.7.2 Informed consent

The researcher was obliged to provide prospective participants with sufficient information to make an informed decision to participate in the study (Brink & Wood 2007:231). According to Polit and Beck (2010:231), informed consent involves an agreement made by the participant to participate in the study after they have been informed about the purpose, benefits, risks and the process of data collection and confidentiality. Polit and Beck (2010:321) assert that informed consent is part of

autonomy as the participants are supposed to make informed choice without being coerced to participate in the study. In this study the purpose was explained in detail to the participants and an information leaflet was given to them a day prior to data collection. Those who agreed to participate signed the consent form (Annexure 4).

3.7.2.1 Freedom to with draw from the study

Based on the ethical principles of respect for persons; people should be treated as autonomous agent who have the freedom to make choices without any coercion. To be autonomous one must first be informed about the proposed study and be given time and space to choose to participate or decline. Participants have the right to withdraw from a study without penalty (LoBiondo-Wood & Haber 2005:273). In this study, participants were informed that they were free to with draw from the study any time without prejudice.

3.7.2.2 Confidentiality or anonymity of the participants

LoBiondo-Wood and Haber (2005:273) state that based on the principle of respect for people's anonymity exists when the participants' identity cannot be linked, even by the researcher to the participant's individual responses. Confidentiality means that individual identities of participants will not be publicly divulged. With regard to this study, respondents did not write their names on the questionnaire, participants' names were not used when reporting findings and data was analysed as group data so that individuals could not be identified by their responses.

3.7.2.3 Deception

When presenting information it is essential for participants to understand that the research has no personal benefit to them but that their participation will add to information that might assist others in future. In this study participants were told that the study would not have any direct benefit to them but might assist other adolescents in future.

3.8 TRUSTWORTHINESS

Lincoln and Guba (1985:300) describe trustworthiness as the value, applicability, neutrality and consistency of an inquiry. It is essential for the study to have trustworthiness established so as to be considered methodologically appropriate and worthy to attention.

Trustworthiness is achieved through strategies that demonstrate credibility, transferability, dependability and confirmability (Lincoln & Guba 1985:300).

3.8.1 Credibility

Credibility was ensured by investing time during data collection through visitation of the two high schools to establish rapport with school going adolescents. The researcher's experience as a public health specialist and their academic grounding assisted in conceptualising this study. The researcher conducted FGDs to ensure that all topics regarding risky sexual behaviors were covered. Field notes and audio-taped responses were used to enable the researcher to understand the complexity of risky sexual behaviours. The researcher used member check during data analysis by giving transcripts to an independent researcher and supervisors to check the authenticity of data (Creswell & Clark 2007:91).

3.8.2 Confirmability

Confirmability was ensured through audit trail. The researcher kept records such as field notes and interview transcripts from participating individuals (Lincoln & Guba 1985:300). The same authors describe confirmability as the degree to which the research findings can be depicted from the study and not from the researcher's biases. The researcher used relevant literature in order to ensure that the reader could conceptualise the researcher's background for take up in this study. Confirmability was also addressed by using an independent reviewer of the audio-tape recording of themes. The member checking helped the researcher to discover any omissions and to verify correct placement of phrases into categories.

3.8.3 Transferability

Sandelowski (2000:300) describes transferability as the extent to which other people can see similarities in the findings of a study. In this study, the research design ensured transferability because mixed methods have previously been used in similar studies. The researcher provided adequate information on the study process such as the study purpose, objectives and sampling strategies data collection procedures and data analysis to ensure replication. The research also used member checking by supervisors and also code-recode procedure during analysis of the interview transcripts.

3.8.4 Dependability

Dependability is described by Sandelowski (2000:300) as a criterion used to judge the accuracy, completeness and accessibility of the research process. The supervisors also reviewed transcripts for analysis and an independent qualitative researcher was also used to review the transcripts, to ensure dependability

3.9 CONCLUSION

This chapter provided a description of the study design and methods used to achieve the study purpose and respond to the research questions put forward. The study used mixed methods of data collection, collating, analysis and interpretation of findings.

Qualitative data was generated through focus groups interviews conducted with 72 school going adolescents in both rural and urban high schools. Quantitative data was gathered through structured questionnaire interviews with school going adolescents. The data collected provided insight into the risky sexual behaviors of adolescents.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

This chapter presents the analysis and the results of both quantitative and qualitative data. The chapter also presents narrative descriptions of issues of concern to adolescents and suggestions made for improving adolescent health among the studied group.

4.2 QUANTITATIVE RESULT

The study recruited 449 students and all participated in the study giving 100% response rate. The results of the qualitative data are analysed and presented based on the question sequences in the questionnaire under the different sub-headings: socio-demographic data; knowledge and attitude toward reproductive and sexual health; sexual history and risky sexual practices and the perception for risk behaviours by adolescents.

4.2.1 Socio-demographic data

Table 4.1 shows the socio-demographic data of the participants. Two hundred and twenty-three (49.7%) of the participants were drawn from a rural high school and the rest 226 (50.3%) were from an urban high school. There were 243 (54.1%) males and 206 (45.9%) females. The average mean age of the respondents was 16.79 (± 1.15 SD) years and median age of 17 years. The median age for the female and male adolescents was 15 (mean=15.01 SD ± 1.43) and 15 (mean=15.24 SD ± 1.42) respectively.

The distribution of the pupils by grade were 259 (57.7%) in grade 9 and the rest 190 (42.3%) in grade 10. Majority of the respondents 432 (96.2%) were in the age group 14–18 years.

All respondents from both schools were either in grade 9 or 10 therefore, literate. The predominant ethnic group of the study participants is Oromo 436 (97.1%) followed by Amhara 13 (2.9%).

Nearly half of the respondents, 208 (46.3%) were followers of the Orthodox Christianity, 118 (26.3%) Protestants, 102 (22.7%) "Waqefata's" (believe in God/Traditional believe of Oromo people) and the rest 21 (4.7%) were Muslims and Catholics.

Table 4.1: Socio-demographic characteristics of the rural and urban high school adolescents, West Shoa zone of Oromia Region, Ethiopia

Variables	Rural (n=223)		Urban (n=226)		Total (n=449)	
	Number	%	Number	%	Number	%
Sex						
M	112	50.2	131	54.1	243	54.1
F	111	49.2	95	45.9	206	45.9
Age						
10–14	0	0.0	3	1.3	3	0.66
15–18	213	95.5	216	95.6	429	95.54
>18	10	4.5	7	3.1	17	3.78
Ethnicity						
Oromo	219	98.20	217	96.01	436	97.10
Amhara	4	1.79	9	3.98	13	2.89
Marital status						
Married	220	98.65	222	98.23	442	98.44
Unmarried	3	1.35	2	0.88	5	1.11
Divorced	0	0.00	2	0.88	2	0.44
Educational level						
9 th	128	57.39	131	57.96	259	57.7
10 th	95	42.60	95	42.03	190	42.3

4.2.2 Educational status of the families of the respondents

The questionnaire included questions on the educational status of the families of the respondents. The results are summarised in Table 4.2.

The majority of the parents of adolescents who participated in the study were illiterate and could only read and write. The illiteracy level was higher among the rural dwellers than the urban dwellers.

Seventy four (16.48%) of the participants had illiterate fathers, thirty nine (8.9%) of the participant's fathers could read and write, 164 (36.53%) of the participant's fathers had completed elementary education and 95 (21.16%) of fathers had attended high school education. In addition, 77 (17.14%) participants' fathers were holders of a diploma qualification and above. With regard to the mothers educational background, 164 (32.5%) of the study participants had illiterate mothers, 48 (10.69%) of the participant's mothers could read and write, 165 (36.69%) had completed elementary education, 49 (10.91%) mothers had attended high school and the remaining 41 (9.13%) mothers were holders of a diploma qualification or above.

Table 4.2: Educational status of the families of the study participants, West Shoa zone of Oromia Region, Ethiopia

Variables	Rural (n=223)		Urban (n=226)		Total (n=449)	
	Number	%	Number	%	Number	%
Fathers' educational status						
Illiterate	46	20.63	28	12.39	74	16.48
Read and write	23	10.31	16	7.08	39	8.69
Elementary	88	39.46	76	33.63	164	36.53
High school	48	21.52	47	20.80	95	21.16
Diploma	14	6.28	30	13.27	44	9.80
BA/BSc	3	1.35	10	4.42	13	2.90
MSc/MA and above	1	0.45	19	8.41	20	4.45
Mothers' educational status						
Illiterate	92	41.26	54	23.89	146	32.52
Read and write	21	9.42	27	11.95	48	10.69
Elementary	89	39.91	76	33.63	165	36.75
High school	13	5.83	36	15.93	49	10.91
Diploma	6	2.69	24	10.62	30	6.68
BA/BSc	1	0.45	7	3.10	8	1.78
MSc/MA and above	1	0.45	2	0.88	3	0.67

4.2.3 Economic and living standards

The economic status and living standard of the respondents is summarised in Table 4.3.

Table 4.3: Economic status and way of living of the study adolescents, West Shoa zone of Oromia Region, Ethiopia

Variables	Rural (n=223)		Urban (n=226)		Total (n=449)	
	Number	%	Number	%	Number	%
Living most of the time with						
Father and mother	168	75.34	164	72.57	332	73.94
Father	15	6.73	21	9.29	36	8.02
Mother	6	2.69	5	2.21	11	2.42
Relatives and friends	21	9.42	31	13.72	52	11.58
Alone	13	5.83	5	2.21	18	4.02
Perceived family economic status						
Poor	44	19.73	21	9.29	65	14.48
Medium	144	64.57	153	67.70	297	66.11
Rich	35	15.70	52	23.01	87	19.38
Income of your own						
Yes	98	43.95	115	50.88	213	47.44
No	125	56.05	111	49.12	236	52.56

The majority of the respondents 442 (98.4%) were never married and a significant proportion (75.3%) of the adolescents living in rural areas live with both parents. Similarly, more than 72% of the urban adolescents lived with their parents. About 64% of adolescents in the rural areas perceived their economic status was medium whereas 67.7% of the adolescents in urban areas perceived their families' economic status was medium.

4.2.4 Personal behaviours and practices among adolescents in both rural and urban areas

Personal behaviours and practices of the respondents are summarised in Table 4.4. With regard to alcohol consumption, one hundred seventy five (39.9%) of the participants among which 93 (41.70%) from the rural high school and 82 (36.71%) from the urban high school reported alcohol consumption either occasionally, most of the time or daily. On the other hand 32 (7.1%) and 16 (3.6%) of the respondents reported consuming khat and smoking cigarette respectively. 179 (39.9%) respondents attended religious services daily, 202 (45%) attended at least once in a week, 33 (7.4%) attended occasionally and the rest 35 (7.8%) never attend religious services at all.

Table 4.4: Personal behaviours and practices among urban and rural high school adolescents, West Shoa zone, Oromia Region, Ethiopia

Variables	Rural (n=223)		Urban (n=226)		Total (n=449)	
	Number	%	Number	%	Number	%
Cigarette smoking						
Yes	7	3.13	9	3.98	16	3.56
No	216	96.87	217	96.02	433	96.43
Alcohol consumption						
Yes	93	41.70	82	36.77	175	38.97
No	130	58.29	144	63.71	274	61.02
Khat consumption						
Yes	16	7.17	16	7.07	32	7.12
No	107	92.82	210	92.92	417	92.87
Religious services						
Attend daily	90	40.35	89	39.38	179	39.86
Attend occasionally	113	50.67	122	53.98	235	52.33
Never attend at all	20	8.96	15	6.63	35	7.79

4.2.5 Discussion of sexual issues with families

Table 4.5 gives a summary of sexual issues being discussed with families. Even though 87.1% and 86.41% of the adolescents discuss issues with their father and mother respectively; the majority of participants (82.5% of rural and 85.4% of urban) do not discuss sexual issues with their fathers and almost the same percentage 81.6% and 90.7% of the rural and urban adolescent respectively do not discuss any sexual related matters with their mothers. One hundred (22.3%) respondents said they often discussed sex related issues with their relatives and friends. The remaining 349 (77.9%) said they never discuss sex related issues with their relatives, friends or any other person at all.

Table 4.5: Discussion of high school adolescent about anything important to them including sexual issues with their families and others

Variables	Rural (n=223)		Urban (n=226)		Total (n=449)	
	Number	%	Number	%	Number	%
Discuss sex issues with father						
Yes	39	17.48	33	14.60	72	16.03
No	184	82.51	193	85.39	377	83.96
Discuss sex issues with mother						
Yes	41	18.38	21	9.29	63	14.03
No	182	81.61	205	90.70	387	86.19
Discuss sex-related with friends and relatives						
Yes	52	23.31	48	21.23	100	22.27
No	171	76.68	178	78.76	349	77.72
Discussion about anything important to them than sexual issues with father						
Yes	187	83.85	204	90.26	391	87.08
No	36	16.15	22	9.84	58	12.92
Discussion about anything important to them than sexual issues with mother						
Yes	190	88.78	198	87.61	388	86.41
No	33	14.79	28	12.39	61	13.59

4.2.6 Knowledge and attitude toward reproductive and sexual health among high school adolescents

The participant's knowledge and attitude towards sexual and reproductive health were assessed. Out of the total of 449 participants, 58 (12.9%) fully agreed and 156 (34.6%) partially agreed that a boy should have sex before marriage. On the other hand, 116 (52.01%) rural and 98 (43.36%) urban adolescents fully or partially agreed that a boy should have sex before marriage. The proportion of the males who fully agreed that a boy should have sex before marriage is significantly higher (74.13 %) than that of female (25.86%) adolescents ($P < 0.05$). On the use of condom, 62 (13.8%) of the study participants among which 35 (15.69%) from the rural and 27 (11.94%) from urban believed that using condom is a sign of mistrust on the partner and 40 (8.9%) agreed

that discussing about condom and contraceptive use with young people promote promiscuity.

(i) Knowledge of adolescents on Sexually Transmitted Diseases (STDs) and Voluntary counselling and Testing (VCT) services

Regarding the knowledge of the school adolescents about STDs, most participants (n=349; 77.72%) have the knowledge about sexually transmitted diseases. The proportion of the adolescents who do not have knowledge about STDs was slightly higher among rural 54 (24.21%) than urban 46 (20.35%) adolescents. Awareness towards Hepatitis B among the adolescents was limited; only 25 (11.21%) rural and 46 (20.35%) urban participants were aware of hepatitis B. Among those aware about Hepatitis B, nearly about half, 35 (49.29%) were unaware of Hepatitis B being transmitted through sexual intercourse.

Among the 349 (77.72%) adolescent who had ever heard about STDs, the majority 309 (88.53%) have the right knowledge of its mode of transmission. The proportion of those who do not have correct information on STDs mode of transmissions was almost similar among rural 152 (86.85%) % and urban 157 (86.26%) high school adolescents.

The level of awareness of the health problems (complications) that one can develop if he/she doesn't receive early treatment for STDs was also assessed. About 322 (71.71%) respondents were aware of the consequences related to lack of early treatment of STDs. Participants mentioned that HIV Infection 201 (62.42%), sterility 68 (21.11%) and cancer 53 (16.45%) were the main health problems that could result from delayed treatment.

Assessment of the awareness of the adolescents on voluntary counselling and testing for HIV/AIDS revealed a higher proportion of the urban 193 (85.39%) than 150 (67.72%) rural high school adolescents had ever heard about VCT. Out of the adolescents who had ever heard about VCT, 68 (30.08%) urban and 55 (24.66%) rural adolescents had tested for HIV.

The knowledge about VCT services for HIV/AIDS and about Hepatitis B among urban adolescents was significantly higher ($P < 0.05$) than among rural adolescents. These findings are summarised in Table 4.6.

Table 4.6: Reproductive and sexual health knowledge of school adolescent by place of residence, West Shoa zone, Oromia Region, Ethiopia

Sn	Variable	Place of residence				X ² df (p-value)	
		Rural (n=223)		Urban (n=226)		Number	%
		Number	%	Number	%		
1	Heard about STDs						
	Yes	169	75.78	180	79.64	0.967, 1	0.326
	No	54	24.21	46	20.35		
2	Heard about hepatitis B						
	Yes	25	11.21	46	20.35	7.049, 1	0.008*
	No	198	88.87	180	79.64		
3	Knows that hepatitis B can be transmitted through sexual intercourse						
	Yes	14	6.27	22	9.73	0.433, 1	0.511
	No	209	93.72	204	90.26		
4	Heard about emergency contraceptive						
	Yes	65	29.14	71	31.41	0.273, 1	0.601
	No	158	70.85	155	58.58		
5	Correctly know when to use Emergency contraceptive (n=136)						
	Yes	11	16.92	13	18.30	1.495, 1	0.827
	No	54	83.07	54	81.69		
6	Correctly knows means of avoiding unwanted pregnancy						
	Yes	105	47.08	106	46.90	0.002, 1	0.969
	No	118	52.91	120	53.09		
7	Heard about VCT for HIV/AIDS						
	Yes	150	67.26	193	85.39	19.842, 1	0.001*
	No	73	32.73	33	14.60		
8	Believe that he/she has done any practice that put him/her at risk of getting HIV/AIDS?						
	Yes	31	13.90	25	11.06	0.939, 1	0.625
	No	192	86.09	201	88.93		

Sn	Variable	Place of residence				X ² df (p-value)	
		Rural (n=223)		Urban (n=226)		Number	%
		Number	%	Number	%		
9	There is possibility of a girl to become pregnant the first time she made sexual intercourse					3.535, 1	0.618
	Yes	53	23.76	63	27.87		
	No	170	76.23	163	72.12		
10	A boy should have sex before marriage					4.490, 2	0.106
	Agree	28	12.55	30	13.27		
	Partially agree	88	39.46	68	30.08		
	Disagree	107	47.98	128	56.63		
11	Using condom is assign of not trusting your partner					7.444, 2	0.24
	Agree	35	15.69	27	11.94		
	Partially agree	54	24.21	36	15.92		
	Disagree	134	60.08	163	72.12		
12	Discussing about condom and contraceptive with your young people promote promiscuity					2.639, 2	0.267
	Agree	17	7.62	23	10.17		
	Partially agree	54	24.21	42	18.58		
	Disagree	152	68.16	161	71.23		
	Source of information About ARH						
	Yes	121	54.26	152	67.26	7.955,1	0.005*
	No	102	45.74	74	32.74		

***Statistically significant**

(ii) Knowledge on pregnancy and family planning services

As presented on Table 4.6, the knowledge among adolescents about the probability for a female to become pregnant shows that about 25.8% (53 rural, 63 urban) of the participating adolescents responded that a women is most likely to become pregnant half way, in the middle of the menstrual cycle. Regarding the likelihood of a women becoming pregnant the first time she had sexual intercourse 182 (40.6%) correctly responded that a girl could become pregnant the first time she had sexual encounter. Higher proportion 107 (47.37%) of urban adolescents than rural 75 (33.7%) respondents agreed that a girl could become pregnant the first time she had sexual intercourse.

The assessment of the knowledge of the adolescents on how to avoid unwanted pregnancy shows that 343 (76.39%) adolescents knew how to avoid unwanted pregnancy. Almost similar percentages for urban 175 (77.43%) and rural 168 (75.33%) adolescents knew of at least one modern method of contraceptive. Oral contraceptive pills as the most frequently used method of contraception was known by (71.2%) of urban and (67.5%) of the rural high school respondents.

Seventy one (31.41%) urban and 65 (29.14%) rural adolescents had heard about emergency contraceptives. Of those who had heard about the pills as a method of emergency contraceptive, the majority however, did not know when to use it. Only 13 (18.30%) of urban and 11 (16.92%) of the rural adolescents reported the appropriate timing of taking the pills being after an unprotected sexual contact to be within 72 hours.

Bivariate analysis was also done in order to assess the association of selected variables with the knowledge of adolescents on emergency contraceptive. The results of the analysis revealed that adolescent who have sources of information about reproductive health were 2.7 times more knowledgeable about emergency contraception than those who did not have sources of information about reproductive health [**AOR=2.760,95% CI: (1.776, 4.289)**]. On the other hand, females were less knowledgeable about emergency contraceptive than male adolescents [**AOR= 0.378, 95% CI: (0.151, 0.935)**] (Table 4.7). Place of residence, grade, discussion about sex and related issues with families and knowledge about the prevention of unwanted pregnancy did not show significant association with the knowledge of emergency contraceptive (Table 4.7).

Table 4.7: Comparison of Knowledge on emergency contraceptive with selected variable among rural and urban high school adolescents, West Shoa zone, Oromia Region, Ethiopia

Variables	Knowledge on emergency contraceptive				OR (95% CI) Adjusted	
	Yes		No			
	N	%	N	%		
Place of residence						
Rural	71	52.20	155	49.52	0.161	0.745, 3.493
Urban	65	47.80	158	50.48	1	
Sex						
Female	54	12.02	152	48.56	0.375	0.151, 0.935*
Male	82	18.26	161	51.44	1	
Grade						
10	59	43.38	131	41.85	1.000	0.462, 2.162
19	77	56.62	182	58.15	1	
Knowledge on prevention of unwanted pregnancy						
Yes	89	65.44	122	38.98	1.381	0.543, 3.475
No	47	34.56	191	61.02	1	
DSWF						
Yes	49	36.02	114	36.42	0.897	0.283, 2.843
No	87	63.97	199	63.57	1	
DSWM						
Yes	79	58.08	156	49.83	0.689	0.187, 2.542
No	57	41.91	157	50.16	1	
Information about adolescent RH						
Yes	100	73.52	157	50.02	2.760	1.776, 4.289*
No	36	26.47	156	49.84	1	

***Significant**

4.2.7 Source of information of adolescents on sexual and reproductive health

Two hundred and seventy-three (60.80%) adolescents of which a significantly higher proportion 152 (67.25%) of urban than 121 (54.26%) rural high school adolescents reported that they had sources of information about sexual and reproductive health ($p < 0.05$). Among the adolescents who had sources of information about sexual and reproductive health 109 (39.9%) received the information from one source; 73 (26.7%) from two sources and the rest 91 (33.3%) from three and more sources. Radio, families, teachers and friends were the major sources of adolescent sexual and reproductive health mentioned by school adolescents (Figure 4.1).

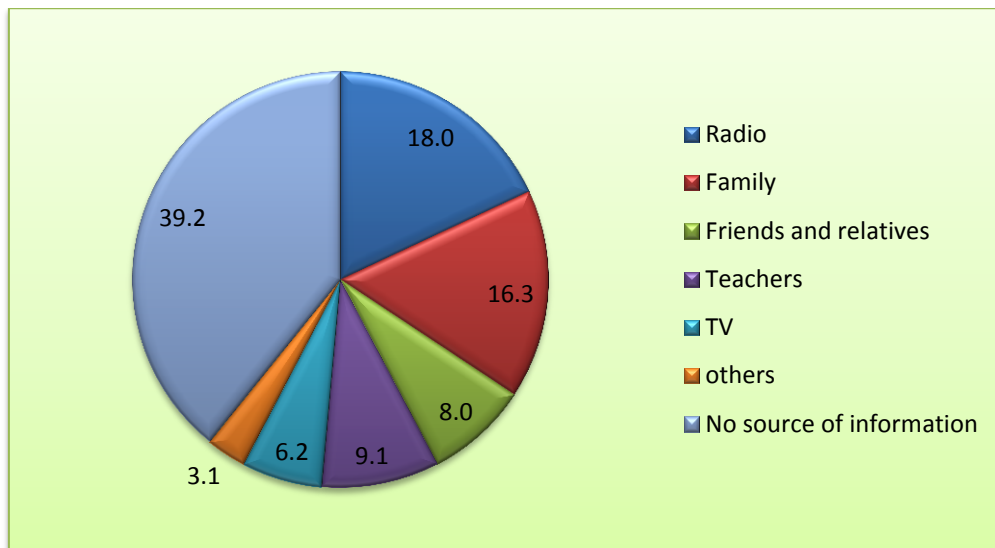


Figure 4.1: Source of information of adolescents on sexual and reproductive health

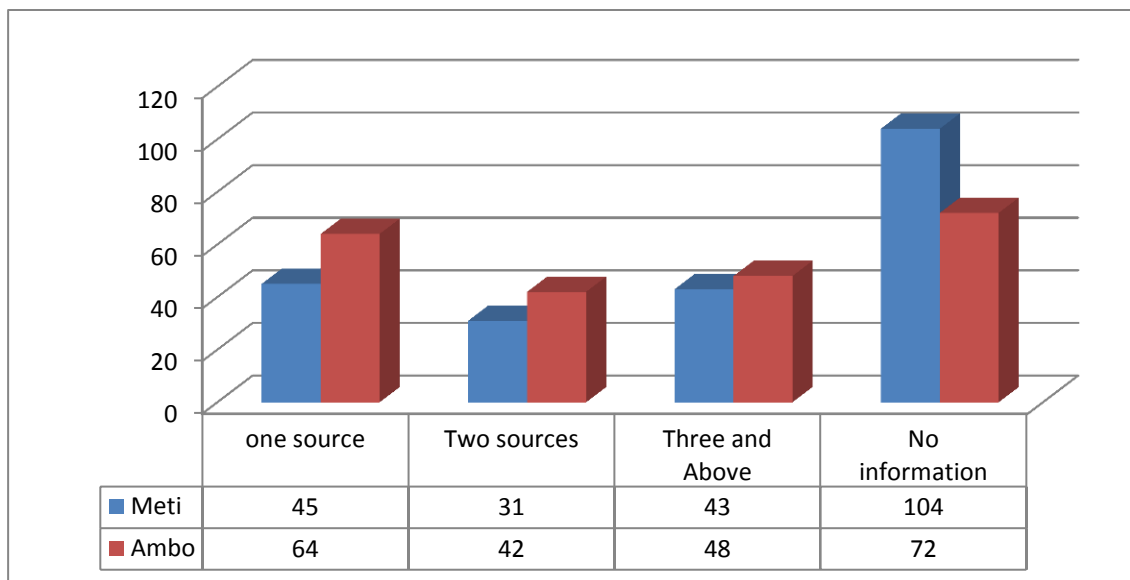


Figure 4.2: Source of information of adolescents on sexual and reproductive health

4.2.8 Sexual history and risky sexual practices of the respondents

Results of sexual history of the study participants are presented in Table 4.10. There were 267 (59.5%) respondents who said they had boy or girl friends. One hundred and seventy (37.9%) respondents had experienced sexual intercourse of which 75 (33.1%) and 95 (42.6%) were from urban and rural high school respectively. Generally, history of ever sex was significantly high ($p < 0.05$) in rural adolescents than urban. Overall, the proportion of sexually active respondents was higher 109 (44.85%) among males than 61 (29.10%) among females. Females were less practicing premarital sex than males

[AOR=0.090, 95% CI: (0.017, 0.0485)] (Table 4.8). Source of information about reproductive health and discussion of sex and related issues with their fathers were significantly associated with pre-marital sexual practices. Adolescents who have sources of information about sexual and reproductive health were less practicing pre-marital sexual intercourse than those who do not have sources of information **[AOR=0.072, 95% CI: (0.0.012, 0.412)]** and adolescents who discuss sex and related issues with their fathers were less practicing pre-marital sex than those who do not discuss **[AOR=0.096,95% CI: (0.0.012, 0.771)]** (Table 4.8).

On the other hand, adolescents who agree boys should have sex before marriage were 3.01 times **[AOR=3.01,95% CI: (2.845,5.374)]** practicing pre-marital sex than those who not agree (Table 4.8).

Table 4.8: Comparison of pre-marital sexual intercourse by selected socio-demographic variables among urban and rural high school adolescents

Variables	Pre-marital sex				OR (95% CI) Adjusted	
	Yes		No			
	N	%	N	%		
Place of residence						
Rural	95	42.60	128	45.87	0.527	0.236, 1.176
Urban	75	31.18	151	54.13	1	
Sex						
Female	61	35.88	145	51.97	0.090	0.017, 0.485*
Male	109	64.11	134	48.03	1	
Discuss sex-related issues with fathers						
Yes	33	20.00	129	46.24	0.096	0.012,0.771*
No	136	80.00	150	53.76	1	
Discuss sex-related issues with mother						
Yes	6	3.53	229	82.08	2.381	0.228, 24.837
No	164	96.47	50	17.92	1	
Information about adolescents sexuality						
Yes	51	30.00	206	73.83	0.072	0.013, 0.412*
No	119	70.00	74	26.17	1	
STI/HIV risk perception						
Yes	38	22.35	18	6.45	0.229	0.030, 1.777
No	132	77.65	261	93.55	1	
A boy should have sex before marriage						
Not agree	126	74.11	265	94.98	3.010	2.845,5.374*
Agree	44	25.89	14	5.02	1	

The overall median age at first sexual intercourse was 15.0 (mean=15.16±1.42) years. The median age at first sexual intercourse for rural male and female high school adolescents was 16 (mean=15.29±1.38), and 15 (mean=15.07.72±1.55) years respectively.

Out of the sexually active respondents, 40 (23.5%) had one sexual partner in their life time, 76 (44.7%) had two sexual partners and the rest, 54 (31.8%) had sexual intercourse with three or more partners. The mean number of sexual partners was 2.3± 1. 20 SD (median=2.00).

The main reasons given for the first sexual intercourse (Table 4.9) include fallen in love 73 (42.9%); peer pressure 46 (27.1%); sex desire 29 (17.1%); monetary gains 15 (8.8%); was drunk 4 (2.4%) and other reasons 3 (1.85%). Of the sexually active participants 12 (7.05%) were raped in their lives among which 11 (91.66%) were females. From the 11 females who were raped, 9 (81.82%) were respondents from the rural high school.

Table 4.9: The reasons for sexual intercourse for the first time among High school adolescents

Reasons	Number	Percentage (%)
Fell in love	73	42.9
Peer pressure	46	27.1
Sex desire	29	17.1
To get money	15	8.8
Alcohol drinks	4	2.4
Other reasons	3	1.8

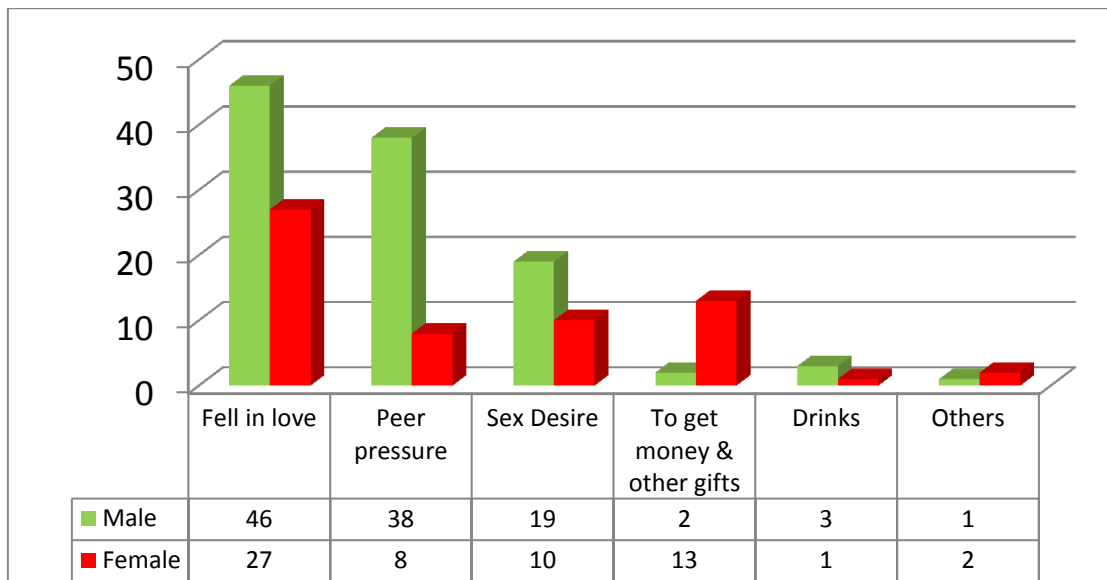


Figure 4.2: Description of reasons for the first sexual intercourse by gender, among high school adolescents

4.2.8.1 Unwanted pregnancy and abortion

Of the female students who had experienced sexual intercourse 24 (36.4%) had become pregnant of which 15 (65.2%) once and the rest 9 (34.8%) twice or more times. All pregnancies were not planned and most of them ended with induced abortion. Among the high school adolescents who had become pregnant 20 (83.33%) reported a history of abortion of which 12 (60%) had an abortion once. The rest 8 (40%) had abortion twice or more times. The major factors which drove pregnant adolescents to undergo abortion were fear of family/relatives 11 (55%); wished to continue with education 6 (30%) and the rest 3 (15%) due to other reasons. Regarding the choice of places for undergoing abortion 7 (35%) were performed by local/traditional abortionists, 7 (35%) at NGO clinics, 4 (20%) at governmental health institutions and the rest two (10%) at private health institutions.

4.2.8.2 Sexually Transmitted Diseases (STIs)

From the total of 170 sexually active male and female adolescents, 49 (28.8%) reported a history of, sign/ or symptoms of STIs. The proportion of reported STIs was higher in males 36 (73.46%) than in females 13 (26.53%). Among the 36 males who had developed signs or symptoms of STIs 27 (75%) reported having sexual intercourse with commercial sex workers. Among the forty nine sexually active respondents who reported

a history of, signs or symptoms of STIs 32 (65.30%) had never used condom during sexual intercourse. Regarding sexual intercourse after taking some substances 46 (27%) and 9 (5.3%) had sexual encounter after drinking alcohol and khat respectively. Among those who had sexual intercourse after drinking alcohol and chewed khat, 20 (43.5%) and 3 (33.3%) had used condom respectively.

With regard to the preference of treatment for sign and symptoms of STIs, out of the 49 respondents who had developed signs and symptoms of STIs 15 (30.6%) received treatment from NGO clinics, 13 (26.5%) attended government public health institutions, 11 (22.4%) bought and used drugs from pharmacy/drug vendors, 5 (10.2%) went to local injectors, 4 (8.2%) received treatment from traditional healers and one (2%) did not seek for treatment anywhere.

The major reasons for the choice of preferences for places to seek treatment for STDs were explored. The results show that 19 (38.8%) stated confidentiality; 16 (32.7%) looked for effective treatment; 7 (14.3%) reported proximity to a health facility; 6 (12.5%) was due to low treatment cost and the remaining one (2%) was seeking free treatment.

Table 4.10: Sexual history and risky sexual practices among rural and urban high school adolescents, West Shoa zone, Oromia Region, Ethiopia

Variable	Place of residence				X ² df (p-value)	
	Rural (n=223)		Urban (n=226)			
	Number	%	Number	%	Number	%
Ever had sex						
Yes	95	42.60	75	31.18	4.22, 1	0.04*
No	128	57.39	151	66.71		
Ever had sex						
Male	55	57.89	54	72.00	11.012, 1	0.001*
Female	40	42.11	21	28.00		
Had sex in the past 12 months						
Yes	84	88.42	70	93.33	3.22, 1	0.192
No	11	11.58	5	6.66		
Life time sexual partners (n=170)						
One	31	36.90	16	22.85	5.46, 1	0.603
Two and above	53	63.08	56	77.14		
No of sexual partners during the last 12 months (n=154)						
One	31	36.90	16	22.85	6.091, 1	0.192
Two and above	53	63.08	56	77.14		

Variable	Place of residence				X ² df (p-value)	
	Rural (n=223)		Urban (n=226)		Number	%
	Number	%	Number	%		
Condom use during the last 12 months						
Yes every time	7	9.45	11	18.33	5.351, 2	0.253
Sometimes	28	37.83	27	45.00		
Never at all	37	50.00	22	36.60		
Sex with female commercial sex workers						
Yes	19	34.54	27	50.00	2.668, 1	0.102
No	36	65.45	27	50.00		
Condom use during sex with FCSW (n=44)						
Consistent use	8	42.10	6	24.00	3.424, 1	0.331
No consistent use	11	57.89	19	76.00		
Had ever been pregnant (n=24)						
Yes	14	31.81	10	45.45	1.179, 1	0.278
No	30	68.18	12	54.54		
Ever aborted (n=24)						
Yes	12	85.71	8	80.00	0.137, 1	0.711
No	2	14.28	2	20.00		
Ever had STDs (n=49)						
Yes	29	30.52	20	26.66	0.304, 1	0.581
No	66	69.47	55	73.33		
Sexual intercourse after drinking alcohol (n=170)						
Yes	26	27.36	20	26.66	0.010, 1	0.909
No	69	72.63	55	73.33		
Condom use during last sex (n=168)						
Yes	23	24.46	31	41.89	6.035, 1	0.049*
No	68	72.34	42	56.75		
Condom use during first sex (n=170)						
Yes	13	13.68	10	13.33	0.119, 1	0.942
No	78	82.10	61	81.33		
Risk perception to contract STDs/HIV						
Yes	31	13.90	25	11.06	0.939, 1	0.625
No	181	81.16	191	84.51		

***Statistically significant**

4.2.8.3 Family planning service utilisation

Out of the total participants, 343 (76.39%) adolescents knew about modern contraception methods. Almost similar percentages of urban 175 (77.43%) and rural 168

(75.33%) adolescents knew of at least one modern method of contraception. Oral contraceptive pills as the most frequently used method of contraception was known by (71.2%) of urban and (67.5%) of rural high school respondents. Among the sexually active urban and rural adolescents 48 (33.33%) had used modern contraceptive prior to this study. From the total of 136 adolescents informed about emergency contraceptive only 19 (13.97%) had ever used it out of which 11 (57.89%) were from urban and the rest 8 (42.10) were from rural areas.

4.2.8.4 Condom use

Condom use during sexual intercourse was also assessed among the sexually active high school adolescents. The result revealed that only 23 (13.5%) of the respondents reported use of condom during their first sexual intercourse. Higher proportion 71 (41.8 %) reported use of condom during their last sexual intercourse. During the last one year prior to this study, only 18 (13.42%) of the sexually active participants used condom during each sexual intercourse; 55 (41.04%) used condom some times and the rest 59 (44.02%) never used condom at all. These results show that about 60% of the sexually active adolescents did not use condom during their last sexual intercourse and about 87% of the sexually active adolescents either never used condom at all or did not use condom consistently within one year before the study. Among the 109 sexually active male respondents, 44 (40.4%) reported experiencing sexual intercourse with commercial sex workers. Of the 44 male respondents only 14 (30.43%) reported consistent condom use and 13 (28.26%) never used condom at all.

The proportion of condom users during their last sexual intercourse was higher 51 (71.83%) among males than 20 (28.16%) among females. The proportion of condom users during the last sexual intercourse was higher 39 (54.92%) among urban than 32 (45.07%) among rural adolescents. Condom use during the last sexual contact was significantly high ($p < 0.05$) among urban when compared to the rural adolescents.

Adolescents who have one sexual partner use condom less frequently than those who have more than one sexual partners [**AOR=0.553, 95% CI: (0.306, 0.999)**] and adolescents who daily attended religious services used condom less frequently than those who never attend religious services [**AOR=0.57, 95% CI: (0.003, 0.953)**]. In addition adolescents who discussed sex and related issues with their friends and

relatives used condom during the last sexual intercourse 5 times [**AOR=5.063,95% CI: (1.289, 19.883)**] more than respondents who did not discuss sex and related issues with their friends and relatives (Table 4.11).

Table 4.11: Comparison of condom use among sexually active high school adolescents by selected variables, West Shoa zone, Oromia Region, Ethiopia

Variables	Condom use				OR (95% CI) Adjusted	
	Yes		No			
	Number	%	Number	%		
Place of residence						
Rural	23	24.46	68	72.34	1.02	0.268, 4.279
Urban	31	41.89	42	56.75	1	
Sex						
Female	14	28.57	35	71.42	0.524	0.156, 1.763
Male	40	47.05	45	52.94	1	
Number of sexual partners						
One	8	28.75	20	71.43	0.553	0.306, 0.999*
Two and above	46	43.39	60	56.61	1	
Frequency of religious attendance						
Every day	24	58.53	17	41.46	0.57	0.003, 0.953*
Occasional	27	36.00	48	64.00	0.181	0.12, 2.773
Never at all	3	17.64	15	88.23	1	
Knowledgeable about HIV transmission and prevention						
Yes	43	43.44	55	55.56	0.486	0.096, 2.456
No	11	20.37	25	31.25	1	
Knowledge about prevention of unwanted pregnancy						
Yes	23	42.59	31	38.75	2.807	0.91, 16.029
No	31	57.40	49	61.25	1	
Information about ARH						
Yes	18	33.33	19	23.75	1.081	0.302, 3.875
No	36	66.67	61	76.25	1	
Sex with CSW						
Yes	16	37.20	18	36.73	1.067	0.282, 4.038
No	27	62.79	31	63.27	1	
DSWRF						
Yes	13	24.07	6	7.5	5.063	1.289,19.883*
No	41	75.93	74	92.5	1	

***Significant**

The main reasons given for not using condom at all or not consistently using condom during sexual intercourse are presented in Figure 2. The results show that trusting the

partner (20.8%), unavailability of condoms (16.7%), partner objected (11.9%), ashamed to ask partner (10.7%), and decreased sexual satisfaction (7.7%) were the major reasons.

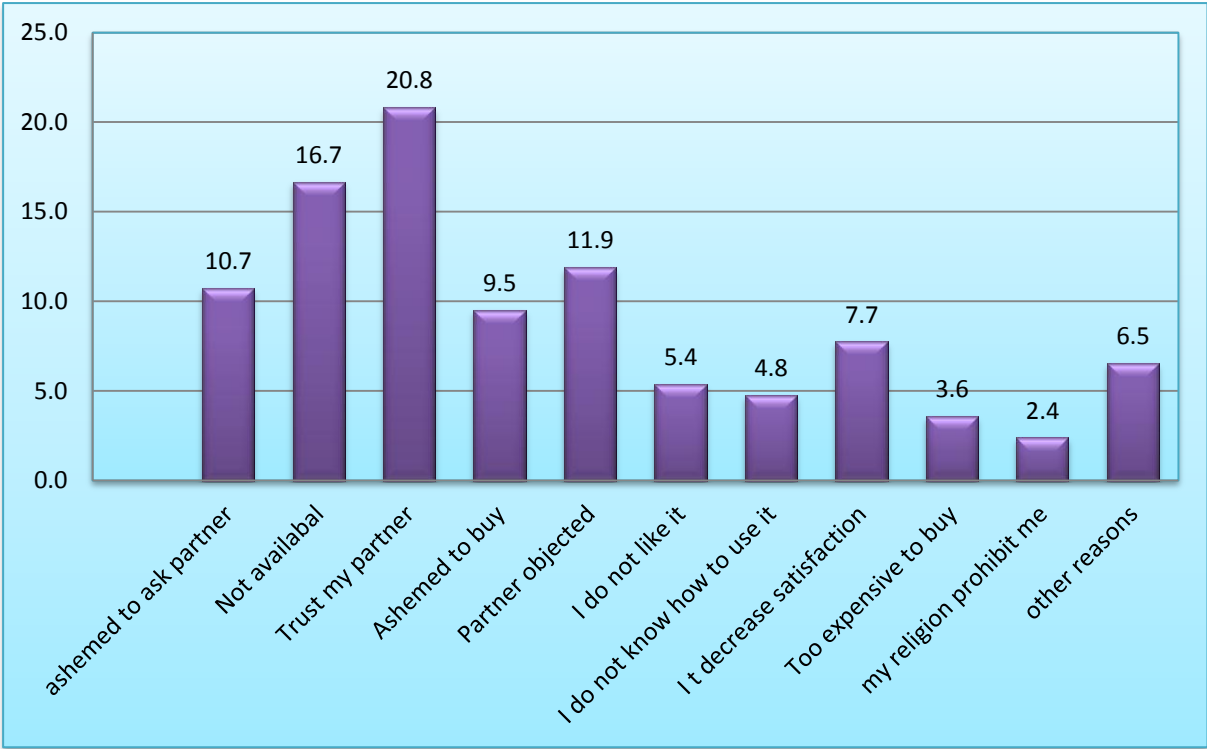


Figure 4.3: Reasons for not using condom during sexual intercourse by school adolescents (%)

4.2.10 Adolescents’ perception of risk

The respondents perceptions towards their being susceptible to HIV infection and other STDs was assessed and Table 4.10 shows that 25 (11.06) % of the urban and 31 (13.90%) of the rural respondents were aware of being involved in high risk sexual activities. Adolescents perceived themselves at risk of STDs/HIV through injuries from contaminated sharp objects 22 (39.28%); no condom use during sexual intercourse 17 (30.35%); having multiple sexual partners 13 (23.21%) and 4 (7.14%) having sex with commercial sex workers. The main reasons mentioned by respondents who did not perceive themselves being at risk were: did not have any sexual contact 232 (58.43%); used condom during each sexual contact 88 (22.16%) and 28 (7.12%) were being faithful to one sex partner.

Table 4.12: Comparison of selected variables by risk perception among high school adolescents, West Shoa zone, Oromia Region, Ethiopia

Variables	Risk perception				OR (95% CI) Adjusted	
	Yes		No			
	Number	%	Number	%		
Place of residence						
Rural	31	13.90	182	86.09	1.626	0.579, 4.566
Urban	25	11.06	201	88.93	1	
Sex						
Female	33	13.58	210	86.41	1.428	0.471, 4.330
Male	23	11.16	183	88.83	1	
Grade						
9	931	11.96	228	88.03	0.652	0.234, 1.812
10	1025	13.15	165	86.84	1	
Knowledge on prevention of unwanted pregnancy						
Knowledgeable	46	82.14	297	86.58	0.801	0.233, 2.752
Not knowledgeable	10	17.85	96	90.56	1	
FDSWF						
Every time	3	5.35	16	4.07	1.603	0.122, 21.031 0.174, 6.807
Occasionally	7	12.50	74	18.82	1.089	
Never	46	82.14	303	77.09	1	
DSWF						
Yes	12	16.43	44	11.70	0.568	0.113, 2.865
No	61	83.56	332	88.29	1	
DSWM						
Yes	12	17.91	44	11.51	0.595	0.111, 3.174
No	55	82.09	338	88.48	1	
Information about adolescent RH						
Yes	23	8.42	33	18.75	1.860	0.549, 6.306
No	250	91.57	143	81.25	1	
Number of sexual partners						
One	4	10.00	36	90.00	1.041	0.675, 1.607
>Two	34	25.95	97	74.04	1	
Knowledge on transmission and prevention of STIs						
Knowledgeable	42	11.79	314	88.20	0.603	0.157, 2.310
Not knowledgeable	14	15.03	79	84.93	1	

4.3 QUALITATIVE RESULTS (FGDs)

4.3.1 Introduction

Focus group participants were drawn from two schools. In each school the researcher held two focus groups discussions each consisting of randomly selected nine male and nine female participants as shown in Table 4.13.

Table 4.13: Randomly selected participants of FGD among urban and rural high school adolescents

Name of the school	Female participants	Male participants	Total male and female FGD participants
Ambo High School (urban)	9	9	18
Meti High School (rural)	9	9	18
Total	18	18	36

In each school, the Focus Group Discussions (FGDs) were conducted in a quiet environment that assured confidentiality. The total number of participants in all groups was 36 and all participants were asked descriptive open-ended questions:

- What are the sexual risks that adolescents encounter?
- Tell me some of the reasons for pre- marital sexual practices.
- If one is involved in sexual risk practices, what intervention strategies can be used to reduce adolescent sexual risk practices?
- What do we see as the role of schools, and other youth associations in reducing sexual risk behaviours?
- What are some of the ways that communities and other institutions can do to reduce risky sexual behaviours among the young people aged 15-24?

4.3.2 Findings from the focus group discussions

4.3.2.1 Risks that adolescent encounter and perception of the problem

Risky sexual behaviour is any behaviour that increases the probability of negative consequences associated with sexual contact, including HIV/AIDS, other STDs, abortion

and unplanned pregnancy. It also includes behaviours like having multiple partners, risky casual with unknown sexual partners, early sexual initiation and failure to discuss risk topics prior to intercourse as well as failure to take protective actions such as use of condoms and birth control (African Health Science 2013:498-506).

Unprotected sex, early sexual debut, alcohol or drug use before sexual intercourse, multiple sexual partners, forced or coerced sexual intercourse and sexual intercourse for reward are defined as sexual activities that may expose an individual to the risk of infection with HIV and other sexually transmitted diseases. In addition, lack of knowledge about HIV and AIDS and poverty has been identified as factors that increase the chances of young people engaging in risky sexual behaviour (Avert 2009:3).

Table 4.14: Summary of the main causes and consequences of risk sexual practices generated from the focus group discussions

Sn	Possible causes of risk sexual practices suggested by FGD participants	Consequences of risk sexual practices mentioned by the participants	Remarks on the consequences of risk sexual practices
1	Lack of knowledge about safe sex due to information gaps and misinformation	STIs (such as HIV/AIDS, Gonorrhoea, and syphilis)	Suggested by the majority of the participants
2	Sex without proper use of condom	Spread of STIs to others	By most urban and rural participants
3	Absence of services (such as safe abortion, STI testing centres, contraceptive, condom and others)	Unintended pregnancy and unsafe abortion	Suggested by most of the participants
4	Substance abuse (such as alcohol consumption, khat chewing)	Death and disability	Mentioned by some of the participants
5	Peer pressure and fell in love	School dropout	Suggested by majority of the participants
6	Economic problem especially for female adolescents	Migration to other places	Stated by some urban participants
7	Viewing romantic films	Prostitution	Mentioned by some of the urban discussants
8	Absence of free discussion on sexual issues between children/youths and their families	Having a child without plan	Suggested by majority of the discussion participants
9	Dressing style of female adolescents	Sterility and cancer	Mentioned by few urban male participants

Sn	Possible causes of risk sexual practices suggested by FGD participants	Consequences of risk sexual practices mentioned by the participants	Remarks on the consequences of risk sexual practices
10	Family/community in their areas believes that males should practice sexual activities before marriage	Rejection by the families and the community due to child birth without marriage for the female adolescents	Mentioned by majority of the rural and some of the urban participants
11	Having many sexual partners	Psychological problems	Stated by some urban participants
12	Pre-marital sexual practices	Financial problems due to many expenses related to the consequences of sexual risk practices	Mentioned by some urban and rural participants
13	Forced sex and abduction especially in rural areas	Disposing baby anywhere after giving birth	By one female urban participant

Casual sexual involvement is often perceived as predisposing an individual toward having multiple sexual partners and making other risky sexual decisions (such as inconsistent condom use, infrequent STI testing). It is therefore, often assumed that adolescents who engage in these types of behaviour are at greater risk for negative physical outcomes, such as unintended pregnancies and STIs, than adolescents who practice sexual activity in the context of a committed relationship. In addition, adolescents' involvement in casual sexual activity have been shown to contribute to psychosocial difficulties such as lowered self-esteem, increase in depressive symptoms, and inhibited interpersonal/relationship-building skills (Buysse 1998; Eisenberg et al 2009; Manning et al 2005; Manning et al 2006). These effects are enhanced by the traditional societal expectations which have maintained that sexual behaviour should take place within the context of a committed relationship. Similarly, the abstinence-only education policy in Ethiopia requires teaching that sexual activity outside the context of marriage is likely to have harmful physical and psychological consequences (Eisenberg et al 2009).

The participants generally agreed that there are many unprotected sex related risks that have been encountered by adolescents in their lives. The participants stated that: *"STDs such as, HIV/AIDS, gonorrhoea and syphilis are some of the risks encountered by the youth. Unwanted pregnancies, leading to illegal abortion performed by local*

abortionists are also common and are due to the risky sexual behaviours the youth engages in”.

According to the female participants, unwanted pregnancy is the main cause of high rate of school dropouts, migration, child abuse and engagement in commercial sex works. Participants also discussed the main causes of unwanted pregnancy. They identified adolescents’ poor knowledge of the use of modern contraceptives including condom, lack of access to modern contraceptives, negative attitude towards modern contraceptives and forced sex as being among the major causes of unwanted pregnancy especially in the rural setups.

Most participants admitted that it is very difficult to assess the actual prevalence of STDs including HIV/AIDS in their area due to the associated stigma. However, they pointed out that an estimate of the prevalence of STIs including HIV/AIDS can be made based on the increasing rate of ART and anti-tuberculosis drug utilisation in their area.

On abortion, urban female adolescents stated that even though illegal abortions are being done secretly, abortion is openly discussed among peers and many female adolescents visit local abortionists who often insert plastic tubes and other sharp materials in the cervix. Such practices could significantly contribute to high spread of HIV/AIDS and other blood-borne diseases among the peers and others. Both female and male discussants agreed that females visit local abortionist due to lack of knowledge, accessibility, and secrecy behind unwanted pregnancies, financial constraint and absence of safe abortion services in their locality.

4.3.2.2 Why pre-marital sex is practiced?

There is evidence that inability to discuss sexually related issues with families and strict upbringing also contributes to premarital sex (Abdisa 2012:8). The findings in this study support the previous reports when participants stated that discussing sex and sex related issues including information about the consequence of pre-marital sex within families radically decreases its practice. They further stated that very restrictive families and communities are not good. An 18 year student of Ambo High School said: *“Naturally human beings are very eager to see or practice what we are ought not to do or prohibited to see...”*.

Similarly, three respondents from rural high school and one from urban high school did not think that discussing sexual issues with family decreases the practice of premarital sexual practices. They said; *“Some many years ago it was taboo to talk about sex within the family because the practice was insignificant; but now, especially in urban areas, adolescents are discussing sex and related issues within their families and the practice is so high ... it is controversial”*.

In addition, a 17 year and a 16-year-old Ambo High School male participants suggested that: *“Even though pre-marital sexual practices is increasing from time to time, those adolescents who discuss sex and related issues with their families and peers are less likely to practice pre-marital sex and those who are engaged in the practices also use protective methods”*.

With regard to sexual initiation, peer pressure, falling in love, viewing/watching videos and other entertainments, alcohol consumptions and substance abuse were listed as the main reasons for the first sexual initiation.

4.3.2.2.1 Peer pressure

About three fourth (75%) of the discussants said peers are more influential to practices or not to practice premarital sex, to have multiple sexual partners and to have intercourse with commercial sex workers.

4.3.2.2.2 Sex for money gains

The discussant also stated that *“most students don’t have their own income and rely on families for support. Money is powerful, has a potential to influence decisions and there are females who practice premarital sex for money and other material benefits for their livelihood”*.

4.3.2.2.3 Alcohol influence

On the influence of alcohol, discussants narrated that: *“Substance use, especially alcohol consumption increases the likelihood of engaging in premarital and multiple sexual practices in their areas of residence”*. They added that *“when somebody drinks,*

he/she loses control over sexual activities and also fails to make right decisions on what to do on issues related to sexual practices and others”.

4.3.2.2.4 Dressing

Almost all participants from the urban high school stated that female adolescent’s dressing styles outside the school environment could be an indirect reflection of their internal thinking and interest. This was elaborated by two male urban high school student by saying: *“Some female students carry their tight trousers in their bags and wear them as soon as they leave the school campus before reaching home mainly to attract males for sex”.*

4.3.2.2.5 Teachers

After one focus group discussion had ended, one urban female participant approached the researcher and revealed that some teachers also play a significant role in encouraging students to engage in pre-marital sexual practices. She said: *“One day my teacher called me in his office and told me that he is in love with me and wants to take me outside the school campus”.* She further added that she had also heard such complaints from other female students in their school.

A number of studies have also highlighted patterns of sexual harassment, manipulation and coercion of both male and (more commonly) female students by teachers, as well as by other students (Mirsky 2003:16-25; Global AIDS Link 2007:6). For example, in Mwanza, Tanzania, 9% of sexually active primary school girls aged 12 years and over and 3% of sexually active boys reported of being forced by teachers to have sexual intercourse while 36% of the sexually active girls and 14% of the boys said they had been forced by their peers to have sexual intercourse (WHO 2011b:20).

4.3.2.3 Involvement of the FGD participants in sexual and risk sexual practices

During the focus group discussions about 83% of the participants did not want to disclose that they have had sex and risk sexual encounters. Only two male participants from urban high school disclosed that they had started sexual practices. An eighteen year old Ambo High School male student said: *“It is about two years since I started*

sexual practices, so far I have had sexual encounters with two partners. At the present, I only have one sexual partner". He also added that: "I have not used condom yet because I trust both of my partners".

Another male participant from the urban high school who had disclosed that he had started sexual practices said: *"It is only recent when I started sexual practices. The main reason I started is because I fell in love with one of my female classmate and I hope I will marry her". He also added that: "So far we haven't used any contraceptive method and I hope we will use contraceptives mainly for birth control".*

Two female and one male urban participant disclosed that they do have boy and girl friends respectively but had not started sexual activities. During the discussion it was observed that most participants didn't want to talk about sexual issues related to them but actively participated and discussed about other adolescents in their areas and schools.

With respect to the consequences of risky sexual practices, at the end of FGDs, two male participants (one from the urban and another from the rural school) wrote disclosing that they had developed STDs some time ago and one got treated at a government health facility while the other bought drugs from a rural drug vendor in his area. Both however, didn't disclose that they have been involved in sexual practices during the discussion in the group.

4.3.2.4 Intervention strategies to be used to reduce adolescent sexual risk practices

Involvement of adolescents in determining what relevant strategies are needed to reduce risk sexual practices was explored during FGDs. The following major intervention strategies were generated by the respondents in both schools:

(i) Including sexuality education in the school curriculum

Consistent with the process of child and adolescent development and with young people's "evolving capacities" and needs, researchers and advocates have argued that school-based sex and relationships education should begin early in primary schools as

part of the social studies curriculum, and incorporate increasingly advanced messages about human rights, health and sexuality, and gender equality at higher grades. Techniques such as role playing, situational analyses, and critical applications appropriate to the adolescents' ages and developmental stages should be used (WHO 2011a:11).

In this study, both male and female participants revealed that sex education and consequences related to risky sexual practices is lacking in their school curricula. They added that during biology class, when students ask sensitive questions related to sexual activities their teachers do not provide satisfactory answers suggesting that some of the teachers lack the basic knowledge on sexuality and consequences related to risky sexual practices.

The urban high school group discussion participants pointed out that it could be significantly important if high school management leaders communicated with the local health institutions or health professionals to offer regular school health education programs with special emphasis on adolescent reproductive health.

Significant number of participants, 28 (77.7%) from both high schools suggested that adolescent sexual and reproductive health should be incorporated into the one to five government education development programmes. This would facilitate learning from each other and where necessary, ask teachers and others questions for additional clarifications.

Both male and female discussion groups further observed that it could be significantly important to have Adolescent Reproductive Health (ARH) focal persons in the schools to facilitate planning, implementation and evaluation of different adolescent reproductive health services programmes.

(ii) Abstinence from sex before marriage, faithfulness and condom use

In this study, some urban focus group participants said that abstinence as method of avoiding the risks of HIV/AIDS and other sexually transmitted diseases and unwanted pregnancy is for some reasons not liable especially among urban adolescents. The major reasons listed by the urban discussion groups were; peer pressure, falling in love,

sex desire due to age, economic factors, delayed age of marriage in urban areas, easy access to sex videos and movies force adolescents to engage in sexual practices. On the other hand, many rural and some urban participants indicated their commitment to delay sexual practices until marriage.

The majority of the participants in both schools agreed that proper and consistent use of condom, faithfulness, increasing knowledge of the adolescents on adolescent reproductive health, avoiding sex before marriage can significantly minimise risks related to sexual practices. Discussants at the rural high school raised concern about unavailability of shops or centres in their area for distributing condoms. They recommended that it is high time the responsible offices should give due attention to avail condom in their area.

Participants from both schools expressed fear among adolescents about discussing openly the benefits of condom use. They revealed that a significant number of adolescents are ashamed to buy condom from shops and drug stores in their areas.

(iii) School health education

Just as schools are critical settings for preparing students academically, they are also vital partners in helping young people to take responsibility for their own health. School health programmes can help youth to adopt lifelong attitudes and behaviours that support overall health and well-being including behaviours that can reduce the risks for HIV and other sexually transmitted diseases (CDC 2009).

Participants of both gender at the rural and urban setups stressed the importance of adolescent sexual and reproductive health education in the schools. They said: “*The school officials should communicate with local health institutions or health offices and arrange regular health education programmes in their respective schools*”. In addition, urban participants said: “*Even though there are hospitals and health centres in their area, so far no any health worker had ever come to their school to provide adolescent reproductive health education and services*”.

Participants suggested that there should be a joint plan by the schools and health institution officials on adolescent reproductive and sexual health. The joint plan should

be well communicated to the adolescents and the health education schedule should be known ahead of time by the students so that they can attend the programmes. These findings suggest that there is a demand for school health education and concerted effort is needed to bring together key stakeholders in developing relevant curricula that address adolescent sexual and reproductive health issues.

4.3.2.5 What intervention strategies are expected from the following organisations to reduce sexual risk practices?

Efforts to improve child and adolescent health have typically addressed specific health risk behaviours, such as early initiation of sexual intercourse, tobacco use or violence. However, results from previous studies (CDC 2014:24) suggest that greater health impact might be achieved through enhancing protective factors that help children and adolescents to avoid multiple behaviours that place them at risk for adverse health and educational outcomes. *Protective factors* are individual or environmental characteristics, conditions, or behaviours that reduce the effects of stressful life events. These factors increase individual's ability to avoid risks or hazards, and promote social and emotional competence to thrive in all aspects of life, now and in the future (CDC 2014:24).

According to UN agreements and recommendations, adolescents have a right to receive accurate sexual and reproductive health information and confidential services without discrimination (UN Committee on the Rights of the Child 2003a, 2003b). Although reference is made in some documents to parental rights and obligations and the evolving capacities of the child, it has been argued that any adolescent who seeks information or services relating to the protection of his or her sexual or reproductive health when he or she is, or is about to be, sexually active, should be considered mature enough (sufficiently "evolved") to receive it (Cook & Dickens 2000). South Africa's national public-sector adolescent-friendly clinic initiative proposes that all services – including elective abortion should be available to adolescents aged less than 14 years without parental consent (Dickson-Tetteh et al 2001:166).

According to the UN Public Health Prospective Report of 2011, many teens have limited access to sexual health services. They either don't know where they can go for birth control; they don't have money to pay for services; they don't have transportation to

reach the services; and they don't know that they can receive services without parental consent.

To have the most positive impact on adolescent health, government agencies, community organisations, schools, and other community members must work together in a comprehensive approach. Providing safe and nurturing environments for our nation's youth can help ensure that adolescents will be healthy and productive members of society (CDC 2014).

4.3.2.5.1 Schools

Schools are said to be safe places when they provide protection to young adolescents' health and welfare, supply girls and boys with friends and mentors and create a conducive environment for enhancing love, learning and creativity. But schools can also be unsafe places that provoke humiliation, alienation and fear. Discriminatory attitudes and practices (the "hidden curriculum of gender") selectively affect boys and girls as well as members of different socio-economic groups, as measured by students' treatment by teachers, their progress through grade levels, their academic and vocational course options and opportunities for extracurricular activities such as sports, and their expectations for the future (WHO 2009:20).

In this study, participants of both gender at the urban and rural schools agreed that a school should be a conducive place to work on adolescent sexual health in order to minimise risks related to sexual practices. They strongly suggested that professionals on adolescent reproductive health should be invited to give sexuality education on regular basis at their respective schools. Anti-AIDS clubs, VCT centres, adolescent sexual and reproductive health information centres, mini-media centres should be established in the schools, supported and monitored by the school management in order to actively work on reducing sexual risk practices among school adolescents. Some participants from the urban high school suggested that adolescent sexual and reproductive health should be integrated into the school curricula especially at high school level so that students would acquire basic knowledge to assist them a from engaging in risky sexual practices.

4.3.2.5.2 Youth associations

Some participants at both schools reported that there are no active youth associations where they live. Sometimes they meet at their kebeles (small government administrative structure in Ethiopia) for issues not related to adolescent reproductive and sexual health. Three male participants from the urban high school said that: *“There is a youth association in their area which works on issue related to adolescent including adolescent health, but at only a few occasions adolescent sexual and reproductive health was discussed as an agenda during their meetings, and so far no expert in this field was ever invited to share his knowledge to the youth in the association”*.

The three male participants further added that neither ARH was included in the strategic plan of the association nor a responsible person in the association was assigned to consult on ARH issues.

At both schools, focus group participants agreed that adolescent associations should introduce sexual reproductive health programmes in their activities. They said: *“Association leaders should identify adolescent health problems in their specific areas and include them in their plans”*.

Some participants suggested that focal persons should be assigned to follow adolescent reproductive health activities and the associations should work closely with local health offices or health institutions and invite professionals from the areas to provide regular health education to adolescents. They stated that:

“There should also be regular monitoring and evaluation of the programmes by the association and feedback of the evaluation should be given to the association members through different locally applicable means”. They suggested that in order to ensure sustainability of the activities, the associations should submit proposals to locally operating Non-Governmental Organisations (NGOs) and Governmental Organisations (GOs) for funding to support adolescent health related activities.

4.3.2.5.3 Health institutions

Sexuality and reproductive health are among the most fundamental aspects of life. Poor parental involvement in preparing young people for safe sexual life and good reproductive health was part of the blame for the lack of skills on sexual decision making. Despite the growing needs, there is no adequate health service or counselling specifically suitable for this specific age group and research on the role of parents in this process has yielded inconsistent results (Patton et al 2009:882).

Participants of both gender from both schools revealed that there are government, private and non-governmental organisation's health facilities in their localities. Without reservation, they all stated that apart from Tetanus Toxoid (TT) and Meningococcal *meningitis* vaccination services they have never seen or do not remember of any adolescent reproductive health services that had been given by health institutions in their schools.

One female and two male adolescents from Ambo High School suggested that competent public health workers and others should carry out research on adolescent reproductive health in order to identify adolescent reproductive health issues and challenges related to health institution's service provision to adolescents. The finding is in line with the previous recommendations that research is needed to establish the extent to which younger and older (male and female) adolescents know about, have access to, use, and are satisfied with the existing adolescent reproductive health services; as well as establish to what extent young people are denied, scolded, discouraged, threatened, or sent home by providers in public health posts, private clinics, community based non-governmental organisations (NGOs), pharmacies and family planning facilities (WHO 2011b:29).

Research is further needed on both the supply and demand factors relating to sexual and reproductive health care for adolescents and the interactions among them. Comparative research could throw light on the processes through which male and female adolescents of different ages and developmental cognitive stages make decisions about how to deal with STIs/HIV and unanticipated pregnancies, and how they are affected by them (e.g. who bears the greatest costs). It could also identify ways in which adolescents' capacities not only to prevent but also to manage such outcomes

safely and effectively can be supported by making sure that they have access to comprehensive information and services when they need them (WHO 2011b:29-30).

Two participants (one male and female) from the rural high school reported that the health institution in their area doesn't have condoms and the facility health workers do not provide health education on sexually transmitted diseases and condom use services to the community. The male participants added that many adolescents are ashamed to talk about condom and to ask their sexual partners to use condom during sexual intercourse. The finding was substantiated by the narration by a male participant from the urban high school who said:

“One day, a friend of mine [the adolescent] told me that he had discussed with his sexual partner to use a condom during sexual intercourse and went to the local pharmacy. As soon as he arrived at the pharmacy he found two persons in the pharmacy that he knew. He stayed outside for more than 15 minutes till when those persons had left the pharmacy because he was ashamed to ask for a condom in front of people he knows”.

Similarly, one male participant from Ambo High School said, *“Some seven months ago one of his friends told him that he had separated from his girlfriend because she had found a condom in his bag and even though he had tried to convince her why he carried the condom, she told him that it is a sign of promiscuity”.*

Participants from both schools reached a consensus that health institutions should include adolescent reproductive health in their day to day activities, and school teachers and health workers should have a common forum for discussing adolescent sexual health problems. Institutions should have common plans and intervention strategies and schools and Primary Health Care Units (PHCU) should monitor and evaluate the implementation of adolescent sexual and reproductive health activities in their areas.

4.3.2.5.4 Mass media

Participants from the urban high school observed that there is good initiative from the national and regional radio and TV programmes to address adolescent problems including reproductive and sexual health issues. They, however, reported that majority of

the students have no access to those programmes and even those who have access, the time the programmes are being aired are not convenient to adolescents to view and listen to. On the other hand, almost all participants from the rural high school have no access to television programmes and most families do not have even radios to listen to the aired programmes. A female participants from the urban high school reported that the recent dramas being aired through Ethiopian Television (ETV) and Oromia Regional Television (OTV) partially address adolescent sexual and related issues through which young people have acquired basic knowledge which has helped them to bring behavioural changes. They and their friends are always eager to view those programmes.

‘I do not miss Sew Lesew drama programme (Man to Man drama) because it provides important education including sexual reproductive health issues through entertainment’, said one female Ambo High School student.

Participants at both schools suggested expanding and strengthening the existing mini-media programmes in their schools by including adolescent sexual and reproductive health. They further suggested that the existing mini-media should be equipped with electronic materials and further training should be given to mini-media facilitators on how to select and disseminate important and relevant information to school adolescent.

The participants further suggested that adolescent reproductive health information centres should be established in schools. The information centres should be equipped with relevant materials such as, leaflets, magazines, books, pamphlets, posters, computer and internet services and others for students to receive relevant information regarding sexual and reproductive health issues on time.

4.3.2.5.5 Non-governmental organisations (NGOs)

The role of non-governmental organisations in supporting education and health was explored during FGDs. This study has found that participants from the rural high school have limited knowledge of the mission and roles of non-governmental organisations in their area. Two students from the rural discussion group had some knowledge and urged non-governmental organisations to extend materials and technical aids to their schools to support adolescent reproductive health. Other two female participants from

the rural high school said that NGOs in their areas are only providing aids like food items during draught, clothes and education materials for orphans.

On the other hand, participants at the urban high school stated that NGOs can contribute a lot to alleviate adolescent sexual and reproductive health problems; and expect that school officials would invite or request NGOs to work closely with the schools on adolescent sexual problems. The urban participants urged NGOs to carry out assessment of the extent of adolescent sexual health problems (problem identification) and propose solutions. Implementation of the proposed solutions should be closely monitored and evaluated. They also suggested some specific areas that NGOs could be involved in including organising and supporting VCT centres in schools, assigning trained health workers and counsellors to the VCT centres, providing adolescent reproductive health trainings to selected teachers and students who will cascade the training to the rest of adolescents in the schools.

4.3.2.5.6 *Families and community*

Young people's behaviours are influenced at the individual, peer, family, school, community, and societal levels. Because many societal sectors contribute to adolescent health, safety, and well-being, collaborative effort to engage multiple partners is necessary. Such joint efforts can help to promote a more comprehensive approach to addressing adolescent health that views each adolescent as a whole person, recognising and drawing upon his or her assets and not just focusing on risks (CDC 2014).

During the focus group discussions all participants at both rural and urban high schools actively participated and provided their suggestions on what contributions are expected from the families and the community to reduce adolescent sexual risk practices. One female participant from rural high school said:

“It is uncommon to discuss sex and related issues with their families in their areas and so far I have not discussed these issues with my families as well as with others”. She further explained that raising these issues within families is considered that one has started practicing sexual activities. She also added that in her area where she lives:

“Girls who are shy and do not talk about sexual issues with others are considered to be virgin and the opposite is true for those who discuss sexual issues with others”.

Contrary of the above suggestions, the majority of the participants from urban and some students from the rural high school agreed that discussing sex and related issues with families and others can significantly decrease premarital sexual practices. They added that, for those who want to practice sexuality they should use protective measures like condom. Therefore, families are expected to create discussion avenues on issues related to sexual activities and explain clearly to their children the consequence of unprotected sexual practices. This study has also revealed that families and the local community are further expected to educate their children about the importance of abstinence before marriage.

4.4 CONCLUSION

The results of this study have shown that the majority of the adolescents in the studied population engage in risk sexual practices which predispose them to STIs including HIV infection, unwanted pregnancy and complications associated with abortions in the hands of unprofessional practitioners. Several factors have been mentioned as driving force behind risk sexual practices among the studied adolescents including inadequate and lack of knowledge about the risks, socio-cultural practices and perceptions that a male adolescent should practice pre-marital sex and lack of specific programmes targeting adolescents at the schools and health facilities are among the major reasons.

From the focus group discussions, the study has demonstrated the adolescent's need to be engaged in the planning and implementation of specific programmes targeting them. In addition, the study population expressed an urgent need of involving major stakeholders including families, health professionals, teachers and NGOs in carrying out assessment of the extent of risk sexual practices in their communities, design and implement strategic interventions for reducing risk sexual practices among the adolescents. The government and schools have been called to develop sexuality education programmes which should be taught by trained teachers in collaboration with health professionals.

CHAPTER 5

INTERVENTION STRATEGIES FOR THE REDUCTION OF RISKY SEXUAL PRACTICES BASED ON THE FINDINGS

5.1 INTRODUCTION

An intervention strategy is a specific activity (or set of related activities) intended to change the knowledge, attitudes, beliefs, behaviours, or practices of individuals and populations to reduce their health risk through consistent application of particular methods or approaches in the course of intervention (Bonell & Imrie 2001:155).

Based on the major findings of this study this chapter proposes intervention strategies to reduce risky sexual practices.

5.2 BEHAVIOURAL INTERVENTIONS

A behavioural intervention is a specific collection of preventive activities developed or implemented with a clear aim to promote positive changes in behaviours, either directly or indirectly, to reduce HIV transmission and other infections. Most behavioural interventions aim to change risky sexual and drug use practices in efforts to reduce transmission of HIV/AIDS (Coates, Ritcher & Cacerres 2008:669)

Behavioural intervention strategies involve comprehensive knowledge, stigma reduction, increased health service seeking behaviour, delay onset of sexual intercourse, decrease in number of sexual partners, increase in condom use, increase in use of family planning services (HIV/AIDS and minimum service packages for youth centres (FHAPCO and MWCY 2013:22).

The objectives of the behavioural interventions are to

- increase comprehensive knowledge on ASRH among adolescents
- reduce risky behaviours for STI/HIV and SRH problems among school adolescents

- improve health seeking behaviour for HIV services such as HCT, treatment of STDs and use of condoms among sexually active adolescents

This study has found that there were significant gaps in the knowledge, attitude and practices of reproductive health services among high school adolescents. Some local beliefs and cultural taboos were found to have negative influences on adolescent sexual and reproductive health such as believing that a boy should practice sexual activities before marriage; discussing about condom with others promotes promiscuity, using condom as mistrust on the part of the partner; and existence of risky sexual practices including premarital sex, unprotected sex, sexual intercourse with female commercial sex workers, sex with more than one partner, sex after drinking alcohol, forced sex, and sex for money and other gifts as reported by both urban and rural adolescents.

The components of relevant behavioural intervention strategies include:

5.2.1 Peer education

Peer education is a process which involves selecting, training and supporting members of a specific group to educate members of their peer group about a subject matter. In peer education programmes, peer groups can be referred to as the target group or population, beneficiaries or beneficiary population (Peer Education TOT Guideline) (FMOE 2011:4).

Peer education is also defined as the process by which well-trained and motivated individuals lead organised educational and skills-building activities with their peers, to support and improve skills, to make an informed decision about HIV/AIDS and sexual reproductive health through activities undertaken on one-to-one counselling or small group setting (FHAPCO & MWCYA 2013:23).

In this study 75% of the FGDs said peers were more influential to practices or not to practice premarital sex; to have multiple sexual partners and to have intercourse with commercial sex workers. The quantitative findings have shown that 27.1% of the sexually active adolescents had stated that peer pressure was the main reason influencing sexual intercourse for the first time.

Peer education programmes can improve young people's health-related knowledge, attitudes, and skills and ultimately improve access to health services. Peer education is a popular approach for promoting reproductive health and HIV prevention among young people around the world (FHAPCO MWCYA 2013:23). Adolescents develop very close relationships with their peers, conforming to language, dress, and customs which helps them to feel secure and gives them a sense of belonging to a large group. Therefore, given the significance of peer influence, this power can sway adolescents and youth toward greater or lesser risk-taking (FMOH 2011:148). A peer educator is a person who belongs to a group on an equal basis as other group members but who is trained (and supervised) to bring about a change in knowledge, attitudes, beliefs and behaviours at individual level amongst his or her group members (Peer Education TOT Guideline) (FMOE 2011:4).

Proposed strategies for an effective peer education programme for adolescents

- Develop relevant curricula for Training of Trainers (TOTs) on peer education.
- Develop comprehensive criteria for selecting peer educators.
- Recruit peer educators based on the developed selection criteria.
- Train peer educators using those who have been trained as Training of Trainers (TOTs).
- Establish linkages and referral systems with local youth-friendly service providers.
- Reward and incentivise peer educators as motivation for better achievements.
- Conduct refresher trainings for peer educators on regular basis.
- Institute regular monitoring, supervision, evaluation and feedback of peer education activities by those engaged in adolescent sexual and reproductive health activities.

5.2.2 Life skills

Life skills are the abilities for adaptive and positive behaviours that enable individuals to deal effectively with the demands and challenges of everyday life (WHO 2011b:13). A Life skills programme is a comprehensive behavioural change approach that concentrates on the development of the skills needed for life such as communication, decision making, critical thinking, managing emotions, assertiveness, self-esteem

building, value clarification, peer pressure resistance and relationship skills for adolescents (FHAPCO & MWCYA 2013:24). The approach for imparting life skills is usually interactive, using role plays, games, puzzles, group discussion, and a variety of other innovative teaching techniques to keep the participants fully involved in the session. Application of “Youth Action Kit” activities promotes the development of the following five Fundamental Life Skills:

- (a) **Making good decisions:** Learning to make responsible personal decisions requires practice. Adolescents must make decisions frequently, ranging from simple to major decisions, such as: What shall I wear today? Shall I have sexual relations?
- (b) **Being more assertive:** Being assertive is about being positive and confident. It is known that everyone deserves respect. In the Ethiopian culture, this skill is especially important for women. Women must learn to assert themselves when men press them to have sex before they are ready or to have sex without a condom.
- (c) **Setting realistic goals:** Adolescents who have thought through their personal priorities and have a plan for the future are more likely to remain at low risk. Changing personal behaviour is also directly related to the ability to set realistic, achievable goals.
- (d) **Boosting self-confidence:** In general adolescents are eager to boost their self-confidence. Self-confidence is a foundation skill because it underpins the other four skills and makes each one easier to carry out.
- (e) **Resisting peer pressure:** Giving into peer pressure is one of the leading reasons for adolescents getting involved in risky situations. Fortunately, there are skills and techniques that allow students to develop the ability to not to follow the crowd and stand on their own feet say “No” to risky situations.

Proposed strategies to develop life skills among adolescents

- Develop relevant life skills training manuals on adolescent sexual and reproductive health.
- Develop clear selection criteria for selecting life skills training facilitators.
- Recruit facilitators based on the developed selection criteria.
- Train Trainers (TOT) based on the developed life skills education curriculum.
- Cascade life skills training to the rest of the students/adolescents using facilitators who have taken TOT.
- Establish linkages and referral systems with local youth friendly service providers.
- Reward and incentivise facilitators and adolescents.
- Build adolescent's skills to abstain, to be faithful, to be consistent and to properly use condom.
- Design workable monitoring and evaluation strategies.

5.2.3 Abstinence plus

This is an intervention strategy to reduce the needs of both sexually active and those who are not active. Abstinence plus interventions provide information about abstinence and other options for self-protection including condom use.

In this study, the quantitative results revealed that 37.9% of the study participants were involved in pre-marital sexual activities. On the other hand, during the focus group discussions, majority of the participants in both schools agreed that proper and consistent use of condom, faithfulness, increasing adolescent's knowledge on sexual and reproductive health, avoiding sex before marriage can significantly minimise risks related to sexual practices.

Proposed strategies to promote abstinence plus among adolescents

- Prepare and provide strong messages and sound information on abstinence and other self-protection options like use of contraception methods, abortion care, prevention of STIs and HIV/AIDS.

- Promote abstinence and faithfulness by using different strategies such as dramas, role plays, videos, experience sharing with those practicing abstinence and others.
- Promote correct and consistent use of condoms.
- Produce and distribute IEC/BCC materials relevant to adolescent sexual and reproductive health.
- Reward adolescents practicing abstinence and faithfulness.

5.2.4 Outreach programmes for the surrounding community

During focus group discussions participants at both rural and urban high schools actively participated and provided their suggestions on what contributions are expected from the families and the community to reduce adolescent sexual risk practices. Participants also suggested that focal persons should be assigned or task force committees should be established to follow adolescent reproductive health activities. Similarly, associations should work closely with local health offices or health institutions and invite professionals from the areas to provide regular health education to adolescents.

Participants further revealed that sex education and the consequences related to risky sexual practices is lacking in their school curricula. Adolescent programmes intended to be introduced at the youth centres should be implemented with full involvement of the surrounding community including families as they are core in identifying ASRH problems of adolescents. The surrounding communities can be used as sources for ASRH information and promoters for the use of the services by the adolescents.

Proposed strategies to sustain involvement of families and the community

- Establish networks with surrounding communities including governmental departments, non-governmental organisation, and associations such as youth associations, women's associations, hotels, bars, “Idirs”/local organisations for social support and others.
- Organise awareness creation/sensitisation programmes through workshops and events in collaboration with the neighbouring communities.

- Form task force groups to facilitate coordination and follow up of the implementation of ASRH services at the youth centres.
- Conduct edutainment, experience sharing programmes, film and video shows, and other programmes to enhance the contribution of the youth centres in the awareness creation of the communities on adolescent sexual and reproductive health.
- Integrate ASRH education in the primary and secondary level education curricula.
- Conduct mass mobilisation for adolescent sexual and reproductive health awareness creation and service promotion.

5.2.5 Establishment and strengthening of Mini-Media, ASRH information centres in the schools

These programmes should be prepared targeting young people by using highly interactive approaches, sound and appropriate messages about adolescent sexual and reproductive health. While quantitative findings have indicated that 39.2% of high school adolescents had no sources of information about adolescent sexual and reproductive health the FGDs results have indicated that Anti-AIDS clubs, VCT centres, adolescent sexual and reproductive health information centres, mini-media centres should be established in the schools, supported and monitored by the school management in order to actively work on reducing sexual risk practices among school adolescents. They further suggested that the information centres should be equipped with relevant materials such as, leaflets, magazines, books, pamphlets, posters, computer and internet services and others for students to receive relevant information regarding sexual and reproductive health issues on time.

Proposed strategies for establishment and strengthening of mini-media, ASRH information centres in the schools

- Establish mini-media and Adolescent Sexual and Reproductive Health Information centres in schools.
- Strengthen mini-media and Adolescent Sexual and Reproductive Health Information Centres by assigning the right persons to lead the centres and equip

them with relevant materials such as leaflets, magazine, books, pamphlets, posters, computer and internet services and other electronic materials.

- Develop adolescent sexual and reproductive health related programmes for dissemination by the mini media.
- School managements should monitor and evaluate the programmes regularly.

5.2.6 Organise youth dialogue programmes in the school

Youth dialogue is a forum that draws participants from as many groups of youth as possible to exchange information face to face, share personal stories and experiences, honestly express perspectives, clarify view points, and develop solutions to youth concerns. It develops common values and allows participants to express their own interests. During the dialogue, participants may question and re-evaluate their assumptions. Through this process, adolescents are learning to work together to alleviate ASRH problems affecting them.

Proposed strategies to achieve the above objectives

- Based on the pre-set criteria, select facilitators and conduct training for facilitators on youth dialogue programmes.
- Based on the locally identified ASRH gaps, identify the issues for discussion (example, do you believe that boys should practice sex before marriage?).
- Decide where and when to meet for the dialogue (the place and the time should be decided by the adolescents themselves).
- Conduct effective dialogues.
- Define the problems within the communities.
- Discuss possible solutions.
- Build consensus on recommendations.
- Commit to next steps.
- Warp-up and adjourn.
- Evaluate the dialogues and give feedback.

5.3 BIOMEDICAL INTERVENTIONS

Biomedical intervention is a medical approach to prevent STIs/HIV and treat opportunistic infections, decrease infectiousness or reduce infection risk among individuals, families and communities (FHAPCO & MWCYA 2013:29).

Components of biomedical interventions:

5.3.1 Condom promotion and provision

Condom use is the only contraceptive method that can protect against both pregnancy and STI including HIV. In this study both quantitative and qualitative results have showed that there are significant problems related to condom utilisation and availability especially in the rural areas. As indicated from the quantitative results, 60% of the sexually active adolescents did not use condom during their last sexual intercourse and about 87% of the sexually active adolescents either never used condom at all or did not use condom consistently during sexual intercourse within one year before the study. On the other hand, the results of the FGDs revealed that there were problems related to condom distribution at the centres especially in the rural adolescents. In addition, 16.7% of the sexually active adolescents indicated that they did not use condom during sexual intercourse due to unavailability of condoms in their area; and 4.8% said they did not use condom because they did not know how to use it. It is concluded that there are problems of utilisation and availability of condom among the studied population.

In Ethiopia, the National Condom Strategy was drafted recently to ensure sustainable and equitable access to quality condom, and to promote correct and consistent use of condom for the prevention of STIs/HIV and unplanned pregnancies among sexually active population, with a special emphasis on most at risk population and vulnerable groups (FHAPCO 2014:30). In this study, 3.6% of the sexually active adolescents did not use condom during sexual encounters due to high price of condoms in their areas.

Proposed strategies for condom promotion as well as provision

- Carry out condom needs assessment among the vulnerable population groups.

- Based on demand analysis, sustain availability of condom in schools (through anti AIDS clubs) and around the school community.
- Identify condom outlets (such as health facilities, drug shops, hotels, bars, shops and others) and depending on the need, make condoms continuously available at the outlets.
- Establish networks and seek support of local NGOs working on condom distribution to provide free condoms or at a low cost.
- Raise the awareness on correct and consistent use of condom among the vulnerable population using different approaches (such as, anti-AIDS clubs, peer educators, leaflets, posters, pamphlets, mini-medias).
- Integrate the condom programme in HIV/AIDS and Family planning activities.
- Organise training and demonstration events on correct use of condoms.
- Develop effective monitoring and evaluation systems for free, socially marketed and commercially sold male and female condoms.

5.3.2 Sexually transmitted infections prevention, diagnosis and treatment

An individual can be exposed to STI from having unprotected sex with infected sexual partners. A person with STIs has a higher risk of HIV infection. On the other hand HIV infections aggravate the signs, symptoms and complications of STIs. Provision of education and information on prevention and importance of early diagnosis and treatment of STIs has dual benefits for HIV and STIs prevention and control.

Higher proportion (24.21%) of rural adolescents than urban (20.35%) do not have adequate knowledge about STIs. Among the adolescents aware about Hepatitis B, nearly half (49.29%) were unaware of Hepatitis B being transmitted through sexual intercourse.

Out of the 170 sexually active male and female, 28.8% reported a history of, sign/or symptoms of STDs. With regard to the preference of treatment for signs and symptoms of STDs, 10.2% went to local injectors and 8.2% received treatment from traditional healers.

Proposed strategies to overcome identified problems related to STIs among school adolescents

- Promote healthy sexual behaviour, use of condom, and treatment seeking behaviour through the targeted BCC programme.
- Avail IEC/BCC materials on prevention and control of STIs/HIV at the adolescent sexual and reproductive health centres.
- Train selected school teachers, peer educators, mini media facilitators, ASRH information centres representatives, anti-AIDS club workers on the prevention and control of STIs in order to equip them with basic knowledge and cascade the information to the rest of the adolescents.
- Facilitate referral linkages with local health facilities for better treatment and consultation.
- Utilise trained teachers and students in the provision of risk reduction counselling and condom use.
- Promote/encourage sexual partner notification during STI case detection.

5.3.3 Prevention of unwanted pregnancy and abortion

Unintended pregnancy and subsequent unsafe abortion are among main problems faced by young people in Ethiopia (FHAPCO & MWCYA 2013:32).

The result of this study has revealed that 36.4% of the female students who had experienced sexual intercourse had become pregnant and all pregnancies were not planned. Most of the pregnancies (83.3%) ended up with an induced abortion of which 35% were carried out by untrained traditional abortionists.

During FGDs both female and male discussants indicated that females visit local abortionist due to lack of knowledge, accessibility, and secrecy behind unwanted pregnancies, financial constraint and absence of safe abortion services in their locality. They also added that many female adolescents visit local abortionists who often insert plastic tubes and other sharp materials in the cervix, practices that could significantly contribute to spreading of HIV/AIDS and other blood-borne diseases among the peers and others. According to the female FGD participants, unwanted pregnancy is the main

cause of high rate of school dropouts, migration, child abuse and engagement in commercial sex works. Modern contraceptive utilisation including emergency contraceptives among school adolescents was limited. Among the sexually active urban and rural adolescents 33.33% had used modern contraceptives and only 13.9% had ever used emergency contraceptives prior to the study. Regarding the likelihood of a woman becoming pregnant the first time she had sexual intercourse, 59.4% responded that a girl could not become pregnant the first time she had sexual encounter. Availing access to family planning services for preventing unwanted pregnancy and referring complications arising from unsafe abortions could highly benefit adolescents.

Proposed strategies for the prevention of unwanted pregnancy and abortion

- Provide scientific information related to pregnancy to adolescents through different methods.
- Promote use of contraceptives including emergency contraceptives to prevent unintended pregnancy and HIV/AIDS.
- Avail family planning methods including emergency contraceptives to the at risk groups.
- Equip selected teachers/volunteers (specifically biology teachers) with basic knowledge on family planning methods through training so that they can provide correct information to the adolescents.
- Establish referral systems and linkages to adolescent health services available at health facilities.

5.3.4 Providing HIV testing and counselling (HCT) services

HIV testing and counselling services can be given through voluntary counselling and testing (VCT), Providers Initiated Testing and Counselling (PITC) and also through campaigns. HTC can be made available to all the youth centre staffs, the young people, the surrounding communities. Periodic HTC campaigns tend to elicit positive response and results in an increase in the number of youth seeking to know their HIV status and seek care and treatment if test HIV positive (FHAPCO 2014:30).

According to Ethiopian DHS 2011, 61% of adult population in urban areas and 28% of the population in rural areas knew their HIV status. However, there was considerable

regional variation in the coverage of testing from as low as 10.6% among women in Somali region to 65% among women in Addis Ababa (HIV/AIDS Strategic Plan) (FHAPCO 2014:17).

In this study, assessment of the awareness of the school adolescents on voluntary counselling and testing for HIV/AIDS revealed higher (85.39%) proportion of urban than (67.72%) of the rural high school adolescents had ever heard about VCT. Out of the adolescents who had ever heard about VCT, only 30.08% and 24.66% of urban and rural adolescents respectively had tested for HIV.

Proposed strategies for the Providing HIV testing and counselling (HCT) services

- Use different approaches (methods) to promote HCT in the schools and surrounding communities.
- Use peer educators, school teachers, national and regional radio and TV programmes, mini-media, brochures to educate school adolescents on the benefits of HIV testing.
- Train school teachers, peer educators, mini-media workers, ASRH information centre workers on the benefit of HCT.
- Cooperate with local health institutions and other partners to establish HCT centres in schools to provide the service on regular basis.
- Provide training to HCT service providers at the centres.
- Avail youth-friendly HIV/AIDS and ASRH services including HCT, condom and contraceptives.
- Ensure uninterrupted supply of test kits and other medical equipment used for HCT to HIV test centres.
- Create referral systems between school HCT centres and local health facilities to provide additional services when needed.

5.4 STRUCTURAL INTERVENTIONS

The interventional structures are designed to implement or change laws, policies, physical structures, social and organisational structures, and standard operating procedures to bring about environmental or societal change. The approach for structural

interventions focuses on reduction of factors that impair the ability of an individual and communities to effectively engage in the prevention of HIV/AIDS and ASRH related problems.

Components of structural interventions:

5.4.1 Family and community engagement

The aim is to secure support from families and communities in addressing adolescent sexual and reproductive issues and to maintain and strengthen available "social capital" for support of young people. The results in this study show that about 52.01% and 43.36% of the rural and urban adolescents respectively fully or partially agreed that a boy should have sex before marriage. The source of this belief is believed to be families and communities where adolescents live. Similarly, majority of the participants were not discussing sex and related issues with their families and others, suggesting that families were not creating discussion agenda on issues related to sexual activities for their children.

During focus group discussions, majority of the participants agreed that discussing sex and related issues with families and others can significantly decrease premarital sexual practices and families are expected to create discussion avenues on issues related to sexual activities and explain clearly to their children the consequence of unprotected sexual practices. This study has in addition, revealed that families and local communities are further expected to educate their children about the importance of abstinence before marriage.

Young people's behaviours are therefore, influenced at the individual, peer, family, school, community, and societal levels. Because many societal sectors contribute to adolescent health, safety, and well-being, collaborative effort to engage multiple partners is necessary (CDC 2014).

Proposed strategies of engaging families and communities in adolescent sexual and reproductive activities

- Engage local health (especially health extension workers), education, women, children and youth offices, administration and other institutions to sensitise families and communities in raising awareness about risks related to adolescent sexual and reproductive health. Community sensitisation can be implemented at community and government gatherings, (example, school family days, open days, official government meetings and religious congregations).
- Create task forces and committees to lead family and community activities on different adolescent sexual and reproductive health activities. The committees should be constituted by representatives of the community, adolescents, health offices/institutions, school teachers, religious leaders, NGOs and others.
- Organise regular consultative meetings with the task forces and community representatives to evaluate the activities.
- Use different approaches to disseminate to adolescents feedback given during the taskforce and committee meetings.

5.4.2 Involvement of other organisations on adolescent sexual and reproductive health activities

To achieve the most positive impact on adolescent health, government agencies, community organisations, schools, and other community members must work together. Providing safe and nurturing environments for the nation's youth would help to ensure that adolescents will be healthy and productive members of the society (CDC 2014).

During focus group discussions, participants strongly expressed the importance of involvement of other organisations such as schools, youth associations, health institutions, media, NGOs, families and communities in the adolescent sexual and reproductive health activities in order to contribute their experiences on reducing sexual risk practices and their consequences.

They also suggested some specific areas that NGOs could be involved in including, organising and supporting VCT centres in schools, assigning trained health workers and counsellors to the VCT centres, providing adolescent reproductive health trainings to

selected teachers and students who will cascade the training to the rest of adolescents in the schools.

Proposed strategies for the involvement of other organisations on adolescent sexual and reproductive activities

- Mapping of partners who are engaged on adolescent sexual and reproductive health activities.
- Establish ASRH forum.
- Conduct joint operational plan development on ASRH activities with stakeholders.
- Conduct regular meetings with the stakeholders.
- Conduct experience sharing activities between the stakeholders.
- Document good practices for dissemination to others.
- Conduct regular joint annual programmes reviews and improve as per the recommendation given.
- Ensure involvement of the representatives of adolescents on joint planning, regular meetings/forums, and annual review meetings.

5.5 MONITORING AND EVALUATION OF IMPLEMENTATION OF PLANNED ACTIVITIES ON ASRH

Follow-up of activities and providing timely feedback is essential to continually guide and/or redirect the inputs and the overall direction of the programmes to reach the intended goals.

As part of monitoring and evaluation (M & E) of the youth centres ASRH intervention package, all intervention activities should be systematically collected, recorded by experts using systematically designed formats. The progress of the programme should be monitored and collected data should be analysed and be used to generate strategic information for the programme improvement, re-planning and decision making. The output of the monitoring and evaluation processes should be disseminated to the beneficiaries/adolescents, implementers, policy makers, and the partners for effective utilisation.

Furthermore, ASRH and HIV/AIDS control and prevention programmes need to be evaluated (process, outcome and impact evaluation) to see whether the intervention has brought any change, effective and met its objectives.

In this study focus group discussion participants suggested that there should be regular monitoring and evaluation of ASRH programmes and feedback of the evaluation should be given to the adolescents through different locally applicable approaches. The aim is to ensure timely generation and utilisation of information to enhance evidence-based decision making.

Proposed intervention strategies to achieve monitoring and evaluation activities

- Assign ASRH monitoring and evaluation to focal person in schools.
- Develop adolescent sexual and reproductive health M & E implementation and training manual.
- Conduct training for ASRH focal persons on M & E manual.
- Enhance dissemination and utilisation of monitoring and evaluation indicators.
- Conduct regular supportive supervision and provide technical support on monitoring and evaluation activities.
- Provide written feedback based on the findings of supportive supervision for better improvements of adolescent sexual and reproductive health programmes.

Effectively monitor and evaluate implementation depends on well-articulated measurable indicators. The following are proposed indicators for monitoring and evaluation

- Number of life skills and ASRH training manuals and implementations guidelines developed and distributed.
- Number of peer educators trained.
- Number of life skills and ASRH facilitators trained.
- Number of youth dialogue facilitators trained.
- Number/type of BCC materials developed and distributed to adolescents.
- Number of schools established mini-media.

- Number of schools which established mini-media, VCT centre, Adolescent sexual and reproductive health information centres.
- Number of peer education training manuals and implementation guidelines developed and distributed.
- Number of condoms distributed to youth centres during a given period of time.
- Number of centres which conducted peer education sessions weekly.
- Number of centres which conducted youth dialogue sessions weekly.
- Number of youths reached with BCC materials.
- Number of youth reached in peer education on ASRH.
- Number of youths reached with youth dialogue on ASRH.
- Number of youth reached with life skill education on ASRH.
- Number of youths used condom consistently and correctly.
- Number of youth used VCT services.
- Number of youths used STI diagnosis and treatment services.
- Number of youths referred and linked to other services and others.

5.6 CONCLUSION

This chapter Five has discussed in more details the framework for addressing challenges that adolescents encounter in their lives. The study has demonstrated that several factors influence adolescent sexual reproductive health and the researcher has identified key partners whose efforts is necessary for improving adolescent sexual reproductive health.

The researcher has further identified key strategies targeting the behavioural, biomedical and structural interventions. For each of these interventions, the chapter has proposed specific strategies targeting different sectors and stakeholders, which if well-coordinated and implemented will bring behavioural, biomedical and structural changes and improved adolescent sexual and reproductive health.

The role of effective monitoring and evaluation has also been described. The researcher has emphasised that success of the proposed strategies depends on development of specific, realistic and attainable activities which require trained and skilled human resources. The chapter has proposed several measurable indicators which can be

applied during development of specific activities. It is expected that specific tools will be developed and the personnel assigned to monitor and evaluate the implementation of the planned activities and that personnel will be trained on how to apply and interpret the proposed measurable indicators.

Involvement of adolescents and other stakeholders in the planning processes and implementation of plans as well as monitoring and evaluation have been emphasised. It is envisioned that the study has provided a framework from which training institutions, health professionals, policy and decision-makers will use in the review of curricula, policies and operational procedures for improving adolescent sexual and reproductive health.

CHAPTER 6

DISCUSSION OF THE FINDINGS

6.1 INTRODUCTION

The previous chapter focused on the intervention proposing strategies to reduce risk sexual practices among adolescent in Ambo and Meti High Schools in West Shoa zone, Ethiopia. This chapter discussed the major findings of this study explaining what the results mean and answering the research questions described in the introduction. The major findings of this study have been compared with other similar study results and personal judgments on the difference and similarities of those findings have been discussed.

6.2 MAJOR FINDINGS OF THE STUDY

The participants in this study reported that knowledge gap, limited adolescent reproductive health services, social, cultural and economic factors lead to risk sexual practices including premarital sex, unprotected sex, sex with commercial sex workers, sex with multiple partners, unplanned pregnancy and abortion, sexually transmitted diseases, sex for monetary gains and other gifts. While the findings are comparable to results reported among adolescents in other countries and in Ethiopia (WHO 2012; Khan & Mishra 2008; Bane 2006; Dawud 2003), the context under which they occur may differ between and within countries.

6.2.1 Knowledge and attitude toward reproductive and sexual health among high school adolescents

6.2.1.1 *Discussion with families on sexual issues*

Adolescents' discussion with their families on sexual issues has previously been shown to have a positive impact on safe sex reduction of risky sexual practices among adolescents (Kitchen 2011). However, many research and consultations over the last decades have identified poor sexuality-related communication between adolescents and

families as an issue that needs urgent attention. Studies in Ghana and other Sub-Saharan African countries have shown that parent-child communication about sex-related matters is relatively uncommon (Akwasi 2007). The frequency of adolescents who discuss sexuality issues with their families ranges from as low as 20% in Lesotho, 27% in Tanzania and other parts of Ethiopia such as Debremerkos (36.9%) Bullen District (29%), Hawasa (30.4%) (Shiferaw et al 2014).

In this study, more than 84% of the adolescents did not discuss sexuality issues with their families. Similar proportions have been reported in other studies (Abdisa 2012; Bane 2006; Sime & Wirtu 2008; Lee, Lee Kin & Kaur 2006). Higher proportions of adolescents who communicate sexuality related issues with their families have been reported in Morelos, Mexico where about 83.1% of the adolescents discussed sexuality issues with their families (Atienzo 2009).

The high proportion of adolescents who do not communicate sexuality issues with their families suggests a low parent-youth communication engagement on sexual and reproductive health. The low parent-youth communication engagement may be due to differences in the traditional cultural backgrounds, cultural taboos, socio-demographic characteristics, differences in sample size and interpretation of results, as well as differences in knowledge, attitude and practices of the study population and their parents. Similar observations have been reported in the WHO report (WHO 2015). Several previous studies have also demonstrated that adolescents receive sexual and reproductive health information from other sources including close relatives and friends (Kaiser Family Foundation 2000a). In this study 22.3% of adolescents had discussed SRH issues with friends and relatives as compared to 15.4% who discussed with parents. The finding suggests that adolescents feel more at ease to discuss SRH issues with friends and relatives than with parents. This trend raises issues on the accuracy of the information discussed between friends and adolescents which may need to be verified through more focused studies.

This study further showed that adolescents who had received adolescent sexual and reproductive health information were more likely to communicate sexual and reproductive health issues with their parents and friends than those who had not. This finding could be attributed to the adolescents' level of awareness about SRH which

might be influencing adolescents to confidently communicate SRH issues and share the experience with others much more freely.

The study has further revealed that adolescents who had had sexual intercourse were more likely to discuss SRH issues with their parents and friends than those who never have had sexual intercourse. This readiness to discuss may be due to fear of the risks associated with early and unprotected sex, and possibly the sexual encounter may be giving adolescents a false sense of maturity that encourages the exploratory habits of adolescents and confidence to discuss.

6.2.1.2 Knowledge on pregnancy and family planning services

(i) Knowledge about pregnancy and prevention

Knowledge is defined as the understanding of or information about a subject that one gets by experience or study, either known by one person or by people generally. Knowledge is therefore a powerful tool needed on daily life. In this study, adolescents' knowledge on pregnancy and family planning services was assessed. The study has shown that about 76.4% of the participants had adequate knowledge about unwanted pregnancy and prevention. The finding is lower than the figures reported elsewhere; Ghana (88%) and Gondor town in Ethiopia (93.4%) (Mohammed, Woldeyohannes, Feleke & Megabiaw 2014:11) suggesting a widening knowledge gap requiring a more strategic approach to raise adolescents' knowledge on pregnancy and preventive measures.

(ii) Knowledge about contraceptive methods

The majority of the participants in this study knew of at least one method of contraception and the proportions of those with the knowledge were almost similar for both urban and rural adolescents 77.4% and 75.3% respectively.

While a bigger proportion of the participants had adequate knowledge about contraceptive methods, about 31.4% and 29.14% of the urban and rural adolescents respectively said that they had heard about emergency contraceptive. The findings in this study are lower compared to the report among female undergraduate students in

Nigeria where 58% of the respondents had heard of a product that could be used to prevent pregnancy after unprotected sex (Awadaje 2012:22). Similarly, higher proportions have been documented among Jima (41.9%), Debremerkos (74.9%) and USA (95%) (Tajure 2010, Abera, Mekonin & Jara 2014; Hassani, Kosunen, Shiri & Rimpela 2007).

The relatively high proportion of adolescents with adequate knowledge about unwanted pregnancy; preventive measures and the contraceptive methods point to the possible major sources of information. In both urban and rural areas, teachers, campaigns at health facilities, the media and others were the major possible sources of information. The challenge however, is how to ensure that a greater proportion of the target group have access to correct information about sexual reproductive health, to understand the factors that motivate those who seek for knowledge and apply it to protect them from unwanted pregnancy and the consequences of unwanted pregnancy. It is also important to explore the factors which de-motivate others from seeking SRH information and apply it thereby risking their lives.

6.2.1.3 Knowledge of adolescents on Sexually Transmitted Infections (STIs) and Voluntary Counselling and Testing (VCT) services

(i) Knowledge about STIs and VCT

The knowledge of STIs/HIV including modes of transmission is particularly important for adolescents because they are at greater risk of STIs and HIV pandemic. Therefore, understanding how to prevent the transmission is the first step to avoid infection (United Nations 2010b:41).

In this study most participants (77.72%) have adequate knowledge about sexually transmitted infections. This finding is similar to the findings among adolescents in São Paulo, Brazil (2009:43) and among Jima High School adolescents in Ethiopia (Netsenet et al 2014:59). This finding is however, higher than 67% reported among students of South Delhi, India (Dhar & Lipi 2007) and 51.2% among adolescents in Chandreshwar, Nagar (Rai et al 2009).

In this study, the proportion of adolescents who do not have adequate knowledge about STIs was slightly higher among rural (24.21%) than urban (20.35%) adolescents. Similar results were reported in India (Yip 2011). Differences in access to information about STIs through the media, at health facilities, NGOs and training institutions and schools between urban and rural might explain the relatively higher proportions of knowledgeable adolescents between urban and rural areas. This observation calls for auditing what exists in urban but not available in the rural areas and attempts should be made to address the gaps.

Even though a significant proportion (76.39%) of the study participants are aware about VCT only 30.08% and 24.7% of the urban and rural study participants respectively had ever tested for HIV/AIDS. This finding is lower than results on the knowledge of, and attitudes towards Voluntary HIV Counselling and Testing services among adolescent high school students in Addis Ababa, Ethiopia (Gatta & Thupayagale-Tshweneagae 2012:5).

This study has demonstrated that there is adequate knowledge about STIs and VCT among the studied population groups; and that the level of knowledge differs between urban and rural communities. These are interesting observations which require further studies to understanding why in some countries the level of knowledge and awareness is higher than the studied population; why the uptake of VCT services still remains unsatisfactory despite the global initiatives and campaigns for a “HIV Free Generation”. Further studies to specifically explore the factors influencing the attitudes and behaviour are highly recommended.

(ii) Awareness of Hepatitis B

In this study, participants' level of awareness towards hepatitis B was assessed. Only 11.21% rural and 20.35% urban participants were aware of hepatitis B. This finding is much lower compared to 56.2% among Haramaya University students in Ethiopia (Mesfin & Kibret 2013). Similar higher results (55.2%) have been reported from the Knowledge, Attitude and Practice (KAP) study about Hepatitis B among secondary school students in Alexandria, Egypt (Pantha & Pantha 2011:24).

Hepatitis B infection is a serious health problem throughout the world. Success in the prevention of the disease and its fatal consequences depends to a large extent on the adolescents' level of knowledge and their awareness. As indicated in the results, adolescents' knowledge toward Hepatitis B was limited which could have an implication on the prevalence and prevention of the diseases. The possible causes of low awareness could be limited sources of information on hepatitis B among the study population which may result in related consequences. In conclusion, there is a deficit in adolescents' knowledge about Hepatitis B that requires the attention of health educators to tailor educational programmes for specific groups. Moreover, further studies to identify the extent of the problem and to guide in the design of interventions strategies is recommended.

6.2.2 Sexual history and risky sexual practices of the respondents

6.2.2.1 Sexual history of the respondents

(i) Pre-marital sexual history

The global percentage of premarital sexual activity seems to have increased over the years. This can be due to rapid modernisation, early attainment of puberty and social changes in the countries (Abdisa 2012:11).

About three in ten unmarried adolescent women in sub-Saharan Africa have ever had sex (FHAPCO & MWCYA 2013:4). Results of a study among boys and girls in Catalonia, Spain (mean age of 15 years) indicated that 38.7% of the students had had sexual relations at least once (Sanit 2011:13-19). In Tanzania, 32% of adolescents studied reported being sexually active (Kazaura & Masatu 2009:1). Studies in USA have shown that roughly half of all high school students report having had sex at least once and close to two thirds have had sex before they graduate from high school (CDC 2010). Similarly, about 73% of black Americans, 58% Hispanic, and 44% of whites high school students reported having had sexual intercourse (Schwarz 2010).

In this study the proportion of sexually active respondents were 37.9% with the median age at first sexual coitus being 15 (mean=15.16±1.42) years. Several national and sub-national studies have reported an increased premarital sexual practice among adolescents. The percentage of pre-marital sexual encounter in this study is lower than

74% reported among Hosanna Health Sciences College students in Ethiopia (EPHA 2011:67); but higher than (22.4%) among high school students of Dessie town in Ethiopia (EPHA 2011:107).

In this study, the overall proportion of sexually active respondents was significantly higher among males than females ($p < 0.05$). In addition, out of the total 449 participants, 12.9% fully agreed and 34.6% partially agreed that a boy should have sex before marriage indicating that there is cultural belief that encourages male to engage in pre-marital sex. Similar results were found among community young people and university students in Sri Lanka (WHO 2011a:24); Spain, Tanzania, Jamaica and Ethiopia (Sanit 2011:13-19; Kazaura & Masatu 2009:1; SRH 2011; Wirtu & Sime 2008); and also among school-going male and female adolescents attending public secondary schools in Nairobi, Kenya (FHI 2011).

Age at first sexual practice is an important indicator of exposure to the risk of unwanted pregnancy and STIs. The overall mean age of sexual initiation of the respondents in this study was 15.16 ± 1.42 SD. However, the mean age for females (mean= $15.07.72 \pm 1.55$) at first sexual intercourse was lower than that for males (mean= 15.29 ± 1.38). Similar result have been reported among high school adolescents (Bane 2006; Wirtu & Sime 2008). However, the mean age of sexual initiation in this study is lower than 18.5 years reported among Sub-Saharan Africa adolescents (International Health Prospective 2009); 18.4 years among students in Madagascar and 17 years among students in GamoGofa in Ethiopia (International Health Prospective 2009; Rahamefy, Rivard, Ravaoarinoro 2008; Tilahun & Ayele 2013). The finding in this study is also lower than the median age 18.8 and 21.2 years respectively at first sexual intercourse for women and men (EDHS 2011). This study also found that female adolescents were more likely to have their sexual initiation with significantly older sexual partners compared to male adolescents. The deference in the mean age of sexual initiation can partly be attributed to early puberty onset among females compared to males; and females being more prone to initiate sexual intercourse with older males for financial support. Previous studies have shown that when female youth have relationships with older partners they are more likely to engage in risky practices such as sex without condoms due to increased power imbalance leading to male-controlled sexual decisions (BMC: Infectious Diseases 2008) which in turn result in unwanted outcomes of sexual activity, including unintended pregnancy and sexually transmitted infections.

While the possibility of reporting bias cannot be ruled out, previous reports have shown that sex differences in sexual behaviour are not merely the result of under reporting by females or over reporting by males, but are actual outcomes of sexual ideology that promotes males' sexuality and controls females' sexuality (WHO 2008).

The prevalence of pre-marital sexual encounter seems to vary between studies and between communities. Several factors could explain the disparity including differences in the characteristics of the study population, methodology, socio-cultural factors, religious backgrounds and exposure to highly sexualised media readily accessible to young people. In addition, differences in accessibility to sexual and reproductive health information, inadequate knowledge, attitude and practices towards risky sexual practices are contributing factors to the observed trend.

(ii) Number of sexual partners

The most alarming result from this study was that 75.5% of the sexually active adolescents have more than one live time sexual partners. The findings is higher than 40% and 65% among female and male secondary school adolescents respectively in Nairobi, Kenya (FHI 2011);15% among adolescents in Tanzania (Kazaura & Masatu 2009), 20% Sub-Saharan Africa (Khan & Mishra 2008) and 45% Addis Ababa adolescents (Cherie & Birhane 2012:14). This finding is an eye-opener to all stakeholders that the extent of risk sexual behaviour among the studied population group is a major public health concern especially considering that a significant proportion of the youth have access to information on sexual and reproductive health and the level of awareness about the risks associated with risky sexual behaviour is high. The disparity in the expected results could point to ineffective communication to adolescents of the relevant information, inadequate uptake and application of the information and some other underlying factors which counter the effectiveness of the strategies and campaigns to educate adolescent. These are some of the issues which should further be studied and appropriate interventions be developed and instituted.

(iii) Sex with commercial sex workers

According to this study, 40.2 % of the sexually active students had sexual intercourse with commercial sex workers. This is higher than 10% reported in India, Jima University

(13.9%) and Wolayita Sodo University (24.9%) students in Ethiopia (Tura, Alemseged & Dejene 2012; Gelibo, Belachew & Tilahun 2013; Marfatia 2015). This finding might be a result of differences in the level of awareness about the mode of STIs/HIV transmission and risk sexual behaviours among students in different areas. The finding also raises issues on the adolescents' capacity to pay for sex, accessibility and the location where commercial sex workers can easily be reached by young people.

(iv) History of sexual abuse

The magnitude of reported sexual abuse (rape) in this study was low at 7.05%. The finding is similar to between 4 and 12% reported among Adolescents in Tanzania (Kazaura & Masatu 2009). It is important to note that considering the shame and stigma associated with rape, the low percentage may be an underestimation because of under-reporting because, as shown in this study, participants were comfortable to discuss sexual history about others but were reserved to talk about themselves. Further studies are needed in this area. Most youths face greater reproductive health risks than adults including involving in activities with greater risks such as unprotected sex, unwanted pregnancy, childbearing at early age, greater vulnerability to sexual pressure, unsafe abortion and suffer the complications (UNFPA 2014). In this study, risk sexual practices including premarital sex, unprotected sex, and sex with female commercial sex workers, sex with more than one partner, sex after drinking alcohol, forced sex, and sex to get monetary gains and gifts were reported by both urban and rural adolescents. Almost similar result have been reported in other studies among school adolescents in Ethiopia (Dawud 2003; Sime & Wirtu 2008; Bane 2006; Setegn, Abulie & Melku 2013:3). These results indicated that, romantic love, peer and economic pressure, sex desire, and alcoholic consumption were some of the major factors driving adolescents to engage in their first sexual intercourse. The results clearly point to the influence of social, physiological and economic factors that affect the sexual life of the adolescents. While there are many reports on studies of adolescent sexual behaviour, the reinforcing and de-motivating factors in the developed world, extrapolation of results from those countries may not necessarily be relevant to communities in Ethiopia and other developing countries. Therefore, this study has opened up new research avenues for further studies.

6.2.2.2 *Pregnancy and abortion*

Teenage pregnancy and its complications have previously been documented. Literature review shows that girls who become pregnant at the age of 14 years or younger, and to a lesser extent at 15–17 years and 18–19 years are at considerably heightened risk of complications such as pregnancy-induced hypertension, obstructed and prolonged labour, vaginal tearing, obstetric fistula, and postpartum haemorrhage. These being in addition to premature delivery, low infant birth weight, prenatal mortality and health problems in the new-born (Senderowitz 1996; Phipps & Sowers 2002; WHO 2004; Lloyd 2005:518-522; Temin & Levine 2009; Tesfaye & Abuilie 2013).

In a study among female adolescents in Ghana 30% had experienced pregnancy. In the Sub-Saharan Africa and South and South East Asia, about 20% of 15–19-year-old women become pregnant (International Prospective on Reproductive Health 2009). In this study, pregnancy was reported by 36.4% of the sexually active female adolescents. Among those who had become pregnant 54% were aged between 14 and 16 years. This finding is high compared to results in USA where only 30% of women become pregnant at least once at the age of 20 years (Education Training Researcher Association: 2011:12); and is relatively higher than previous reports in Ethiopia (Bane 2006; Abdisa 2012). The high number of reported pregnancies in this study suggests an increased trend requiring appropriate interventions to reverse the trend. Such intervention would include engagement of adolescents during the planning stages, strengthening information dissemination, provision of safe abortion services, increasing access to contraceptives particularly the more effective and longer acting reversible forms of contraception, and increasing correct and consistent use of contraceptive methods among those who are sexually active but wish to delay or avoid pregnancy, monitoring and evaluation of the programmes.

This study has also shown that most pregnancies (83.33%) were unwanted ending in abortion. Similar rates (80%) of unwanted pregnancies ending in abortion were reported among female adolescents in USA (Education Training Researcher Association 2011:12). In countries where safe abortion services are not legal teenagers are likely to undergo unsafe abortion because they cannot afford to pay for skilled practitioner (Berlin 2000:21). This observation supports the finding that about 35% of the abortions were induced by local/traditional abortionists who insert foreign bodies and traditional herbs

into the cervix to induce abortion. Such practices put adolescents at risk of infections, uterine rupture and other complications associated with unsafe abortion. The results suggest that adolescent pregnancies are on the increase and most pregnancies end in abortion in the hands of unqualified traditional abortionists. This is a challenge to the education and health sectors, researchers and policy-makers and effort should be made to determine whether indeed the observed trend is an increase and design strategies to reverse the trend.

6.2.2.3 Sexually transmitted infections (STIs) and VCT services

(i) History of STIs

STIs including HIV have been reported among adolescents (Dehne & Riedner 2015). Results in Mwanza, Tanzania, among the sexually active primary school adolescents aged 12 years and above show that more than one in four had ever had an STI (Matasha et al 1998). High STIs results (34%) have been reported among Central African Republic adolescents (WHO 2011a). Previous results in Ethiopia have shown lower percentages of STIs ranging between 10.6% among Ambo High School adolescents and 11.5% Ambo University students (Bane 2006; Abdisa 2012). In this study, out of the 170 sexually active adolescent 28.8% reported history of, sign/or symptoms of STIs. The males reported a higher (73.46%) percentage of history of, sign or symptoms of STIs than females. The possible explanation for higher proportion of STIs among males might be involvement of the males in risky sexual practices including social encouragement for premarital sex, unavailability of condom, non-use of and/or improper use of condom, multiple sexual partners and sex with female commercial sex workers. This argument is supported by results among USA adolescents on condom utilisation that males reported higher proportions of engaging in risky behaviours than females, but had high proportions of condom use (Steen 2012:11). The results should be carefully considered because it could be an underestimation of the extent of STIs in the studied population because of the fear and stigma associated with STIs. Strategic approach is needed including encouraging and educating adolescents to identify the signs and symptoms of STIs early and seek treatment. Health facilities should ensure they provide youth-friendly health care to adolescents.

(ii) VCT uptake

In many countries VCT services were introduced in the campaign against HIV. Countries that have succeeded in reducing HIV transmission have also reported high VCT services uptake (United States Agency for International Development (USAID) 2008). Previous studies in Ethiopia have shown that 65% and 80% of male and females respectively had utilised VCT services (Feleke et al 2013). Much lower VCT services utilisation of 9.7% and 10.9% for males and females respectively have been reported in South Africa (BMC: Health Services Research 2013:13, 294).

In this study, out of the adolescents who had ever heard about VCT, only 30.08% and 24.66% of urban and rural adolescents respectively had tested for HIV. There were more males (63.4%) than females (36.6%) who had tested for HIV, a finding similar to reports from North Nigeria (Nwachukwu & Odimegwu 2011:133). This study has demonstrated a downward trend of VCT services utilisation raising a public health concern because knowing individuals' HIV status is likely to influence behavioural change and reduce HIV transmission.

6.2.2.4 Family planning services utilisation

Experimentation with sex is a natural and normal process among adolescence and the rate of experimentation without protection is among the indicators of risky sexual behaviour. Campaigns on contraceptive use were introduced to empower women to make rational choices about family issues and reduce unwanted pregnancy. The rate of contraceptive services utilisation varies between countries and communities. Studies have shown that, among unmarried sexually active adolescents in Sub-Saharan Africa, contraceptive use ranges between 3% in Rwanda and 56% in Burkina Faso (Khan & Mishra 2008); 6% in Tanzania (Celina, Danga & Njau 2013:4); 9.3% in Zimbabwe (Ehlers 2010); 33% in Haiti (Advocates for Youth 2007:1); and 47% in Nigeria (Advocates for Youth 2007:1).

Previous studies on contraceptive utilisation in Ethiopia reported (17.6%) among adolescents in Jimma town and 21% in the eastern parts of Gojam (Feleke et al 2013). This study recorded only 33.3% contraceptive use which is slightly higher than reported figures in Jimma town and Gojam. This finding is however; lower than 79% rate of

contraceptive utilisation reported in a study in Gondor, Ethiopia (Mohammed et al 2014:13).

These results suggest that the rate of contraceptive utilisation among adolescent is still a challenge even more so on the use of emergency contraceptives. With only 13.97% of the sexually active adolescents had ever used emergency contraceptive out of which 57.9% were from urban and the rest 42.1% from rural areas; far less than western countries (35–65%) and other parts of Ethiopia (Kassa et al 2013:300); the extent at which adolescents are at risk of sexual and reproductive challenges including STIs and HIV/AIDS is high.

The low contraceptive utilisation rate in this study could be attributed to attitude towards contraception by some adolescents, lack of correct information, low promotion and availability of contraception services offered in the health institutions, possible unfriendly environment for adolescents to access reproductive health services and lack of mass medias that works on reproductive health in the society. These factors need to be explored further in order to improve on family planning services utilisation among adolescents.

6.2.2.5 Condom use

Condoms prevent pregnancy by collecting pre-cum and semen from entering the vagina, and also reduce the risk of sexually transmitted infections including HIV. The rate of condom use among adolescents is influenced by several factors and varies between countries and between communities within countries. Studies in USA have reported rates of condom utilisation of up to 60% among USA sexually active male high school adolescents and 44% of the sexually active female high school adolescents (Conklin 2012:2). Similarly, Schwarz (2010) reported that among female high school students in USA, 60% of blacks, 52% of Hispanics, and 53.9% of the whites had their partners using a condom at last intercourse. The WHO Student Health Surveys among 13–15-year-old boys reported condom use rates ranging between 21% in northwest Namibia to 88% in Uruguay (WHO 2011a:25). The study on sexual practices among unmarried adolescents in Tanzania shows that nearly 42% of the sexually active adolescents reported having used a condom during the most recent sexual act (Kazaura & Masatu 2009).

In this study 41.8% of the sexually active adolescents reported using condom during their last sexual intercourse. The rate of condom use observed in this study was lower when compared to 51.7% reported in the study on sexual risk behaviour among young people in the Vhembe district, Limpopo province in South Africa (Cherie & Berhane 2012:2-6), and also slightly lower than 44.4% condom utilisation among Addis Ababa city adolescents during their last sexual intercourse (Cherie & Berhane 2012:2-6).

This study has also demonstrated that a higher proportion (71.78%) of the males used condom during sexual intercourse than 28.16% among females. The results support the study in USA that reported higher proportions of males engaged in risky behaviours than females, but also a high proportions of them used condom (Steen 2012:11). Other studies have also reported differences between male and female adolescents (CDC 2010; WHO 2011:25). The higher percentage of condom use among males in comparison to females might be explained by more availability and accessibility of the male condom as compared to female condom and differences in the decision making process between males and females.

The results from this study on condom utilisation indicate that compared to some previous studies in Ethiopia, the rate of condom use among the sexually active adolescent in the studied population segment is low, although the males use condom more frequently than females. Several reasons including stigma, socio-cultural background, availability and cost of condom; differences in the perception of risks among adolescents and risk-tendency behaviour variations; and lack of, or inadequate information about proper use of condom were generated from the FGDs as possible explanations. There is a need for further studied to determine the contribution of each factor to the observed trend.

Much concern in this study is the finding that about 40.4% of the sexually active male adolescents had sex with commercial sex workers. This result is higher than reports from other studies (Cherie & Birhane 2012; Bane 2006). Even more alarming was the finding that only 30.43% of those who had had sexual encounter with commercial sex workers had used condom consistently and 28.26% never used condom at all. The findings are clear indication that there is a significant proportion of adolescents who practice unprotected sex with commercial sex workers subjecting themselves to risk of HIV and other sexually transmitted infections.

6.3 CONCLUSION

This chapter has discussed the results in the context of major issues raised from the study. The major issues include low percentages of adolescents who discuss sexuality related issues within families; adolescents are more comfortable discussing sexuality issues with relatives and friends rather than parents and variability in the sources of information on sexuality and reproductive health. While the level of knowledge of adolescents on several issues including risky sexual practices, pregnancy and family planning services, STIs, VCT and condom use was high, the uptake of such services among the studied population segment is relatively low. It is concluded that efforts should be intensified to educate adolescents on sexual reproductive health, ways to reduce risky sexual practices, and to increase awareness on preventive measures and uptake of family planning and VCT services. Family and community engagement is necessary for the success of any intervention that may be proposed. Such joint efforts can help to promote a more comprehensive approach to addressing adolescent health that views each adolescent as a whole person, recognising and drawing upon his or her assets and not just focusing on risks (CDC 2014).

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Adolescents' health is a major concern because of its attendants and if their problems are not properly addressed the cycle becomes more viscous and the problems become more compounded. Therefore, it is the role of individuals, be it parents, teachers, health professionals, stock holders, youth associations to provide the right information to this youthful generation in a way that will influence their life positively.

Understanding of the premarital sexual experience and identification of risks associated with sexual activities are fundamental elements of interventions of STIs, HIV/AIDS, unwanted pregnancy, unsafe abortion. In this study, knowledge gap on adolescent sexual and reproductive health information, limited adolescent sexual and reproductive health services provision, cultural taboos, social and economic factors were reported by a significant proportion of both urban and rural adolescents. These factors have been shown to lead to risk sexual practices including premarital sex, unprotected sex, and sex with female commercial sex workers, sex with more than one partner, unplanned pregnancy and abortion, sexually transmitted diseases and sex for monetary gains and other gifts.

Focus Group Discussion participants generally agreed that there are unprotected sex related risks that adolescents encounter in their lives as supported by their statement that: *"STDs such as, HIV/AIDS, gonorrhoea and syphilis are some of the risks encountered by the youth. Unwanted pregnancies, leading to illegal abortion performed by local abortionists are also common and are due to the risky sexual behaviours the youth engages in"*.

Sexuality issues are not openly discussed in the community and within families as shown by a significant proportion of respondents who do not talk about sex related issues with their families, friends and relatives. The study has indicated that accurate

information on adolescent reproductive health is not readily accessible to the majority of urban and rural adolescents.

Local beliefs and cultural taboos such as a belief that a boy should practice sexual activities before marriage, discussing about condom use promotes promiscuity and using condom is a sign of mistrust on the partner were findings that have negative consequences on adolescent reproductive health mentioned by the study participants. It was also found that adolescents who practice such cultural beliefs were more vulnerable to adolescent sexual and reproductive health risk consequences.

The study has in addition shown that a significant difference exists between urban and rural adolescents on accessibility to reproductive health services, knowledge of some reproductive health services such as VCT and sexually transmitted diseases like hepatitis B. Adolescents with access to ARH information were more knowledgeable on some of the reproductive health services than those less accessible. Similarly, differences between urban and rural adolescents on utilisation of RH services such as VCT, family planning, condom use and other were identified.

This study has further demonstrated that adolescents who have access to ASRH services and those who discussed sexual related issues with families and relatives better utilised some of the reproductive health services which minimised some of risk sexual practices. Both male and female FGD participants at the urban and rural schools urged that a school should be a conducive place to work on adolescent sexual health in order to minimise risks related to sexual practices. They strongly suggested that professionals on adolescent reproductive health should on regular basis be invited to the schools to give sexuality education. Anti-AIDS clubs, VCT centres, adolescent sexual and reproductive health information centres, mini-media centres should be established at the schools, supported and monitored by the school management in order to actively work on reducing sexual risk practices among school adolescents.

Based on the quantitative and qualitative results, key strategies targeting behavioural, biomedical and structural interventions were proposed.

7.2 RECOMMENDATIONS

From the findings of this study the researcher makes the following:

7.2.1 Recommendations to schools and health institutions

- (i) Schools and health institutions should raise community awareness about the importance of discussing sex and related issues with their children and its impact minimising the consequences related to sexual risk practices by educating the community about adolescent reproductive health. This can be implemented through official government gatherings, school family days, open days and religious congregations.
- (ii) Regularise delivery of school health education programmes by the local health workers focusing on adolescent sexual and reproductive health.
- (iii) School-based sexual reproductive health and sexual relationships education should be introduced as part of social studies curricula early in primary schools and incorporate increasingly advanced messages about reproductive health and sexuality to higher grades.
- (iv) Establish Anti-AIDS clubs, VCT and adolescent sexual and reproductive health information centres, mini-media centres in schools which should be supported and managed by the school management.
- (v) Incorporate demonstration of appropriate condom use in the health education programmes given to young peoples.
- (vi) Public and private health institutions should give priority to the young people's need for early diagnosis, treatment of sexually transmitted diseases and safe abortion services.
- (vii) Provide evidence-based information related to pregnancy and promote use of contraceptives including emergency contraceptives and condom use.
- (viii) Use peer educators and school teachers to educate adolescents on the benefits of HIV testing and family planning services utilisation.

7.2.2 Recommendations to the Government and NGOs

- (i) Since the majority of teenagers engage in sexual intercourse before leaving high school therefore, National Sexuality Education Policy should provide adolescents with the necessary guidance, information and tools for reducing risks.
- (ii) The Government should support integration of sexuality education into the secondary education curricula, support recruitment and retention of adequate numbers of trained staff and allocate time for implementation of the interventions.
- (iii) Based on demand analysis, sustain availability of condom at and around the schools especially in the rural settings.

7.2.3 Recommendations to families and the community

- (i) Promote abstinence and faithfulness through different approaches such as cultural dramas, role plays and experience sharing with those practicing abstinence and others.
- (ii) Promote discussion between adolescents and families on sexuality issues and consequences.
- (ii) Promote cultural beliefs that do not encourage risk sexual practices among adolescents.

7.2.4 Recommendations to the media

- (i) Intensify health education campaigns on risk sexual practices and consequences through local and national radio and television as well as printed media.
- (ii) Repackage correct information in a simple and easily comprehensible language targeting different population groups.

7.3 CONTRIBUTION OF THE STUDY

The study revealed that a significant proportion of adolescents at the urban and rural high schools are sexually active and for various reasons practice unsafe sex. Most of the reasons have to do with individual attitudes, perceptions, cultural taboos and limited access to some of the reproductive health services. This study was valuable because it was carried out within the specific study context. Therefore, based on the major findings,

recommendations and intervention strategies that would address the identified challenges were formulated. This study can further serve as a basis for further similar studies among adolescents' indifferent settings in Ethiopia.

7.4 STRENGTHS OF THE STUDY

The secondary school staffs (especially teachers) were very cooperative during the entire process which has added the credibility of the study, and most of the adolescents in this study were in the age range of 15-19 years, keen on participating in the study, easily accessible during the study period. The response rate was 100%; making the findings reliable (Polit & Hungler 2010:348).

The study has compared knowledge, attitude and practices of adolescent on selected reproductive health services and risky sexual practices at the rural and urban high schools, and has identified barriers to safe sex practices which the study population encounter. The comparison of rural and urban adolescents' knowledge, attitude and practices of sexual risk activities has given the subject a new dimension regarding the diversity of issues related to adolescents in different settings. The inclusion of students from all grades based on their proportion and applying a random sampling technique to achieving a representative sample are major strength of this study because from the results, rational conclusions and recommendations can be made within the limits of accuracy and reliability on a population segment of similar characteristics. Similarly, the combination of quantitative and qualitative data has helped to collect in-depth information that has provided an insight into the complex pattern of sexual behaviour in this vulnerable population segment. The proposed intervention strategies for reducing sexual risk practices among adolescents have been developed based on the qualitative and quantitative results, therefore, are more focused and readily implementable.

7.5 LIMITATION OF THE STUDY

The major limitation of this study was the cross sectional nature of the study which may not explain the temporal relationship between the outcome variables and some of the explanatory variables. The study topic assessed personal sensitive issues related to sexuality which might have caused social desirability bias. The study was conducted in West Shoa zone; Oromia Region in Ethiopia and only among secondary school

adolescents therefore, the findings are valid for adolescents attending secondary schools in that region and may not be generalisable to other regions and out-of-schools adolescents in and outside Ethiopia. However, the findings could be valuable indicators in other areas with similar demographic structures. Thus, the finding of this study should be interpreted with these limitations.

7.6 SUGGESTION FOR FUTURE RESEARCH

The findings of this study have revealed the need for further studies. Therefore, future study should be directed at the following:

- (i) This study revealed that significant proportion of the youth have access to information on sexual and reproductive health and the level of awareness about the risks associated with risky sexual behaviour is high. The disparity in the expected results points to ineffective communication of relevant information to adolescents and inadequate uptake and application of the information. Future studies should explore the causes of the disparity and resolve the disparity.
- (ii) Replicate this study with other zones and regions including private schools and compare behavioural trends.
- (iii) Follow-up studies in the same schools a few years later to determine the impact of the interventions on behaviour, attitudes and practices over time. The findings would inform policy makers and programmers for future planning and implementation.
- (iv) This study has demonstrated a downward trend of VCT services utilisation despite the global initiatives and campaigns for an “HIV Free Generation”. This raises a public health concern because knowing individuals’ HIV status is likely to influence behavioural change and reduce HIV transmission. Therefore, factors contributing to the low VCT services utilisation against relatively high knowledge towards VCT services need to be determined.
- (v) Explore why adolescents engage in sex with multiple partners in this HIV/AIDS era.
- (vi) Using qualitative design, determine how some sexually active individuals remain celibate while other not. The motivating and de-motivating factors can then be shared with other adolescents during peer education and other youth activities.

7.7 CONCLUSION

The findings in this study revealed the plethora of challenges and factors driving adolescents to engage in risk sexual practices. Although the level of knowledge on STIs and HIV/AIDS transmission and prevention among the studied population, still there are knowledge gap on the risk associated with risky sexual practices among adolescents. The study has also revealed low level of parent-adolescent communication and the reliance on friends and relatives for sources of information on sexuality issues among the studied population. Even more disturbing is the fact that despite the prevention campaigns and existence of family planning services, access and uptake of such services by adolescents is still low. The strategic intervention framework described in this can make a meaningful contribution to enhancing the existing efforts in reducing risk sexual practices among adolescents. In conclusion, there is a need for further studies to understand the contribution of each factor on the burden and to strengthen interventions to reduce risk sexual practices in the population segment. In addition, there is a need for concerted efforts by all stakeholders to be fully engaged in developing specific interventions that target adolescents.

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ANNEXURES

ANNEXURE 1

Ethical Clearance from the Department of Health Studies, Unisa



**UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE**

HS HDC/226/2013

Date: 18 October 2013 Student No: 4304-058-6
Project Title: Intervention strategies for the reduction of sexual risk practices among adolescents in Ethiopia.
Researcher: Daba Banne Furry
Degree: D Litt et Phil Code: DPCHS04
Supervisor: Prof GB Thupayagale-Tshweneagae
Qualification: D Tech
Joint Supervisor: Prof Y Mashalla

DECISION OF COMMITTEE

Approved

Conditionally Approved

Graah
Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE

M. Moleki
Prof MM Maleki
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES



ANNEXURE 2

Letter requesting permission to conduct the study on intervention strategies for the reduction of sexual risk practices among adolescents in Meti and Ambo high schools

Date: 14 April, 2014

To: Ambo Education office

Ambo

From: Daba Banne Furry

P. O. Box 417,

E- mail: Daba Furry@yahoo.com

West Shos Zone Health Department,

Ambo

Dear sir;

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

I am here by requesting for permission to carry out a research study in Ambo and Meti high schools entitled "Intervention strategies for the reduction of sexual risk practices among adolescents in Ethiopia among secondary schools of Ambo and Meti.

I am public health professional with BSc and MPH back ground working for Ministry of Health in West Shoa Zone Health Department and reading for my Doctor of Literature and Philosophy in Health Studies, with the University of South Africa (UNISA). As part of the requirements for the degree, I am required to conduct a research study.

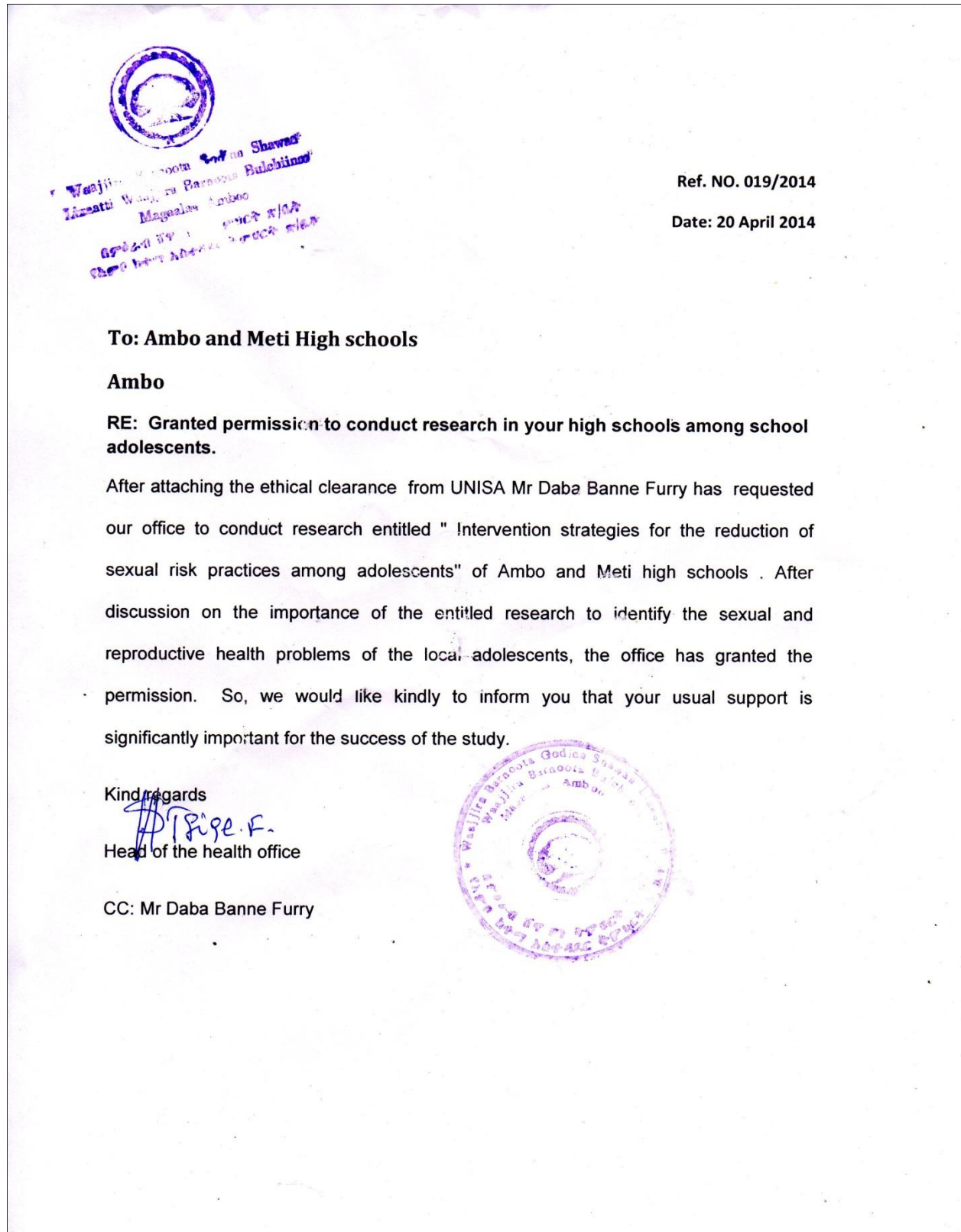
I am looking forward your favourable response.

Sincerely yours


Daba Banne Furry

ANNEXURE 3

Letter granting permission to conduct research on intervention strategies for the reduction of sexual risk practices among adolescents in Meti and Ambo high schools




Wajjira Baroota Godina Shawa
Magaalaw Ambo
Magaalaw Ambo
Magaalaw Ambo

Ref. NO. 019/2014

Date: 20 April 2014

To: Ambo and Meti High schools

Ambo

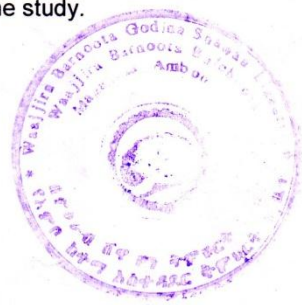
RE: Granted permission to conduct research in your high schools among school adolescents.

After attaching the ethical clearance from UNISA Mr Daba Banne Furry has requested our office to conduct research entitled " Intervention strategies for the reduction of sexual risk practices among adolescents" of Ambo and Meti high schools . After discussion on the importance of the entitled research to identify the sexual and reproductive health problems of the local adolescents, the office has granted the permission. So, we would like kindly to inform you that your usual support is significantly important for the success of the study.

Kind regards


Head of the health office

CC: Mr Daba Banne Furry



ANNEXURE 4

INFORMED CONSENT

A: PARENTAL CONSENT (For those adolescents who are less than 18 years of age)

TITLE OF STUDY: INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK PRACTICES AMONG ADOLESCENTS IN ETHIOPIA.

Student Researcher: Daba Banne Furry (DLittet Phil(Doctor of Literature and philosophy in Health Studies)

Telephone:

+25112362833

+251911896353

E-mail:myLife: 43040586@mylife.unisa.ac.za

Alternative: dabafurry@yahoo.com

Your child is invited to participate in a research project. Your child's participation is entirely voluntary and you may choose that your child should not participate. If you choose for your child to participate, or if you withdraw your consent and stop your child's participation in the study, your decision will involve no penalty or loss of benefits normally available for you or your child. If you have any questions about the study, please contact Mr Daba Banne Furry (researcher)

The aim of this study is to propose an intervention strategies for the reduction of sexual risk practices based on the findings. There is a questionnaire for your child to complete and there is no need to put his/her name on the questionnaire. His/her honest answers to these questions will help us in better understanding of what people think, say and do about certain behaviours, so; we request your child's truthful and keen participation. Any information obtained from this study will remain confidential. Your child's responses will not be linked to his or her name. The data collected will be used for educational and publication purposes and presented in summary form.

SIGNATURES:

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow your child to participate in the study. You are free to withdraw consent for your child to participate in this study at any time by contacting the Mr Daba Banne Furry (researcher). You will be given a copy of this consent form for your records.

Printed Name of Child

Printed Name and Signature of Parent Date

Signature of Investigator Date

B: STUDENT CONSENT

Information leaflet for adolescents and following Self-administered questionnaire for adolescents

PARTICIPANT INFORMATION LEAFLET

Researcher: Daba Banne Furry

P.O. Box 417

Telephone: 251+911896353

E-mail: dabafurry@yahoo.com

West Shoa Zone Health Department,

Ambo

Dear student,

RESEARCH TOPIC: INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK PRACTICES AMONG ADOLESCENTS

As part of the requirements for the Doctor of literature and Philosophy in health studies that I am undertaking with the UNISA, a research study on a selected topic needs to be undertaken. My selected topic is as stated above.

I am Public health professional with BSc and MPH background working in family health section of West Shoa Zone Health Department.

This study is proposed to assess sexual risk practices among high school adolescents in order to generate information about risks related sexual practices. Information obtained from this study will provide an insight into the sexual and reproductive health of adolescents which could contribute both for decision and policy makers in designing intervention strategies that take into account adolescents' educational status, place of residence and family background.

The study will involve various intimate and private life questions. In order to effectively attain the objective we are asking your help. Here is a questionnaire for you to complete and there is no need to put your name on the questionnaire; no individual responses will be reported. Your answers are completely confidential. It is your full right to refuse to answer any or all of the questions and also you can refuse to participate, or withdraw at any time without stating a reason. Your honest answers to

these questions will help us in better understanding of what people think, say and do about certain behaviours, so; we request your truthful and keen participation. Completion of the questionnaire may take up to 45 minutes. Completed questionnaires have to be placed in the box provided by the researcher. In order to maintain anonymity and confidentiality, you will not be asked to complete a consent form. The implication of completing the questionnaire is that informed consent has been obtained from you. The information to be collected will be used strictly for statistical inferences and no information pertaining to individuals will be divulged. Please take some minutes to answer to the questions.

Pease do not hesitate to ask the researcher any questions you may have.

Thank you for deciding to participate in the study.

Kind regards

Daba Banne Furry

ANNEXURE 5

STUDENTS' SELF-ADMINISTERED QUESTIONNAIRE

Please answer all the following questions to the best of your ability, by marking an X in front of the appropriate answer and also enter number where necessary.

RESEARCH TOPIC: *INTERVENTION STRATEGIES FOR THE REDUCTION OF SEXUAL RISK PRACTICES AMONG ADOLESCENTS IN ETHIOPIA*

Name of the High School:

PART ONE: Socio-demographic Variables			
S NO.	Questions	Alternative Choice	Skip
1	What is your sex ?	1. Male	
		2. Female	
2	What is your age ?	----- years	
3	What is your religion ?	1. Orthodox	
		2. Protestant	
		3. Muslim	
		4. Catholic	
		5. Believe in God/Traditional (Wagefata)	
		6. Others, Specify	
4	What is your ethnic group ?	1. Oromo	
		2. Amhara	
		Others, specify	
5	What is your current marital status	1. Un married	
		2. Currently Married	
		3. Divorced	
		4. Widowed	
		5. Others, Specify.....	
6	What is your grade ?	1. 9 th	
		2. 10 th	
7	How often do you attend religious services ?	1. Every day	
		2. At least once in a week	
		3. At least once in a month	
		4. At least once in a year	
		5. Never at all	
		6. Other, specify	
8	With whom do you usually live ?	1. With my father & mother	
		2. With my mother only	

		3. With my father only	
		4. With relatives	
		5. With friends	
		6. Alone	
		7. Others, specify.....	
9	What is the level of your fathers' education ?	1. Illiterate	
		2. Read &write	
		3. 1-4	
		4. 5-8	
		5. 9-12	
		6. Diploma	
		7. BSC/BA	
		8. MSC/MA and above	
10	How easy did you find it to talk to your father about anything important to you ?	1. Very easy	
		2. Easy	
		3. Difficult	
		4. Very difficult	
		5. Others specify.....	
11	How often did you discuss sex related issues with your father ?	1. Often	
		2. Occasionally	
		3. Never	
12	What is the level of your mothers education ?	1. Illiterate	
		2. Read &write	
		3. 1-4	
		4. 5-8	
		5. 9-12	
		6. Diploma	
		7. BSC/BA	
		MSC/MA and above	
13	How easy did you find it to talk to your mother about anything important to you ?	1. Very easy	
		2. Easy	
		3. Difficult	
		4. Very difficult	
		5. Others specify.....	
14	How often did you discuss sex related issues with your mother ?	1. Often	
		2. Occasionally	
		3. Never	
15	How often did you discuss sex related issues with your friends and relatives?	1. Often	
		2. Occasionally	
		3. Never	
16	What is your parents job status ?	1. Both my parents work	
		2. Only my father work	

		3. Only my mother work	
		4. Both of my parents do not work	
17	Do you smoke cigarettes ?	1.I have never smoked	
		2. I have tried once or twice	
		3. I smoke from time to time	
		4. I smoke daily	
		5. Other, specify -----	
18	Do you chew khate?	1: I have never chewed	
		2. I have tried once or twice	
		3. I chew from time to time	
		4. I chew daily.	
		5. Others, specify -----	
19	Do you drink alcoholic beverages, like; beer, wine, and local drinks such as <i>tella</i> , <i>teji</i> , <i>areke</i> and the likes ?	1.I have never drank	
		2. I have tried once or twice	
		3. I drink from time to time	
		4. I drink daily	
		5. Others, Specify -----	
20	How do you perceive the economic status of your family?	1. Poor	
		2. Medium	
		3. Rich	
21	Do you have pocket money?	1.Yes	
		2. No	
22	Do you work for pay and have income of your own?	1.Yes	
		2. No	
23	What is your average monthly income?	----- Eth. Birr/Month	
Part Two: Sexual history			Skip
24	Do you have boy \ girl friend(s)?	1.Yes	
		2. No	
25	Have you ever had sexual intercourse?	1.Yes	
		2. No	Skip to Question No. 61
26	At what age did you first have sexual intercourse?	1:----- Age in year	
		2: Do not know/remember (99)	
27	How many persons have you had sex with in your life time?	1. Number: -----	
		2. Do not know/ remember (99)	
28	Have you had sexual intercourse during the last 12 months?	1. Yes	
		2. No	Skip to Question No. 31
		3. I do not remember (99)	Skip to Question No. 31
29	If yes, how many people in the total have you ever	1. Number:-----	
		2. Do not remember /know (99)	

	had sexual intercourse with during the last 12 months?		
30	Why did you decide to have sexual intercourse at the first time? (Multiple answers may be possible).	1. Fell in love	
		2. Sex desire	
		3. Marriage	
		4. Raped	
		5. To get money and other gifts	
		6. Peer pressure	
		7. Was drunk or stoned	
		8. I did it as far as it is/was part of my job.	
		9: Do not remember (99)	
		10: Others, Specify -----	
31	How much older or younger was the person with whom you had first sexual intercourse?	1. More than 10years older	
		2. 5-10 years older	
		3. Less than 5 years older	
		4. Younger than me	
		5. He was an age like me	
		6. Do not know (99)	
		7. Other, specify -----	
32	Have you ever received anything (such as money, food, gifts, etc.) from someone in exchange for having sex with him/her?	1. Yes	
		2. No	
		3. I do not remember (99)	
33	Have you ever had sexual intercourse when somebody was physically forcing you, hurting you, or threatening you?	1. Yes	
		2. No	
		3: I Don't remember (99)	
34	In the past three months, have you had sexual intercourse with anyone?	1. Yes	
		2. No	Skip to Question No. 39
		3. Do not know /remember (99)	
35	With how many persons have you had sexual intercourse in the past three months?	1. Number -----	
		2. I do not remember (99)	
36	Think of the last person you had sex with in the last three months. How old is/was	1. Age _____ years	
37	Did you or your partner use a condom the last time you had sexual intercourse with him/her?	1. Yes	
		2. No	
		3. Do not know/remember (99)	
38	With what frequency did	1. Every time	

	you and all of your partner (s) had used condom during the sexual intercourse ?	2. Almost every time	
		3. Some times	
		4. Never at all	
		5. No response (88)	
		6. Do not know/ remember (99)	
39	Have you used condom the first time you had sexual intercourse.	1. Yes	
		2. No	
		3. Don't know/remember (99)	
40	If you haven't used condom at all or haven't used it consistently what was the reason(s)?(Multiple answers are possible)	1. Not Available	
		2. Too expensive	
		3. Ashamed to ask my partner	
		4. Partner objected	
		5. Used other contraceptives	
		6. Don't like them	
		7. Wanted to be pregnant	
		8. Ashamed to buy	
		9. I trust my partner	
		10. I was drunk or stoned	
		11. Didn't think off it	
		12. I didn't know how to use it	
		13. It decrease satisfaction	
		14. It bursts	
		15. My religion prohibit	
		16. Others, specify -----	
41	Have you ever been pregnant? (For female adolescents only). Male skip to Question no: 51	1: Yes	
		2: No	Skip to Question No. 51
42	How old were you when you first become	1:Age _____ years	
		2:Do not know/remember(99)	
43	How many times have you been pregnant?	1. ----- Times	
		2. Do not know/ remember (99)	
44	How many of your pregnancy was planned?	1. -----(enter number)	
		2. I do not know / remember (99)	
45	Sometimes a girl become pregnant, and decides to abort or stop the pregnancy. Have you ever aborted or stopped a pregnancy?	1. Yes	
		2. No	
46	If yes, how many times did you have abortion?	1. ----- Times	
		2. Do not know/ remember (99)	
47	If there was abortion,	1: My partner/husband	

	whom did you discussed the issue with?	2:My boy friend	
		3:My friends/peer	
		4:My parents	
		5:Health worker	
		6:Tradtional healer	
		7:Local abortionist	
		8: with no body	
		9: I do not know/remember (99)	
		10:Others, specify-----	
48	Why did you aborted or terminated the pregnancy?	1. For fear of my family/relatives	
		2. To continue my education	
		3. It was unplanned/unwanted/	
		4. It was outside of marriage	
		5. Economical problem	
		6. For fear of friends/ the community	
		7. I was insisted by my boy friend	
		8. I do not know/ remember (99)	
		9. others, specify -----	
49	Where did you aborted? (more than one answer is possible)	1:Atgovernment health institution	
		2: At private health facility	
		3:At abortionist's home	
		4:at home	
		5: At NGO clinic/health facility	
		6:others specify-----	
50	Would you tell me why you are preferred to seek abortion care in this place?	1. Effectiveness of treatment	
		2. Free treatment	
		3. Low cost of treatment	
		4. Proximity	
		5. Confidentiality	
		6. I do not know/ remember (99)	
		7. Others, specify -----	
51	Did you ever have sexual intercourse with any commercial sex worker?	1. Yes	
		2. No	Skip to Question No. 53
		3. D o not know/remember (99)	
52	Have you ever used a condom when making sexual intercourse with commercial sex worker?	1. Yes, every time	
		2. Almost every time	
		3. Sometimes	
		4. Never	
		5. Do not Know/remember (99)	

53	Have you had symptom of STIs such as genital ulcer, abnormal genital discharge, & pain during urination or genital swelling?	1. Yes 2. No	Skip to Question No. 57
54	If yes, whom did you first discuss the issue with?	1. My parent 2. My partner 3. my friend/peer 4. my boy/girl friend 5. Health worker 6. Traditional healer 7. Local injector 8. I did not discussed the issue with any body 9. others, specify -----	
55	If yes, where did you go for the treatment? (More than one answer is possible).	1. Traditional healer 2. Public health institution 3. I bought some drug from pharmacy/drug vender and used it 4. Local injector 5. Private clinics/health institution 6: I did not went anywhere for treatment 7. Others, specify	
56	Could you tell me why you prefer to seek health care in this place? (More than one answer is possible).	1. Effectiveness of treatment 2. Free treatment 3. Low cost treatment 4. Proximity 5. For confidentiality 6. Others, specify -----	
57	Have you had sexual intercourse after drinking alcohol?	1. Yes 2. No	Skip to Question No. 59
58	If yes, did you or your partner use condom?	1. Yes 2. No	
59	Have you had sexual intercourse after drinking alcohol?	1. Yes 2. No	Skip to Question No. 61
PART THREE: Knowledge Attitude and Practice toward sexual and reproductive Health			SKIP
60	If yes, did you or your partner use condom?	1. Yes 2. No	

61	Do you think that a boy should have sex Before he gets married?	1. Agree	
		2. partially agree	
		3. Disagree	
62	Using condom is a sign of not trusting your partner.	1. Agree	
		2. Partially agree	
		3. Disagree	
63	Discussing about condom or contraceptive with young people promotes promiscuity.	1. Agree	
		2. Partially agree	
		3. Disagree	
64	Do you believe that you have done anything that may have put you at risk of getting HIV virus and other STIs?	1. Yes	
		2. No	Skip to Question No. 67
65	If yes, why (more than one answer could be possible).	1. Have had sex without condom	
		2. Had more than one sexual partner	
		3. Have had sex with commercial sex workers	
		4. Injuries with contaminated sharps.	
		5. Others, specify -----	
66	If no, why (More than one answer could be possible).	1. Have never made sexual intercourse	
		2. Have abstained from sex	
		3. Did not share injections	
		4. I always use condom	
		5. Others, specify -----	
67	Have you heard about STDs	1: Yes	
		2: No	Skip to Question No.69

68	If yes, which disease do you know about? (More than one answer is possible).	1:Gonorrhea	
		2.Syphilis	
		3.Chancroid	
		4.HIV/ADIS	
		5.Lymphogranuloma	
		6.Hepatitis B	
		7.Others, specify _____	
69	Do you know hepatitis B? /Have you heard about hepatitis B?	1. Yes	
		2. No	Skip to Question No. 71
70	If yes, do you think that hepatitis B can be transmitted through sexual intercourse?	1.Yes	
		2.No	
71	Do you know how one can develop STI/HIV?	1.Yes	
		2.No	Skip to Question No.74
72	If yes, would you answer how STI can be transmitted from one person to other? (More than one answer is possible).	1. From infected person through unprotected sexual intercourse	
		2. Trough infected needle/blood contact.	
		3. Trough blood transfusion	
		4. From infected mother to child.	
		5. Through insect/ mosquito bite.	
		6. by urinating to the direction of sun rise	
		7. By eating together with infected people	
		8. Others, Specify -----	
73	Do you know the major symptom of STIs? (More than one answer is possible).	1.Abnormal genital discharge	
		2.Pain/burning during urination or genital swelling	
		3.Genital ulcer	
		4.Others, specify -----	

74	What additional health problems (complications) can they develop if people do not get early treatment of STDs? (More than one answer is possible)	1. Exposure to HIV	
		2. Sterility	
		3.Cancer	
		4.Others, specify-----	
75	Do you attend Video, movies or other entertainment programs?	1. Yes	
		2. No	
76	If yes, do you think that they are the reasons for your premarital sexual intercourse?	1.Yes	
		2.No	
77	Do you think that drinking Alcohol /chewing khat/ taking anther abuses are reasons for your per-marital sex?	1. Yes	
		2. No	
78	Do you think that drinking Alcohol/chewing khat/ taking anther abuses are reasons for your having multiple sexual partners?	1. Yes	
		2. No	
79	Do you know any way to avoid unwanted pregnancy?	2.Yes	
		2.No	Skip to Question No. 82
80	If yes, what are the ways to avoid getting pregnant? (More than one answer is possible).	1.Safe period	
		2.Withdrwal	
		3.Oral contraceptive pills	
		4.Injectables	
		5.Norplant	
		6.IUDs	
		7.Female sterilization	
		8. Male sterilization	
		9.Condom	
		10.Foam	
		11.Others specify -----	

81	Have you ever used any method of contraceptive so far?	1.Yes	
		2.No	
82	Is there possibility for girls to be become pregnant the first time she make sexual intercourse?	1: yes	
		2: No	
83	During which part of the menstrual cycle does women have the greatest chance of becoming pregnant?	1: during her period	
		2:right after the period is ended	
		3:just before her period begins	
		4:in the middle of the cycle	
		5:the same throughout	
		6:do not know (99)	
		7: Others, Specify -----	
84	Have you heard about emergency contraceptive?	1: Yes	
		2: No	Skip to Question No.87
85	If yes, do you know when to use it?	1: within 72 hrs after sexual intercourse	
		2:with in one week after sexual intercourse	
		3: within two weeks after sexual intercourse	
		4: Any time after sexual intercourse.	
		5: I do not know when to use (99)	
		5: others, specify-----	
86	Have you ever used it? (female only).	1.Yes	
		2.No	
87	Have you ever heard about voluntary counselling and testing for HIV?	1: Yes	
		2: No	Skip to Question No. 90

88	Did you ever undergo HIV test	1: Yes	
		2: No	Skip to Question No.91
89	If yes, what was your result?	1. Negative	
		2. Positive	
		3. No response	
		4. I do not know/remember (99)	
90	Do you have any source of information about sexuality and reproductive health?	1. Yes	
		2. No	You have finished
91	From which person or from where do you learn most about sexuality and reproductive health? (More than one answer is possible)	1. My parent	
		2. My friends/peer	
		3. My partner (husband or Wife)	
		4. My boy or girl friend	
		5. Health institution	
		6. School	
		7. Religious leaders	
		8. Newspaper, posters	
		9. Radio/TV	
		10. Other family members	
		11. Others, specify-----	