DETERMINANTS OF RISKY SEXUAL BEHAVIOR AMONG SCHOOL ADOLESCENTS: A CASE OF BAHIR DAR SPECIAL ZONE

By
Sileshi Teshager Melesse

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Determinants of Risky Sexual Behavior Among School Adolescents: A Case Study of Bahir Dar Special Zone.

By
Sileshi Teshager Melese

Demographic Training and Research Center
Institute of Development Research

Approved by the Examining Board

Dr. Assefa Hailemariam
Chairman, Department Graduate Committee

Dr. J. Narasimha Rao
Advisor

Dr. Hirut Terefe
External Examiner

Dr. R.B. Upadhyay
Internal Examiner
Dedicated to my late father
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Acronyms

CRLP: Center for Reproductive Law and Police.
DHS: Demographic and Health Survey
FGAE: Family Guidance Association of Ethiopia.
IPPF: International Planned Parenthood Federation
ICPD: International Conference on Population and Development
MOH: Ministry of Health
MOYCS: Ministry of Youth, Culture and Sport
PPFA: Planned Parenthood Federation of America
UN: United Nations
WHO: World Health Organizations.
This study is based on the cross sectional survey in Bahir Dar on unmarried school adolescent aged 15-19 years in April 2005. The study utilized both quantitative and qualitative (Focus Group Discussion) method. A total of 528 randomly selected school adolescent involved in the study.

The objective of the study was to identify those factors that lead adolescent toward risky sexual behavior.

The study found that 34.7 percent of adolescents have already experienced sex. The mean age of sexual debut was 15.9 years (median 16 years). The majority of adolescents did not use condom during their first sexual encounter (39.2 percent). Among those who are sexually experienced 49.1 percent of them practiced multiple sexual encounters. Only 21.4 percent of adolescents used condom consistently from those who used the method at last sex (38.3 percent).

Age, peer behavior, mother’s level of education and communication with parents were associated with sexual experience; while communication with sexual partner is a predictor of condom use at last sex.

On the basis of the above findings, some recommendations were forwarded in order to address adolescent’s sexually related problems. Giving sex education at school (primary level), advocating condom use consistently, providing adolescent friendly reproductive health service are among the most important suggestions.
CHAPTER ONE
INTRODUCTION

1.1 Background

For so long, governments and societies have tended to either ignore adolescent health issues or consider them indistinguishable from childhood health concern (CRLP, 1999). This has at least particularly been because adolescents were seen as relatively healthy age groups: one that didn’t have a heavy burden of disease at least compared with young infants or adults (Dehene and Reinder, 2001)

The tendency of denying the realities of adolescent development, basic human needs and a behavioral and healthy sexual experience on “moral” ground makes adolescents to be abandoned at a time in their lives when they have greatest need for concrete information, education and guidance from interested and caring adults-at home, at school, in medical profession, and all areas of public life (PPFA, 2001)

In many Sub-Sahara Africa young people between ages of 10-24 are most at risk for early child bearing, unintended pregnancies, unsafe abortion, sexually transmitted diseases (STD) and HIV transmission, sexual exploitation and violence, substance abuse, crime, poverty and unemployment (Kirgu and Zabin, 1993). These factors give rise to reproductive health problems for Africa’s adolescents-problems exacerbated by the early onset of sexual activity, limited understanding of contraception, misinformation about HIV-AIDS transmission, disdain for or lack of information about condom use, and a tendency to have many sexual partners (Pathfinder International, 1999).

1.2 Statement of the problem

The reproductive health of adolescents has got a great momentum in last decades. Land mark advances in adolescent reproductive health were made in 1994, when International Conference on Population and Development (ICPD),
held in Cairo recommended that reproductive health, education, information and care be accessible to adolescents (CRLP, 1999).

A number of reasons have accounted for this new trend. Young people are not only present in large numbers than ever before, but the period traditionally defined as adolescent is lengthening, the onset of puberty is occurring earlier and the age of marriage is rising (Temin et al., 1999).

Thus, young people face a longer period of time during which they are sexually mature and may be sexually active, but pregnancy and child care bearing may be neither desired nor socially acceptable (PPFA, 2001). The only exception to this statement has been in the context in which married adolescent girls have begun to bear children:- such adolescents have generally been considered “women” even though they have not reached physical and emotional maturity (Pathfinder International, 1999).

Yet, adolescents are increasingly seen as gateways to health (WHO, 1998). Because behavioral patterns acquired during this period tend to last throughout adult life- roughly 70 percent of premature deaths among adult are seen due to behaviors initiated in adolescent.

Ethiopia, with estimated population of 72.4 million, is the second most populous country in Sub-Saharan with young population of 44 percent (Engender Health, 2004). The 2000 Demographic and Health Survey (DHS) revealed that one fourth of Ethiopian population is an adolescent with ages 10-19.

Finding of several studies on adolescents sexual and reproductive behavior carried out in the late '80s and '90s were alarming. For example, 13 percent of birth was accounted by 14-19 females, while 23 percent and 14 percent of STD was accounted by 14-19 age males and females, respectively (Teka, 2004). The 2000 DHS report showed almost one third (30.7 percent) of girls in 15-19 age had sexual intercourse and one fifth (20.6 percent) are sexually active (DHS, 2000).
Yet, the problems of adolescent health concern have got a great prominence in Ethiopia due to escalation of HIV/AIDS pandemic. The prevalence of 4.6 percent was registered in 2004 and projected to be 5 percent in 2008 (MOH, 2004). The ages between 15 and 24 are at the highest risk of infection, needing special emphasis.

In short, the large number of people in the adolescent age group and the consequence of their sexual behavior present a significant challenge for sustainable development in the country that must be addressed. Therefore, in light of this consideration, the study hopes to identify factors that leads adolescent towards risky sexual behavior in Bahir Dar, Amhara Region. However, the consequences of these behaviors are out of the concern of this study.

1.3 The Rationales

The problem and the study site are selected based on the following justifications

1. In Ethiopia studies on adolescent sexuality in general and their underlying cause in particular are very few and not comprehensive. The available researches emphasize more on knowledge, attitude and practice on contraception and AIDS (Hailu, 1997; FGAE, 1998). Yet, sexual issues is approached as dichotomous sex-no sex view that does not take into account psychological, social and behavioral context in which sexual behavior occurs. Hence, a broader conceptualization of adolescent sexual experience at a micro level will improve the understanding of adolescent sexuality.

2. The study area is a typical representative of urban setting where traditional norms, values regarding sexuality are challenged by urbanization and modernization. Yet, the town is the area where the AIDS pandemic is more rampant.
3. The year long observation of the researcher in the area also initiated to conduct a research of adolescent sexual risky behavior
4. School adolescent is the group which is easy to define and contact

1.4 Objectives of the study

**General Objective**

The objective of the study is to investigate the sexual behavior of school adolescent (age group 15-19) in Bahir Dar town.

**Specific Objectives**

1. To determine the prevalence of premarital sexual practice among school adolescents.
2. To identify factors leading adolescents towards sexual experience. (see page 14 for the definition of sexual experience )
3. To single out factors that determine condom use among adolescent.

1.5 Research Hypotheses

To achieve the study objectives the following hypotheses were used as a research guide

1. The mean age at sexual debut is less than 16 years.
2. Adolescents who have had discussion with their mothers about sexually issues are less likely sexually experienced.
3. Communication with sexual partner encourages condom use.
4. Adolescent involvement in sex reduced as their mothers level of education improved.

1.6 Significance of the study

Undertaking such an in-depth empirical research would have both basic and applied purpose. It is possible to say that literature concerning adolescent sexuality is meager at micro level.

Hence, the findings of the study are expected to contribute a little to the literature gap on understanding psychological, behavioral and demographic
factors that shape and influence adolescent's risky sexual behavior in Bahir Dar, Amhara Region. With regard to applied purposes those who are involved in policy formulation may employ the empirical findings. Moreover, any stakeholders, who are interested in the field would benefit from information to be gathered.

1.7 Review of Literature

1.7.1.1 Who is Adolescent?

There is no universally accepted definition of adolescent. However, there is a consensus that the age between the end of childhood and the onset of being an adult is the adolescence period (Yemane, 1994:2; Pathfinder International, 1999 and Dehene and Reinder, 2001). The word adolescence is Latin in origin, derived from the verb *adolescere* which means “to grow into adulthood” (Steinberg, 1989).

There are biological, legal, socio-historical, demographic and behavioral markers, which render adolescence a dynamic concept and one that in some countries and settings only just to be emerging, while in others it is well established (Dehene and Reinder, 2001:1).

Adolescence is commonly associated with psychological changes occurring with progression from appearance of secondary sexual characteristics (puberty) to sexual and reproductive maturity (WHO, 1995). It is important to note, however that even biological markers are subject to change over time, such as falls in age at onset of menarche in recent decades, which is attributed to improved health and nutrition (ibid).

Most western European societies use legal markers for the passage to adulthood commonly set at age 16, 18 or 21 (IPPF, 1994). Thus, these are minimum legal ages for marriage and for consensual intercourse, and access to sexual and reproductive health services without parental consent.
In many developing countries, social maturity or adult status is achieved through entry into marriage or consensual union, or through some form of initiation (Pathfinder International, 1999).

In the literature on adolescence health, which is dominated by international organization, including the UN, WHO, FOCUS (funded by the US Agency for International Development) and Common Wealth Youth Program, the period of adolescence is variously considered to occur between the ages of 15-19, 15-24, 10-19 or 10-24 (Dehieene and Reinder, 2001)

Having seen such confusion with regard to what constitute adolescent, in a 1998 joint statement, the World Health Organization, the United Nation's Children Fund, and the United Nations Population Fund agreed on making adolescent to be between 10 and 19 years of age; while 15 to 24 and 10 to 24 age categories were designated as youth and young people, respectively (CRLP, 1999)

The age category between 10 and 19 could, in general, be used as a proxy indicator of the adolescent population in Ethiopia (Eshetu and Tadesse, 98). There are two reasons for this. First, the Ethiopian civil code sets the age 18 as the age of attainment of the status of legal majority. The second reason is the age 19, which fits nicely with globally accepted format of age classifications in five years interval.

In short, adolescence could be defined as the transitional period between puberty and adulthood in human development, extending mainly over the teen years, and terminating legally when the age of majority is reached. It is a period of transition: biological, psychological, social, legal economic and the like.

However, adolescent years are composed of a series of phases rather than homogenous stage. Accordingly, distinctions are made among early adolescence (ages 10-13), middle adolescence (ages 14-16) and late adolescence
(age 17-19) each having their own distinct characteristics. (Pathfinder International, 2002).

1.7.2 Why do adolescents require special reproductive health care?
Adolescent should get special attention in society. Apart from the fact that adolescent represents a significant proportion of the total population they are likely to play important social, economic and political roles in society. Moreover, this segment of the population deserves special attention, because it is a critical age of risk taking; an opportune time for professional intervention (Pathfinder International, 2002). Yet, adolescents are different from adults in number of ways that make traditional, adult oriented reproductive health services less effective at reaching them (Pathfinder International, 1999).

1.7.3 Sexual Behavior of Adolescents
Adolescent is the beginning of long and critical period in personality development. It is a period in which sexual thoughts, feelings and behaviors present throughout life often accentuated (Pathfinder International, 2002).

Different surveys have suggested increasing sexual experience among adolescents at younger ages each year (PPFA, 2001; Kalmuss et al., 2003). Often, the outcome of this behavior can have the adverse consequence of unplanned pregnancy and sexually acquired infections and their complications.

A number of health surveys undertaken in developing countries have indicated most of adolescents are sexually active (Isugo and Oyedrian, 2004; Guyes, et al., 2001). Sexual initiation among adolescents in sub-Saharan Africa starts early. For instance, age at first sexual experience averages 16 years for females in Ethiopia, 16 years for females and 17 years for males in Uganda, 17 years for both sexes in Tanzania and 16 years for Kenya adolescents (Pathfinder International, 1999).
The same source also indicated that premarital sexual activity is universally taboo in the region (Sub-Saharan) but the practice is very different from this. A wide variation in the proportion adolescent women who become sexually active before marriage exists from country to country, varying from 5 percent in Niger to 60 percent in Kenya. As age at marriage rises, so do the rates of pre-marital sexual activity. In two thirds of the sub-Saharan Africa surveyed by DHS, over 25 percent unmarried adolescents women aged 15-19 reported that they are sexually active. Unfortunately, evidence suggests that many adolescents are not using contraceptives (including condoms) to prevent pregnancy during this gap between first sexual experience and marriage which put them at risk of contracting STDs, including HIV/AIDS.

In most cases, sexual debut is often unprotected, unguided and uninformed (Mazani, 2001). This is usually attributed to lack of preparedness for the event.

With regard to sexual experience, more males than females are sexually active before marriage; this difference is gradually disappearing (Pathfinder International, 1999). Yet, according to the same source, males are more likely to have numerous partners during the same period, and still have a series of partners over time.

According to WHO, about one half of all people infected with HIV are under age 25, half of the new HIV infection are among 15-24 years old, one third of all STDs accruing among 13-20 years olds. Yet, in many African countries, up to 20 percent of all births are accounted by women ages 15-19, and 40-70 percents of women are pregnant or mothers by the end of their teens (Pathfinder International, 2002). Sub-Saharan Africa is the area in the world with highest HIV infection from age 15-49, with a prevalence of 9 percent (Keeling, 2003).
1.7.4 Determinants of adolescent sexuality

A concern grows over adolescent pregnancy and the spread of HIV and other, sexually transmitted diseases (STD) among young people. Considerable research has focused on sexual behavior of adolescents.

Various studies based on in depth interview, questionnaire, Focus Group Discussion and Ethnographic Approach has been made (Manzini, 2001; Nicholson, J., 2005; Barker and Rich, 1992; Hannan, 2001).

The results showed the complex interaction of multitude variables (i.e. psychological, cultural and economic) have influenced risky sexual behaviors that are proximate determinants of poor health outcomes.

The followings are highlights of literature on factors that shape adolescent sexuality

Social prescription

A study made by Nizoka (2001) on perspective of adolescent boys aged 15-19 attending schools in rural, eastern Kenya on dual risks of unwanted pregnancy, STDs and HIV, based on qualitative data from eight focus group discussion with 90 boys. The study revealed despite a high knowledge of sexual risks, fear of HIV and awareness of the protective value of condoms, the young men exhibit high risk behavior. They feel the need to conform to social prescriptions of male prowess, early sexual experience, and having more than one partner.

Power differential


According to this author, sexual risky behavior is not only depends on characteristics of two individuals in the match but also in the power differential
between them. He said literature presents evidence that girls have considerable negotiating power over certain aspects of sexual relationships with older men, including partnership formation and continuation; however, they have little control over sexual practices with partnerships, condom use and violence.

For Luke, although the reasons that adolescent girls engage in sexual relationships with older men are varied, receipt of financial benefit is a major motivation. He considered age and economic asymmetries as distinct types of power differentials.

**Dual social norm**

Dual social norms with regard to sexuality between women and men have found to have an adverse implication on health and social life of adolescence (Eggleston et al., 1997 and Ranie et al., 2003).

According to the research made in Jamaica and Nicaragua, socio cultural and gender norms send mixed messages about sexuality and impose different standards of behavior for boys and girls. To them, society accepts and even encouraged boy’s expression of their sexuality but punishes the same behavior among girls.

**Class differential**

A study was made on school girls aged 14-20 in Maputo, Mozambique by (Machel, 2001) to examine the reason why they were engaged in risky sexual behavior.

The findings suggest that though gender dynamics works against women overall, working class young women were more accepting of gender power differentials, which served to weaken their bargaining power in relation to safe sexual behavior and rendered them vulnerable, than their middle class counterparts.
Locus of control and self-esteem

Contraceptive use and safer sex behavior are found to be affected by locus of control (the extent to which individual believe that their behavior will have an impact on their situation) and self esteem (Gueyes et al., 2001)

According to these authors, those with higher self esteem and an internal locus of control were associated with an increased likelihood of having ever used contraceptive.

Broader Conceptualization

A broader analysis on contextual factors of risky sexual behavior have been forwarded by (Whitaker et al., 2000; kalmus et al., 2003 and karim et al., 2003)

Whitaker et al (2000) tried to see the social, psychological and behavioral context by which risky sexual experience occurs across expanded typology of adolescent sexual behavior.

They assessed how individual, peer, family and institutional factors at different level influence sexual behavior among delayers, anticipators, singles and multiples.

Their findings reveal linear relationship between level of sexual experience and several types of variables: greater sexual experience was associated with greater risk behaviors, riskier peer norms, poor parenting and less involvement in school and religion.

Kalamuss et al (2003) identify four key sets of factors that have been associated with risky sexual behavior and pregnancy: race and ethnicity, socio economic status, social influence and attitudes towards contraception, condoms and pregnancy and safer- sex behavioral skills.

According to these authors, adolescent, having parent with low educational attainment and living in single parent family are the socio-economic indicators that significantly predict risky sexual behaviors and pregnancy. Yet, young
people’s social influences clearly affect their likelihood of engaging in risky sexual behaviors, particularly early sexual debut and non use of condoms. For example, having friends who are sexually active or who do not use condom enhances one’s own risk of these behaviors. Finally, their research showed teenagers who are more actively involved in religions activities and those who avoid general non- sexual high risk behaviors tend to initiate sex later than other teenagers.

Moreover, a research made among unmarried youth (12-24 ages) in Ghana by karim et al (2003) studied six behavioral or reproductive outcomes and their association with eight categories of risk related factors.

The researchers tried to see how the sexual behavioral out come and condom use pattern were associated to risk related factors.

Demographic characteristics, household economic status, communication with family members and friends, communication with sexual pattern, community connectedness, peer behavior and influence, perceived gender roles, self- efficacy were seen as factors related with latter case.

The finding of research revealed that contextual factors (school attendance, peer behaviors and community connectedness) have an influence on initiation of sex, and to a lesser extent on numbers of partners than on condom use. Yet, the finding shows condom use appears to be more strongly influenced by young peoples personal characteristics, such as gender role perceptions, condom use self efficacy and communication with partners concerning pregnancy and STD risks.

In Ethiopia, limited surveys on factors of adolescent sexuality have been made. Those that are available dwelt too much on adolescent sexual debut and experience (Solomon, 1990; Hailu, 1997)
The survey made on adolescent sexuality on Addis Ababa, Nazareth and Awassa showed mean age at first intercourse 13.8 years old and point out peer pressure, personal interest, and alcohol as influencing factor for sexual intercourse (Gebeyehu and Makdes, 1995). Moreover, the prevalence of video films, drugs, absence of moral education at school and social institution led them to indulge on sexual activity (MOYCS, 2002).

1.8 Analytical Framework

- **Social Factors**
  - Living arrangement
  - Religiosity
  - Parent’s level of education
  - Peer behavior and influence
  - Respondent communication with parents
  - Respondent communication with Sexual partner

- **Demographic characteristics**
  - Age
  - Sex

- **Risky sexual Behaviors**

- **Risk behaviors**
  - Alcohol
  - Chat
  - Video
  - Drug abuse

*Figure 1.1 (Analytical framework of the study) *

*Source: Developed by the author based on literature review.

The analytical framework developed based on relevant literature shows how the risky sexual behaviors and their association with three categories of risk related factors.
The outcome or dependent variable considered in this study is risky sexual behavior that considers (whether respondent has ever had sex, and whether they have used condom at last sex).

The independent variables shown in the framework are demographic, social and behavioral-related exposure factors which in turn divided into different variables.

The demographic characteristics of respondent include age and sex which serve to identify characteristics that might be criteria for direct intervention. Under social factors: living arrangement, parents’ level of education, respondent communication with their parents or sexual partner; peer behavior and influence and religiosity are incorporated. The last category risky behavior consists of chewing chat, drinking alcohol and watching video films.

1.9 Operational Definitions

Adolescent: though the age category 10-19 is used as time of adolescent, this study consider the age from 15-19 as working definition for adolescent.

Risky sexual Behavior: is a behavior that may lead to unwanted consequences, including infection, infertility, pregnancy, sexual dysfunction, interpersonal problems or other problems relating to a person’s well being. It includes early initiation of sexual intercourse, making unprotected intercourse and having multiple sexual partners (Nicholson, 2005)

Sexual Behavior: are all those activities and behaviors that produce sexual excitation. It includes solitary activity (like masturbation) and interpersonal activity such as kissing, touching, sexual intercourse or oral simulation [Steinberg L., 1989]. However, this study is limited to investigation of issues related only to sexual intercourse

Sexually active: is defined as reporting having sex within the last 28 days.

Sexually experienced: refers to ever having sexual intercourse.
CHAPTER TWO
DATA SOURCE AND SURVEY METHODOLOGY

2.1 The Study Area and the target population.

The study area, Bahir Dar special zone, is the capital city of Amhara Region. It is one of the 11 zones found in the Region.

In 2004, the total population of the city was found to be 168,048. (Bureau of Finance and Economic Development, 2004) The same report shows the total population in the age category “between” 15-19 was found to be 23,519 (14 percent of the total), of which 10,906 and 12,613 were male and female, respectively.

The findings presented in the study are based on responses made by school adolescents in Bahir Dar special zone. The target population of the study is the school adolescent aged 15-19. The size of these adolescents is 8,152.

2.2 Data Sources

The study use primary data for its analysis and the data for the study were collected through the following instruments.

2.2.1. Administering Survey Questionnaire

A six Part Structured Survey Questionnaire was developed and translated into Amharic language and pre tested to ensure clarity, ordering, comprehensibility and acceptance by the respondent. The final questionnaire was prepared after making the necessary amendment.

The first part of the questionnaire was intended for collecting information on socio-demographic characteristics of respondents. The second section of the questionnaire incorporates those issues that are pertinent to risk related factors. The third section was devoted for sexual behavior of respondent, followed by condom use behavior of respondent which is the fourth section.
The fifth section includes questions on risky exposure behaviors. And the final part tried to see the knowledge and perception of adolescents towards risky sexual behaviors.

Data collectors were given the instruction to obtain the consent of respondents before they administer the questionnaire, to explain the objective of the study. And to assure the respondent that data collected from them is confidential and used for academic purpose only.

2.2.2. Focus group Discussion (FGD)

Since the issue under investigation was very personal, private and sensitive a qualitative method in support of the survey method was needed. Thus, to that end a Focus Group Discussion method was used to assess the sexual behavior of adolescents.

Thus, focus group Discussion (FGD) was designed to get information on above. The FGD was conducted in two schools compound. There were two groups at each school: one group include adolescent in the age group 15-19 who are male and the other those with the same age who are female.

The participants were drawn from those adolescent, who filled the questionnaire and willing to participate on discussion. A group of 7-10 students male or female adolescent participated in the discussion. The principal investigator was the facilitator and one of the supervisors was chosen to participate as a recorder.

In order to gain the confidence of the discussants explanation was made about the objective of the study. The Focus Group Discussion was based on major important issues, which aimed at getting adolescents' view on adolescents' sexual behavior.
2.3 Sampling Design

The sampling technique that was employed is stratified random sampling method.

After the three schools are randomly identified, the total number of sample size allotted for each school distributed based on proportion to size. Grade and sex were used to make further stratification within each school. Finally, the roll number was used as a sampling frame to distribute respondents at a section level.

2.4 Sample Size Determination

The sample size pertains to the unit of analysis are those who are single, never married adolescents in the age category 15-19.

Having failed to get an updated population characteristics such as sexual experience among school adolescent in urban setting and to get a sufficient number of respondent that might be used for analysis, I took a purposive sample size of 530 never married adolescents aged 15-19. I excluded 2 respondents due to substantial inconsistencies in responses, which makes a total sample size of 528, making the valid censes as 99.6 percent).

Most of the respondents are drawn from Ghion High school which accounts 41.7 percent, of the sample population, while the two remaining schools: namely, Fasil and Bahir Dar preparatory school together accounts 58.3 percent of the sample (table 2.1).

Table 2.1 Percentage Distribution of Sample Student by School & Sex, Bahir Dar, 2005

<table>
<thead>
<tr>
<th>School</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasil</td>
<td>69</td>
<td>72</td>
<td>141</td>
<td>26.7%</td>
</tr>
<tr>
<td>Ghion</td>
<td>82</td>
<td>138</td>
<td>220</td>
<td>41.7%</td>
</tr>
<tr>
<td>Bahir Dar Preparatory</td>
<td>59</td>
<td>108</td>
<td>167</td>
<td>31.6%</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
<td>318</td>
<td>528</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Table 2.2 Percentage Distribution of Sample Students by Grade and Sex, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>78</td>
<td>109</td>
<td>187</td>
<td>35.4</td>
</tr>
<tr>
<td>10</td>
<td>73</td>
<td>101</td>
<td>174</td>
<td>33.0</td>
</tr>
<tr>
<td>11</td>
<td>37</td>
<td>56</td>
<td>93</td>
<td>17.6</td>
</tr>
<tr>
<td>12</td>
<td>22</td>
<td>52</td>
<td>74</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>318</td>
<td>528</td>
<td>100</td>
</tr>
</tbody>
</table>

The percentage distribution of sample population by grade level shows, most of students are from grade 9 (35.4 percent), followed by grade 10 students (33 percent) (Table 2.2).

2.5 Method of Data Analysis

Data collected from the survey was entered to computer for analysis computer software called Statistical Package for Social Sciences (SPSS).

Before running the analysis some internal consistencies checks including age data were made to assess the quality of data. These include cross tabulation of various variables. For example, sexual debut and age of respondent at age of the survey was compared to see their compatibility. The result of internal consistency check showed non-of the response are inconsistent.

After a univariate distribution of all variable was examined. A bivariate analysis was made to assess the correlation between the dependent and independent.

Finally, multivariate analysis was carried out to assess simultaneously the relationship of several independent variables with the dependent variable. The dependent variable in the study were sexual experience (either sexually experienced or otherwise and condom use at last sex).

To assess the relationship between the dichotomous dependent variable and the independent variable, the logistic regression model is used as the most appropriate method. The logistic regression predicts the log of odds of the
dependent variable as a linear function of independent variables. The model is expressed as:

\[ \ln \left( \frac{p_i}{1-p_i} \right) = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \ldots + \beta_k x_{ik} \]

Where, \( p_i \) = Chance of the \( i \)th adolescent being sexually experienced

\( 1-p_i \) = Chance of the \( i \)th adolescent being sexually inexperienced

\( (p_i/1-p_i) \) = is the risk or odds of the \( i \)th adolescent being sexually experienced

\( x_1, x_2, x_3 \ldots x_k \) = represents predictor variables

Estimates of \( \beta_i \)'s, the logistic regression coefficients are obtained by the maximum likelihood. A positive value of \( \beta_i \) means the value of the factor by which the odds change (Exp. \( \beta_i \)) is greater than 1, implying an increase in the odds. A negative value of \( \beta_i \) means the factor by which the odds change (Exp. \( (\beta_i) \)) is less than 1, indicating a decrease in the odds. A zero value of \( (\beta_i) \) means the factor by which the odds change (Exp. \( (\beta_i) \)) is equal to 1. Which means the odds remains unchanged.

2.6 Limitation of the study

1. The study considered adolescent population between the ages of 15-19 and did not include those below age 15 years, which may be significant for the study on determinates sexual behavior.

2. The study is based on self-reported behaviors, and the data are thus subject to reporting errors of unknown direction and magnitude.

3. Sexual behavior is difficult to measure, when respondents are asked about sensitive topics such as sexual experience; they might give way to what consider being socially desirable responses rather than accurate information. This reality is shown in previous study (Eggleston, E. et al., 2000).
CHAPTER THREE
SELECTED BACKGROUND CHARACTERISTICS OF THE POPULATION

This chapter deals with some selected background characteristic of school adolescents aged 15-19 years in Bahir Dar, Amhara Region.

3.1 Socio Demographic Characteristics of Respondents

The data derive from a survey of 528 adolescents 15-19 years of age conducted from adolescent students form Bahir Dar three schools revealed that 39.8 and 60.2 percent of the respondents were females and males, respectively (Table 3.1)

42.8 percent of the respondents were in age group 15-16; while the rest were in the age group 17-19. The mean age of the whole respondents was found to be 16.8 years (not shown)

By the time the survey was conducted 361 (68.4 percent) of the students were attending high school (9-10); while, the remaining 167 (31.6 percent) were at preparation level.

The majority of the respondents (90 percent) identified themselves as Orthodox, followed by Muslim adherents (7.4 percent).

Almost half of the respondents, (48.9 percent) reported living with both parents, but almost 40 percent lived with at least single parent or another relative. A slightly greater proportion of female than males reported living with both parents (50 percent Vs 48 percent).
Table 3.1 Percentage Distribution of Socio-Demographic Characteristics of School Adolescent by Sex, Bahir Dar, 2005

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Present</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-16</td>
<td>104</td>
<td>49.5</td>
<td>122</td>
<td>38.4</td>
<td>226</td>
</tr>
<tr>
<td>17-19</td>
<td>106</td>
<td>50.5</td>
<td>196</td>
<td>61.6</td>
<td>302</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100</td>
<td>318</td>
<td>100</td>
<td>528</td>
</tr>
<tr>
<td>Grade level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>151</td>
<td>71.9</td>
<td>210</td>
<td>66.0</td>
<td>361</td>
</tr>
<tr>
<td>Preparatory</td>
<td>59</td>
<td>28.1</td>
<td>108</td>
<td>34.0</td>
<td>167</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100</td>
<td>318</td>
<td>100</td>
<td>528</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthodox</td>
<td>184</td>
<td>87.6</td>
<td>291</td>
<td>91.5</td>
<td>475</td>
</tr>
<tr>
<td>Catholic</td>
<td>3</td>
<td>.9</td>
<td>3</td>
<td>.6</td>
<td>3</td>
</tr>
<tr>
<td>Protestant</td>
<td>6</td>
<td>2.9</td>
<td>4</td>
<td>1.3</td>
<td>10</td>
</tr>
<tr>
<td>Muslim</td>
<td>20</td>
<td>9.5</td>
<td>19</td>
<td>6.0</td>
<td>39</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.3</td>
<td>1</td>
<td>.2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100</td>
<td>318</td>
<td>100</td>
<td>528</td>
</tr>
<tr>
<td>Living arrangement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both parents</td>
<td>105</td>
<td>50</td>
<td>153</td>
<td>48.1</td>
<td>258</td>
</tr>
<tr>
<td>Single parent</td>
<td>51</td>
<td>24.3</td>
<td>64</td>
<td>20.1</td>
<td>115</td>
</tr>
<tr>
<td>With relative</td>
<td>37</td>
<td>17.6</td>
<td>57</td>
<td>18.0</td>
<td>94</td>
</tr>
<tr>
<td>Along</td>
<td>17</td>
<td>8.1</td>
<td>44</td>
<td>13.8</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100</td>
<td>318</td>
<td>100</td>
<td>528</td>
</tr>
</tbody>
</table>
A significant number of respondents (43.4 percent) attend religious services “Occasionally”, and with the exception of “never attend” category, female seems fairly better than their male counterparts in attending religious services (Table 3.2).

The education status of respondent’s parent reveals that most adolescents’ father is literate than their mother’s (52.5 percent Vs 40.7 percent).

The majority of respondents failed to discuss their sexuality or body change with their father and mother. Most female adolescent feel comfortable at discussing the issue with their mothers as male do with their fathers. However, the FGD reveals that both males and females feel at ease in discussing the sexual issues with their mothers than fathers. As either they afraid to discuss the case with him or fail to find him at home always.

Above half of the respondents close friends (53.2 percent) experiences sexual activity and the majority of them (71.2 percent) do not use protective method while making sex. 57.9 percent of respondents never discuss sexual issues with their present or last partner. From these, 32.1 percent of the respondents prefer to talk the issue with someone else, while 25.5 percent said talking the issue is something embarrassing. This remark shows how sexuality issue is seen as a taboo not to be talked about.

Respondents experience to risky exposure behavior shows 39%, 33.9 and 11.6% have experienced watching video, drinking alcohol and chewing chat, respectively.
### 3.2 Selected Risk Related Factors among the Population

**Table 3.2 Percentage Distribution of Risk Related Factors among School Adolescents by Sex, Bahir Dar, 2005.**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Female (N = 210)</th>
<th>Male (N = 318)</th>
<th>Total (N = 528)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance of religious service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>17.6</td>
<td>17.3</td>
<td>17.4</td>
</tr>
<tr>
<td>At least once per week</td>
<td>36.7</td>
<td>34.6</td>
<td>35.4</td>
</tr>
<tr>
<td>Occasionally</td>
<td>44.8</td>
<td>42.5</td>
<td>43.4</td>
</tr>
<tr>
<td>Never attend</td>
<td>1.0</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Education status of respondent’s Father</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>52.9</td>
<td>52.2</td>
<td>52.5</td>
</tr>
<tr>
<td>Illiterate</td>
<td>47.1</td>
<td>47.8</td>
<td>47.5</td>
</tr>
<tr>
<td>Education status of respondent’s Mother</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>40.0</td>
<td>41.2</td>
<td>40.7</td>
</tr>
<tr>
<td>Illiterate</td>
<td>60.0</td>
<td>58.8</td>
<td>59.3</td>
</tr>
<tr>
<td>Discussion of respondents with his/her father about sexual and body change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34.8</td>
<td>37.7</td>
<td>36.6</td>
</tr>
<tr>
<td>No</td>
<td>65.2</td>
<td>62.3</td>
<td>63.4</td>
</tr>
<tr>
<td>Discussion of respondents with his/her mother about sexual and body change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>51.9</td>
<td>36.5</td>
<td>42.6</td>
</tr>
<tr>
<td>No</td>
<td>48.1</td>
<td>63.5</td>
<td>57.4</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Female (N = 210)</td>
<td>Male (N = 318)</td>
<td>Total (N = 528)</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>Sexual experience of respondent’s close friend</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>54.8</td>
<td>52.2</td>
<td>53.2</td>
</tr>
<tr>
<td>No</td>
<td>45.2</td>
<td>47.8</td>
<td>46.8</td>
</tr>
<tr>
<td><strong>Friends use of method while having sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22.6</td>
<td>33.1</td>
<td>28.8</td>
</tr>
<tr>
<td>No</td>
<td>77.4</td>
<td>66.9</td>
<td>71.2</td>
</tr>
<tr>
<td><strong>Discussion about sexual issues with last or present partner</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47.3</td>
<td>38.5</td>
<td>42.1</td>
</tr>
<tr>
<td>No</td>
<td>52.7</td>
<td>61.5</td>
<td>57.9</td>
</tr>
<tr>
<td><strong>Experience of drinking alcohol</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21.4</td>
<td>42.1</td>
<td>33.9</td>
</tr>
<tr>
<td>No</td>
<td>57.9</td>
<td>78.6</td>
<td>66.1</td>
</tr>
<tr>
<td><strong>Experience of changing chewing chat</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4.3</td>
<td>16.4</td>
<td>11.6</td>
</tr>
<tr>
<td>No</td>
<td>95.7</td>
<td>83.6</td>
<td>88.4</td>
</tr>
<tr>
<td><strong>Experience of watching video</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>36.7</td>
<td>40.6</td>
<td>39.0</td>
</tr>
<tr>
<td>No</td>
<td>63.3</td>
<td>59.4</td>
<td>61.0</td>
</tr>
</tbody>
</table>

* Based on those sexually experienced
CHAPTER FOUR

4 ADOLESCENT SEXUAL BEHAVIOR AND CORRELATED FACTORS

In this chapter the sexual behavior of school adolescents which includes sexual experience and condom use are presented. The bivariate analysis results of factors associated with these behaviors are also dealt with

4.1 Adolescents sexual experience

Data on adolescent’s sexual behavior were collected and analyzed. And it was found that a significant proportion of school adolescents were sexually experienced. 183 (34.7 percent) of the respondents said they had already had their first sexual experience, while 65.3 percent said they had never had sexual relations. Forty-one one percent of the sexually experienced adolescents are females, while the rest are males. (Table 4.1)

Table 4.1 Percentage Distribution of School Adolescents by Sexual Experience Status, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Sexual experience status</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever had sexual experience</td>
<td>183</td>
<td>34.7</td>
</tr>
<tr>
<td>Never had sexual experience</td>
<td>345</td>
<td>65.3</td>
</tr>
<tr>
<td>Total</td>
<td>528</td>
<td>100</td>
</tr>
</tbody>
</table>

Of those who had sexual experience, 59 percent were males, and 41 percent were females. This is compatible with the hypothesis that the mean age of sexual debut is less than 16 years. The study found that the majority (65 percent) of sexually experienced adolescent started sex between 15 and 16. The mean and median ages at first sexual debut were found to be 15.9 and 16 years, respectively. The study also revealed that female adolescents initiated sexual intercourse relatively earlier than their male counterparts with a mean age of 15.5 and 16.2 respectively. The age at first sexual debut ranged from 13 to 18 years. (Table 4.2)
Table 4.2 Percentage Distribution of Sexually Experienced School Adolescents by Age at First Sexual Debut, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Age at first sexual debut</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>13-14</td>
<td>11</td>
<td>14.7</td>
<td>1</td>
<td>1.0</td>
<td>12</td>
<td>6.6</td>
</tr>
<tr>
<td>15-16</td>
<td>52</td>
<td>69.3</td>
<td>67</td>
<td>62</td>
<td>119</td>
<td>65.0</td>
</tr>
<tr>
<td>17-18</td>
<td>12</td>
<td>16.0</td>
<td>40</td>
<td>37</td>
<td>52</td>
<td>28.4</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>108</td>
<td>100</td>
<td>183</td>
<td>100</td>
</tr>
<tr>
<td>Mean Age</td>
<td>15.5</td>
<td>100.0</td>
<td>16.2</td>
<td>100</td>
<td>15.9</td>
<td>100</td>
</tr>
<tr>
<td>Median Age</td>
<td>15</td>
<td>100.0</td>
<td>16</td>
<td>100</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Among the sexually experienced adolescents, 24.6 percent were sexually active, i.e. has had sexual intercourse at least once in the last four weeks before the survey. Both males and females seem sexually active equally (Table 4.3)

Table 4.3 Percentage Distribution of Sexually Activity status of Adolescents by Sex, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Sexual Activity Status</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Active</td>
<td>19</td>
<td>25.3</td>
<td>26</td>
<td>24.1</td>
<td>45</td>
<td>24.6</td>
</tr>
<tr>
<td>Notactive</td>
<td>56</td>
<td>74.7</td>
<td>82</td>
<td>75.9</td>
<td>138</td>
<td>75.4</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100</td>
<td>108</td>
<td>100</td>
<td>183</td>
<td>100</td>
</tr>
</tbody>
</table>

Nearly 40 percent of the adolescents practiced sex with more than one partner in their sexual life. The number of lifetime partners ranged from one to four. More males than females reported to have had sexual relations with multiple
sexual partners (49.1 percent Vs 24 percent). The mean numbers of sexual partners were 1.78, for those who experienced sex, while it is 1.69 and 1.84 for females and males, respectively (Table 4.4)

Table 4.4 Percentage Distribution of Adolescents by Life Time Number of Sexual Partners by Sex, Bahir Dar, 2005

<table>
<thead>
<tr>
<th>Sexual partner</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Single</td>
<td>57</td>
<td>56</td>
<td>55</td>
<td>50.9</td>
<td>111</td>
<td>60.7</td>
</tr>
<tr>
<td>Multiple</td>
<td>18</td>
<td>24</td>
<td>53</td>
<td>49.1</td>
<td>72</td>
<td>39.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100</td>
<td>108</td>
<td>100</td>
<td>183</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>1.69</td>
<td></td>
<td>1.84</td>
<td></td>
<td>1.78</td>
<td></td>
</tr>
</tbody>
</table>

The focus group discussion on sexual debut, and sexual experience among adolescent consolidate this reality with some reservation.

The FGD conducted with male and female separately revealed that the mean age at sexual debut to be either age 15 or 16, with the exception of 2 students who said it occurs at age 18. Yet, females are found to start their sexual experience earlier than their male counter parts. The FGD justified this by stating the fact that "female adolescents might be engaged with those who are older than themselves for financial gains or forced to engage in sex by those who are older than them".
Though the survey questionnaire result reveals both males and female seems sexually active (25.3 percent Vs 24.1 percent), the FGD shows males are more active and have multiple partner than females. The discussion states “males rated themselves as more out going or active” by having sex frequently or so many numbers of female partners at one time or in a row.

4.1.1 School Adolescent’s Sexual Experience and Correlated Factors: A Bi-variant analysis result.

Evidence has shown that socio-demographic characteristics of adolescents: age, parents level of education, communication with parents, living arrangement, religiosity, peer behavior and influence, attitudes towards risky sexual behavior are important predictors of sexual experience (whether adolescent has started sexual activity or not]. The results of the bi variant analysis of the association of these variables with sexual experience are presented in (Table 4.5)
Table 4.5 Sexual experience status of school adolescents by selected socio-demographic related variables, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sexual experience status</th>
<th>( \chi^2 )</th>
<th>Df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never had sex</td>
<td>Ever had sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-16</td>
<td>170 (49.3)</td>
<td>56 (30.6)</td>
<td>( \chi^2 = 17.032 )</td>
<td>Df = 1</td>
</tr>
<tr>
<td>17-19</td>
<td>175 (50.7)</td>
<td>127 (69.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345 (100.0)</td>
<td>183 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Living arrangement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Both parents</td>
<td>194 (56.2)</td>
<td>64 (35.0)</td>
<td>( \chi^2 = 38.791 )</td>
<td>Df = 3</td>
</tr>
<tr>
<td>- Single parents</td>
<td>54 (15.7)</td>
<td>61 (33.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- With parents</td>
<td>68 (19.7)</td>
<td>26 (14.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Alone</td>
<td>29 (8.4)</td>
<td>32 (17.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345 (100.0)</td>
<td>183 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Religious Attendance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Daily</td>
<td>72 (22.0)</td>
<td>16 (8.7)</td>
<td>( \chi^2 = 38.791 )</td>
<td>Df = 3</td>
</tr>
<tr>
<td>- At least once</td>
<td>139 (40.3)</td>
<td>48 (26.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Occasionally</td>
<td>119 (34.5)</td>
<td>110 (60.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Never attend</td>
<td>11 (3.2)</td>
<td>9 (4.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345 (100)</td>
<td>183 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education level of respondents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>father</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Literate</td>
<td>115 (33.3)</td>
<td>136 (74.3)</td>
<td>( \chi^2 = 83.359 )</td>
<td>Df = 3</td>
</tr>
<tr>
<td>- Primary</td>
<td>106 (30.7)</td>
<td>28 (15.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Secondary</td>
<td>50 (14.5)</td>
<td>11 (6.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Above secondary</td>
<td>74 (21.4)</td>
<td>8 (4.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345 (100)</td>
<td>183 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Literate</td>
<td>152 (44.1)</td>
<td>161 (88.0)</td>
<td>( \chi^2 = 98.134 )</td>
<td>Df = 3</td>
</tr>
<tr>
<td>- Primary</td>
<td>119 (34.5)</td>
<td>19 (10.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Secondary</td>
<td>38 (11.0)</td>
<td>3 (1.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Above secondary</td>
<td>36 (10.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345 (100)</td>
<td>183 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>Sexual experience status</td>
<td>$\chi^2$</td>
<td>Df</td>
<td>P-value</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------</td>
<td>---------</td>
<td>----</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>Never had sex</td>
<td>Ever had sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion of respondents with his father</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>147 (42.6)</td>
<td>46 (25.1)</td>
<td>$\chi^2=15.740$</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>198 (57.4)</td>
<td>137 (74.9)</td>
<td>Df = 1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>345 (100)</td>
<td>183 (100)</td>
<td>P &lt; 0.001</td>
<td></td>
</tr>
<tr>
<td>Discussion of respondents with his mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>179 (51.9)</td>
<td>46 (25.1)</td>
<td>$\chi^2=34.982$</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>166 (48.1)</td>
<td>137 (74.9)</td>
<td>Df = 1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>345 (100)</td>
<td>183 (100)</td>
<td>P &lt; 0.001</td>
<td></td>
</tr>
<tr>
<td>Adolescent time of sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>160 (46.4)</td>
<td>111 (60.7)</td>
<td>$\chi^2=9.759$</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>185 (53.6)</td>
<td>72 (39.3)</td>
<td>Df = 1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>345 (100)</td>
<td>183 (100)</td>
<td>P &lt; 0.001</td>
<td></td>
</tr>
<tr>
<td>Close friend experienced sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>136 (394)</td>
<td>145 (79.2)</td>
<td>$\chi^2=76.136$</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>209 (60.6)</td>
<td>38 (20.8)</td>
<td>Df = 1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>345 (100)</td>
<td>183 (100)</td>
<td>P &lt; 0.001</td>
<td></td>
</tr>
</tbody>
</table>

5. Figure in parentheses are percentages
Note: 1. Df = degree of freedom.
2. $\chi^2$ = Chi square
3. P = level of significance

As can be observed from the table 4.5, age showed a statistically significant association with sexual experience of school adolescents ($\chi^2 = 17.032$; Df = 1;
.69.4 percent of the adolescents in the age group 17-19 years were sexually experienced, whereas a lowered percentage (49.3 percent) of the adolescents were sexually experienced in the age group 15-16 years. This is consistent with the trend the higher the age, the higher the risk of being sexually experienced.

Living arrangement showed a significant association with the sexual experience of respondents ($\chi^2 = 38.791; \text{Df} = 3; P < 0.001$) and adolescents who live with both parents are almost sexually experienced as those who live with a single parent (35 percent Vs 33 percent). However, this might be inconsistent with literature which states that; adolescents who are living in a single family are associated with risky sexual behavior (Kalmuss et al., 2003).

Grade level of respondents father is significantly associated with school adolescent sexual experience with ($\chi^2 = 83.359; \text{Df} = 1; P < 0.001$). The proportions of adolescents who are sexually experienced decreases from 15.3 percent to 4.4 percent as the education level of their father improve from primary to tertiary level.

Yet, educational level of respondent’s mother is significantly associated with school adolescents sexual experience with ($\chi^2 = 98.134; \text{Df} = 1; P < 0.001$). The proportion of adolescent’s who are sexually experienced decrease from 10.4% to 1.6% as the education level of their mother upgrades from primary to secondary level.

The above findings regarding sexual experience association with parent’s level of education conforms to literature which states adolescent having parents with low educational attainment are more exposed to risky sexual behavior (Kalmuss et al., 2003). As shown in table 4.5, the proportion of adolescent who are sexually experienced increase as parent’s level of education decreases for both respondent father and mother.
Different researches on adolescent sexuality have shown that parent – child communication has found to have an important effect on adolescent sexual experience.

Adolescents who have had discussion with their father and mother about sexual issues were found to be less sexually experienced than who did not. There is a significant correlation statistically significant \( \chi^2 = 15.740; \text{Df} = 1; P < 0.001 \) for father; and \( \chi^2 = 34.982, \text{Df:} 1; P < 0.001 \) for mother.

Adolescent perception towards risky sexual behavior is a factor on sexual experience of adolescents. Adolescents who perceived that, adolescent as the time of exercising sex are more sexually experienced than those who do not perceive (60.7 percent Vs 39.3 percent). Thus, there is a significant association of these variables with \( \chi^2 = 9.759; \text{DF} = 1; P < 0.001 \). This is consistent with research findings done earlier (Temin et al., 1999)

Peer behavior and influence is thought to have a significant association with adolescent sexual experience (Karan et al., 2003). Adolescents who have sexually experienced close friends are more sexually experienced than who do not have (79.2 percent Vs 20.8 percent).

### 4.2 Preventive method use among adolescent

School adolescents were asked about the use of contraceptive methods to prevent pregnancy or STD while they had sexual relations. And from those adolescents who are sexually experienced, 53 percent of adolescents used preventive method during their first sexual debut and 47 percent failed to use any preventive methods.
Table 4.6 Percentage Distribution of Sexually Experienced Adolescents by Preventive Method use Status at First Sex, Bahir Dar, 2005

<table>
<thead>
<tr>
<th>Preventive Method use status</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Contraceptive was used</td>
<td>37</td>
<td>49.3</td>
<td>60</td>
</tr>
<tr>
<td>Not used</td>
<td>38</td>
<td>50.7</td>
<td>48</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100</td>
<td>108</td>
</tr>
</tbody>
</table>

Additional question was forwarded for those adolescent who used preventive method to tell what type of method was used during their first sexual encounter. Most of the adolescents reported they did use pill (41.2 percent), followed by condom (39.2 percent) (Table 4.7)

Table 4.7: Percentage Distribution of Sexually Experienced Adolescents by Type of Preventive Method Use at First Sexual Encounters, Bahir Dar, 2005

<table>
<thead>
<tr>
<th>Methods used</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>CONDOM</td>
<td>8</td>
<td>22.2</td>
<td>30</td>
</tr>
<tr>
<td>PILLS</td>
<td>24</td>
<td>66.7</td>
<td>16</td>
</tr>
<tr>
<td>SAFE PERIOD</td>
<td>3</td>
<td>8.3</td>
<td>7</td>
</tr>
<tr>
<td>PILLS AND CONDOM</td>
<td>1</td>
<td>2.8</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36</td>
<td>100</td>
<td>61</td>
</tr>
</tbody>
</table>

Adolescents were asked why they not to use preventive method during their first sexual intercourse. Most of the respondents (39.5 percent) said they did
not plan to have sex; while, 25.6 percent said they are afraid to tell their partner. 50 percent of females reported the latter case. (not shown)

The focus group discussion (FGD) on preventive method complements this reality by saying that:

1. Contraceptive method at first sex was not common as both parties engage in the process without prior arrangement for the event. And even those who are ready to make love, either resort to free sex under the pretext of unfulfilled promise to be together in the future or even resort to the less effective method of safe period or pill.

2. Some adolescent commit sex with individual who are older than themselves. So they are unable to convince him to use protective method.

3. Some perceive it in only male responsibility to decide whether preventive method is used or not.

The latter justification conforms to prior study that states the role of stereotypical, male dominate gender role perception.

Adolescents were also asked whether they use condom with their last or present partner. The majority of the sexually experienced students (61.7 percent) did not use condom during their recent/last sexual experience in contrast to (38.3 percent) who reported using it (Table 4.7)

The focus group discussions elucidate the reason why most adolescent give too much weight on other methods than condom use during their sexual relation.

They said:

1. Most adolescent become reluctant to discuss condom issue let alone to use it as it seems to challenge lover’s honesty and faithfulness.

2. “Preponderance is given to pill to avoid pregnancy that makes an outcast and ridicule by friends.

3. Those who want to have if afraid peoples reaction if they intend to buy it.
Those who have courage to have it could not able to convince their sexual counterpart (especially females)

Table 4.8 Percentage Distribution of Sexually Experienced Adolescents by Condom use Status during Their Last/ Recent sex, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Condom use status</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Condom used</td>
<td>29</td>
<td>61.3</td>
<td>41</td>
<td>62.2</td>
<td>70</td>
</tr>
<tr>
<td>Condom not used</td>
<td>46</td>
<td>38.7</td>
<td>67</td>
<td>38.0</td>
<td>113</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100</td>
<td>108</td>
<td>100</td>
<td>183</td>
</tr>
</tbody>
</table>

The overall reported levels of condom use at last sex were slightly higher than the first sex (39.2 percent Vs 38.3 percent). To make matter worse, condoms do not appear to be used consistently. Only 24.3 percent from those who used condom used the protective device “always” (table 4.8)

Table 4.9 Percentage Distribution Condom use Frequency among School Adolescents, Bahir Dar, 2005.

<table>
<thead>
<tr>
<th>Frequency of condom use</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>38</td>
<td>54.3</td>
</tr>
<tr>
<td>Frequently</td>
<td>17</td>
<td>24.3</td>
</tr>
<tr>
<td>Always</td>
<td>15</td>
<td>21.4</td>
</tr>
<tr>
<td>All</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Only, 17.2 percent of males and 24.4 percent of females used condom with their last or current sexual partner (not shown).
CHAPTER FIVE
MULTIVARIATE ANALYSIS RESULTS ON DETERMINANTS OF
ADOLESCENT SEXUAL EXPERIENCE AND CONDOM USE AT LAST SEX

5.1 Determinants of Adolescents’ Sexual Behavior

After the statistical association of variables with sexual experience or condom use at last sex is examined, multivariate statistical technique was employed to determine the relative importance of each independent factors controlling for the effect of other variables.

The dependent variable is dichotomous. That is either sexually experienced or not, when the dependent variable is sexual experience. In second multivariate analysis the dependent variable is condom use at last sex. To this end, logistic regression model is fitted for two cases.

In the logistic regression model, the dependent variable was classified (coded) as “1” if the event occurs and “0” otherwise. The independent variables were also coded as dummy variables and interpretation is made with reference category (RC). In logistic regression, the coefficient β represents the increase or decrease in the log odds of occurrences of an event (sexual experience) associated with a unit change in the independent variable controlling for the possible confounding effect of all other variable.

The term \( \text{Exp}(\beta) \) represents the multiplicative estimates in the odds of an event for a unit change in the independent variable holding the effects of all other predictors constant.

5.1.1 Determinant of sexual experience among adolescents

Socio-demographic and risky behavioral factors that are thought to influence adolescent sexual experience based on prior research were tested to single out those variables that are going to be significant predictors of being sexually experienced.
Among these tested variables age, peer influence, parent’s level of education, living arrangement and attendance of religious services emerged as a significant predictors of adolescent sexual experience in the multivariate analysis.

Table 5.1 Logistic Regression Results on the Relative Effects of Socio-Demographic Factors on Adolescent Sexual experience

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>S.E</th>
<th>Exp (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-16 (RC)</td>
<td>.899</td>
<td>.255</td>
<td>2.456*</td>
</tr>
<tr>
<td>17-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Having sexually experienced friend</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (RC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>-1.705</td>
<td>.256</td>
<td>.182*</td>
</tr>
<tr>
<td><strong>Respondents’ mother level of education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate (RC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>-2.052</td>
<td>.324</td>
<td>0.123*</td>
</tr>
<tr>
<td>Secondary</td>
<td>-2.606</td>
<td>.672</td>
<td>0.073*</td>
</tr>
<tr>
<td>Tertiary</td>
<td>-1.705</td>
<td>9.304</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Living Arrangement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both parent (RC)</td>
<td>.686</td>
<td>.298</td>
<td>0.985**</td>
</tr>
<tr>
<td>Single parent</td>
<td>-.434</td>
<td>.344</td>
<td>0.648</td>
</tr>
<tr>
<td>Relative</td>
<td>.199</td>
<td>.366</td>
<td>1.220</td>
</tr>
<tr>
<td>Alone</td>
<td>.199</td>
<td>.366</td>
<td>1.220</td>
</tr>
<tr>
<td><strong>Religion Attendance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>.402</td>
<td>.392</td>
<td>1.495</td>
</tr>
<tr>
<td>At least once per week</td>
<td>1.169</td>
<td>.275</td>
<td>3.218*</td>
</tr>
<tr>
<td>Occasionally</td>
<td>.522</td>
<td>.647</td>
<td>1.685</td>
</tr>
<tr>
<td>Never attend</td>
<td>.522</td>
<td>.647</td>
<td>1.685</td>
</tr>
<tr>
<td><strong>Discussion about sexual issue with mother</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No (RC)</td>
<td>-.712</td>
<td>.259</td>
<td>.491***</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at P<0.001; ** significant at P<0.05; *** significant at P<0.1 level

Results of the multivariate analysis report (Table 5.1) shows a sizable number of factors are significant independent predictors of the sexual behavior out come under investigation i.e. namely whether the respondent ever had sex.
Among the demographic factors, older age was, not surprisingly associated with an elevated number of being sexually experienced. As a result adolescents in the age group 17-19 are 2.456 times more sexually experienced than their counterparts at age group 15-16.

Having sexually experienced friends is another predictor factor of sexual experience of school adolescents. The risk of starting sexual intercourse is .182 times lowered for adolescents who do not have sexually experienced friends. This relationship supports the stated hypothesis that adolescent who have sexually experienced friends or peers are more likely experiencing sex than those who do not.

As shown in table 5.1, parent's level of education is inversely related with sexual experience of the adolescent. From the table presented the risk of involving in sex is reduced as the level of mother education improved from primary to secondary level.

The propensity or chance of initiating sex is reduced by a factor of .073 when respondent's mother attained a secondary level education. This is consistent with the hypothesis that mother's level of education is inversely related with sexual initiation.

Parent-child communication on sexual issue is found to delay adolescent's risk of starting sexual activity. Adolescent who did discuss the case with their mother delay their sexual experience by a factor of .491 than those who did not discuss.
5.2 Determinants of Condom use at Last/ Present Sex

Table 5.2 Logistic regression results on the relative effect of variables on adolescent condom use at last sex

<table>
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<th>Variables in the model</th>
<th>B</th>
<th>S.E</th>
<th>Exp (β)</th>
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<td>Having close friend who use prevent method</td>
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</tr>
<tr>
<td>Yes (RC)</td>
<td>-1.242</td>
<td>.462</td>
<td>1.000</td>
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<tr>
<td>No</td>
<td></td>
<td></td>
<td>.289*</td>
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<td>Discussion about sexual issue with the last or present partner</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Yes (RC)</td>
<td>-1.007</td>
<td>.323</td>
<td>1.000</td>
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<tr>
<td>No</td>
<td></td>
<td></td>
<td>.365*</td>
</tr>
</tbody>
</table>

* Significant at P<0.05

Multivariate analysis on factors that influence on condom use at last sex give two significant predictors for this dependent variable. Adolescents, who do not discuss sexual issue with their present or last partner seems less likely to use condom. They are less likely to use condom by factor of .365 than those who discuss the issue. This is consistent with the hypothesis that communication with sexual partner about sexual issue encourages condom use.

Yet, having close friend who use protective method during sexual activity is protective factor in using condom at last sex. Adolescents who do have friends who do not use contraceptive are less likely to use it. Those having friend who do not use protective method are .289 times less likely to use condom at last sex than those with friend using contraceptive method.
CHAPTER SIX
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The study has provided to shed light on information on school adolescents sexual behavior in Bahir Dar town, Ethiopia. The study try to see the sexual behavior of adolescents in reference to sexual experience, sexual partner pattern and contraceptive (especially condom) use pattern. Moreover, it tries to identify those variables that are predictors of risky sexual behavior (whether respondents have already had sexual relation or use condom at last sex).

Most of the participant in the research were found to be Males (60.2 percent) and the rest were females. 35.4 percent of respondents were attending class at grade 9 by the time the survey was conducted. The majority (90 percent) of the adolescents were followers of Orthodox religion creed followed by Muslim (7.4 percent). The living arrangement pattern of respondents portrays nearly half of the respondents (48.9 percent) reported living with both parents, with slightly greater proportion of females than males reported living with both parents (50 percent Vs 48 percent).

The investigation of the prevalence of sexual activity among school adolescents showed, 34.7 percent of adolescent has already had their first sexual experience. The majority of males than females reported ever having had sex (59 percent Vs 41 percent).

The existence of double standard regarding sexuality which encourages men to express and exercise it and the way it imposes discouragement on female side, may be the attributed factor for the existence of more sexually experienced men than females. Yet, sexual experience of females may be under reported from what it is actually happened in order to avoid being labeled as “promiscuous” on girl sides. The finding is consistent with other similar study findings in the literature part.
62.8 percent of the respondents said they did their first sexual debut willingly, while 20.2 and 16.9 percent said forced and persuaded, respectively. The mean age of sexual debut was 16.8 years (median 17 years).

Female adolescents in the study started their sexual experience relatively slightly earlier than their male counterparts with a mean age of 16.6 and 16.9 years, respectively. This may be justified by the fact that female adolescent might be engaged with those who are older than themselves for material gains. This has a negative consequence on female, a possibility of contracting STD, unwanted pregnancy and even HIV, as their older sexual partner may have had so much experience with other females and again have a upper hand in dictating the way sexual relation is conducted.

Among those who are sexually experienced 24.6 percent were sexually active. More males than females (57.8 percent Vs 42.2 percent) were sexually active. This study is consistent with study made in other parts of Africa as it is shown in the literature part of this study.

The assessment of number of sexual partner signifies, 39.3 percent practiced sex with multiple sexual partners in their life time. The mean number of sexual partner in life time is 1.78, with males having more partner than females (1.84 Vs 1.69). This idea is complemented by focus group discussion by which both mater and females independently agree that most males than females have multiple sexual partner. They added males are less faithful to their sexual partner than females. Yet, they said males rated themselves as more outgoing or “active” by having so many number of female partners at one time or in a row.

53 percent of sexually experienced respondents used preventive method to protect them from unwanted pregnancy and sexually transmitted infections during their first sexual experience. But when one looks the distribution of methods used in this regard the figure is more scaring as only 9.3 percent used
pills and condoms at the same time. Most of the respondents uses pill (42.2 percent) in favor of condom 39.2 percent.

The important reasons for failing preventive method at first sexual intercourse were:

- did not plan to have sex (39.5 percent)
- did not dare to tell my partner to use preventive method (25.6 percent)
- the partner is against the use (20.9 percent)

The use of condom with the recent or last sexual partner was assessing whether an improvement is made on its use through time. Moreover, the frequency (consistency) of condom use was analyzed. The majority of respondents (61.7 percent) reported never using condom at latest, only 24.3 percent of those who used condom use it consistently (always).

The low use of preventive method at sexual experience makes most adolescent (especially females) to encounter risky health and social outcomes.

The findings suggest that the sexual behavior and contraceptive behaviors of school adolescents in Bahir Dar are influenced by a conflation of factors operating at- individual, family, community and societal levels. A significant association is found with sexual experience and condom use at last sex with risk related factors.

Variables like: Age, peer behavior, parents level of education and communication with parents on sexual issue appears to have a stronger influence on initiation of sex than condom use at last sex. Condom use at last sex seems more strongly associated with communication with sexual partners concerning pregnancy and STD risks.

The results showed that age of respondents was found to have an effect in sexual experience of adolescents. It is observed that the risk of starting sex for those whose age is between 17-19 is 2.456 higher as compared to those who
are in the age group 15-16. This is consistent with other study by (Solomon, 1997 and Karim et al., 2003).

Adolescents are susceptible to influence of peers. Thus, those with sexually experienced friends are more likely to involve in sex than who do not have. The risk of starting sex was lowered by factor of .182 for the latter group. Moreover, consistent with findings in the literature, parent adolescent communication, particularly with mother delayed sexual initiation. Those who have done the communication delay their sexual experience by a factor of .491. Condom use at last sex was influenced more whether there is communication with sexual partner regarding STI or pregnancy at last sex. Those adolescents that did not discuss the issue with their sexual partner are less likely to use it by a factor of .365.

In general, the study showed a significant proportion 34.7 percent of respondent reported having sexual experience, while 39.3 percent experience multiple sexual partners in their life time. Yet, the majority of respondents (61.7 percent) failed to use condom as an effective dual way of protecting themselves from pregnancy and STD including HIV/AIDS, in the near past at a time when the pandemic is rampant. Thus, there is need for launching sound and appropriate intervention for adolescent groups. Thus, the following recommendations are suggested.

1. Researches have shown that adolescent, who are exposed to sex education is more likely to delay sex than those who are not. Yet, the study founds that most adolescents start sex at early age. Thus sexual and reproductive health education should be given before puberty, and in primary school, so that most adolescents would be in a better position to make a sound decision by the time they engage in sex or reach puberty.

2. The tendency of condom use as a protective method from STI or unwanted pregnancy is limited. There is a tendency to rely on non barrier methods (pill, safe period) which are not completely effective to prevent pregnancy
and STI as the same time. Thus, for those who are sexually active there is a need to have a program that ensures safer sex. To that end, the dual and effective use of condoms for preventing pregnancy and STDs should be advocated.

3. Though reproductive health issues facing adolescents are appreciated and started to be addressed, there is little focus on the young, unmarried population. Thus, adolescents should have a reproductive health service facility that is adolescent friendly and addresses their specific needs.

4. The findings in the study have shown that the behavior of sexual partners, the lack of communication and skills to negotiate on the way sexual intercourse occurs will have an impact on HIV/AIDS and unplanned pregnancy. Females are more vulnerable to this than men. Thus, a life skill training that can increase female adolescent confidence in resisting sexual advances, negotiate condom use with partner at school level through HIV/AIDS, Reproductive Health and the like should be given.

5. To address, adolescents' multifaceted sexual related problems all concerned bodies should work in concerted and integrated way.

6. Finally, the study attempts to show the sexual behavior and risk associated factors among school adolescents in Bahir Dar. However, further research should be done that includes more predictors than stated in this study to understand adolescent's sexual related problems in holistic way.
BIBLIOGRAPHY


CSA (2001). Ethiopian Demographic and Health Survey 2000. CSA, Addis Ababa and ORC Macro, Claverton, Maryland, USA


Eggleston, E. et al., (1999) Sexual Attitudes and Behavior among Young Adolescents in Jamaica. IFPP; 25(2): 78-84


Engender Health (2004) Improving Women’s Health word wide

Family Guidance Association of Ethiopia (1998) A base line survey on Knowledge, Attitude and Practice of Sexuality and Reproductive Health among Jimma Youth FGAE, Research and Evaluation Unit


International Planned Parenthood Federation (1994). Youth and Sexuality
IPPF South Asia Regional Bureau: IPPF


Title: DETERMINANTS OF RISKY SEXUAL BEHAVIOR AMONG SCHOOL ADOLESCENTS IN BAHIR DAR

Students' Questionnaire

PART 1: Socio-Demographic Characteristics

101 School Name _______________________
102 Grade _____________________________
103 Grade level
   1. High School (9-10)
   2. preparatory (11-12)
104 Sex
   1. Female
   2. Male
105 What is your age ------------------
106 What is your religion?
   1. Orthodox
   2. Catholic
   3. Protestant
   4. Muslim
   5. other (specify)
107 With whom you are living at present?
   1. Both parents
   2. single parents
   3. with other relative
   4. alone
PART II: Risk Related Factors

Religiosity
201. How often do you usually attend religious services?
   1. Daily
   2. at least once per week
   3. occasionally
   4. never attend

Parents Level of Education
202. What is the education status of your father
   1. Literate
   2. Illiterate

203. What is the highest level of education he attained
   1. primary school (1-8)
   2. secondary (8-12)
   3. above secondary (above 12)

204. What is the education status of your mother
   1. literate
   2. illiterate

205. What is the highest level of education she attained
   1. primary school (1-8)
   2. secondary (9-12)
   3. above secondary (above 12)

Communication with Parents
206. Have you ever talked with your father about body changes (physical development) and sexual issues (avoiding / delaying sex, using contraceptive or STI)
   1. No
   2. Yes
207. If No, why do you not talk to your father about physical development and sexuality issues?
   1. I afraid to talk him about these issues
   2. I prefer to talk to my mother
   3. I prefer to talk with someone else
   4. I am not interested in discussing these issues
   5. I do not see my father often
   6. this topics up sets him

208. Have you ever talked with your Mother about bodily changes (physical development) as you grow up and sexuality issues.
   1. No
   2. Yes

209. If No, why do you not talk to your mother about physical development and sexuality issues
   1. I embarrassed to talk her about these issues
   2. I prefer to talk to my father
   3. I prefer to talk with someone else
   4. I do not see my mother often
   5. this topic up sets her

Peer behavior and influence

210. Has your close friend started experiencing sex?
   1. Yes
   2. No

211. Was your friend do use any method to prevent unwanted pregnancy or sexually transmitted infections while having sex
   1. Yes
   2. No
PART 3: Sexual Behavior

301. Have you started sexual intercourse
   1. Yes
   2. No

302. If you experienced sex, at what age did you start it?
   Age ---------------

303. Have you had sex in the last four weeks
   1. Yes
   2. No

304. How many no of sexual partner do you have in the last in the four weeks ---------------

305. How many no of sexual partner do you have in the last one year -----

306. How many no of sexual partner during your life time --------

307. With whom you had sexual intercourse with the first time
   1. Acquaintance
   2. friend
   3. boy/girl/ friend
   4. prostitute

308. On what circumstance your first sexual activity is conducted.
   1. willingly
   2. forced
   3. persuaded
   4. others

PART 4: Condom Use

401. Did you do any thing to prevent pregnancy or sexually transmitted infection during your first sexual debut
   1. Yes
   2. No
402. If yes, what type of methods did you use?
   1. Condom
   2. pill
   3. safe period
   4. pill and condom

403. where do you get the method
   1. Pharmacy
   2. market (shop)
   3. boy/girl/ friend
   4. health center
   5. friend

404. Who decided proposed to use (method) the first time you had sexual intercourse? Yourself or your partner?
   1. self
   2. partner
   3. both of us
   4. do not remember

405. If you did anything to prevent pregnancy or STIs what was the main reason for you not doing (or using) anything the first time you had sexual intercourse.
   1. I was not planning to have sex
   2. I did not dare to tell my partner
   3. the partner opposed the idea
   4. other

406. Have you used condom during your last sexual intercourse
   1. Yes
   2. No

407. If yes, how often do you use condom with your present or last partner
   1. sometimes
   2. frequently
3. always

**Discussion with Sexual Partner**

408. Have you ever discussed sexuality issues with your last or present partner
   1. No
   2. Yes

409. If Yes, what was the issue you discussed
   1. Unwanted pregnancy
   2. about HIV/STI

410. If No, what was the reason for not discussing the issues
   1. Embarrassed to talk to these issues
   2. I afraid my partner's response
   3. I am not interested in these issues
   4. I prefer to talk someone else.

**PART 5: Risky Behaviors**

501. Have you ever drunk alcohol, often other than a few sip?
   1. Yes
   2. No

502. Have you ever chew chat?
   1. Yes
   2. No

503. Have you ever seen video films?
   1. Yes
   2. No

504. What is your most favorite film?
   1. Action
   2. romance
   3. pornography
   4. others
PART 6 Knowledge and Perception towards risky sexual behavior

601. Have you ever heard about HIV or sexually transmitted infections.
   1. Yes
   2. No

602. State four STIs other than HIV
   1. ______________________
   2. ______________________
   3. ______________________
   4. ______________________

603. Have you ever seen someone of your age experiencing STIs
   1. Yes
   2. No

604. Have you ever seen someone of your age experiencing unwanted pregnancy
   1. Yes
   2. No

605. Do you think adolescent is the time of exercising sex
   1. Yes
   2. No

606. Do you think it is common to use condom among adolescents during sexual intercourse
   1. Yes
   2. No

Thank you
Title: DETERMINANTS OF RISKY SEXUAL BEHAVIOR AMONG SCHOOL ADOLESCENTS A CASE OF BAHIR DAR SPECIAL ZONE

Question for Focus Group Discussion (FDGs)

1. What types of problems adolescents are facing at present?
2. Are there any clubs at the school that work on adolescent reproductive health?
3. What do you think the reason for having sex at first sex?
4. At what age do male/female adolescents, generally start sexual intercourse?
5. Is it usual among students to have sex with more than one partner?
6. Is it usual among students to use condom during sexual intercourse?
7. What was the reason for not using the condom, if you don't use?

Thank you
## Age - Sexual Debut Consistency Check

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DECLARATION

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

Name  Silesh Jeshagel
Signature
Date  13 July 2005

This thesis has been submitted for examination with my approval as university advisor.

Dr. J. Narasimha Rao
Advisor

Signature

Date  13/7/2005