

Factors influencing Sexual Risk Behaviors among Senior Secondary School Students (Youths)

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Abstract- This quantitative descriptive cross sectional study explored factors influencing sexual risk behaviours among youths in senior secondary schools in Ethiopia. Data were collected using structured questionnaires. Religious attachment, living with friends, living alone, parental control, level of parental education, peer pressure and number of friends who had experienced sex were some of the factors noted to influence youths to engage in sexual risk behaviours. The findings of this study have implications for both practice and policy development. They will enable healthcare workers to identify youths at risk of engaging in sexual risk behaviours and subsequently motivate them using health promotion strategies to engage in safe sexual practices. Adopting such an approach will prevent or at least minimise risk of youths being infected with sexually transmitted diseases, such as HIV/AIDS.

Index Terms- senior secondary schools, sexual risk behaviours, sexually transmitted diseases

I. INTRODUCTION, BACKGROUND, STATEMENT OF PROBLEM

1.1 INTRODUCTION

Sexually active youths are at risk of contracting sexually transmitted diseases, including Human Immune Deficiency Virus (HIV) infection. There are psychological and behavioural factors associated with the risk of sexually transmitted diseases like HIV/AIDS (Gebregiorgis 2000:15). The same study reported that understanding sexual risk behaviours is one of the most important issues in preventing the spread of HIV and AIDS. Doing so will result in the design and implementation of health education programmes with the view of preventing these infections or at least minimise their occurrence. Therefore exploring the factors that may influence sexual risk behaviours among youths in high schools was the point of interest for the researcher in conducting this study. Taking this into account, the researcher designed a comparative cross sectional study that was carried out in two high schools in Ethiopia to examine sexual risk behaviours, including condom use, assertiveness, frequency of sexual intercourse and number of sexual partner among secondary school students.

1.2 BACKGROUND TO RESEARCH PROBLEM

At the beginning of the new millennium, approximately 1.7 billion people, which is more than a quarter of the world's population, were between the ages of 10 and 24, and 86 percent of these youths were living in less developed countries (Solomon 2004:1). It is reiterated in a number of publications that these

youths are tomorrow's parents (Solomon 2004:1). While some authors appear to support this view, they also consider the term "youth" as a period during which people explore and discover a range of life events or behaviours, such as early onset of sexual intercourse (Kauffman, Orbe, Johnson and Cooke-Jackson 2013:783). It must be mentioned that the price for early onset of sexual activity is high, as each year over one million teenagers become pregnant and over four million are diagnosed with a sexually transmitted disease (STD) (Kauffman et al. 2013:1-10). This is certainly a concern, and thus, this developmental stage deserves more attention and discussion.

Youth is the transition between childhood and adulthood. The increasing independence of youths brings about new challenges and risks resulting in marked differences in patterns of morbidity and mortality compared with younger children (Animaw 2009:10). Youths are more likely to engage in risky behaviours, such as substance use and unsafe sexual practices. Despite this, youths have not traditionally been considered a health priority since they have lower morbidity and mortality rates than older and younger age groups (Mensch, Clark and Anh 2003:249-262.). According to Bayley (2003:832), youths are twice as much likely to die from pregnancy-related health complications, such as excessive bleeding and uterine infection like myometritis. It is critical to mention that pregnancy among youths could be a function of sexual risk behaviours, such as unprotected sex and early sexual initiation. Taking this into account, it is important to explore these issues further.

A recent study by Adamu, Mulatu and Si (2003:5) explored factors of sexual initiation, subsequent risk behaviours, and condom use among 1,102 youth students in secondary schools in some parts of Ethiopia. In his study, two-thirds of the sexual initiations were unprotected and some occurred with casual or commercial sex partners (9.1%). It is asserted in the same study that multi-partnered sex (52.7%) and sex with casual (30.4%) or commercial (25.3%) partners were the most commonly reported lifetime risk behaviours. 56.7% of the youths claimed to never use condoms. Even though this was the case, half of them indicated to have used them regularly and claimed to feel protected by condom use from sexually transmitted infection. The study clearly indicated that geographical locations of subjects was related to such usage of condom and expressed feelings of safety.

Socio-demographic characteristics, particularly gender, location, and age, are significantly correlated with sexual and preventive behaviours (Gebregiorgis 2000:7). It is therefore important to explore these factors in research studies, as engaging in sexual risk behaviours could result in negative consequences. For example, sexual risk behaviours could lead to unwanted pregnancy, which in turn has negative implications.

Unwanted pregnancy have been noted in the literature to contribute to youths' dropping out of school and development of illnesses and even death associated with abortion and STDs, including HIV/AIDS (Bayley 2003:832-843). Acknowledging these consequences, this is a concern for all healthcare professionals. Despite this, factors influencing sexual risk behaviours are poorly understood in Ethiopia, as there are limited studies of these in this state (Bayley 2003:832-843). In fact, there are no studies in Amhara region, specifically in Enemay District. It is therefore critical to explore factors that may influence sexual risk behaviours in this area of Ethiopia.

1.3 STATEMENT OF THE RESEARCH PROBLEM

High exposure of youths to STIs associated with unsafe sexual practices, such as unprotected sex is an important and sensitive issue in sexually active age groups (Animaw 2009:5). The consequences of young people's sexual behaviour when not using contraception have become a global issue mainly because it is associated with pregnancy and STIs (Turnbull 2010:78). The incidence and prevalence of HIV among youths are generally higher relative to cases in adults (Turnbull 2010:78). This is probably because of their sexual activeness and tendency to frequently engage in unsafe sexual practices, such as unprotected sex (Guzman and Bosch 2007: 123). This is also noted among youths in Ethiopia and hence, the high prevalence of HIV/ AIDS cases in this population. Despite this, very limited research has been done in this regard in Ethiopia and to date there are no published empirical studies on factors relating to sexual risk behaviours in the Enemay District, East Gojam Zone of Ethiopia (Animaw 2009:5). Hence, this study explored factors that may influence youths to engage in unsafe sexual behaviours with the aim of providing appropriate recommendations for reducing or preventing unsafe sexual practices among youths in senior secondary schools.

1.4 AIM OF THE STUDY

1.4.1 Research purpose

The purpose of the project was to explore factors influencing sexual risk behaviours among secondary school students (youths) in Enemay District and East Gojam Zone in Ethiopia. The researcher also intended to use the findings of the study to offer recommendations to service providers that will help prevent or at least reduce unsafe sexual practices among secondary school students (youths).

1.4. Specific research objectives

1. To identify factors that may influence sexual risk behaviour.
2. To describe student's perceptions about factors influencing sexual risk behaviour
3. To develop recommendations for interventions to reduce sexual risky behaviours.

1.5 SIGNIFICANCE OF THE STUDY

The issue of sexual risky behaviours among youths in Ethiopia is very important for the prevention of problems relating to unwanted pregnancy and Sexually Transmitted Infections (STIs), including HIV/AIDS. Thus, it is expected that this study would contribute to the development and implementation of appropriate health promotion programmes to reduce both the

incidence and prevalence of sexual risk behaviours and their associated problems, including HIV/AIDS.

Ethiopia is a growing nation with a high youth population. So, sexual risky behaviours are of paramount concern for healthcare workers and the government. Certainly, engaging in discussions regarding sexual risk behaviours and developing health promotion strategies will greatly change the life of youths in this state. This is because such programmes will not only prevent unwanted pregnancy, but they will also prevent or at least reduce the incidence and prevalence of STIs, including HIV/AIDS. Hibist and Robert (2000: 367–379) suggested that Ethiopia is the fastest growing state, in the context of population, in the East of Africa. It is also believed that the youths are playing a significant part in this population growth.

The outcome of this study will have implications for further policy making and practice. The study outcome will enable healthcare workers to identify individuals (students) at risk of contracting sexually transmitted infections and motivate them to reduce factors that may influence sexual risky behaviours through education on safe sexual practices and consequences of early sexual practices. An example of these consequences is unwanted pregnancy. Additionally, the study outcome will contribute to the development of health promotion strategies for addressing sexual risk behaviours of the study population. Taking the issue of health promotion further, this study has the potential of saving cost in that the implementation of health promotion strategies may considerably result in the reduction of sexual risk behaviours, which in turn would reduce the incidence and prevalence of sexually transmitted diseases and the cost of curative measures.

1.6 DEFINITION OF TERMS

Youths: Refers to young people aged between 13 and 20 years (Getnet 2005:17). The term is also best understood as people in a period of transition from childhood to adulthood (Dessalegn 2006:9). Youths in this study mean students at school aged between 19 and 20.

Students: Persons, male or female studying in school, college or University (Getnet 2005:6). Students in this study refer to persons attending high school in the 9th and 12th grade (Animaw 2009:3).

Secondary school: This is an intermediate stage of learning that falls between elementary and tertiary levels of education (Solomon 2004:5).

Behaviour: Refers to the actions and mannerisms exhibited by a person or student. It is a response of an individual to his or her environment (Animaw 2009: 3).

Exploration: Searching for more information about an issue that is being studied. It is about making more attempts to develop understanding about a subject or issue. In this study, these issues relate to factors that may influence sexual risk behaviours among secondary school students of the specified age (Animaw 2009:3).

Safe Sex: Is a sexual activity engaged in by people who have taken precautions to protect themselves against sexually transmitted diseases, such as HIV/AIDS. Additionally, safe sex relates to sexual activity based on guidelines on the relative safety of various sexual practices in terms of the potential for transmitting infection, such as HIV/AIDS (Getnet 2005:6).

Inconsistent condom use: Irregular use or none use of a condom during sexual intercourse encounters (Animaw 2009:3).

1.7 RESEARCH DESIGN

This is a quantitative study that utilised a descriptive cross sectional design. In this type of design data are generally collected from a whole population or as in this case, a subset of a population in order to answer a research question of interest (Friis and Sellers 2009: 256). It is a non-experimental observational design, which allows for the collection of information about the status of an individual with respect to the presence or absence of subjects of interest (Joubert and Ehrlich 2007:85). It provides a snapshot of what is happening at a particular point in time (Grimes and Schulz 2002:146). The researcher chose the cross sectional design since this study aims to determine and explore factors relating to sexual risk behaviours among youths of secondary schools. The study is descriptive because it measured and described the relationships between attributes of sexual risk behaviours.

1.8 SCOPE OF THE STUDY

This study focuses on exploring factors that may influence sexual risk behaviours among senior secondary school students. Examining causality is outside the scope of this study. It is the researcher's hope that the outcome of this study will increase awareness of the identified factors and the impact of these on secondary school youths' sexual behaviours among the people of Enemy District.

II. LITERATURE REVIEW

2.1 INTRODUCTION

This study gave attention to sexual risk behaviours and factors influencing them. This chapter provides an overview of the available literature on factors relating to sexual risk behaviours among senior secondary school youths. The chapter concludes with a summary of the key issues that emerged from the literature sources.

2.1.1 Factors influencing risky sexual behaviours

2.1.1.1 Religious attachment

A study by Kristin and Richard (2009:163) examined the association of religiosity with risky sexual behaviours among adolescents and young adults. In their study religiosity was defined as a set of institutionalised beliefs, doctrines and rituals, and ethical standards of how an individual should live a good life. These authors also clearly indicated that youths who perceived or viewed religion as a very important aspect of their lives were not only likely to attend church frequently, but they were also more likely to have fewer sex partners. Added to this, secondary youths with strong religious affiliation were also less likely to engage in sexual intercourse before marriage. Outcomes of a range of studies seem to support the view that adolescents who are more religious are more likely to delay sexual activity (Holder, Durant, Harris, Daniel, Obeidallah and Goodman 2000:295-302). Similar claims are repeatedly made in the literature that adolescents from a religious background with strong religious beliefs are more likely to experience decreased rates of voluntary sexual debut (Fehring 2010:167). Studies by

Turbin, Jessor, Costa, Dong, Zhang and Wang (2006:445-454) support this assertion and add that religiosity is protective against risky sexual behaviours. Other researchers appear to disagree with this view by asserting that religiosity is unrelated to sexual behaviors (Sheeran, Abrams, Abraham and Spears 1993:39-52). Another factor that is claimed to be related to secondary school youths' sexual behaviour is parental monitoring. It therefore deserves some discussion.

2.1.1.2 Parental monitoring and biological factors

A wide range of studies carried out across the world indicate that strict parental monitoring is positively associated with reduced adolescent health risk, delayed intercourse, fewer sexual partners and consistent contraceptive use (Rwenge 2000:118). A researcher like Animaw (2009:13) supports this view by commenting that adequate parental monitoring is generally positively related to these attributes. Similar outcomes are noted in other studies. For example, Kotchick, Shaffer, Forehand and Miller (2007:493-519) report a direct relationship between parental control with adolescents' intercourse initiation and contraceptive use. The discussion thus indicates an inverse relationship between parental monitoring and adolescents' risky sexual behaviours. This relationship has been consistently revealed in a wide range of studies. Taking for example Springer's (2006:1810) study on parental monitoring and health risk behaviour among public secondary school students in El Salvador, it is reported that students with low parental monitoring are in the main 2 to 3.5 times more likely to engage in sexual risk behaviours, such as unprotected sex.

It is evident from the literature that monitoring is an important tool parents employ to enable youths to engage in safer sexual practices. A study carried out in Dessie, North of Ethiopia on adolescents in preparatory school noted that parent-youth connectedness, parental monitoring and living arrangements are significant predictors of sexual activity (Solomon 2004:11). A greater sense of connectedness to and monitoring by parents are believed to decrease the likelihood of sexual activity (Solomon 2004:11). In contrast, other studies have reported an inverse relationship between parental monitoring and sexual behaviours. The outcome of Small's and Luster's (1994:181-192) study indicates that parental monitoring is inversely associated with adolescent initiation of vaginal intercourse and total number of partners. However, the same study reports a positive association between parental monitoring with contraceptive use.

In addition to parental monitoring, another factor that is claimed to have some influence on adolescents or youths sexual behaviour is negotiated unsupervised time. It is highlighted in one of the publications by Parental Monitoring that this factor seems to serve as a protective factor against sexual activity (Parental Monitoring 2003:66). The protective element of this factor, negotiated unsupervised time, can be attributed to the establishment of trust in the parent-youth or adolescent relationship. Other authors disagree with this by asserting that negotiation of unsupervised time may lead youths to increase experimentation with sexuality and substances (Borawski, Levers-Landdi, Lovegreen and Trapl 2003:60). It is also critical to mention that biological factors are also implicated in youths' sexual behaviours. Examples of these include young age of menarche, high androgen levels in males and females and early

pubertal development (Miller, Benson and Galbraith 2001:1-38). The level or degree of parental education plays a significant role in youths' initiation of sexual activity. It thus deserves further exploration.

2.1.1.3 Level of education

Parental educational level is an important predictor of youths' educational and behavioural outcomes (Davis 2005: 224-249). Youths of literate parents are less likely to engage in early sexual risk behaviour, with early meaning before marriage (Dessaiegn 2006:82). Added to this, youths of educated parents are also more likely to respond to HIV/AIDS information and prevention campaigns, and such an approach reduces their chances of engaging in sexual risk behaviour like unprotected sex and multiple sexual partners (Damien, Jessica and Nakiyingi 2005:993). This is probably because literate parents sometimes spend time interacting or discussing with their youths issues to do with education, risky sexual behaviours and their negative implications (Guerra and Huesmann 2004:177-203). Understanding the risks associated with risky sexual behaviours could lead youths to adopt a cautious approach in the context of sexual intercourse in their relationships (Eccles, Templeton and Barber 2003:390). This means that empowering youths to develop understanding of the consequences of unsafe sexual practices could promote their condom use (Merrill 2009:224-249). Even though this may be the case, peer pressure may lead to inconsistent condom usage in their sexual relationships.

2.1.1.4 Peer pressure and experiences of sex

Peer pressure is considered in the literature to have a significant influence on youths' sexual behaviours (Bernstein 2001:157). It can encourage youths to experiment a range of sexual behaviours, and doing so may lead to an increased risk of unwanted-pregnancy and contracting sexually transmitted diseases, including HIV/AIDs (Kirby 2007:123). This assertion is repeatedly supported in the literature. Whitaker and Miller (2000:251-273) reiterate in their study that peer pressure can cause teenagers to engage in sexual intercourse even when they are not prepared for it. This is probably because youths have the potential of internalizing the opinion of their peers, and externalize the same when exposed to destabilisers, such as the presence of a sexual partner (Duncan 1992:319-327). It is critical to state that youths may also engage in sexual activities even in the absence of peer pressure. In supporting this, Duncan (1992:319-327) states that no influence in a youth's life is as powerful as peer pressure since they can mobilize their energy either to engage or not to engage in sexual risk behaviours. It is therefore critical for youths to constantly engage in constructive dialogue with their parents as this may help alleviate pressures of engaging in sexual risk behaviours.

2.1.1.5 Communication and reproductive health service

Communication between parents and their children about sexual issues and its impact on youths' sexual behaviour has been persistently reported in the literature to play a role in preventing youths from sexual risk behaviours. Guo and Nathanson (2011:358-378) agree with this. They stated that familial interactions are the main sources of influence on youths' communicative decisions, including those related to sexual

activity. This is probably because of the view that parental communication with youths can enhance adherence of the latter to health education programmes that address their sexual and reproductive health concerns (Dessaiegn 2006:7). Arguably, there might be variations in youths' sexual risk behaviours because of possibly variations in parental communication patterns. Apparently, this is the case. Markham, Tortolero, Escobar-Chaves, Parcel, Harrist and Addy (2003:174-179) assert that parental relationships with effective communication styles are generally associated with fewer youth pregnancies. Similarly, Brener (2002:856-859) claim that frequent and positive parent-youth communication about sex can in the main lead to less risky sexual behaviour, which in essence relates to frequent use of condoms and one sexual partner. In contrast, sexual discussions between youths and parents have been reported in the literature to result in the former's increased experimentation with sex (Borawski et al. 2003:60). Similar, outcome was reported in a study by Bersamin, Todd and Fisher (2005:213). They stated that communication between parents and youths on sexual matters, including sexual intercourse can serve as a motivator for the latter to experiment varied sexual activities. Added to this, Hutchinson and Cederbaum (2011:550-572) reiterate that both parents play a large role in the socialization of their youths and went on to state that fathers have a stronger influence on both sex and substance use decisions.

2.1.1.6 Alcohol and Substance use

Alcohol consumption and its abuse have been globally associated with risky sexual behaviours like unprotected sexual intercourse (Cooper 2002:101-117). A more recent study by Irwin, Morgenstern, Parsons, Wainberg and Labouvie (2006:299-307) confirms this assertion. Its outcome reiterates that unprotected sex was more common during episodes of alcohol consumption compared to when alcohol was not consumed. It is apparent that alcohol and substance use are implicated in youths' sexual decision-making. Taking Ethiopia for example, Khat and alcohol use has been in a range of studies to be significantly and independently associated with risky sexual behaviours among Ethiopian school youths (Gebregiorgis 2000:43). In the year 2000, one-quarter of sexually active high school youths in Ethiopia reported using alcohol or drugs during their most recent sexual encounter. In such instances, the use of condoms is less of a priority particularly for male youths. Derege, Atalay, Getnet, Fikre, Frehiwot and Yigeremu (2005:109) agree with this by stating that daily use of alcohol is associated with a threefold increase in odds of engaging in risky sexual activity (like unprotected sex) compared to those not using it. Gebregiorgis (2000:43) supports this view by adding that the odds of unprotected sex are generally slightly higher among male youths compared to their female counterparts.

2. 2 RISKY SEXUAL BEHAVIOURS

2.2.1 Unprotected sex

Rising rates of premarital sexual activity, escalating numbers of unmarried women terminating unplanned pregnancies, and increasing prevalence of HIV infection and other STIs among youths are critical as they are related to risky sexual behaviours, such as unprotected sex (Mensch et al. 2003:250). Unprotected sex is related to an increased potential of contracting STDs and

unwanted pregnancies (Kost and Henshaw 2012:2). Approximately 19 million STDs cases were diagnosed in 2012, and 13 percent of these cases were youth ages 13-24 with HIV/AIDS (Kost and Henshaw 2012:2). These infection cases were in the main attributed to unprotected sex. Although already mentioned, it is important to re-state that unprotected sex is a significant contributory factor to the rising global youth pregnancy, including Ethiopia. This has huge implications relating to youths dropping out of school and lowered level of educational achievement. Unprotected sex is also closely associated with alcohol and substance use. Data obtained from a study conducted among youths in Southern Africa confirm this. The data revealed that drunkenness tends to reduce the likelihood of men using condoms with their steady partners as well increases their potential of engaging in sexual relationships with multiple partners (Kiene and Subramanian 2013: 583).

2. 2.2 Multiple partners

Multiple sexual partnerships are high-risk sexual behaviours because of their tendency to increase the risk of HIV transmission through sexual networks (Berry and Hall 2009:97). It is therefore important to know the extent to which youths are engaging in multiple sexual partnerships. Sexually transmitted diseases are often associated with sexually active youths with multiple sexual partners. In agreement, Astatke (2000: 63-83) asserted that 9.2% of sexually active youth students in his study reported of STD and this was attributed to students` frequent contact with commercial sex workers and the use of multiple sex partners. In a similar study in 2005 in Ethiopia, the second HIV/AIDS Behavioural Surveillance Survey (BSS), about 9.9% school youths were found to have had sexual experience with multiple partners (BSS 2005:43). Males were more likely to have multiple partners and experience early sexual initiation than females, and thus they are at an increased risk of contracting and transmitting STDS from partner to partner.

2. 2.3 Early sexual initiation

Timing of sexual initiation is considered as an important factor in discussions relating to pregnancy and STDS among youths. The study by Adamu et al (2003:163-77) of secondary school youth across Ethiopia offered a clear picture of this area of concern. A good proportion of youths studied (33.3%) had their first experience of sexual intercourse before their 18th birth day. A significant number of these first experiences (60%) took place without condoms and some even experimented sexual intercourse with casual or commercial sex workers. Of the youths who had sex without condoms, only a small number of youths (20%), expressed intentions to use condoms in future sexual encounters. In Solomon`s (2004:6) view, youths with better family connectedness were more likely to use contraceptives consistently (Solomon 2004:6). Several reasons are noted in the literature for youths experimenting sex before their 18th birth day. Examples of the most common reasons cited include personal desire and peer pressure (Kora and Haile 2007:39-35).

2.3 CONCLUSION

A range of studies have shown similarities in factors relating to risky sexual behaviours. It is noted in the literature that youths who frequently go to church are less likely to engage in risky

sexual behaviours. It is also noted in the literature that parental monitoring is positively associated with reduced youth health risk, delayed intercourse, fewer sexual partners and consistent contraceptive use. Added to this is the issue to do with parent-youth communication. Extant literature revealed that parent-youth communication reduces the chance of the latter to engage in sexual risk behaviours, like having multiple sexual partners. However, some contradictory findings have been reported by some authors. Some claimed that sexual discussions between parent and youths could result in increased sexual experimentation. Increase in sexual experimentation increases the risk of unwanted pregnancy and sexually transmitted diseases, including HIV/AIDs. Now that the literature has been reviewed, it is time to turn to how this study explores sexual risk behaviours.

III. RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter describes the methods used to collect data in this study and explains their appropriateness to the exploration of factors relating to sexual risk behaviours among secondary school youths. Discussions relating to population, sampling, sampling approaches and ethical issues are provided. This chapter also provides an explanation of the design of the study and rationale for its use.

3.2 STUDY DESIGN AND PERIOD

A research design is a plan detailing how a research will be conducted. It guides the researcher in planning for and implementing the study (Rubin and Babbie 2011:43). The study took the form of a quantitative descriptive non-experimental study. Polit and Beck (2004:716) define quantitative descriptive design as research studies that have as their main objective the accurate portrayal of the characteristics of persons, situations or groups and / or the frequency with which certain phenomena occur. Non-experimental research refers to a study in which the researcher collects data without introducing an intervention (Polit and Beck 2004:725). Creswell (2007:7) states that, in quantitative descriptive design, the researcher only collects data to give a clear picture of the situation. This design was used in this study to determine the prevalence of risky sexual behaviours and associated factors among high school youths from June 2012 to June 2013. Hulley, Cummings, Browner, Grady and Newman (2007:109) state that a cross-sectional design is a scientific study in which data are collected at one point in time, with no follow-up period. This design was appropriate for this study as it allowed the researcher to explore factors relating sexual risk behaviours among secondary school youths in Ethiopia.

3.3 RESEARCH METHOD

3.3.1 Definitions

3.3.1.1 Population

According to Parahoo (2006:271), a population is the total number of units that researchers are interested in studying. It is from these units or elements that data can potentially be collected (Parahoo 2006:271). These units could be events or individuals or organisations to name but a few. In other words, a population is an aggregate or totality of all the objects, subjects or members

that conform to a set of characteristics (Polit, Beck and Hungler 2001:95). This section also discusses other aspects of study population such as target population. Polit and Beck (2004:734) define target population as the entire population that a researcher is interested in studying. The target population of this study comprised of all youths in secondary schools in the Enemay District in East Gojam in Ethiopia. As Hulley et al. (2007:82) state, a target population is selected on the basis that it would yield the required data. This target population has been selected on the basis that it will provide the required data of factors relating sexual risk behaviours of youths in secondary schools.

3.3.1.2 Sampling

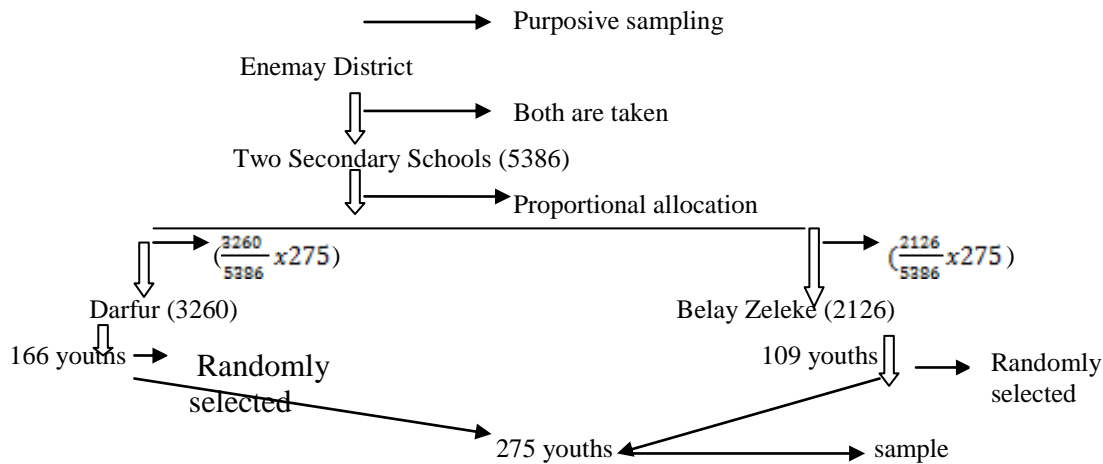
3.3.1.2.1 Sampling procedure and frame

One major decision that researchers tend to take in conducting research is to decide on the nature of the data and from where they can be obtained, as the sources of data tend to have profound effects on the ultimate quality of studies (Morse

2002:3-4). Such a decision for identifying and selecting sources of data is what Grbich (2007:234) and Macnee and McCabe (2008:245) refer to as sampling. To be precise, Davis and Scott (2007:155-173) define it as the science and practice of selecting a portion of the population in a manner that allows the entire population to be represented in the same. On examining this definition, it became apparent that a sample is, in essence, a subset of a population.

The study area, Enemay District, was purposely selected from 11 districts in East Gojam Zone basically because it is easily accessible relative to the other districts. In other words, Enemay District was selected purposively because of its geographical accessibility. Two secondary schools, Darfur and Belay Zeleke were included in the study. These schools, Darfur and Belay Zeleke had student youth population of 3260 and 2126 respectively. Out of this population 166 and 109 youths were randomly selected from Darfur and Belay Zeleke respectively using the lottery method (see figure below).

East Gojam Zone (11 Districts)



3.3.1.2.2 Accessible sites

Enemay District was the accessible study site. It has a total population of 165,292. It is about 260 Km from Addis Ababa, the capital city of Ethiopia. The study was carried out in two mixed-sex education secondary schools, Darfur and Belay Zeleke in Enemay District.

3.3.1.2.3 Sample size

The formula to determine sample size of small population is as follows:

$$s_f = s_o / (1 + s_o / N)$$

$$s_o = x^2 p(1-p) / d^2$$

s_o = the initial sample size considered at $p=50\%$ and $d=0.05$

d = degree of accuracy expressed as proportion (0.05)

P = population proportion assumed to be 0.5 or 50%

N = the study (sampling) population size i.e 969

S_f = final sample size to be taken in the study

x^2 = the table value of chi square Q degree of freedom = 1 for desired confidence level and for desired confidence level 0.05% chi square value = 3.84 or $x^2 = (Z_{\alpha/2})^2$

Then $s_o = x^2 p(1-p) / d^2 = 3.84(0.5)(0.5) / 0.05^2 = 384$ --- the maximum sample size for s_o at $p=q=0.5$

Therefore

$$s_f = s_o / (1 + s_o / N) = 384 / (1 + 384 / 969) = 384 / (1 + 0.3963) = 384 / 1.3963 = 275$$

Power = $1 - \beta = 80\%$

3.3.1.3 Inclusion and exclusion criteria

It is worth noting that a good starting point for selecting samples for a study is to clearly define the target population, which is simply the population of interest to the researcher (Davis and Scott 2007:155-173). The population of interest for this project is the total number of youth students in Enemay District. Taking into account the overarching philosophy of the research project, which focuses on exploring sexual risk factors of youths in secondary schools, it was not appropriate to include the entire population in the study. Munhall (2007:175) agrees by

emphasizing that researchers using quantitative mode of inquiry, can sample for producing generalisable findings. Acknowledging this, it was therefore fitting, as a pre-cursor to sample selection, to carefully identify potential participants from this population. In doing this, the researcher took into consideration specific conditions, which potential participants should meet to make them eligible for partaking in the study. These conditions are what Polit and Beck (2008:289) refer to as eligibility or inclusion criteria for participation. In this study, they were:

3.3.1.3.1 Inclusion criteria

- Students of Darfur and Belay Zeleke secondary school in Enemay District who were between 18 and 20 years of age
- Students who were single or unmarried or divorced or widowed

While the delineation of the above conditions would assist in identifying a sample, the researcher also felt the need to define characteristics, which the study potential participants must not possess. Doing this, the researcher believed, would ensure the selection of “appropriate respondents”. The question now arises, what are “appropriate respondents”? According to Munhall (2007:174), these are individuals who have experienced and / or are experiencing the construct being investigated and who are both willing and able to share their experiences. The characteristics which respondents must not possess are what Polit and Beck (2008:289) refer to as exclusion criteria, which, for this study, are outlined below:

3.3.1.3.2 Exclusion criteria

Students, who were seriously ill, married, and disabled (for example blind and /or deaf) were excluded from the study because of possible difficulty in data collection.

3.4 DATA COLLECTION

The data was collected using the Amharic language questionnaire. It was gathered from randomly selected 275 students (respondents). Five trained nurses, supervised by the principal investigator, gathered the data from November 2013 until February 2013. Data were gathered using a structured questionnaire, which is now discussed.

3.4.1 Data collection instrument

A structured self-administered questionnaire developed in English and translated into Amharic to standardize questions for respondents, was used in this study. Most of the items were adapted from existing surveys. The questionnaire included questions on socio-demographic characteristics, sexual and reproductive health knowledge, family connectedness, communication about sexuality and STDs, including HIV/AIDS, social norms and gender roles, parental monitoring, peer influence and behavior, sexual behavior, and coercion. The questions and statements of the questionnaire were grouped and arranged according to specific objectives of the study. Repeatability, vagueness and improper logical flow aspects of the questions were corrected accordingly when questions from respondents were addressed. The wording and sequence of

questions were designed in such a way that the logical flow of ideas from general to specific was maintained.

3.5 ETHICAL CONSIDERATIONS

3.5.1 Ethical issues

A range of ethical issues was taken into account when conducting this study. The issues considered are discussed in this section to demonstrate the study's ethical soundness. One of these ethical considerations includes how subjects were accessed.

3.5.2 Accessing subjects

The initial step in the stages of seeking access to study subjects at the research site, is gaining the agreement of individuals in authority, who Creswell (2009:243) refers to as gatekeepers or key individuals. In this case, these included the teachers and heads of schools. Obviously, the success of the study in part depended upon winning over the cooperation of these gatekeepers. This involved writing letters to them requesting appropriate time and date to discuss the study. Separate meetings for the head of schools were organised. Detail discussions of the study took place at these meetings. In sum, the issues covered were sampling and sample size, data collection, potential benefit of the project and its purpose. To complement the discussions generated, each gatekeeper was given a copy of the study proposal containing the researcher's contact details. Such an action was attributed to the view that these documents were potentially valuable points of reference and, if read, would develop people's understanding of the research project. One must add that all the teachers and head teachers were also given the option of contacting the researcher if they require further information and/or to clarify any aspect of the issues discussed. Although the gatekeepers were generally pleased with the discussions held, they were noted to be happier when provided with the option of contacting the researcher to express any concern they may have. The teachers and head teachers expressed their support for the research project.

3.5.3 Informed consent

A close look at the literature on research ethics revealed that the notion of informed consent is an important facet of most ethical guidelines (DH 2001:220). Such significance attributed to this concept is based on the ethical principle of self-determination or autonomy, which, in essence, requires researchers to respect respondents' ability to make free choices about themselves (Murphy and Dingwall 2001:339-351). In this context, free choices simply refer to researchers empowering respondents in making decisions to engage or not to engage in research (RCN 2004:234). It is explicit from this statement that researchers are legally obliged to safeguard the autonomy or self-determination of their respondents (DH 2001:220). It is therefore imperative that they take the steps that are necessary for ensuring this. A significant part of these steps involves the provision of adequate information to potential respondents about studies, as information giving would enable individuals to evaluate the potential risks and benefits of participation (Creswell 2009:239).

From the outset, all prospective subjects were clearly informed of the aim and nature of the study via their teachers and head teachers. The researcher was acutely aware that informed consent of potential respondents should be obtained before

commencing data collection. Each respondent expressed willingness for participation by completing a consent form. These forms highlight the options of taking or not taking part in the study, a requirement which all researchers are expected to adhere to when selecting respondents (Flick 2009:158). In other words written consent was obtained from every study subject prior to data collection. Ethics approval to conduct the study was obtained from the School of Public Health, Departmental Ethical Clearance Committee at UNISA. In Ethiopia, permission to conduct the study was also obtained from the District office and the school authorities where data was collected. An official letter of co-operation from the District office was presented to the respective schools.

3.5.4 Protecting welfare of subjects

One measure adopted in this study to protect the welfare of respondents is that of anticipation; anticipation of potential risks or harm. While this was adopted, it was realised during the course of the study that it is difficult, if not impossible, to foresee every risk (Silverman 2010:156). In other words, it was practically impossible to think of and accurately predict the wide range of possible effects of the study on respondents. This was because respondents not only differ in their personalities; they also differ in their life experiences. One is convinced that such differences in characteristics would enable them to react differently to the different stages of the research process, a belief also shared by Marvastic (2004:170). The researcher was particularly vigilant in anticipating some degree of emotional discomfort in respondents. It was believed that emotional distress could be generated by the nature of the inquiry. Respondents were reassured that all the information provided would be coded and securely stored in a locked cupboard in the researcher's place of work. However, it must be stressed that only anonymised data would be made available to supervisors.

3.5.5 Confidentiality

Confidentiality was one of the main concerns for the researcher of this study, as the data which respondents provided are required by law to be kept in the strictest confidence (International Council of Nurses 2003:23). Thus, throughout this study, preservation of respondents' confidentiality was considered to be paramount and all identifiable information was anonymised to ensure this. Anonymity of respondents is often a requisite of research (Creswell 2007:136). So, respondents were informed at the outset that the information they provided would be used for the research study. In relation to the possibility of publishing the study and or presenting parts of it at conferences, respondents' information will be distorted and would not be identifiable as theirs. It is important to mention that respondents' confidential information was upheld throughout the study.

In sum, it became apparent from this discussion that there are many ethical considerations which have to be accommodated to make a study ethically feasible. The remainder of this chapter focuses on variables and issue of research quality, such as validity.

3.6 INDEPENDENT AND DEPENDENT VARIABLES

Two set of variables were used in this study:

3.6.1 Independent variables

- Living arrangement (relationship with guardians) at the time of the survey.
- Socio-demographic factors like age, gender, residence, religious affiliation and attachment, level of parental education, academic achievement etc.
- Perceived family connectedness.
- Perceived parental monitoring.
- Communication with parents and peers about sexuality.
- HIV/AIDS/ Sexual health knowledge.
- Social norms and gender roles.
- Khat and alcohol use.

3.6.2 Dependent/Outcome variables

- ✓ Students had sex.
- ✓ Risky sexual practices
- ✓ Having multiple sexual partner,
- ✓ Inconsistent use of condoms

3.7 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

3.7.1. Internal validity

This refers to the extent to which the independent variable can accurately be stated to produce the observed effect. Since the variables in this non-experimental research design were merely measured (not manipulated), the researcher focused on stating the independent variables accurately to produce the observed effect and also matching the assessment result to the study goals and objectives.

3.7.2 External validity

External validity is the validity that relates to how inferences about observed relationships will hold over variations in persons, settings, time, or measures of study outcomes (Polit and Beck 2008:287). In other words, external validity is about generalisability of findings of study populations. To ensure this, the researcher adopted a probabilistic sampling approach and also used a representative sample of secondary youths in Enemy District. The supervisor with vast research experience has been instrumental in enquiring and providing feedbacks on the research design. Even the statistician has been of great help in the selection of research design. All these efforts by experts were to ensure that a relevant research design is selected to answer the research aims and objectives, as well as to enhance validity of the study.

3.8 CONCLUSION

This chapter has outlined the study design, study area, study population, eligibility criteria, sampling, data collection procedure, data collection and ethical considerations. The chapter also detailed the approach used and conditions under which investigations were carried out from the development of preliminary questionnaire, through the pilot survey, and to the design and administration of the research instrument (questionnaire). It further indicated how issues of validity and reliability were addressed through the use of data gathering method.

IV. ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

The researcher conducted a quantitative, descriptive research to explore factors relating to sexual risk behaviours among secondary school youths. Structured data collection was aimed at:

- Identifying factors influencing sexual risk behaviours.
- Exploring student perceptions about factors associated with sexual practices.
- Developing recommendations for interventions to reduce the existence of unsafe sexual behaviours.

The method of data collection has been discussed in the previous chapter. In this chapter, the research findings are discussed. The findings were utilised to formulate recommendations to reduce factors relating to sexual risk behaviours.

4.2 DATA MANAGEMENT AND ANALYSIS

Data entry was done using Epi-info version 3.5 and analysis was performed using SPSS v.16 statistical packages. First, descriptive analysis was carried out to explore the socio-demographic characteristics of the respondents. Bivariate analyses had been carried out to examine the relationship between the outcome variables and selected determinant factors. Factors which showed significant bivariate associations were retained for subsequent multivariate analyses using multiple logistic regressions. Odds ratios analysis was used to assess the effect of factors influencing to sexual risk behaviours.

4.3 RESULTS

4.3.1 Socio-demographic characteristics of secondary school students

A total of 275 (164/59.6% male and 111/40.4% female) secondary school students participated in this study with 100% response rate. The minimum and maximum ages of the respondents were between 18 and 20 years old respectively. About 69.1% (190) of the respondents were orthodox Christians [Table 4.1]. Of those respondents, 149 (54.2%) were permanent urban dwellers. The mean age of respondents was 18.73 (± 0.734) years.

Regarding living arrangements of respondents, 132(48%) of them were living with parents and 60(21.1%) were living with sisters and brothers [Table 4.1].

Table 4.1: Frequency distribution of socio-demographic characteristics of secondary school students, Enemay District, East Gojam Zone, Amhara Regional State, Ethiopia, 2012.

Variable	Number (N)	Percent (%)
<u>Sex</u>		
Male	164	59.6
Female	111	40.4
<u>Age</u>		
18 years	120	43.6
19 years	108	39.3
20 years	47	17.1
<u>Parental educational</u>		
Illiterate /cannot read and	181	65.8
Literate	94	34.2
<u>Residence</u>		
Urban	149	54.2
Rural	126	45.8
<u>Residing with whom</u>		
Parents	95	34.5
Sister/brother	60	21.8
Friends	57	20.7
Alone	63	22.9
<u>Religion</u>		
Orthodox	190	69.1
Muslim	85	30.9

Orthodox Christian respondents with literate parents had less frequent history of sexual contact compared to those with illiterate parents (16.3% vs. 54.6%, respectively). The same is true for Muslims with literate parents and those with illiterate parents (2.0% vs. 27.0% respectively). Orthodox Christian students from literate parents had less frequent history of sexual contact compared to students from illiterate parents (51.9% vs.12.7% respectively) (Fig.1).

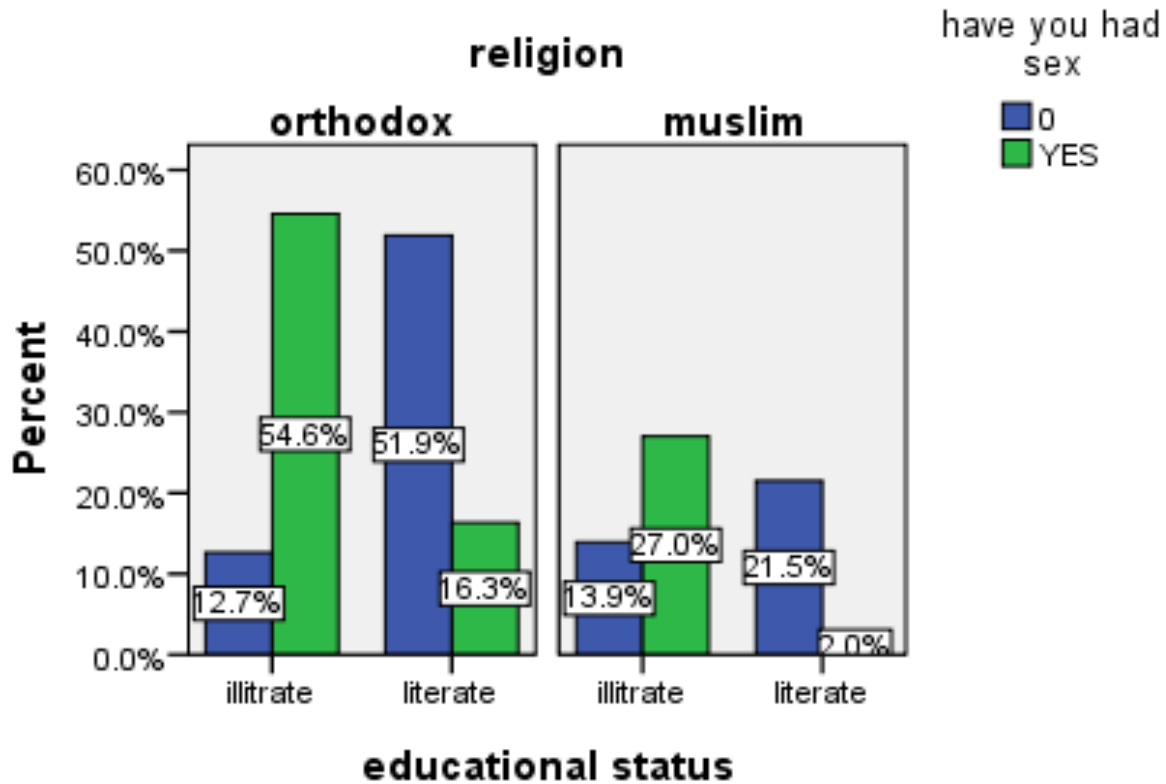


fig-1. Distribution of respondents' history of sexual intercourse by their religion and parents' educational status, Enemay District, East Gojam Zone, Ethiopia 2012.

Irrespective of religious orientation, students from illiterate parent had more frequent early sexual activity onset compared to those from literate parents (Fig. 2). However, orthodox students from illiterate parents had less frequent early sexual activity onset compared to Muslim students (54.7% vs. 56.5%, respectively). Orthodox Christian respondents with literate parent had less frequent early sexual onset compared to those with illiterate parent (14.7% vs. 54.7%, respectively). The same is true

for their Muslim counterparts (3.5% vs. 56.5%) (Fig. 2). Comparing orthodox students from literate parents showed that respondents with age less than 18 had higher frequency of early sex than those above that age (14.7% vs. 2.1%, respectively). The same is true for Muslim respondents from literate parents (3.5% vs. 1.2%, respectively) (Fig. 2).

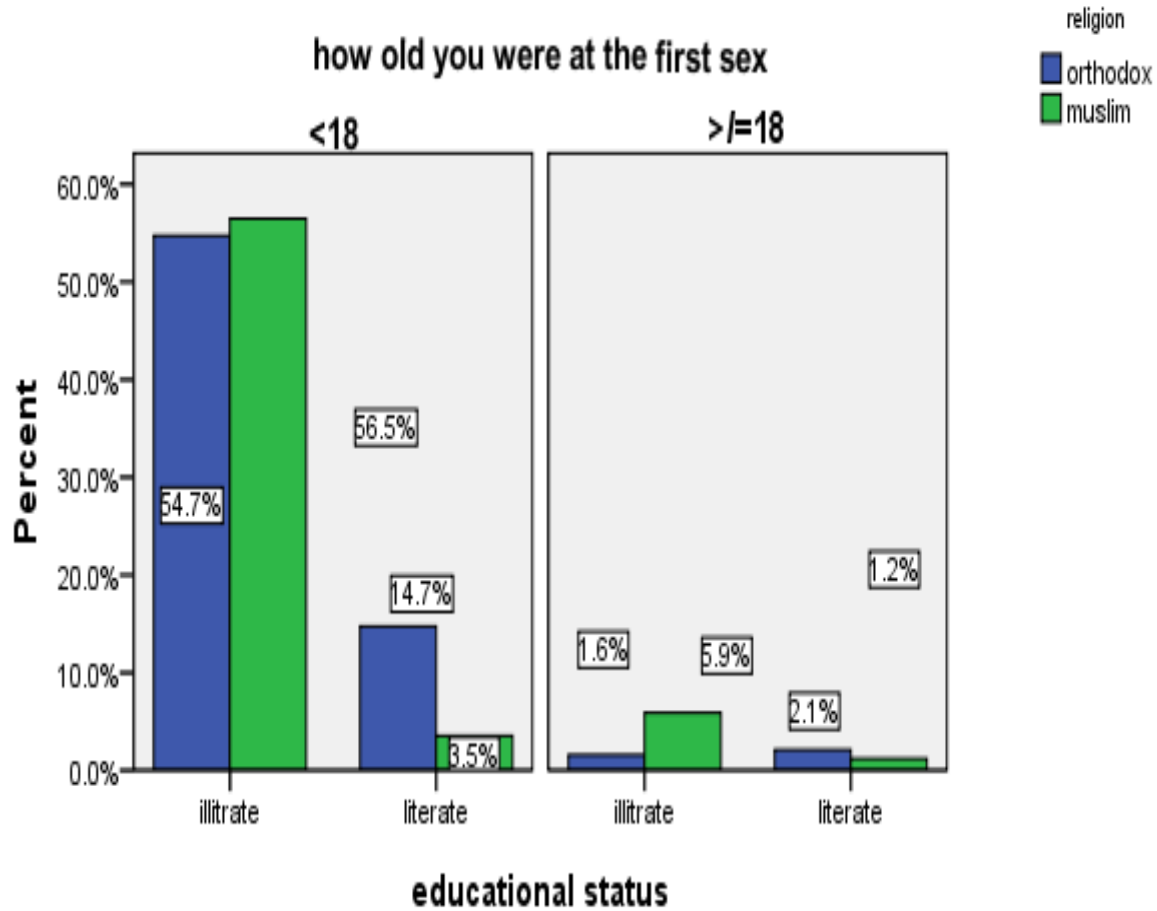


Figure 2: Distribution of Respondents' age at first sex by their religion and parental educational status
 Enemay District, East Gojam Zone, Ethiopia 2012.

Most of the respondents had history of multiple sexual partners irrespective of the parents' educational status (Fig. 3). Muslim students from illiterate parents had more frequent history of multiple sexual partner compared to orthodox Christians from

illiterate parents (37.6% vs. 33.2%, respectively). However, Muslim students from literate parents had less frequent history of multiple sexual partners compared to orthodox Christians (3.5% vs 8.9%, respectively) (Fig. 3).

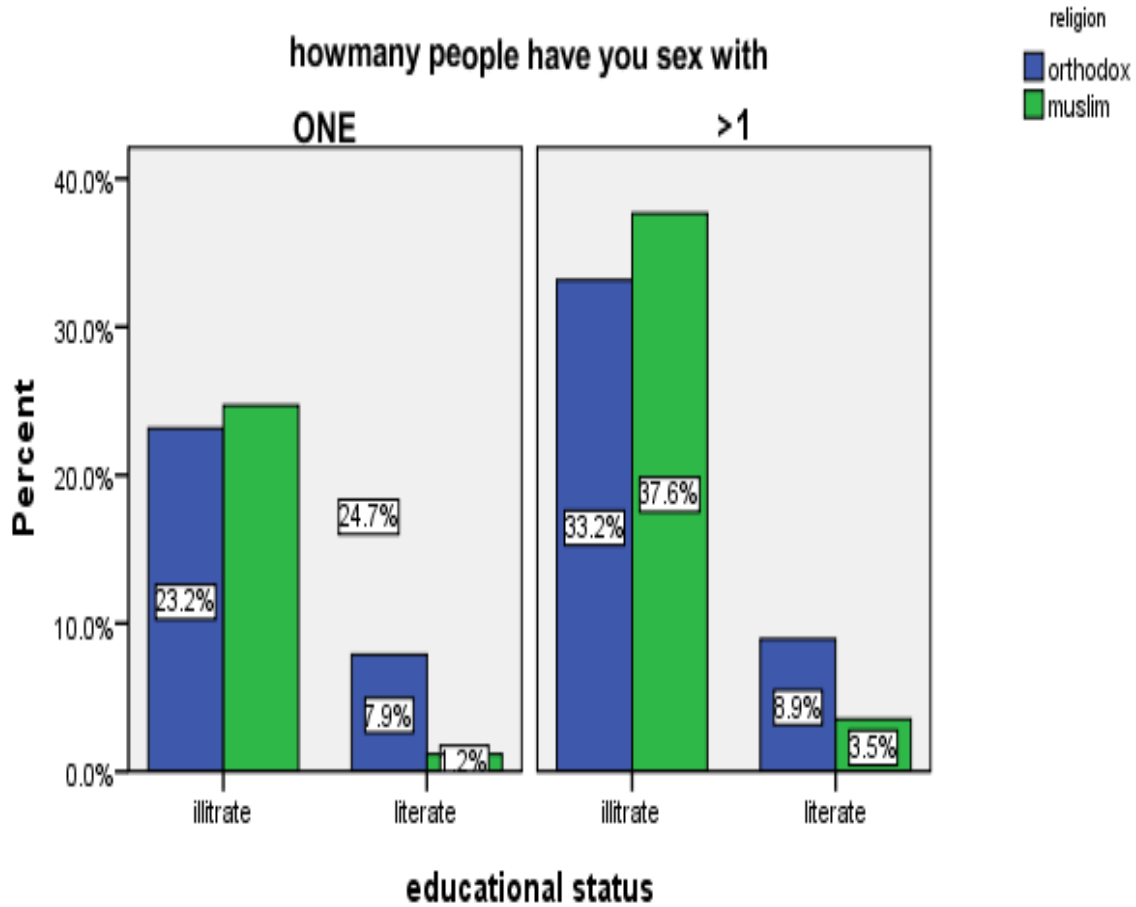


Figure 3: Distribution of Respondents' multiple sexual partners by their religion and parental educational status
Enemay District, East Gojam Zone, Ethiopia 2012.

Regarding the use of contraceptives, orthodox students from literate parents used more contraceptives than their Muslims counterparts (10.5% vs. 2.4%, respectively) (Fig. 4). The use of

contraceptives by students from illiterate parents was almost equal in both religions (30.0% vs. 29.4%, respectively) (Fig. 4).

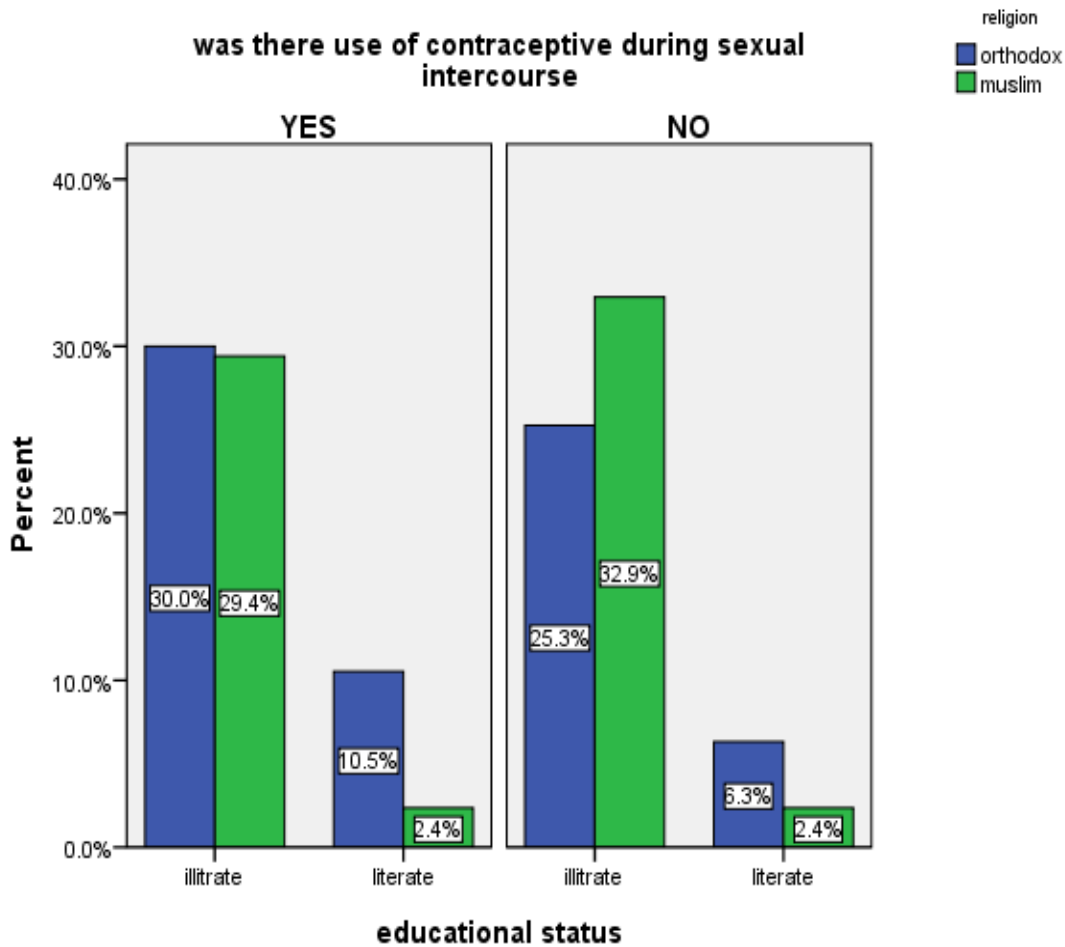


Figure 4: The use of contraceptives by respondents by their religion Enemay District, East Gojjam Zone, Ethiopia 2012

4.3.2 Sexual risk behaviours

From among 275 respondents, about 196 of them had a history of sexual contact with 119(60.7%) being males and 77(39.3%) females [Table 4.2]. Among this group of respondents with a history of sexual contact, more females (52.1%) were found to have experienced unprotected sexual intercourse (never used any contraceptive method or condom) than males (38.9%). In addition, more male respondents (59) had history of multiple

sexual partners than females (47). However, in each gender grouping of 275 study respondents; a high percentage of both sexes had experienced multiple sexual partners (52.2% for males and 64.4% for females) [Table 4.2]. Furthermore, majority of the respondents (97.4% male and 90.4% female) had experienced sexual intercourse in their early age; meaning they had sexual intercourse before their 18th birthday [Table 4.2].

Table 4.2: Distribution of secondary school students’ sexual risk behaviours by their sex, Enemay District, East Gojjam Zone, Amhara Regional State, Ethiopia 2012.

Sexual risk behaviours	Sex		
	Male N(%)	Female N(%)	Total N(%)
Have had sex			
Yes	113(68.9)	73(65.8)	186(67.6)
No	51(31.1)	38(34.2)	89(32.4)
Total	164(100.0)	111(100.0)	275(100.0)

Unprotected sex

Yes	44(38.9)	38(52.1)	82 (44.1)
No	69(61.1)	35(47.9)	104(55.9)
Total	113(100.0)	73(100.0)	186(100.0)

Multiple sexual partners

Yes	59(52.2)	47(64.4)	106(57.0)
No	54(47.8)	26(35.6)	80(43.0)
Total	113(100.0)	73(100.0)	186(100.0)

Early age of sexual onset

Yes	110(97.4)	66(90.4)	176(94.6)
No	3(2.7)	7(9.6)	10(4.4)
Total	113(100.0)	73(100.0)	186(100.0)

Trading sex for money

Yes	14(12.4)	38(52.1)	52(18.9)
No	99(87.6)	35(47.9)	134(79.1)
Total	113(100.0)	73(100.0)	186(100.0)

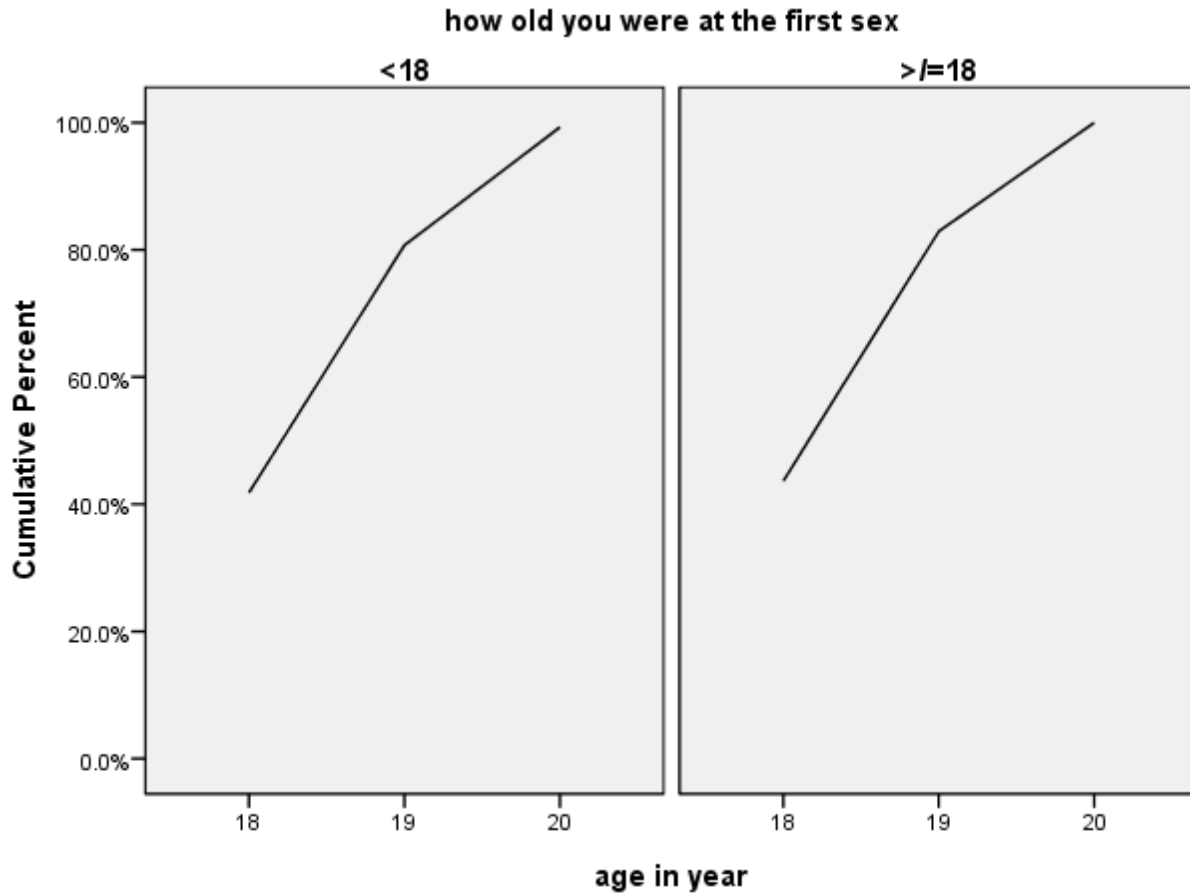


Figure 5: Cumulative percentage of students who were sexually active age, sex, region (Enemay District, East Gojam zone, Ethiopia2012).

The age at which respondent had their first sexual intercourse varied with the highest percentages being below 18 years in both sexes (Fig. 5). 199 (43.3%) of sexually experienced students reported that their first sexual partner was with a boy or girl friend, while 65(23.6%) claimed that their first sexual partner was with a husband or wife and the rest 11(4.0%) reported that their first sexual encounter was with a stranger.

4.3.3 Perceptions of students’ about factors associated with sexual practices

Being pregnant, STD’s and general financial situations are predominant factors perceived by students as associated with sexual risk behaviours. According to Table 4.3, 220(80%) of the respondents had the inkling that pregnancy could occur just before menstrual cycle. Whilst 210(76.4%) respondents claimed

and responded that it could occur immediately after a menstrual cycle, 206(79.9%) believed it can occur in the middle of the menstrual cycle (at 14th day). Added to this, 165(60%) think pregnancy can occur during the menstrual cycle (during bleeding time). Most of the respondents, 249(90.5%) agreed that HIV can be prevented through abstinence and 236 (85.8 %) stated it can be prevented by being faithful. Whilst 238(86.5%) stated HIV can be prevented by using condom, 226(82.2 %) indicated HIV can be avoided by using sterile syringes and needles. 239(86.9%) of respondents responded that avoiding sexual contact with commercial sex workers is a preventive measure. Whilst this is the case, approximately 219(79.6 %) of respondents agreed that HIV can be prevented by using prophylactic antibiotics [Table 4.3].

Table 4.3: Secondary school students’ perceptions about factors associated with sexual practices, Enemy District, East Gojam Zone, Amhara Regional State, Ethiopia, 2012.

Variable	Yes	No
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<u>Pregnancy can occur</u>	<u>N(%)</u>	
In the middle of menstruation	206(74.0)	68(24.7)
Immediately after menstruation	210(76.0)	61(22.2)
Just before a menstrual period	220(80.0)	51(18.9)
<u>HIV can be prevented by</u>		
voiding sexual intercourse	249(90.5)	23(8.4)
Being faithful	236(85.5)	37(11.6)
Using Condom	238(86.5)	32(11.6)
Using sterile syringes & needles	226(82.2)	44(16.0)
Avoiding sexual contact with CSW	239(86.9)	26(9.5)
Avoiding share of sharps objects	219(79.6)	47(17.1)
Taking antibiotics	219(79.6)	40(14.5)
HIV positive mother can give positive child	216(78.5)	38(13.8)

4.3.4 Perception of selected social norms and gender roles

According to Table 4.4, 117(71.3%) male and 83(74.8%) female respondents answered that having knowledge of contraceptives encourages sex. A significantly high proportion of males and females believed that having a child while in high school is a problem for a mother (50%, 50% respectively) [Table 4.4]. A total of 143(87.2%) male and 89(80.2%) female

respondents believed that having sex during teenage period is against their values. Interestingly, 131(79.9%) of male respondents stated that males are responsible to control family expenditure. Virginity until marriage in both females and males is also believed to be important with 86.6% and 70.1% respondents respectively [Table 4.4].

Table 4.4: Perception of selected social norms and gender roles, Enemay District, East Gojam zone, Ethiopia 2012.

Variables	Male (n=164, N(%))	Female (n=111, N(%))
<u>Social norms</u>		
Knowledge of contraceptives encourages sex		
Agree	117(71.3)	83(74.8)
Disagree	47(28.7)	28(25.2)
Having a baby while in a high school is		
a problem for mother	82(50.0)	51(50.0)
a problem for baby	20(12.2)	20(18.0)
a problem for father	7(4.3)	5(4.5)
a problem for parents	50(30.5)	31(27.9)
a problem for all	5(3.0)	4(3.6)
<u>Sexual values</u>		
It is against my values to have sex while I am a teenager		
Agree	143(87.2)	89(80.2)
Disagree	21(12.8)	22(19.8)
<u>Gender roles</u>		
Who should handle family expenditures		
Father/husband	131(79.9)	75(67.6)
Mother/wife	18(11.0)	20(18.0)
Both (husband & wife) together	15(9.1)	16(14.4)
Virginity for a woman is important until she gets married		
Yes	142(86.6)	92(82.9)
No	22(13.4)	19(17.1)
Virginity for a man is important until he gets married		
Yes	115(70.1)	69(62.2)
No	49(29.9)	42(37.8)

4.3.5 Knowledge of selected sexual and reproductive health issues

Even though respondents did not have tangible clinical diagnosis-based evidence for their responses, a view based on recorded educational histories, overall knowledge about AIDS prevention was high among the respondents. About 249 (90.5%) of them rated avoiding sexual intercourse as an effective AIDS prevention strategy. However, 235(85.5%) disagreed with this and stated that being faithful is a very effective approach. It can be mentioned that 236(86.5%) knew that using condom can

prevent them from HIV infection. While this is the case, 226(82.2%), 239(86.9%), and 219(79.6%) of the respondents knew that using sterile needles, avoiding sex with commercial sex workers, and avoiding the share of needles respectively can prevent HIV/AIDS [Table 4.3].

4.3.6 Communication and discussion regarding sexuality and HIV/AIDS

In this study, about 80.4% (221) of the respondents reported that they had discussed sexuality and HIV/AIDS with teachers,

parents, peers and friends, and 87.3% of them indicated that teachers are good sources of information regarding HIV/AIDS [Table 4.5]. However, a good percentage of the respondents also recommended friends (82.9%) and health practitioners (71.3%) as good sources of information on HIV/AIDS [Table 4.5].

228(82.9%), 196(71.3%), 109(39.6%), 90(32.7%), and 84(30.5%) of the respondents respectively responded that friends, health practitioners, books and films, mass media, and family respectively are also good sources of information on HIV/AIDS [Table 4.5].

Table 4.5: Communication and discussion regarding sexuality and HIV/AIDS (multiple responses possible), Enemay District, East Gojam zone, Ethiopia 2012.

Source of information on HIV/AIDS	Responses (N(%))	
	Yes	No
Teachers	240(87.3)	35(12.7)
Friends	228(82.9)	47(17.1)
Health practitioners	196(71.3)	79(28.7)
Books and films	109(32.7)	166(60.4)
Mass media	90(32.7)	185(67.3)
Family	84(30.5)	181(69.5)

4.3.7 Sexual behaviour

Interviewees were asked whether they had ever engaged in sexual risk behaviours i.e. early initiation to sex, multiple partners, unprotected sex, and exchange of sex for money. According to Table 4.6, less attachment to religion and parental education, are significantly ($p < 0.05$) associated with sexual risk behaviour. However, age, sex, religion and location are not significantly associated with sexual risk behaviour. It was reported that 85(78.7%) of respondents aged 19 years, 119(72.76%) males, orthodox 139(73.2%) and urban dwellers 108(72.5%) had involved in sexual risk behaviour compared with those aged 18 and 20 (80(66.7%) and 31(66%) respectively), 77(69.4%) females, 57(67.1%) and 88(69.8%) rural dwellers respectively (Table 4.6).

More boys (72.8%) than girls (69.7%) reported that they had sexual risk behaviours [OR=1.17, 95% CI (0.69, 1.98)]. About 111(40.4%) of the respondents reported that they attend religious institutions more than twice per month and there is a significant difference with those whose attachment was less than twice per month [OR=17.04, 95% CI 8.62 to 33.68]. Students who lived with a brother or sister or friend or alone were significantly more likely to engage in sexual risk behaviours than those who lived with parents [OR=4.03; 95% CI 0.64, 25.30, OR=22.52; 95% CI 1.55, 327.59 and OR=17.49; 95% CI 2.32, 131.77 respectively]. Similarly, students from uneducated parents were significantly more likely to engage in sexual risk behaviours [OR16.6; 95% CI 5.42, 51.32] [Table 4.6].

Table 4.6: Bivariate and multiple logistic regression analyses for sexual risk behaviours according to selected socio-demographic determinants, Enemay District, East Gojam zone, Ethiopia 2012.

Socio-demographic Variables	Sexual risk behaviour (No(%))		COR (95% CI)	AOR(95% CI)	P-value
	Yes	No			
Age					
18	80(66.7)	40(33.3)	1.91(0.9,4.1)	1.09(0.47,2.49)	0.64
19	85(78.7)	23(21.3)	1.03(0.5,2.1)	1.92(0.95,3.87)	0.89
20	31(66)	16(34)	1.00		
Sex					
Female	77(69.4)	34(30.6)	1.00		
Male	119(72.6)	45(27.4)	1.17(0.7,1.9)	1.10(0.0,50.9)	0.97
Religion					
Muslim	57(67.1)	28(32.9)	1.00		
Orthodox	139(73.2)	51(26.8)	1.34(0.8,2.3)	8.70(0.3,287.5)	0.22
Resident					
Rural	88(69.8)	38(30.2)	1.00		
Urban	108(72.5)	41(27.5)	1.14(0.7,1.9)	0.30(0.6, 2.0)	0.23

With whom do you live now

Parents	68(51.5)	64(48.5)	1.00		
Sister/brother	48(82.8)	10(17.2)	10.32(4.6, 23.0)*	4.00(0.6,25.3)	0.14
Friend	26(92.9)	2(7.1)	56.77(12.9,248.1)*	22.50(1.6,327.6)*	0.02*
Alone	54(94.7)	3(5.3)	41.29(11.9,142.2)*	17.50(2.3,131.8)*	0.01*

Attachment to religion

More than twice/month	45(40.5)	66(59.5)	1.00		
Less than twice/month	151(92.7)	13(7.9)	17.1(8.6,33.7)	20.10(7.8,51.6)*	0.00*

Parental education

Literate	10(12.2)	72(87.8)	1.00		
Illiterate	186(96.7)	7(3.6)	45.2(13.7,157.7)	16.60(5.4,51.3)*	0.00*

As shown in Table 4.7, both knowledge and attitude of the respondents are not significant factors for sexual risk behaviours [OR=0.99; 95% CI0.11, 8.75 and OR=0.22; 95% CI0.3, 1.67 respectively]. Peer pressure, number of friends who had experienced sex (≥ 5), and best friend who had experienced sex; were also important factors explored [OR=14.15; 95% CI1.81, 110.96; OR=55.53; 95% CI3.83, 804.88; and OR=233; 95% CI 9.91, 5521.82, respectively, [Table 4.7]].

Table 4.7: Bivariate and multiple logistic regression analyses for sexual risk behaviours according to selected determinants; alcohol drinking, level of knowledge, attitude and peer pressure.

Other variables	Sexual risk behaviour		COR (95% CI)	AOR(95% CI)	P-value
	Yes	No			
<u>Knowledge</u>					
Good	58(45.7)	69(54.3)	1.0		
Not good	138(93.2)	10(6.8)	16.5(7.9,34.1)	0.9(0.1,8.8)	0.99
<u>Attitude</u>					
Good	82(59.4)	56(40.6)			
Not good	114(83.2)	23(16.9)	3.4(1.93,5.9)	0.2(0.3, 1.67)	0.14
<u>Peer pressure</u>					
Yes	180(87.8)	25(12.1)	24.3(12.1,48.8)	14.2(1.8,110.9)	0.01*
NO	16(22.9)	54(77.1)	1.0		
<u>No. of friends experienced sex</u>					
None	35(40.1)	41(53.9)	1.0		
Some /<5/	54(62.1)	33(37.9)	1.9(1.0,3.6)	139.1(8.9,2164.1)	0.00*
Most/>5/	107(95.5)	5(4.5)	25.1(9.2,68.4)	55.5(3.8,804.9)	0.00*
<u>Did your best friend experienced sex</u>					
Yes	176(91.7)	16(8.3)	34.7(16.9,71.0)	233(9.9,5521.8)	0.00*
No	20(24.1)	63(75.9)	1.0		1.00

DISCUSSION

Most of the secondary school youths in Enemay District had sexual intercourse. This demonstrates that many adolescents are confronted at some point during their youthful years with choices

about whether or not to have sex and, if they do, whether or not to use condoms and/or other preventive strategies, such being faithful. According to the results of this study, 80(66.6%) of sexually active youths in school that have engaged in premarital

sexual relationship before their 18th birthday is greater when compared to those in Animaw's study, which was only 57.9%. This early initiation of sexual activity contributes to teenage pregnancy, and high risk of contracting STDs, including HIV infection.

In this study, 115(58.7%) respondents reported that they had engaged with two or more sexual partners in their lifetime and this is also high when compared to the results in the study in West Gojam by Animaw (33.3%) in 2009. About 64.4% of respondents who claimed that they had experienced sex indicated that their behaviour was mainly due to self-desire than coercion. Only 3.3% of the respondents indicated that they were coerced in some way and this was far lesser than that reported by BSS II (15.3%).

In general, student knowledge about sexual and reproductive health issues was quite unsatisfactory regardless of gender or residential factors, and this was not significantly associated with sexual activity according to this present study. Rather this implies that enhancing knowledge level alone will be insufficient to achieve the intended outcomes. Instead, more youth tends to assert that feasible interventions including better health information dissemination should be strategically tailored for combating high sexual risk behaviour. As mentioned earlier, youths believe that teachers are the most trustworthy source of information about sex than their peers. This is consistent with a study done in the western part of Amhara by Animaw in 2009.

The study's findings reiterated the concern on the powerful effects of peer pressure. It revealed that peer has significant effects on youths' sexual practice. It also showed that adolescents who claimed to have experienced peer pressure and who have friends that were sexually experienced, were more likely to engage in sexual activity. Peer pressure was also reported by adolescents living alone (28.2%), and with their friends (24.9%). These percentages were noted to be greater when compared to those living with both biological parents (23.4%). In view of all the results of this study, utmost consideration should be given to the effects of peer pressure in educating adolescents. Thus, on the basis of this and other research findings, health programmes for adolescents should strongly develop strategies that also focus on peers.

This study also reported that high number of respondents (89.8%) who had experienced sex; where mostly from parents who did not know the whereabouts of their youths (students) after school hours. The study by Solomon in 2004 suggests that strong parental monitoring may reduce unwanted pregnancy indirectly by decreasing students' association with high-risk peers, such as those who had experienced sex. This author believes that such avoidance could result in a decrease in unsafe sexual intercourse. As saliently revealed in this and other similar studies, there seem to be a strong relationship between perceived parental monitoring and sexual behaviours of youths (students) (Stanton and Feigelman 2000:43–48). This means that youths from parents who expend a lot of energy providing supervision or monitoring are less likely to engage in sexual risk behaviours relative to youths from parents with less supervisory support. Condon utilisation was also noted to be a risk factor of sexual risk behaviours. Condom utilisation by respondents who had previously experienced sex was below half (40.8%). Even though it is known that youths are the portion of the population that are

highly affected by HIV infection, the magnitude of unsafe sexual behaviour noted in this study is alarming.

4.5 CONCLUSION

In summary, the bivariate and multiple logistic regression analyses indicate that youths with infrequent attachments to religious institutions, less parental control, low level parental education, peer pressure, number of friends and having best friends who had experienced sex were more likely to initiate sexual intercourse.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Factors relating to sexual risk behaviours were researched to determine the extent to which the objectives of the study were achieved. This chapter presents the summary of the findings, conclusions and recommendations based on the data analysed in the previous chapter.

5.2 RESEARCH DESIGN AND METHOD

A descriptive cross-sectional survey of quantitative type was done to determine the prevalence of risky sexual behaviour and associated factors among high school youths. Information from respondents was gained through structured questionnaires. This design was adopted because it enabled the researcher to systematically explore the study phenomenon (Gay and Airasian 2000:275).

5.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

Results of the analysed data about factors relating to sexual risk behaviours were presented in chapter IV. The key findings in chapter IV are the answers to the following research question: **What are the factors relating to sexual risk behaviours among secondary school youths?**

The study utilised the survey approach by using precisely the descriptive method. A total of 275 respondents from two high schools with ages from 18 to 20 were taken as respondents of the study and were asked to complete a structured survey questionnaire. This instrument was used to explore the factors and/or situations under such factors that mostly affect high school youths. Respondents were asked to indicate their most appropriate rating for each item. According to this study, 164(59.6%) respondents have infrequent religious attachment, 120(43.6%) of them with no parental monitoring, 181(65.8%) were from illiterate parents, 205(74.5%) were influenced by peer pressure, 125(45.5%) had number of friends (>/=5) who had experienced sex and 192(69.8%) of them have best friend who had experienced sex.

In general, infrequent attachments to religious institutions, weak parental control, poor level of parental education, peer pressure and number of friends who had experienced sex are factors that may likely enable youths to initiate or engage in risky sexual behaviours (refer Tables 4.6 & 4.7).

5.4 CONCLUSION

The findings of this study strongly indicated that a considerable proportion of youths in senior secondary schools in general are sexually active. Frequent attachments to religious

institutions, close parental control, high parental education, absence of peer pressure, decreased number of friends and best friends who have experienced sex were the most important protective factors that positively hindered youths' first sexual intercourse activity.

Youths who had experienced peer pressure are more likely to initiate sexual intercourse than those without these experiences. The level of sexual and reproductive health knowledge of youths noted was generally unsatisfactory and was not significantly associated with youths' sexual activity. Most of the youths in secondary schools had experienced at least one type of sexual risk behaviours, such as unprotected sex. Sexual activity among urban youths was observed to be particularly high. Although inconsistent, the most common contraceptive used, particularly at the first sexual intercourse was condom. Now that risk factors of sexual risk behaviours have been discussed and areas of concerns highlighted, it is time to turn to suggestions or recommendations that may address the identified concerns.

5.5 RECOMMENDATIONS

According to the findings of this study, efforts regarding minimizing factors influencing sexual risk behaviours should be directed more towards parents and peers than educators. This view is captured more in the following sub-recommendations.

5.5.1 Expectations from parents

- Youths should closely follow religious institutions and should also have close parental control to minimise those factors influencing sexual risk behaviours.
- Parental level of education also plays undeniable role in the reduction of the factors influencing sexual risk behaviours. Therefore their knowledge should be maximised.
- Education on reproductive and sexual health with emphasis on the consequences of all the aforementioned risk behaviours, including the negative impacts of peer pressure, should be included in the delivery messages and strategies for tackling those factors influencing sexual risk behaviours.
- Family interventions on how parents can bring their children under control at their youthful stage can provide parents' direction as well on how to balance youths' autonomy with their obligation to protect them from harm.

5.5.2 Expectations from government

- Direct public education initiatives that increase recognition and understanding of the importance of parent-youth relationship through advertisement by media and through provision of information

brochures in government agencies, public health offices and schools should be encouraged and promoted.

- Strengthen Youth-serving agencies, churches, Sunday Schools, community and social organizations such as Edir, Ekub and schools to develop strategies that promote high levels of parent-youth-connectedness.
- Work more on female empowerment strategies related to Millennium Development Goal three to help reduce the negative impact of peer influences.

5.5.3 Expectation from future researchers

- Future researchers should address issues on factors, specifically youths' attachment to religion, parent-youth communication, parental education and parental monitoring as one point of intervention to reduce youths' sexual risk behaviours.
- Further investigation with particular emphasis on establishing the temporal relationship using longitudinal study designs must be undertaken.

5.6 LIMITATIONS OF THE STUDY

Limitations of the study include:

- Other factors (characteristics of family) that might affect youths' sexual behaviour and psychosocial health have not been explored.
- The analysis is constrained by the small number of youths or sample size. Although random sampling was used, generalisability of the study findings must be done with caution taking into account some noticeable differences, for example, in the culture of the youth population in the Districts of Ethiopia.
- The age restriction from 18-20 years has also weakened the extrapolation of the study.
- An inherent limitation of the design used in this study is that the researcher cannot conclusively determine factors that can prolong exposure to risky sexual behaviours.
- Taking into account the view that the influence of sexual risk behaviours is multi-factorial, the exact single factor that can lead to sexual risk behaviours cannot be determined. Thus, it makes sense to talk about risk factors instead of causation.

5.7 CONCLUDING REMARKS

It can be concluded that infrequent attachments to religious institutions, less parental control, low level parental education, peer pressure, number of friends and best friends who have experienced sex were factors in the study that can lead youths to engage in risky sexual behaviours.

ANNEXURE1: SURVEY INSTRUMENT

Questionnaire on youths' sexual risk behavior; Enemy District Secondary School, Ethiopia.

PART ONE: BACKGROUND CHARACTERISTICS

1.1. Age (in years) _____

Please tick one.

Descriptions	Code	Choices
1.2. Sex:	01	Male
	02	Female
1.3. Religion:	01	Orthodox
	02	Muslim
	03	Protestant
	04	Catholic
	05	Others
1.4. Are you permanent resident in this town?	01	Yes
	02	No, I came from surrounding areas.
1.5. How frequently do you visit your Parents/families?	01	Not at all
	02	Only during vacations (i.e. every 6 months)
	03	Often, once every 2-4 months
	04	Very often (at least once every month.)
1.6. With whom do you live now?	01	I live with both of my parents
	02	I live with my mother only
	03	I live with my father only
	04	I live with brothers/sisters
	05	I live with grandparents
	06	I live with cousins
	07	I live with mother/father and a stepfather or stepmother
	08	I live with my friends
	09	I live alone
	10	Others
1.7. Attachment to religious institutions	01	Attends frequently (more than twice a month)
	02	Seldom attends (less than or equal to twice a month)
1.8. Have you ever consumed 'Khat'?	01	No
	02	Occasionally
	03	Regularly, 2-4 times per month on average
	04	Regularly, 5 times per month or more on average
1.9. Have you ever consumed alcohol?	01	No
	02	<2 times/month
	03	Regularly, 2-4 times per month on average
	04	Regularly, 5 times per month or more on average

PART TWO: SEXUAL AND REPRODUCTIVE HEALTH KNOWLEDGE

Please tick all that are possible.

2.1. During which times of the menstruation does a woman have the greatest chance of becoming pregnant?

	Yes	No	I don't know
During her period	01	02	03
At about 14 th day of her cycle	01	02	03
Right after her period has ended	01	02	03
Just before her period begins	01	02	03

2.2. How can people protect themselves from getting AIDS?

	Yes	No	I don't know
Avoid sexual intercourse (don't play sex)	01	02	03
Have faithful one-to-one relationship with uninfected partner	01	02	03
Use condoms during sex	01	02	03
Sterilize syringes/needles	01	02	03
Avoid sexual contact with sex workers (prostitutes)	01	02	03
Avoid sharing cutting & piercing materials	01	02	03
Take antibiotics prior to sexual intercourse	01	02	03

Please tick only one.

	Agree	Disagree	Don't know
	01	02	03
2.3. A woman who has HIV can give birth to a child with HIV.			
2.4. A girl can get pregnant before she experiences her first menstruation			
2.5. A person can have a sexually transmitted disease (STD) without knowing it			

PART THREE: COMMUNICATION ON SEXUALITY AND HIV/AIDS

Please tick one below.

4.1. Have you ever discussed about sexuality and/or HIV/AIDS with other people?

Yes ___ 01 No ___ 02

If yes, with whom? 01. Mother 02. Father 03. Brother/Sister 04. Other family member
05. Friend of the same sex 06. Friend of the opposite sex 07. Boy/girl friend 08. Teacher
09. Health practitioner

4.3. In general, what has been your most important source of information about AIDS or HIV? 01 .Teacher/school AIDS clubs 02.
Friends 03. Mass media 04. Family

05. Health practitioner 06. Books/films 07. don't know

PART FOUR: SOCIAL NORMS AND GENDER ROLES

A. Social Norms

Please tick one.

5.1. The knowledge of contraceptives by young people encourages them to have sex with many people. 01 Agree 02. Disagree 03.
Don't know

5.2. Having a baby when you are in high school

- 01. Is not a problem at all
- 02. Is not a problem because your family helps
- 03. Is a problem, but it's okay
- 04. Is a problem for the mother and the baby but not for the father of the baby
- 05. Is a problem for the mother, the baby, and the father of the baby

B. Sexual Values and Choices

	Agree	Disagree
	1	2
5.3. It is against my values for me to have sex while I am youth.		
5.4. If I have sex while I'm youth, it would make me feel sort of important.		

C. Gender Roles

5.5. Who do you think should handle family expenditures, husband /father or wife/mother?	
01	Father/husband
02	Mother/wife
03	Both (husband and wife) together
5.6. How important is it for a woman to be a virgin until she gets married?	
01.	important
02.	Not important
5.7. How important is it for a man to be a virgin until he gets married?	
01.	Important
02.	Not Important

PART SIX: PERCEIVED PARENTAL MONITORING

	Yes 01	No 02
6.1. Your parents know where you are when not at school and away from home		
6.2. Your parents know who you were with when not at school and away from home		

PART SEVEN: PEER INFLUENCE AND PEER BEHAVIOR

Please tick one.

7.1. Is there pressure from your friends for you to have sexual intercourse?	01	Yes
	02	No
7.2. About how many of your friends have had sexual intercourse?	01	None of them
	02	</=5
	03	>5
7.3. Now think of your best friend. Has he/she ever played sex?	01	Yes
	02	No
	03	Don't Know
7.4. Do you know of any sexual intercourse with prostitutes among your male close friends?	01	Yes
	02	No
	03	Don't Know

PART EIGHT: SEXUAL BEHAVIOR AND PRACTICE

Sometimes young people play sex. They play sex for different reasons - for love, for urges, or because they are convinced, forced or tricked. Please tick one below.

8.1. Have you ever had sexual intercourse?	01	Yes
	02	No
8.2. How old were you when you first had sexual intercourse?	01	Less than 18 years
	02	Greater or equal to 18years
	03	Don't know
8.3. How old was the person with whom you first played sex?	01	Less than 18 years
	02	Greater or equal to 18years
	03	Don't know
8.4. Who was the person?	01	Husband
	02	Boy/girlfriend
	03	Teacher
	04	Other person
8.5. Was the sex urged with alcohol, khat, or any other drug beforehand?	01	Yes
	02	No
8.6. How many different partners have you had sexual intercourse with in the last 12 months?	01	One
	02	Two or more
8.7. Did you or your partner use any contraceptives during the first sex?	01	Yes
	02	No
8.8. Are you currently using any method to prevent AIDS or STDs?	01	Yes
	02	No
8.9. <i>If yes</i> Which method or methods are you currently using to prevent AIDS or STDs?	01	Condoms
	02	Abstinence
	03	Faithful one-to-one relationship
	04	Other

PART NINE: COERCION

Please tick one below.

9.1. The first time you had sexual intercourse, did you agree willingly, did it just happen, or were you tricked, threatened or forced?	01	Played sex willingly (wanted)
	02	Forced
	03	Convinced with money or gifts
	04	Felt threatened
9.2. [For females only] Have you any coercive sex practice like rape and abduction?	01	Yes
	02	No
9.3. [For females only] Have you ever received anything in exchange for sex?	01	No
	02	Yes
	03	Don't remember

9.4. **[For females only]** what did you receive?

- 01. Money
- 02. School fee
- 03. Shelter/rent
- 04. Other

ANNEXURE 2: RESPONSE RATE PER DIVISION FOR SCHOOLS

School	Allocation	Collected	Response rates (%)
Darfur secondary school	166	166	100
Belay Zeleke secondary school	109	109	100
Total	275	275	100

Total source population size/Target population or Reference population =5386

Darfur secondary school

Population size =3260

Proportional allocation for the two high schools

$$\text{Allocation} = (3260/5386) \times 275$$

$$= 166$$

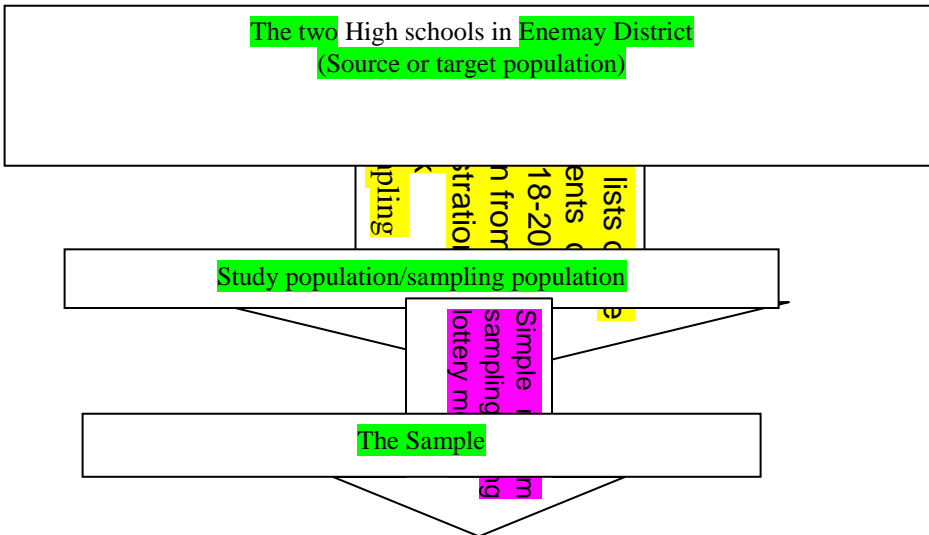
Belay Zeleke secondary school

Population size=2126

$$(2126/5386) \times 275$$

Allocation=109

ANNEXURE 3: THE SAMPLING TECHNIQUE



ANNEXURE 4: CONSENT FORM FOR RESPONDENTS

The researcher is interested in exploring factors that may influence sexual risk behaviours in youth students in high schools. This questionnaire is designed for a research work approved by the University of South Africa Research, Ethics and Publication Committee (School of Public Health) to be conducted in partial fulfillment of a master's degree in General Public Health.

I hope you will help me to complete this survey. None of your answers will be available to anyone at anytime. All the information you give me will be kept private. Do not put your name anywhere on this questionnaire. It depends on your agreement and you will not be pressurized to participate unless you are voluntary.

However, we really need your honest response to understand in a good way the impact of sexual risk behaviours of youth in secondary schools in Ethiopia

The results of the study would hopefully serve as an important input to intervene in programs that aim at improving adolescent/youth students' health.

The questionnaire will take 30-40 minutes to complete
Do you agree to participate in this study? Yes no

Participant declaration: "The study and the content of this informed consent form have been explained to me. I have been given an opportunity to ask questions and I am content with the answers to the questions I asked. I agree to participate in this study since I know that the information obtained will be kept confidential and I may withdraw from the study anytime without any prejudice to me."

Signature of Participant: _____ Date: _____
Witness: _____ Date: _____

Statement by Researcher:

The researcher provided verbal and written information regarding this study.
The researcher agrees to answer any future questions concerning the study to the best of his ability.
The researcher will adhere to the approved protocol.

ANNEXURE 5: PERMISSION LETTER FROM ENEMAY DISTRICT EDUCATION OFFICE



No: 477/DS/705/2

Date: 10/07/2009

To (Deacon) Gizew Damtie Demeke:

Permission to your request

You previously request the office to conduct a research study entitled as 'Exploration of sexual risk behaviors among secondary school students (youths) ' at schools in our district for the fulfillment of Master of Public Health (MPH) at University of South Africa(UNISA).

Your request is to get student participants those will complete your questioner for no longer than 30 to 40 minutes under well personal and ethical protection.

We have seen thoroughly and fully accepted it owing to the advantage for the district that will be forwarded after the accomplishment of the study regarding measures to be taken as parts of a plan that will be set in our future on those risks in our youth students.



With regards,


Winiyahil Adane Zerihun
የክላሲካል ስራ ማኅበር

**ANNEXURE 6: ETHICAL CLEARANCE FROM UNIVERSITY OF SOUTH AFRICA HEALTH STUDIES HIGHER
COMMITTEE COLLEGE OF HUMAN SCIENCE**



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

HS HDC/112/2012

Date: 29/11/2012

Student No: 46340262

Project Title: **An Exploration of factors related to sexual risk behaviours among senior secondary school students in Enemy District, East Gojam Zone. Ethiopia.**

Researcher: Demeke Gizew Damtie

Degree: **Masters in Public Health**

Code: MPCHS94

Supervisor: Dr Peter Sandy
Qualification: Phd
Joint Supervisor: n/a

DECISION OF COMMITTEE

Approved



Conditionally Approved



PP

**Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE**

P.P.

**Dr MM Moleki
ACTING ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES**

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

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REFERENCES

- [1] Adamu, R, Mulatu, MS & Si, H. 2003. Patterns and correlates of sexual initiation, sexual risk behaviours, and condom use among secondary school students in Ethiopia. *Ethiopian Medical Journal* 41(2):163-77.
- [2] Animaw, A. 2009. Assessment of sexual risk behaviours of in-school youth: effect of living arrangement of students; West Gojam zone, Amhara regional state, Ethiopia.
- [3] Astatke, H, Black, M & Serpell, R. 2000. Use of Jessor's theoretical framework of adolescent risk behaviour in Ethiopia: implications for HIV/AIDS prevention. *Northeast African Studies* 7(1):63-83.
- [4] Bayley, O. 2003. Improvement of sexual and reproductive health requires focusing on adolescents. *Lancet* 362:832-31.
- [5] Bernstein, NI. 2001. How to Keep Your Teenager Out of Trouble and What to Do If You Can't? 127-180.
- [6] Brener, N., et al. 2002. Trends in sexual risk behaviours among high school students --- United States, 1991--2001. *MMWR (CDC)* 51(38):856-859.
- [7] Berry, L & Hall, K. 2009. HIV & AIDS and STI National Strategic Plan 2007-2011: Multiple sexual partnerships. Cape Town, South Africa: Children's Institute, University of Cape Town.
- [8] Bersamin, M, Todd, M & Fisher, A. 2005. Parenting practices and adolescent sexual behaviour: A longitudinal study 70(1): 97-113.
- [9] Borawski, E. et al. 2001. Parental monitoring, negotiated unsupervised time, and parental trust: the role of perceived parenting practices in adolescent health risk behaviours. *Journal of Adolescent Health* 33(2):60-70.
- [10] BSS. 2005. The second HIV/AIDS Behavioural Surveillance Survey (BSS) done in Ethiopia.
- [11] Cooper, ML. 2002. Alcohol use and risky sexual behavior among college students and youth: evaluating the evidence. *Journal of Studies on Alcohol* 14:101-117.
- [12] Creswell, JW. 2007. *Qualitative enquiry and research design: choosing among five traditions*. 2nd Edition. Thousand Oaks: Sage
- [13] Creswell, JW. 2009 *Research design: qualitative, quantitative and mixed methods approaches*. 3rd Edition. California: Sage
- [14] Damien, W, Jessica, S & Nakiyingi, A. 2005. Changing association between schooling levels and HIV.
- [15] Davis, A. 2005. A Reconsideration of Patrick Kavanagh, Flann O'Brien, and Brendan Behan.
- [16] Davis, P & Scott, A. 2007. Health research sampling methods. In, M. Saks and J. Allsop. (eds). *Researching health: qualitative, quantitative and mixed methods*. London: Sage. 155-173
- [17] Derege, K, Atalay, A, Getnet, M, Fikre, E, Frehiwot, B & Yigeremu, A. 2005. Khat, alcohol use and risky sex behavior among in school and out of school youth in Ethiopia. *BMC Public Health* 5:109. doi:10.1186/1471-2458-5-109.
- [18] Dessalegn, N. 2006. Gudfecha practice as child problem intervention. Oromo city: The case of Ada's Libian District.
- [19] Department of Health. 2001. *Research governance framework for health and social care*. London: Department of Health
- [20] Duncan, R. 1992. Adolescent sexuality and peer pressure 9(4):319-327.
- [21] Eccles, J, Templeton, J & Barber, B. 2003. Adolescence and emerging adulthood: The critical passage ways to adulthood. In: Bornstein M, Davidson L, Mahwah NJ, editors. *Well-being: Positive development across the life course*. US: Lawrence Erlbaum Associates, Publishers: 383-406.
- [22] Fehring, R. 2010. The association of religiosity, sexual education, and parental factors with risky sexual behaviours among adolescents and young adults. *Journal of Religion and Health* 33:167-192.
- [23] Flick, U. 2009. *An introduction to qualitative research*. 4th Edition. London: Sage
- [24] Friis, RH & Sellers, TA. 2009. *Epidemiology for public health practice*. 4th Edition.
- [25] Gay, LR & Airasian, P. 2003. *Educational Research*. New Jersey: Philadelphia: Upper Saddle River. Jones and Bartlett.
- [26] Gebregiorgis, Y. et al. 2000. *Achieving Behaviour Change: An Impact Evaluation of a Community Based Adolescent Reproductive Health Program in Ethiopia*. Society of Paediatric Psychology.
- [27] Getnet, M. et al. 2005. *HIV/AIDS Behavioural Surveillance Survey (BSS) Ethiopia*.
- [28] Grbich, C. 2007. *Qualitative data analysis: an introduction*. London: Sage
- [29] Grimes, GA & Schulz, KF. 2002. Descriptive studies: what they can and cannot do. *The Lancet* 359(3501):145 - 149.
- [30] Guerra, NG & Huesmann, LR. 2004. A cognitive-ecological model of aggression. *International Review of Social Psychology* 17:177-203.
- [31] Guo, W & Nathanson, AI. 2011. The effects of parental mediation of sexual content on the sexual knowledge, attitudes, and behaviors of adolescents in the U.S. *Journal of Children and Media* 5(4), 358-378.
- [32] Guzman, I & Bosch, R. 2007. High-risk behaviours among youth. *Adolescence & Youth*.
- [33] Hibist, A. & Robert, S. 2000. Testing the application of a Western scientific theory of AIDS risk behaviour among adolescents in Ethiopia. *Journal of Paediatric Psychology* 25(6): 367-379.
- [34] Hutchinson, MK & Cederbaum, JA. 2011. Talking to daddy's little girl about sex: Daughter's reports of sexual communication and support from fathers. *Journal of Family Issues* 32(4):550-572.
- [35] Holder, D, Durant, R, Harris, T, Daniel, J, Obeidallah, D & Goodman, E. 2000. The association between adolescent spirituality and voluntary sexual activity. *The Journal of Adolescent Health* 26:295-302.
- [36] Hulley, SB, Cummings, SR, Browner, WS, Grady, DG & Newman, BT. 2007. *Designing clinical research*. 3rd Edition. USA, Lippincott Williams & Wilkins:367.
- [37] International Council of Nurses. 2003. *Ethical guidelines for nursing research*. Geneva: International Council of Nurses.
- [38] Irwin, TW, Morgenstern, J, Parsons, JT, Weinberg, M & Labouvie, E. 2006. Alcohol and sexual HIV risk behavior among problem drinking men who have sex with men: An event level analysis of timeline follow back data. *AIDS Behavior* 10:299-307.
- [39] Joubert, G & Ehrlich, R. 2007. *Epidemiology: a research manual for South Africa*; 2nd Edition. Cape Town: Oxford University Press.
- [40] Kauffman, L, Orbe, MP, Johnson, AL & Cooke-Jackson, A. 2013. Memorable familial messages about sex. A qualitative content analysis of college student narratives. *Electronic Journal of Human Sexuality* 16:1-10.
- [41] Kiene, SM. & Subramanian, SV. 2013. Event-level association between alcohol use and unprotected sex during last sex: evidence from population-based surveys in sub-Saharan Africa 13:583.
- [42] Kirby, D. 2007. *Emerging Answers: National Campaign to Prevent Teen Pregnancy*. Washington, DC.
- [43] Kora, A & Haile, M. 2007. Sexual behaviour and level of awareness on reproductive health among youths: Evidence from Harar, Eastern Ethiopia. *Ethiopian Journal of Health and Development*, 13(2):107-13.
- [44] Kost, K & Henshaw, S. 2012. *U.S. Teenage Pregnancies, Births and Abortions, 2008: National Trends by Age, Race and Ethnicity*, New York: Guttmacher Institute.
- [45] Kotchick, BA, Shaffer, A, Forehand, R & Miller, KS. 2001. Adolescent sexual risk behaviour: A multi-system perspective. *Clinical Psychology Review*, 21(4):493-519.
- [46] Kristin, A & Richard, J. 2009. The association of religiosity, sexual education, and parental factors with risky sexual behaviours among adolescents and young adults.
- [47] Markham, CM, Tortolero, SR, Escobar-Chaves, SL, Parcel, GS, Harist, R. & Addy, RC. 2003. Family connectedness and sexual risk-taking among urban youth attending alternative high schools. *Perspectives on Sexual and Reproductive Health* 35(4):174-179.
- [48] Macnee, CL & McCabe, S. 2008. *Understanding nursing research: Reading and using research in evidence-based practice*. 2nd Edition. Philadelphia: Lippincott Williams and Wilkins.
- [49] Marvastic, A. 2004. *Qualitative research in sociology*. Thousand Oaks: Sage
- [50] Mensch, BS, Weley, H, Clark, WH & Anh, DN. 2003. Adolescents in Vietnam: Looking Beyond Reproductive Health. *Studies in Family Planning*, 34(4):249-262.
- [51] Merrill, P. 2009. Long-term effects of parents' education on children's educational and occupational success: mediation by family interactions,

- child aggression, and teenage aspirations. Wayne State University Press. 55(3):224-249.
- [52] Morse, J. 2002. A comment on comment. *Qualitative health research* 12:3-4.
- [53] Munhall, PL. 2007. *Nursing research: a qualitative perspective*. 4th Edition. UK: Jones and Bartlett.
- [54] Murphy, E & Dingwall, R. 2001. The ethics of ethnography, In, P Atkinson, A Coffey, S Delamont, J Lofland & L Lofland (eds). *Handbook of ethnography*. London: Sage: 339-351.
- [55] Parahoo, K. 2006. *Nursing research, principles, process and issues*. 2nd Edition. Basingstoke: Palgrave Macmillan.
- [56] Parental Monitoring Negotiated Unsupervised Time and Parental Trust. 2003. The Role of Perceived Parenting Practices in Adolescent Health Risk Behaviours. *Adolescent Health* 33(2):60-70.
- [57] Polit, DF & Beck, C.T. 2004. *Nursing research: principles and methods*. 7TH Edition. New York: Lippincott Williams and Wilkins.
- [58] Polit, DF & Beck, CT. 2008. *Nursing research: generating and assessing evidence for nursing practice*. 8th Edition. Philadelphia, PA. Philadelphia, USA: Lippincott Williams & Wilkins.
- [59] Polit, DF, Beck, CT & Hungler, BP. 2001. *Essentials of nursing research methods, appraisal and utilization*. 5th ed. Philadelphia: Lippincott.
- [60] Royal College of Nursing (RCN) Research society ethics guidance group. 2004. *Research ethics: RCN guidance for nurses*. London: RCN
- [61] Rubin, A & Babbie, E. 2011. *Essential research methods for social worker*. 3rd Edition. USA: Brooks/Cole, Cengage learning.
- [62] Rwenge, M. 2000. Sexual risk behaviour among young people in Bamenda, Cameroon. *International Family Planning Perspectives* 26(3):118-130.
- [63] Sheeran, P, Abrams, D, Abraham, C & Spears, R. 1993. Religiosity and adolescents' premarital sexual attitudes and behavior: An empirical study of conceptual issues. *European Journal of Social Psychology* 23:39-52.
- [64] Silverman, D. 2010. *Doing qualitative research*. 3rd Edition. London: Sage
- [65] Stanton, B & Feigelman, S. 2000. Impact of perceived parental monitoring on adolescent risk behaviour over 4 years. *Parental underestimates of adolescent risk behaviour* 27(1):43-48.
- [66] Small, SA & Luster, T. 1994. Adolescent sexual activity: An ecological, risk factor approach. *Journal of Marriage and the Family* 56:181-192.
- [67] Solomon, S. 2004. The effect of living arrangements and parental attachment on sexual risk behaviours and psychosocial problems of adolescents in dessie preparatory school, Ethiopia.
- [68] Springer. 2006. Perceived parental monitoring and health risk behaviour among public secondary school students in El Salvador 1810.
- [69] Turbin, M, Jessor, R, Costa, F, Dong, Q, Zhang, H & Wang, C. 2006. Protective and risk factors in health-enhancing behaviour among adolescents in China and the United States: Does social context matter? *Health Psychology* 25:445-454.
- [70] Turnbull, SP. 2010. Adolescents' preferences regarding sex education and relationship education. *Health Education Journal* 69 (3):277-286.
- [71] Whitaker, D & Miller, K. 2000 Parent-Adolescent Dis-cussions about Sex and Condoms: Impact on Peer Influ-ences of Sexual Risk Behavior. *Journal of Adolescent Research*, 15(2);251-273.

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