

**FACTORS PREDISPOSING OUT OF SCHOOL YOUTH TO HIGH RISK
SEXUAL PRACTICE WITH RESPECT TO HIV INFECTION IN BAHIR
DAR TOWN, NORTHWEST ETHIOPIA**

BY

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I, the undersigned, declared that this is my original work, has not been prepared for a degree in this or any other University, and that all sources of materials used for the thesis have been fully acknowledged.

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List of abbreviations

STIs: Sexually Transmitted Infections

UNAIDS: Joint United Nation Program on HIV/AIDS

MOH: Ministry of Health

WHO: World Health Organization

MPH: Master of Public Health

DHS: Demographic Health Survey

HIV: Human Immunodeficiency Virus

AIDS: Acquired Immuno Deficiency Syndrome

SPSS: Statistical Package for Social Science studies

OR: Odds Ratio

IEC: Information Education Communication

CDC: Centers for Disease Control and prevention

Abstract

Youth constitute the population within the age range of 15 up to 24 years. They make up about 30% of the world population. Even though youth constitute 30% of the population they harbor about half the burden due to HIV/AIDS. Out of school youth are at a much higher risk for HIV/AIDS.

This study was conducted in Bahir Dar town among out of school youth to assess predisposing risk factors that put out of school youth at risk of risky sexual practices and HIV infection. The study design was descriptive cross-sectional study. Both quantitative and qualitative data were employed. For the quantitative section a standardized questionnaire was prepared and pre-tested. Focus Group Discussions (FGD) and In-depth Interviews (II) were conducted to collect qualitative data.

For the quantitative section 628 youth participated in the study. Three hundred twenty four were males and 304 were females. Majority (63.1%) were within the age range of 20 up to 24 years. Majority, (64.8%) had started sexual intercourse. More males than females tended to have sex with non-regular sex partner. Consistent condom use was found to be low. Alcohol intake, khat chewing, low educational background and being male were found to be significantly associated with having sex with either commercial or non-regular sex partner. In addition, peers to be sexually active, families' condition to monitor (support) their children were found to be associated with risky sexual practice. Youth behavior not to visit libraries, visiting sexy video shows and visiting religious organizations occasionally were significantly associated with youth risky sexual practice. On the other hand lower number of income earner in youth family and youth who leveled their living condition as "poor" were found to have sex in exchange for money. For the qualitative part five focus group discussions and ten in-depth interviews were conducted. Participants claimed that absence of job, youth tendency to chew khat and drink alcohol, parents' poor involvement in shaping youth sexual behavior and absence of adequate and attractive places (youth programs) to pass leisure time were reported as the driving forces that put out of school youth at risk of unsafe sexual practices and HIV infection.

Creating employment opportunities, involving parents in the campaign against HIV/AIDS and preparing adequate and comfortable places and youth programs for leisure time with adequate, attractive and need based health education services were recommended to save the generation.

1. Introduction

Youth constitutes the population between 15-24 years of age. As a socio-cultural phenomenon, it is defined as a stage in which young people are confronted with some models of the major roles that they are supposed to emulate in adult life and with the major symbols and values of their culture and community [1].

World wide more than one billion people are between 15-24 years of age and most of them live in developing countries. Young people constitute one third of the total population in Ethiopia. This number is expected to grow from 20.3 million in 2000 to 25 million in 2010. Adolescent is a transition period in life from dependent childhood to self-reliant adulthood and includes the range in which the majority of young people join the labor force. It is the period where young persons achieve the highest stage of cognitive and physical development and strive to define their self-identity. A need for independence is also one of the features of this group. Youth become rebellious and unhappy, run away from home, give-up their schooling, and even marry without the necessary preparation to secure the independence their parents had denied them [1].

HIV/AIDS infection among youth

AIDS (Acquired Immuno Deficiency Syndrome) was recognized as a global crisis by the mid-1980s. In 1986 WHO estimated that there were 100,000 AIDS cases world wide and from 5 to 10 million cases of infection with HIV. Researchers projected that the annual number of deaths due to AIDS would peak in 2006 at 1.7 million. Instead, 3 million AIDS deaths were reported for the year 2001 alone [4]. Every six seconds, someone around the world is infected with HIV that causes AIDS. Like the plague that swept Europe in the middle ages, AIDS is devastating entire

continents. Life expectancies are falling, child mortality is rising and standard indicators such as economic growth, literacy rate and food production are slowly sinking and the number of AIDS orphans is increasing [7].

It is estimated that AIDS has killed more than 22 million people around the world. Today more than 40 million people live either with HIV or AIDS and are expected to die in the next decades. The vast majority of this people, 95 percent lives in the developing world and suffer and die in the prime of their lives [7]. It is the fourth largest cause of death globally and the leading cause of death in Africa [8]. Researchers project that by the year 2010 HIV/AIDS will reduce average life expectancy in some southern Africa countries to around 30 years [6].

Ethiopia is among the countries hardest hit by HIV/AIDS epidemic in sub-Saharan Africa. It is now almost 19 years since the epidemic started in the country. The epidemic has affected a large segment of the society and it has spread to every region or zone in the country. Although HIV prevalence was very low in Ethiopia during the early 1980s, it has been increasing rapidly in the year 1990s. Adult HIV prevalence increased from 0% in 1984 to 1% in 1989, 3.2% in 1993, 7.4% in 1997, 7.3% in 2000 and 6.6% for 2002 [5,4].

The reproductive health problems of young people in Ethiopia are multifaceted and interrelated. Child bearing begins at an early age, 45% of the total births in the country occur among adolescent girls and young women. Practicing commercial sex have become common phenomena among young girls. As a result, they have become primary victims of HIV/AIDS crisis that has spread throughout the country. In general young people are at high risk of

reproductive health problems. The situation is aggravated by the overall poor socio-economic environment and harmful traditional practices [2].

In Ethiopia it is estimated that about 2.2 million people are currently infected with HIV/AIDS (2 million adults and 200,000 children). According to HIV surveillance report from Ministry of Health (October 2002), the mean prevalence rate of HIV for all urban sentinel sites including Addis Ababa was 13.2 percent. Extrapolating this data onto the total urban population using epi-model, an urban prevalence rate of 13.7% was obtained. The rural prevalence rate was 3.7% [5]. In Ethiopia life expectancy will decline to about 42 years due to AIDS by 2010 by which it would be 55 years with out HIV/AIDS.

Today's young people are of the AIDS pandemic generation. They have never experienced a world without HIV. Millions already have died. Yet the HIV/AIDS epidemic among youth remains largely invisible to adults and to young people themselves [4].

Youth between the ages of 15 to 24 years are at a particular high risk, especially in countries with high prevalence levels. In countries where HIV/AIDS is spread mainly through heterosexual transmission, most people become infected by the time they are in their 20 or 30 years and die within a decade [7].

2. Literature review

From over 60 million people who have been infected with HIV worldwide in the past 20 years about half became infected between the age of 15 and 24 years. Today, nearly 12 million young people are living with HIV/AIDS in the world [6] and HIV/AIDS has become a crisis [4]. Young people aged between 15 and 24 years comprise about 20% of the world's total population but account for 60% of new HIV infections each year [1]. In Africa alone an estimated 1.7 million young people are infected annually [12]. Already, AIDS has become generalized among youth in almost half of Sub-Saharan Africa. In a generalized HIV epidemic 5% or more of the population are infected [6]. In nearly 20 Sub-Saharan African countries an estimated 5% or more of young women ages 15 to 24 are infected with HIV [10]. As the AIDS epidemic spreads; younger and younger age groups are becoming exposed to the risk of HIV/AIDS [11]. The infection spreads to younger age groups as men choose increasingly younger sexual partners. Many men believe, probably correctly, that younger girls are less likely to be infected with HIV, while others hold the mistaken belief that having sex with a virgin can cure AIDS [6]. According to UNAIDS statistics data, in 1998 alone over 2.5 million young people ages 15-24 years became infected with HIV worldwide [13]. This was half of all new HIV infections for that year [14]. Every day over 7000 more young people become infected worldwide, about five people per minute [13].

Africa

Sub-Saharan Africa faces the worst prospects. Although just 10% of the world's youth live in Sub-Saharan Africa, the region contained almost three quarter of all youth living with HIV/AIDS, in 2001 a total of 8.6 million [13]. African youth faces fast growing rates of infection with HIV and other STIs. Experts estimate that half a million African youth, ages 15 to 24 years

will die from AIDS by the year 2005 [14]. In African countries with long, severe epidemics, half of all infected people acquire HIV before their 25th birth day and die by the time they reach 35 years of age [10].

Ethiopia

A recent study conducted by Taffa N. from February to June 2000 assessed the prevalence of HIV among youth in Addis Ababa. The result showed an overall HIV-I prevalence of 5.3% among the 319 out of school youth. There was a 60% excess prevalence rate among out of school females compared to the males. Out of school youth groups had a 13 times higher chance of being HIV infected than youth in school. The study indicates significant prevalence of HIV infection, particularly among females and out of school youth [17].

The HIV/AIDS surveillance report by Ministry of Health on age-specific HIV prevalence rates showed that the highest infection rates were concentrated among the group 15 to 24 years and to a slightly lesser extent among the group 25 to 34 years [5]. These all data show that Ethiopian youth, especially those who are out of school were found to be at an increased risk of HIV/AIDS.

Factors influencing youth reproductive health behavior

Youth generally display or exhibit certain behavior and personality patterns which have strong similarities irrespective of socio-cultural and environmental differences. These genuine behavior and personality traits can be seen with respect to biological, psychological, cultural, sociological and economical factors. The interaction between these factors determines youth behavior [1]. Generally we can classify risk factors which put youth at risk for risky sexual practice and HIV infection in to the following four major classes:-

2.1- Factors influencing at individual level

Sexual experience and condom use

Heterosexual transmission is accelerating the spread of HIV infection. Worldwide 70% of new HIV infection is acquired through unprotected heterosexual contact. In the regions hardest hit by the virus (sub-Saharan Africa and south East Asia) it is the primary mode of transmission [7]. In sub-Saharan Africa unprotected heterosexual intercourse account for about 90% of HIV infections among women and men [1].

Problems related to sexuality and search for a part is taken as the feature of youth. Lack of mutuality in heterosexual relationship, using young girls for immediate sexual gratification and superficial closeness in the context of randomized sexual relationship, are problems reported by young males. There is prolonged experimentation among youth concerning heterosexual relationship. Girls' sexual experimentation is burdensome because of the fact that it could lead to unintended pregnancy [1].

A study conducted among unmarried urban youth (15 – 24 years) in Guinea showed that 50% of females and 76% of males were found to be sexually active (experienced). The mean age at first sexual intercourse was 16.3 years for males and 15.6 years for females. Mean number of sexual partners was found to be four for men and 2.1 for females. It was found that 45% of females and 51% of men reported that they had sexual intercourse one to three times in the previous month before the study [15].

A study conducted in Nigeria (1992) found that 44% of adolescents were sexually active before the age of 17 years and 80% were active before the age of 20 years. About 60% of patients presenting at Nigerian hospitals for abortion complication were adolescent girls [6].

In most parts of the world, mid or late adolescence is a time of sexual experimentation and risk taking, often with little regard to the possible consequences. It is also the time of life when most people have their first sexual experiences either within or outside of marriage. Youth sexuality, with physical and sexual maturity inevitably leads to sexual involvement [10].

In Ethiopia different studies conducted among out of school youth show a significant number of youth to engage in sexual activity, early sexual commencement and low rate of consistent condom use, which puts them at risk of HIV/AIDS. Studies conducted in Awassa, Addis Ababa, Dera, Dupatie, East Gojjam, and Bahir Dar town reported that about half and even more than half of the study participants were reported to have ever had sexual intercourse some time in the past. The minimum mean age at first sexual commencement reported from these studies was 13.6 ± 2.7

years for Eastern Gojjam and the maximum age was 17.7 ± 2.3 years for Addis Ababa. Mean number of sexual partners reported by these studies were 2.9 ± 2 for Awassa, 1.8 ± 2.3 for Addis Ababa and 3.9 ± 2.8 for Bahir Dar out of school youth [41, 38, 36, 37, 33, 32].

Generally sexual experience starts early in Ethiopian society. One in two young women and one in three young men are sexually experienced early (before 18 years of age). The median age at which women had first sexual intercourse is 16 [2].

Condom use

Adolescents who use condoms more consistently with their sexual partners are those more likely to have the self-confidence to insist on condom use with their parents and who are able to take personal responsibility for condom use when they are young. Other attributes associated with consistent condom use included having talked with parents about condoms, associating with peers who encourage condoms, having high educational aspiration, high parental income, generally adopting a healthy life style [6]. In Ethiopia studies conducted in Duptie, Bahir Dar and East Gojjam reported that 53.6%, 51.3% and 64.6% of out of school youth don't use condoms consistently [37, 33, 32].

Sexually Transmitted Infections (STIs)

Sexually transmitted infection is additional risk to young Ethiopians. Demographic health survey data (DHS 2000) show that, more than half of women age 15-19 years and two in five women age 20-24 years have no knowledge of STIs [2]. The presence of STIs makes transmission of HIV more likely [19]. Sexually active youth are at substantial risk not only for HIV but also for

other STIs because they tend to have multiple sex partners, to engage in unprotected sex and among young women to have older men as sex partners. In many countries young people have the highest rates of STIs of any other age group [20]. Having another STI both makes HIV positive persons more infectious and also HIV negative persons more susceptible to infection. Some STIs increase the replication of HIV. In addition the lesions and ulcer caused by STIs provide opening through which HIV can pass from person to person [6]. In Ethiopia studies conducted in Awassa, Duptie and Addis Ababa among out of school youth detected that 4%, 12% and 6% of out of school youth had history of ulcerative genital lesion in the past 12 months before the study period respectively [36, 33, 38].

Khat chewing and alcohol intake

Khat contains a psychoactive substance, cathinone, which produces central stimulating effect analogues to amphetamine. It is widely used in Eastern Africa including Ethiopia [47]. Insomnia is a common problem after use of khat and sleep disturbance is highly prevalent among current users. Alcohol intake, following khat chewing, commonly known in Ethiopia as “chebsie”, is received to over come the effect of khat chewing. There for, most khat chewers are believed to drink alcohol after chewing khat. Some people, however, use drugs with sedatives or hypnotic effects [18].

Alcohol makes it difficult for the dependent user to judge what is right or wrong, what is good or bad and what is moral or immoral. Substance abuse undermines judgment, reduces choice of sex partners, damages monogamous relationships and facilitates impulsiveness resulting in unsafe and risky sexual practices that facilitate the transmission and spread of HIV/AIDS [18].

Different studies have reported that substance abuse increases sexual desire of the users. It is reported that increased alcohol consumption was found to be associated with an increased likelihood of being involved in sexual activity [21]. In a national survey conducted by Kaiser family foundation on youths' knowledge and attitude on sexual health, 75% of young people aged 15 to 24 years agreed that condoms often don't get used when people are drinking or using drugs. In another study, alcohol use was associated with willingness to have unsafe sex [24]. Weakening ego controls, substance like alcohol could elicit behavior likely to increase probability of exposure to HIV [27].

In Ethiopia a study conducted in Addis Ababa to assess the association of substance use and HIV sero-positivity found that; ever use of "hard" drugs, ever drinking alcohol and khat chewing were positively and significantly associated with HIV sero-positivity. In addition to this ever drinking alcohol was found to be associated with having sex with commercial sex partner [22]. In Tanzania, youth ages 16 to 24 years who smoked and drank alcohol were four times more likely than other age groups to have multiple sex partners. In Kenya the single most important predictor of sexual activity among adolescent women was using alcohol, drugs or tobacco. Among US College students, those who had sex under the influence of alcohol or drug were 2.5 times more likely not to have used any protection [6].

Gender

Gender differences in patterns of HIV infection among young people vary substantially around the world. Where heterosexual transmission of HIV dominates, often more young women are

infected than young men. In most of Africa infection rates among young women are at least twice the rates among young men [10]. Reflecting these trends in sexual preference, young women with HIV are infected on average ten years earlier than men and consequently, many will die of AIDS at younger ages than men [6].

Education level

Cognitive maturity appears to be associated with safer sexual behavior. In Kenya and Mozambique more schooling was associated with more use of condoms. In Uganda women with secondary education exhibited the most dramatic declines in HIV prevalence from the year 1991 to 1997 [6].

In conclusion young people are much more vulnerable to HIV/AIDS than older people are because their social, emotional and psychological development is incomplete. They tend to experiment with risky behavior, often with little awareness of the danger. In fact, risky sexual behavior often is part of a larger pattern of adolescent behavior including alcohol and drug use, delinquency and challenging authority [6].

2.2- Factors influencing at family, peer and community level

Parents' attitude

Parents, adult family members and others in the community influence adolescent health behavior. Studies show that young people with a stable, positive and supportive family environment that includes parental monitoring engage in less risk-taking. In many cultures

parents traditionally didn't discuss sex with their children. Instead of parents grand parents, aunts and uncles played this role. Most researchers agree that parent-child communication about HIV/AIDS and sexuality should begin early so that it can evolve comfortably as the child matures. A single serious talk about sex as a child enters puberty is likely to be strained and awkward. Similar discussions before, however, provide the groundwork for a successful discussion. Parent-child communication is most likely to be successful of course in close and loving relationship. But some adults still think that sex education encourages sexual experimentation. Despite such worries, reviews of program evaluation find that HIV/AIDS education programs don't hasten the early start of sexual activity, don't increase the frequency of sex and don't increase the number of sex partners among adolescents [7].

Lack of family support and limited education opportunities lead many youth to turn to life on the streets. Currently there are about 100,000 street children in Ethiopia with 40,000 in Addis Ababa alone. These young people face rape, sexual attack, beaten, robbed, unintended pregnancy that predispose to risk of HIV/AIDS [10].

Peer pressures

Weakening of economic, social and cultural bases of the family will push youth to become norm less concerning their sexuality leading youth to seek knowledge and advice about sexuality from inappropriate sources (peers) predisposing them often to undesirable end results. Among key elements of HIV/AIDS education programs designed by US researches one of it was to deal with peer pressure and other social pressures on young people to be sexually active. Changing young

people's risk taking behavior requires going beyond providing information to helping young people acquire the ability to refuse sex and to negotiate with sex partners [6].

2.3- Influencing factors at institution level

Inadequate sexual health information and limited access to health care are important contributing factors for the spread of HIV/AIDS. In Sub-Saharan Africa, only half of the populations have easy access to health care. Limited budgets, problems imposed by the HIV epidemics and few health care providers mean that imposing reproductive health services is a challenge for most sub-Saharan African countries [25]. Youth friendly services such as in treating STIs could help to curb the HIV epidemic in some places. As with HIV/AIDS prevention, the earlier STIs prevention begins the better [6].

AIDS prevention programs can use variety of media, including dance, drama, folk, theater, and sport events as well as television, radio, and print media. Different communication channels reach different audiences and their messages are most effective when reinforced by various communication channels as well. A more recent analysis that reviewed the impact of school-based education programs showed that the program helped to delay sexual initiation, decreased number of partners and increased use of contraceptives. In Canada and US, researchers found that one-third of the 28 programs they reviewed delayed the age at first sexual initiation among students participating. A more recent analysis that reviewed school based education programs in Namibia, Nigeria, South Africa and Zimbabwe found that some of the programs delayed sexual initiation, decreased number of sexual partners and increased use of contraceptives [6].

Early testing for HIV/AIDS offers many benefits, especially for young people but in most countries the service is still inadequate. Especially as treatment become more available for HIV infection, early testing and counseling could lead to timely care, improve the medical management of HIV related illness and provide an opportunity to reduce peri-natal transmission of HIV [6].

2.4- Economic influencing factors

Poverty and HIV transmission are linked in a variety of ways. Poverty often leads to prostitution or to trading sex for material goods. Young women may be especially vulnerable due to societal practices that deny them education and work opportunities. Poverty also leads to poor nutrition and weakened immune system, making poor people more susceptible to tuberculosis and STIs [10].

HIV spreads fastest and farthest in conditions of poverty, powerlessness and lack of information conditions in which many young people live. In fact, AIDS is now largely a disease of marginalized peoples. World wide the AIDS epidemic is most severe in the poorest countries. Within countries, the disadvantaged people with few opportunities, services and support systems are at greatest risk. Among the youth as well, HIV disproportionately affects poor and marginalized people. Lack of employment opportunities is leading the youth to feeling of hopelessness, drug trafficking, drug abuse and prostitution. According to the Ministry of Health Department of Pharmacy report for 1993-94, of the 291 drug abusers and traffickers for which age was reported, 223(77%) were within the age range of 15-25 years. The majority of these young people were students and unemployed youth. It is believed that there are thousands of

commercial sex workers and most of them are young. The consequence of childhood prostitution includes health problems resulting from physical abuse, early and unwanted pregnancy, STIs, HIV/AIDS, abortion as well as psychological problems, low self esteem, hopelessness and stigma [28].

World Bank analysis of 72 countries shows that; at national level both low per capita income and unequal distribution of income were associated with high rates of HIV infection. Among urban adults in the typical developing countries, a US \$2,000 increase in per capital income was associated with an HIV infection rate 4% point lower. In Ecuador sexual risk-taking by adolescents was more common among families with only one income earner than in those with two or more. Economic hardship and civil unrest have pushed more and more young men and women away from home and to towns and cities to look for work. Many enter multiple sexual relationships that carry risk for

HIV and thus transmit the virus from one place to another. Female migrant workers, many of them unmarried girls in domestic or seasonal work, were often sexually exploited. Poverty and lack of alternatives are major reasons that many children become sex workers [6].

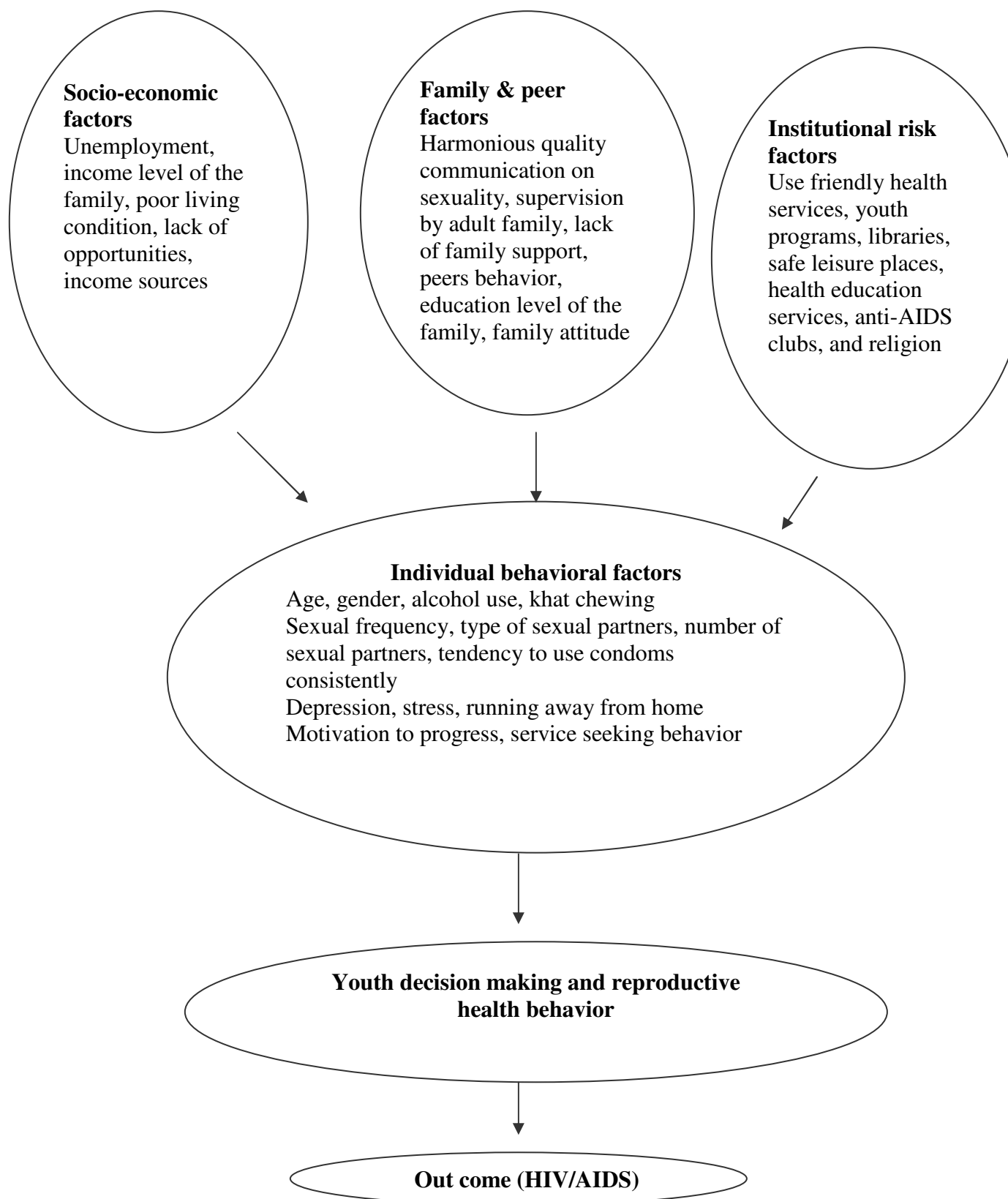
It is not at all surprising if the poor adopt behaviors which expose them to HIV infection. It is not simply that Information Education Communication (IEC) activities are unlikely to reach the poor but that such messages are often irrelevant and inoperable given the reality of their lives. Even if the poor understood what they are being urged to do it is rarely the case that they have either the incentive or the resources to adopt the recommended behaviors. Indeed to take the long-view in sexual or other behaviors is antithetical to the condition of being poor. So HIV specific programmes are neglectful of the interests of the poor and are rarely if ever related to their needs.

More generally it is the absence of effective programmes aimed at sustainable livelihoods which limit the possibilities of changing the socio-economic conditions of the poor. But unless the reality of the lives of the poor are changed they will persist with behaviors which expose them to HIV infection (and all the consequences of this for themselves and their families) [28].

Services need to recognize that poverty, as is arguably the case in most communicable diseases, is a major factor increasing HIV contraction. This is the same for HIV, and as resources in the developing world are scarce, people prone to poverty in urban areas, are people who need the most urgent targeting. This is also the case in the developing world and resources need to be made available to aid these countries, trying to come to grips with this epidemic as this can have vast global complications, due to increased international travel and economic migration. A global targeting health strategy, considering poverty as an increasingly central factor could lead to lower levels of HIV contraction in high risk groups. This would also enable authorities to produce cost-effective preventative measures aimed at those most at risk. HIV needs to be tackled globally and poverty needs to be acknowledged as a major factor, which increases the distribution of HIV beyond the realms of the nation state [57].

A frame work have been presented below which was found to be suitable to summarize the background information and show the direction of the study.

Figure 1- Conceptual frame work on predisposing risk factors that put youth at risk of HIV/AIDS [1, 2]



3. Significance of the study

According to the survey result reported by Ministry of Health in October 2002, the highest urban HIV prevalence in Ethiopia was reported from Bahir Dar town, which was 23.4% followed by Jijiga (18%). The prevalence was also the highest in the year 1992-1993 (13.0%) and increased to 20.8% in the year 1999-2000 which was the highest of all reported prevalence rates that year even 5.7% higher from Addis Ababa [5].

A recent study conducted by Taffa N. from February to June 2000 assessed the prevalence of HIV among youth in Addis Ababa. The result showed an overall HIV-I prevalence of 5.3% among the 319 out of school youth. There was a 60% excess prevalence rate among out of school females compared to the males. Out of school youth groups had a 13 times higher chance of being HIV infected than youth in school. The study indicates significant prevalence of HIV infection, particularly among females and out of school youth [17].

These findings made the study focus in Amhara Region, Bahir Dar town, among out of school youth to assess individual, institutional, parent, peer and economic factors that predispose out of school youth to high risk sexual practices which contribute to the transmission of HIV/AIDS and other STIs. The main aim of the study was to assess the prevalence of these predisposing risk factors and investigate their association with risky sexual practices.

4. Objectives

4.1- General objective

⇒ To identify factors predisposing out of school youth to high-risk sexual behavior with respect to HIV infection.

4.2- Specific objectives

⇒ To assess individual factors that increase high-risk sexual behavior

⇒ Assess economic factors that influence youth sexual behavior.

⇒ Describe the relationship between societal [parent, peer, influential persons] influences and out of school youth sexual behavior.

⇒ Explore the effect of institutions on youth sexuality and assess their association.

5. Methods and materials

5.1- Study Area

This study was conducted in Bahir Dar town among out of school youth within the age range of 15-24 years. The reason to select Bahir Dar town for this study was the reported highest HIV prevalence rate of 23.4% from sentinel surveillance sites in the year 2002 by Ministry of Health [5].

Amhara region has ten zones and one special zone with 106 “woredas” and 208 towns.

Bahir Dar is the special zone and the capital city of Amhara regional state. It is found in the Northwest Ethiopia 565 kilometers away from the capita city of Federal Democratic Republic of Ethiopia. The town has two “woredas” and 17 “Kebeles” with one zonal hospital, one health center and one health post. According to the information obtained from the regional finance and economy office report, the current (2003) total population of the town was 153,294 among which 72,446 were males and 80,848 were females. The total number of population within the age range of 15-24 years in the town was 40,572 among which 17,775 were male youth and 22,797 were female youth. Youth aged 15-24 years make up 27% of the total population of the town.

5.2- Study Design

Descriptive cross-sectional study. Both quantitative and qualitative data collection methods were employed.

5.3- Study population

Youth residing in 17 “Kebeles” of Bahir Dar town and fulfilling the inclusion criteria of age between 15-24 years, who were out of school and not engaged in any other vocational training like typing and other technical works. Those who were employed in any kind of permanent or temporary job were included in the study. Youth who were engaged in any kind of formal education were excluded from the study.

5.4- Sample size determination

A study conducted by Abate S. among out of school youth in Addis Ababa delectated that 25.1% of the respondents had two or more sexual partners in the past 6 months before the study period [38]. Using 95% confidence level and margin of error 3.5% the expected sample size was calculated using the STATCALC program of EPI-INFO Version 6 computer software statistical package.

Utilizing infinite population number

Desired precision- 3.5%

Expected prevalence- 25.1%

Confidence interval- 95%

$$n = \frac{(Z \alpha / 2)^2 p (1 - p)}{(d)^2} = \frac{(1.96)^2 \times (0.251 \times 0.749)}{(0.035)^2}$$

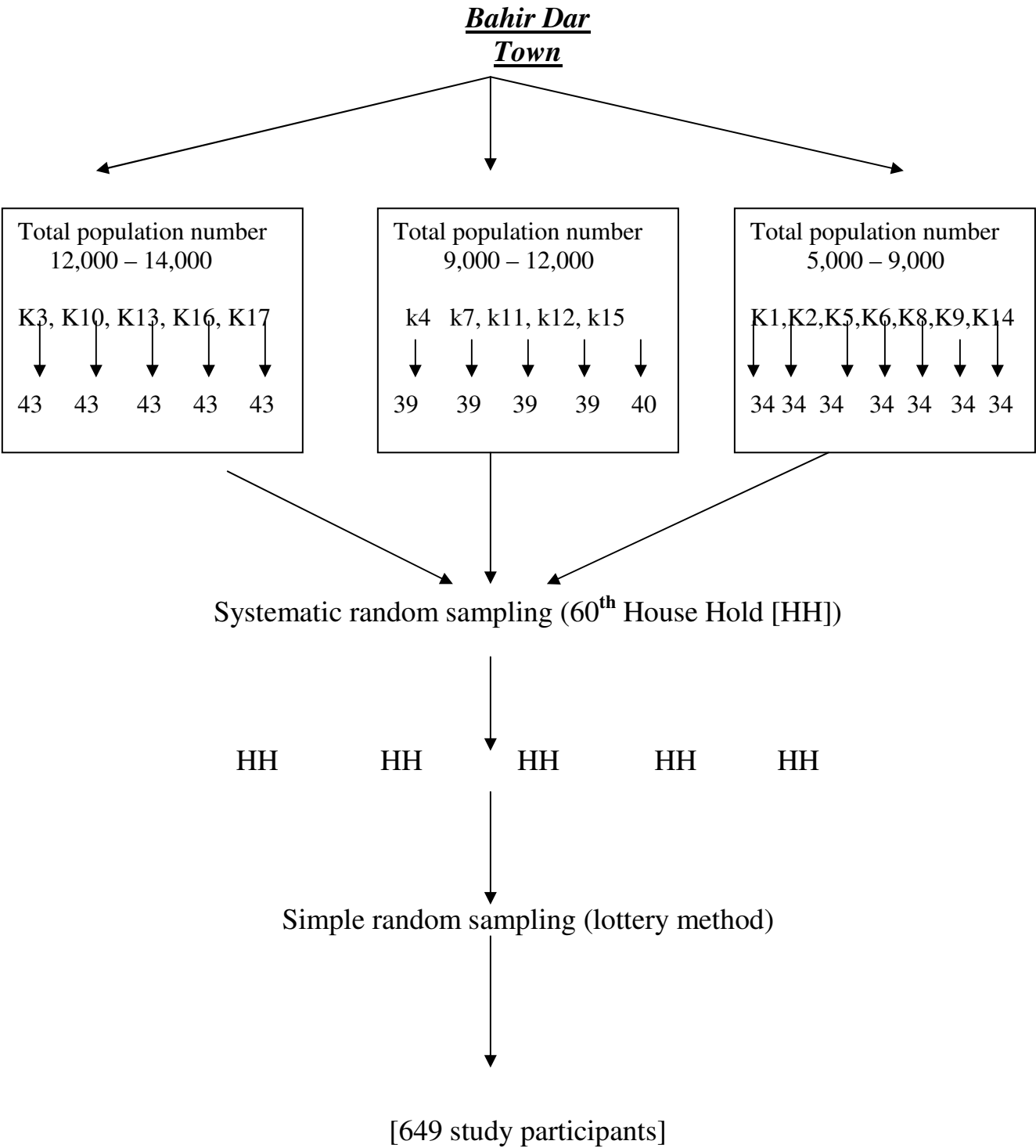
Total sample size= **590**

With 10% non-response rate a total sample size of **649** was obtained.

5.5- Sampling procedure

The total 658 samples were distributed to all of 17 “kebeles” depending on the proportion of population residing in each “kebele”. The first household within a “kebele” was selected by rolling a stick and following the random direction pointed by the stick. Then the next house was selected through systematic random sampling technique. If there was more than one out of school youth in a household one of them was selected randomly using a lottery method. In cases of non-response after repeated visit (three times), the next household was included in the study. In addition to this 10% non-response rate was added to the total sample size.

Figure 2- Sampling framework



5.6- Method of data collection

The data for the quantitative section of the study was collected by trained data collectors who were 12 grade complete and age greater than 25 years with some experience in data collection in previous similar studies. A standard questionnaire, which addressed all the variables, was prepared and pre-tested. The pre-test was conducted among youth found in Bahir Dar town and these were excluded from the study. The data collection was conducted within the total 17 “kebeles” found in the town from November 5, 2003 up to December 7, 2003. The data collectors visited every 60th household from the starting point in each “kebele” and asked for an out of school youth to be included in the study. Privacy was maintained and all study participants were interviewed based on their willingness to participate in the study.

5.7- Data quality

To assure the quality of data the following activities were accomplished:-

- ❖ Data collectors were selected based on their ability and skill. Those who have experience in past similar studies and minimum 12 grades complete and age greater than 25 years were used to conduct the interview.
- ❖ Intensive and problem oriented training was given to data collectors about the objectives of the study and ways of data collection.
- ❖ Questionnaires were prepared in English and then translated to the local language (Amharic) and then translated back to English in order to maintain consistency.
- ❖ Pilot testing of the questionnaire was done in a homogenous population and these populations was not included in the study.

- ❖ The supervisor collected some part of the data in order to counter check the quality of data collected by the data collectors.
- ❖ Data were checked for completeness daily by the investigator.
- ❖ Double entry of data was applied.

5.8- Qualitative part of the study

Focus Group Discussions and in-depth interviews

Focus group discussions and in-depth interviews were conducted after the collection of quantitative data in order to generate more information about the prevalent predisposing factors to risky sexual practices among out of school youth. A total of five focus group discussions and ten in-depth interviews were conducted.

Methodology

A minimum of eight and maximum of twelve respondents participated in the focus group discussions. Each session took time span of one to one and half hours. The groups were made homogenous in terms of social class, age, sex and marital status. This helped the participants to talk freely what ever they know. Settings were arranged with privacy for participants, comfortable situation (location), avoiding noisy areas, non-threatening environment and easily accessible location. The focus group discussion and in-depth interview were moderated by the investigator. Non-probability purposeful sampling was employed to select potential participants from different sources. Youth participating in anti-AIDS associations and “kebele” leaders participated in recommending study participants.

- ⇒ From youth associations and anti-AIDS clubs
- ⇒ From vulnerable out of school youth
- ⇒ Officials of governmental and non-governmental organizations engaged in anti-AIDS activities

⇒ Parents and elderly people from the community

Previous research findings were assessed and ideas were generated from quantitative study gaps to prepare list of topics. Probing questions and transition approaches were arranged to introduce new ideas starting from general non-threatening to specific topics of interest. An experienced recorder was assigned to record points raised during the discussion process and also tape recorder was arranged to record the discussion process.

In-depth interview

In-depth interviews were conducted for some sensitive issues like; how did the first time sexual exposure happened? What does sex means to you? Etc. The total number of participants was ten. These study participants were out of school youth selected from different “kebeles” in the town. Guideline was prepared for the interview. The investigator conducted the interview after the collection of quantitative data. The interview was conducted in a private setup and took a time span of 15 to 25 minutes. The main ideas recorded were analyzed with the focus group discussion.

5.9- Data Analysis

The quantitative data were entered using SPSS version 11 and EPI INFO version 6 software statistical packages and were analyzed using Odds ratio and 95% confidence intervals. Associations between dependent and independent variables were assessed by Odds ratio. The significance of statistical association was assured using 95% confidence interval and p-value. Bivariate analysis was employed. Multiple logistic regressions were employed to adjust for possible confounding variables.

The qualitative data were analyzed after the analysis of quantitative data. Themes that emerged regarding the topic area were identified; different positions or dimensions that emerged were summarized and analyzed in the final write up.

5.10- Dependent and Independent variables

Dependent variables

- Sexual behavior [age at first intercourse, sexual practices, type and number of sexual partner, consistent condom use, history of STIs and duration of STIs]

Independent variables

- Individual factors; age, gender, alcohol or khat use, education level, service-seeking behavior.
- Family (parents) and peer factors; perception that peers are sexually active, education level of families, family attitudes, lack of family support, harmonious quality family communication on sexuality, communication with sexual partner on sexuality.
- Institutional factors; connectedness to religious organizations, visit to libraries, availability of youth programs like leisure activities, counseling services, health education services for adolescents.
- Economic factors; income level of the family or youth, employment opportunity, poor living condition, number of income earners.

5.11- Ethical clearance

Ethical clearance was obtained from Addis Ababa University Medical Faculty Department of Community Health. Respondents were participated based on their willingness. Informed verbal consent was obtained. Privacy, confidentiality and benefits were maintained. Participants were assured that they will not face anything for their participation in the study. Other responsible authorities were informed to get their support and commitment to the study.

5.12- Operational definitions

Out of school youth: youth within the age range of 15-24 years who were not engaged in any formal education and other vocational trainings [1, 2].

Youth: young people within the age range of 15-24 years [1, 3]

Adolescent: young people within the age range from 10-19 years [1, 3, 4].

Sexually Transmitted Infections [STIs]: any kind of infectious disease that primarily spreads through sexual intercourse.

Commercial sex partner: any one who exchanged sex for money (especially for females) or money (gift) for sex (especially for males).

Regular sexual partner: couples who were married or in a pattern of sexual relationship which is almost equivalent to marriage.

Non-regular sexual partner: out of school youth who had casual sex with a non-regular sexual partner.

“Khat bet”: places where youth chew khat.

“Tella bet”: places where youth drink local alcoholic drinks.

Risky sexual practice: out of school youth who had sex earlier than 18 years of age or have sex with non-regular sexual partner or exchanged sex for money (money for sex) or have more than one sexual partner or use condoms inconsistently [7, 59].

6. Results

6.1- Socio-demographic characteristics

Among the total 649, 628 responded to the interview making the response rate 96.76%. From the 628 study participants, 324 (51.6%) were males and 304 (48.4%) were females. Two hundred thirty-one (36.8%) of the respondents were between the age range of 15 to 19 years, 396 (63.1%) of them were between 20 to 24 years. The mean and median ages were 20.31 ± 0.09 and 20 years respectively.

The majority of study participants were Orthodox Christians by religion consisting 79.3% (498) and 13.2% (83) were Muslims. Most participants, 328 (52.4%) reported that they were educated up to secondary school (grade 7 to 8) and the rest 158 (25.2%) were educated above secondary school (greater than 9th grade), 113 (18%) were educated below junior school (1 to 6th grade) and 27 (4.3%) didn't attend formal education. From the total 628 study participants, 486 (77.4%) were not married and the rest 142 (22.6%) reported to be married at least once in the past. The mean and median ages at first marriage were reported to be $18.21 (\pm 2.5)$ and 19 years respectively. The minimum and maximum ages at first marriage reported were 10 and 23 years respectively.

Table 1- Socio-demographic characteristics (Bahir Dar, 2003)

Variables	Number	Percentage
Sex		
Male	324	51.6%
Female	304	48.4%
Total	628	100%
Age group		
15 -19 years	231	36.8%
20 - 24 years	396	63.1%
Total	628	100%
Religion		
Orthodox	498	79.3%
Muslim	83	13.2%
Protestant	25	4%
No religion	11	1.8%
Catholic	7	1.1%
Total	628	100%
Educational status		
Didn't attend formal education	17	4.3%
Completed up to Junior school (1 to 6 grade)	113	18%
Completed up to secondary school (7 to 8 grade)	329	52.4%
Completed above senior secondary school (>9 th)	159	25.3%
Total	628	100%
Marital status		
Married	142	22.6%
Not married	486	77.4%
Total	628	100%

6.2- Sexual experience

From the total 628 samples, 403 (64.2%) reported to have ever had sexual intercourse at least once in their lifetime. Among the 277 unmarried males 166 (59.9%) and among the 204 unmarried female study participants, 97 (47.5%) reported that they have ever had sexual intercourse. From the total 486 unmarried out of school youth 241 (49.6%) had sexual intercourse at least once in the past 12 months before the study period.

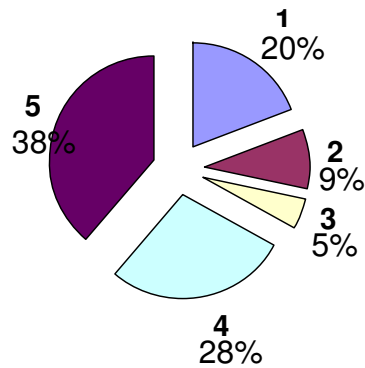
Among 320 males who responded to this question 111(34.5%) reported that they had had sexual intercourse at least once with a non-regular sexual partner in the last 12 months while only 63 (21%) of the females (from the total 300 who responded) reported that they had had sexual intercourse with non-regular sexual partner in the past 12 months. This finding suggests that males tend to be about two times more likely to have sex with non-regular sexual partner than females [OR= 1.98, 95% CI= 1.39-2.96]. This was found to be statistically significant after controlling for possible confounding variables. In addition, among 299 female respondents, 40 (13.4%) reported to have had sex in exchange for money or gift at least once in the past 12 months and among a total of 324 males 72 (22.2%) reported that they had had sexual intercourse with female commercial sex worker at least once in the past 12 months by paying money or giving gift.

Age distribution of currently sexually active respondents

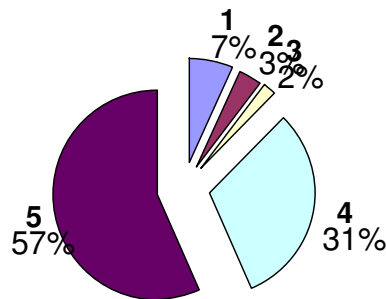
It was found that 46.5% of the study participants within the age range of 15 to 19 years and 75.7% within the age range of 20 up to 24 years reported that they have ever had sexual intercourse.

Figure 3: Current sexual relationship of out of school youth in Bahir Dar town by their sex, Dec. 2004.

Sexual relationship of female out of school youth in Bahir Dar town, Dec. 2003



Sexual relationship of male out of school youth in Bahir Dar town, Dec. 2003



- 1- Married and live with spouse
- 2- Divorced and live with other sexual partner
- 3- Divorced and don't have sexual partner
- 4- Not married and have regular sexual partner
- 5- Not married and don't have regular sexual partner

Results from focus group discussions and in-depth interviews

A total of 46 study participants participated in the focus group discussions. Twenty-two were females and the rest, twenty-four, were males. For the in-depth interview six female and four male out of school youth participated by providing the necessary information.

How do you explain the pattern of HIV/AIDS epidemic in Bahir Dar town?

All participants of the discussions and interviews agreed that the pattern of the HIV/AIDS epidemic was getting worse and worse over time. They explained that the disease was seriously affecting the young and productive population groups in the town.

Some of the indicators forwarded for the rising pattern of the epidemic were: -

- Many people, most of whom are young, were found to be bedridden, being sick of chronic illnesses with symptoms like weight loss, diarrhea, skin rash, etc.
- Many hospital beds were being occupied by HIV/ AIDS patients.
- People living with HIV/AIDS who are being registered as members in non-governmental organizations in need of care and support were increasing from time to time. These organizations were complaining that their number is becoming beyond their capacity and unmanageable to help all these people living with HIV/AIDS.
- Numbers of street children were increasing from time to time.
- Majority of youth were not showing behavioral change.

“We are watching that most youth still visit “khat bet,” drink alcohol, and experience risky sexual practices like multiple sexual partnership...”

(A participant explained).

- Numbers of unemployed youth were increasing from time to time.
- Death rates and sicknesses were rising from the past times.

“Most youth in Bahir Dar know which is good and which is bad. The problem is we young people don’t recognize bad consequences which may come later...” (A young participant explained).

“Currently most youth don’t want to hear about HIV/AIDS and are not behaving sexually safe” (Youth from anti-AIDS club).

Sexual development and first sexual commencement

In-depth interviews were conducted to assess youth sexual development and the situation during their first sexual exposure and the result were presented as follows: -

From the ten respondents, the minimum age at first sexual commencement reported was 14 years and the maximum being 18 years of age. Two respondents explained that they started sexual intercourse because of peer pressure while the rest eight reported that it was because of their personal interest to test it. Four of the participants explained that they started sexual intercourse with a non-regular sexual partner and it was incidental. Six of the study participants started sexual intercourse with a regular sexual partner and it happened gradually after living together for some time. From the ten participants, nine of them reported that they didn’t use condom during their first sexual commencement and during their current sexual practices. The reasons forwarded for not using condoms were:

- not comfortable
- not satisfied when using condom during sexual intercourse

- they don't think of it to be necessary to use it with regular sexual partner (out of marriage) and don't think condoms will prevent them from HIV because it slips or break during sexual intercourse.

What does sex means to you?

They explained that if sexual intercourse is done safely, it will strengthen love and affection bond between two sexual partners. It is something that one gives himself / herself to his/her partner to explain how much they love each other. It was explained that sex may not mean anything more than a physical exercise if done with commercial or non regular sexual partner.

6.3- Individual predisposing risk factors

Educational background

Among the 138 study participants educated below sixth grade, 50 (36.2%) reported that they had sexual intercourse at least once with a non-regular sexual partner in the past 12 months while from 156 study participants educated above 9th grade only 34 (21.8%) had sex with non-regular sexual partner in the past 12 months.

After logistic regression with other possible confounding variables, a statistically significant association was observed between youth education level and their sexual behavior. Out of school youth educated below 6th grade (junior school) were found to be more than two times at risk of having sex either with a non-regular sexual partner or to exchange sex for money (money for sex) than youth who reported to be educated above 9th grade [OR = 2.35 95% CI 1.29 – 4.29].

Consistent condom use

From the total 111 study participants who reported sexual intercourse in exchange of money or gift, 41 (37.3%) reported to use condom every time, 26 (23.6%) never use condom and the rest 35 (31.8%) used condom sometimes. On the other hand among 174 study participants who reported to have sex with non-regular sexual partner in the past 12 months, 63 (36.8%) reported to use condom every time, 48 (28.1%) never used condom and 52 (30.4%) used condom some times.

Alcohol intake and khat chewing pattern

From the 624 study participants, 264 (42%) reported that they never drink any kind of alcoholic drinks, 113 (18%) drink alcohol about once in a week, 85 (13.6%) drink twice in a week and the rest 75 (12%) reported that they drink alcohol daily. A statistically significant association was observed between alcohol intake and youth sexual behavior. It was investigated that out of school youth who drunk alcohol at least once in a week were more than three times predisposed to encounter discharging ulcer on their genital tract [OR=3.93, 95% CI= 2.21 – 6.99] and about three times more predisposed to have sex either with non-regular sex partner or to have sex in exchange for money [OR= 2.78, 95% CI 1.83 – 4.23] than those who didn't. Males tended to drink alcohol at least once in a week about two times more than females do [OR=1.98, 95% CI 1.423 - 2.756] (Table 2).

When we assess the prevalence of khat chewing, 239 (38.05%) of out of school youth from the total 628 study participants reported to chew khat at least once within the last 12 months. One hundred fifty-one (63.2%) were males and 88 (36.8%) were females. From the total 239, 96 (39.5%) reported that chewing khat increases their sexual desire, 107 (44%) reported that

chewing khat didn't increase their sexual desire but the rest 34 (14%) responded that they hadn't ever recognized the effect of khat on their sexual desire.

Adjusting for possible confounding socio-demographic variables it was found that those who chew khat were about five times more predisposed to have sex either with non-regular sexual partner or with commercial sex partner than those who didn't [OR= 4.98 95% CI=3.27 – 7.58]. Males were found to chew khat about two times more than females [OR= 2.15 95% CI 1.54 – 2.99] (Table 3).

A significant association was observed between frequency of khat chewing and frequency of alcohol intake. It was found that those who chew khat were more likely, about seven times, to drink alcohol than those who didn't [OR=7.15, 95% CI= 4.96 – 10.29].

Among the total 60 out of school youth who reported history of discharging ulcer on their genital tract in the past 12 months, 50 (83.3%) reported that they chewed khat at least once in the past 12 months. According to these statistics khat chewers were about eight times [OR= 8.1, 95% CI 4.2 -16] at risk for sexually transmitted diseases than non-chewers.

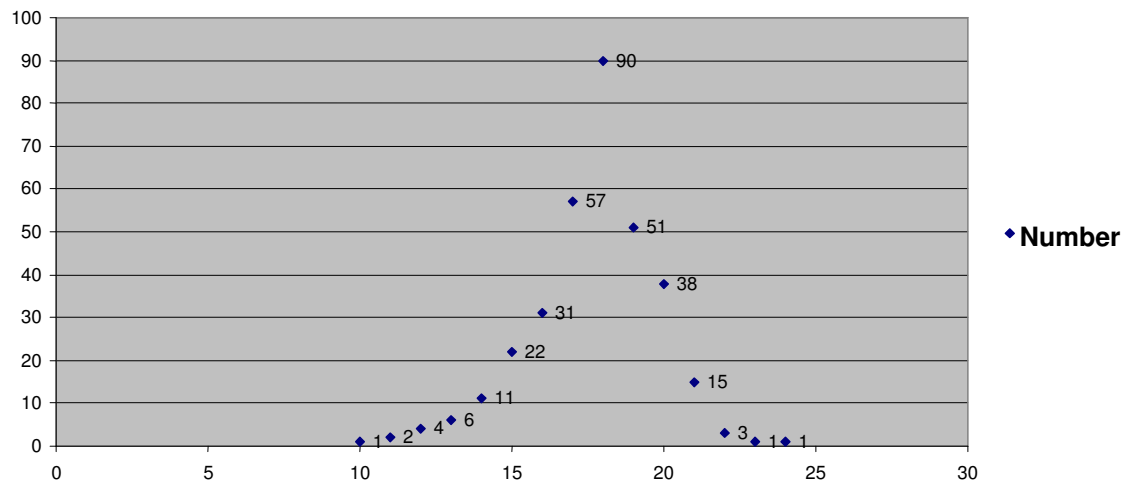
Table 2: Regression table of both khat chewing and alcohol intake pattern with sexual practices of out of school youth, Bahir Dar Dec. 2003

	Chew khat		Drink alcohol	
	OR	95% CI	OR	95% CI
Ever had sexual intercourse				
No	1		1	
Yes	5.43	3.35 – 8.80	3.3	1.82 – 5.99
Exchange sex for money				
No	1		1	
Yes	5.99	3.5 – 10.26	2.29	1.39 – 3.72
Had sex with non-regular sex partner				
No	1		1	
Yes	6.28	2.9 – 13.5	2.77	1.47 – 5.22
Encountered ulcer on the genitalia				
No	1		1	
Yes	3.75	2.43 – 5.79	3.91	2.50 – 6.12

Age at first sexual commencement and number of sexual partners

Among the total sexually active study participants who responded, the mean, median and modal ages at first sexual commencement were found to be 17.67($\pm$ 2.06), 18 and 18 years of age respectively. There was one individual who reported first sexual intercourse at an early age of 10 years and the maximum age was 24 years. About 65 (10.35%) of youth reported that they didn't remember their age at first sexual commencement and among the 403 study participants who have ever had sex 90 (22.3%) started sexual intercourse earlier than 18 years of age. A normal curve has been presented below showing the study participants' age at first sexual intercourse [fig. 4].

Figure 4: Age during first sexual intercourse among out of school youth in Bahir Dar town, Dec. 2004



Age at first sexual commencement in years

Study participants were also asked when they think most youth start sexual intercourse and the majority of study participants, 480 (77.8%) responded that most young people in Bahir Dar town start sex when they attend high school education. This data show that the majority of young people start sexual intercourse at an earlier age, before 18 years, by which most young people reach this age when they complete 12th grade education.

From the 356 study participants who reported to have sexual partner, 263 youth reported to have only one sexual partner, 43 (11.6%) reported to have two sexual partners and the rest 53 (14.3%) reported more than two sexual partners. This data show that from the total study participants, 96 (15.2%) had more than one sexual partner in the past 6 months.

Majority of youth, 216 (59.2%) from the total 356 youth who reported to have regular sexual partner responded that they discuss sexuality issues openly with their sexual partners. Among the total 96 study participants who reported to have more than one sexual partner, 60 (65.2%) didn't discuss sexuality issues openly with their sexual partners. Out of school youth who reported that they didn't have open discussion on sexuality issues with their sexual partner were more than four times likely to have more than one sexual partner than those who discuss [OR=4.7 and 95% CI 2.82 – 7.80].

Sexually Transmitted Infections (STIs)

Among 622 study participants, 599 (95.7%) reported to have ever heard about sexually transmitted diseases. It was found that 60 (9.6%) of the study participants reported history of discharging ulcer on their genitalia at least once in the past 12 months being that they were sexually active. Among these 60, 33 (55%) were males and the rest 27 (45%) were females. From those who reported ulcerative discharge on their genital tract in the past 12 months, 28 (46.6%) of youth took treatment after a month time and the rest 23 (38.3%) and 5(8.3%) sought treatment for their sickness after a week but within a months time period and within less than one weeks time respectively. This data show that majority of youth didn't took treatment for their illness as soon as possible.

Table 3 - Multiple logistic regression table on individual predisposing risk factors with risky sexual behavior among out of school youth, Bahir Dar, Dec. 2003.

<i>Have sex either with non-regular sexual partner or exchanged sex for money</i>					
Variables	Yes (%)	No (%)	Total	Crude OR, 95% CI	Adjusted OR, 95% CI
Sex					
Female	74 (24.3)	230 (75.7)	304	1	1
Male	130 (40.1)	194 (59.9)	324	2.083 [1.47 – 2.93]	1.78 [1.16 – 2.734]
Age(years)					
15 – 19	61 (26.4)	170 (73.6)	231	1	1
20 - 24	143 (36)	254 (64)	397	1.57 [1.10 – 2.25]	1.35 [0.87 – 2.09]
Education					
>9 th grade	41 (25.9)	117 (74.1)	158	1	1
7 th – 8 th	105 (31.9)	224 (68.1)	329	1.96 [1.2 – 3.19]	1.26 [0.76 – 2.10]
<6 th grade	57 (40.7)	84 (59.3)	141	1.33 [0.87 – 2.04]	2.35 [1.29 – 4.29]
Chew khat*					
No	61 (15.9)	322 (84.1)	239	1	1
Yes	143 (59.8)	96 (40.2)	383	7.86 [5.39 – 11.45]	4.98 [3.27 – 7.58]
Drink* alcohol					
No	98 (21.5)	358 (78.5)	456	1	1
Yes	104 (65)	56 (35)	160	5.60 [3.88 – 8.06]	2.78 [1.83 – 4.23]

* As some youth didn't want to respond to some of the issues totals may vary

Result from focus group discussions and in-depth interviews conducted on individual risk behaviors among out of school youth

Prevalence of risky behaviors among out of school youth

It was discussed that most youth start sexual intercourse during their high school education. It is expected that the majority of youth who attend pre-university school education be below 18 years of age. Participants mentioned that females start sex at an earlier age than males. It was discussed that it is becoming common, especially for males, to have more than one sexual partner from different “kebeles” in the town. It was explained that there are still some females

who have more than one regular sexual partner as a source of income. Other wise, it was reported not to be common for a female to have more than one sexual partner compared to males. Study participants blamed the advocacy of condom use as a reason for youth to have multiple sexual partners and encouraged them to have sex in exchange of money. It was reported that nowadays most youth prefer to have sex with different sexual partners using condom than being faithful to a single sexual partner or to abstain. It was mentioned that usually youth prefer to use condom when they have sex with commercial or non-regular sexual partner.

All focus group discussion and in-depth interview participants agreed that the key predisposing risk factor putting out of school youth at increased risk of HIV/AIDS in Bahir Dar town was the ever increasing number of “khat bet” and youth preference to visit these places more regularly than others. After chewing khat, most youth tend to visit “tella bet” and “tseraye bet” to drink local alcoholic drinks. It was reported that there is a trend called “mesberia” or “chebsie” after chewing khat to avoid the problem of sleep disturbance (insomnia) and to decrease the anxiety produced due to the effect of khat. To do this, most youth either drink alcohol or have sexual intercourse soon after. It was also reported that everything which is talked in these “khat bet” is about sex and there are females who are dressed with types of clothes which show their body parts meant to increase youth sexual desire.

“I have many peers who chew khat and their reason for doing this is that because they want to forget what ever problem they encounter like stress and tension arising from hopeless situations due to lack of job...” (A male participant expressed)

All participants agreed that there was no significant decreasing tendency in youth risk taking behavior and most agreed that the reason for this was the ever increasing number of jobless youth over time creating a situation of hopelessness and ignorance.

6.4- Family and peer factors

Parent education level

From the total 628 out of school youth, 170 (27%) reported that their mothers didn't read and write and 133 (21.3%) were able to read and write. On the other hand majority of fathers, 165 (26.6%) were reported to be educated above grade 12. Regression of both mothers' education level and fathers' educational background with unmarried youth sexual behavior show that, as fathers' education level decreases out of school youth behavior to have sex in exchange of money or to have sexual intercourse with non-regular sexual partner increases. But adjusting with other possible confounding variables this was not found to be statistically significant.

Family attitude on unmarried out of school youth sexual practices

Among the total 486 unmarried out of school youth who live with their families, 336 (69.5%) reported that they didn't discuss sexuality issues openly with their parents (family) and the rest 150 (30.9%) reported that their families are open to discuss sexuality issues with them. A statistically significant association was observed between parental monitoring (support) by parents and unmarried out of school youth sexual practices. Youth who reported not to be monitored (supported) and who didn't discuss sexuality issues with their parents were about two

times more likely to have sex either with non-regular sex partner or to have sex in exchange for money (gift) than the others [Table 4].

Peer factors

Two hundred fifty-nine (41.2%) of the respondents reported that they knew their peers were sexually active. In addition to this 153 (24.3%) of the study participants reported that their peers chew khat, drink alcohol and use other addictive substances. A statistically significant association was observed between peers sexual behavior and unmarried out of school youth sexual experience. Unmarried out of school youth whose peers were found to be sexually active were about three times more prone to have sex with non-regular sex partner or to exchange sex for money or money for sex than those whose peers were not sexually active [Table 4].

Table 4- Multiple logistic regression table with family factors and risky sexual behavior among unmarried out of school youth in Bahir Dar town, Dec. 2003.

<i>Have sex either with non-regular sexual partner or exchanged sex for money</i>					
Variable	Yes (%)	No (%)	Total	Crude OR[95%CI]	Adjusted OR[95%CI]
Sex					
Female	40 (19.4)	166 (80.6)	280	1	1
Male	105 (37.5)	175 (62.5)	206	2.49 [1.63 – 3.79]	1.95 [1.105– 3.46]
Age (years)					
14 – 19	43 (21.1)	161 (78.9)	204	1	1
20 – 24	102 (36.2)	180 (63.8)	282	2.12 [1.40 – 3.21]	2.11 [1.17 – 3.80]
Education*					
>9 th	34 (27.2)	91 (72.8)	125	1	1
7 th – 8 th	82 (30.9)	183 (69.1)	265	1.11 [0.61 – 2.02]	2.61 [1.04 – 6.51]
<6 th	28 (29.5)	67 (70.5)	95	1.19 [0.74 – 1.92]	2.17[1.04 – 4.51]
DSF*					
Yes	24 (16%)	126 (84)	150	1	1
No	204 (63.8)	116 (36.5)	320	2.98 [1.82 – 4.88]	1.95 [0.99 – 3.84]
FCRB*					
Yes	67 (22.3)	233 (77.7)	300	1	1
No	71 (43.6)	92 (56.4)	163	2.68 [1.77 – 4.05]	2.39 [1.33 – 4.27]
PSA*					
No	25 (19.5)	103 (80.5)	128	1	1
Yes	92 (47.4)	102 (52.6)	194	3.71 [2.20 – 6.25]	2.68 [1.14 – 5.08]
Mothers’* Education					
> 9 th	18 (26.9)	49 (73.1)	67	1	1
7 th – 8 th	15 (21.1)	56 (78.9)	71	1.28 [0.71 – 2.3]	0.52 [0.19 – 1.42]
<6 th	108 (32)	229 (68)	337	0.72 [0.33 – 1.59]	1.103[0.38 – 3.17]
Fathers’* education (grades)					
>9 th	55 (23.5)	179 (76.5)	234	1	1
7 th – 8 th	19 (39.6)	29 (60.4)	48	1.73 [1.14 – 2.64]	1.49 [0.75 – 2.93]
<6 th	70 (34.8)	131 (65.2)	201	2.13 [1.11 – 4.09]	2.48 [0.98 – 6.28]

DSF - Discuss sexuality issues with family

FCRB – Family control their children from risky behavior

PSA- Peers are sexually active

* Totals vary due to non-responses

Focus group discussion and in-depth interview findings on family and peer factors

Open discussion on sexuality

All discussants without exception claimed that parents didn't discuss sexuality issues openly with their children. Except few educated families majority think that it is not good to discuss sexuality issues openly with family members. Some of the reasons forwarded by the participants why parents didn't want to discuss these issues openly were: -

- It is considered as a taboo topic and culturally unacceptable
- Parents consider it as remembering their children about sex and they fear that it will induce early sexual practices
- It is considered as religiously unacceptable
- Presence of large gap between children and parents where children were considered wrong when they try to discuss equally with their parents about any topic
- Lower educational back ground of parents
- A bad trend by which children were always considered wrong and punished rather than being discussed openly

Some of the participants who were young expressed that their current risky sexual behaviors would have been changed if their families had informed them every thing openly like what sex means, when to be done, with whom to do it, how to do it etc.

All participants discouraged strict supervision and punishment by adult family heads to protect youth from risky sexual behavior. It was addressed that this will not have any effect in shaping youth sexual behavior rather it may lead youth to try the matter they have been denied as revenge

to their parents act. This was reported to be important but be done with fair discussion and communication.

All participants pointed out that parents' involvement in shaping their children sexual behavior and in preventing HIV/AIDS was so poor.

“Our parents need to be blamed, because they haven’t ever saved us from our fire age...”

(A young participant explained)

Peer pressure was also motioned as an important predisposing factor that induces youth to risky sexual practices.

6.5- Institutional Factors

Connectedness to religion

Majority of study participants, 423 (68%) reported that they visit churches, mosques or other religious organizations. These data show a statistically significant association between connectedness to religious organizations and youth sexual practice. Out of school youth who visit religious organizations occasionally were found to be more predisposed to have sexual intercourse with non-regular sex partner or to have sex in exchange for money or gift than those who visit these places at least once in a week [OR=1.73, 95% CI 1.04 – 2.90].

Participation in anti-AIDS clubs

Among the 109 unmarried out of school youth who reported to participate in anti-AIDS clubs with membership, 51 (46.8%) were found to have ever had sexual intercourse. It was tried to assess the effect of these anti-AIDS clubs in protecting youth from risky sexual practices but their association was not found to be statistically significant.

Connectedness to libraries

This data show a statistically significant association that out of school youth who didn't visit libraries were about two [OR= 1.77, 95% CI 1.02 – 3.05] times more predisposed to have sex with either a non-regular sexual partner or with commercial sex partner and also more predisposed to chew khat or drink alcohol [OR= 1.95 95% CI 1.01 – 3.75] than those who reported to visit these places regularly. On the other hand among the total interviewed, 451 (74.1%) of out of school youth reported that there were no adequate libraries (information centers) and other safe leisure places or youth programs in the town to pass their leisure time and which may help them to get recent and accurate information on sexuality issues.

Table 5: Institutional predisposing risk factors among out of school youth in Bahir Dar town, Dec.2003.

Variable	Number	Percentage
Visit churches or mosques regularly		
Yes	423	67.3%
No	189	30.%
Didn't want to respond	16	2.5%
Frequency of visit to churches or mosques		
Every day	102	16.2%
Every week	149	23.7%
Every month	32	5%
Occasionally	158	25.1%
Didn't visit	187	29.7%
Know any anti-AIDS club found in their locality		
Yes	522	83.1%
No	88	14.01%
Didn't want to respond	18	2.8%
Participate in anti-AIDS clubs with membership		
Yes	129	20.5%
No	468	747.5%
Didn't want to respond	31	4.9%
Believes that anti-AIDS clubs have good impact in preventing HIV/AIDS		
Yes	439	69.9%
No	116	18.47%
Didn't want to respond	73	11.6%
Know the presence of libraries (information center) in their locality		
Yes	508	80.8%
No	101	16%
Didn't want to respond	19	3.1%
Visit libraries regularly		
Yes	213	33.9%
No	359	57%
Didn't want to respond	56	8.9%
Presence of adequate place to pass extra time		
Yes	131	20.8%
No	451	71.8%
Didn't want to respond	46	7.3%
Visit illegal sexy video shows found in the town		
Yes	132	21%
No	473	75.3%
Didn't want to respond	23	3.6%

A statistically significant association was observed between visiting sexy video shows and youth risky behaviors. Out of school youth who visit sexy video shows were found about four [OR= 4.46, 95% CI 2.22 – 8.92] and five times [OR= 5.02, 95% CI 2.59 – 9.73] more at risk of having sex with non-regular sexual partner or with commercial sex partner and to chew khat respectively (Table 6).

Even though 486 (78.9%) of the respondents knew at least one place where HIV testing services is being provided, 421 (68.2%) reported that they were not volunteering to be screened for HIV. Those who haven't ever started sexual intercourse were more likely to volunteer for HIV test than the sexually active groups [OR= 4.42, 95% CI = 2.81 – 6.95]. Out of school youth who had sex either with commercial sex partner or with non-regular sexual partner were more than two times more likely not to be tested than those who didn't (Table 6).

In addition to this majority, 425 (68.9%) of youth complained that there were poor health education services in the town on sexuality issues including HIV/AIDS meant to bring about behavioral change among youth.

Table 6- Multiple logistic regression model on risky sexual practice with institutional predisposing risk factors in Bahir Dar town, Dec. 2003

Have sex either with non-regular sex partner or exchanged sex for money

Variable			Total	Crude Odds ratio		Adjusted Odds ratio	
	Yes (%)	No (%)		OR	95% CI	OR	95% CI
Sex							
Female	74 (24.3)	230 (75.7)	304	1		1	
Male	130 (40.1)	194 (39.9)	324	2.08	1.47– 2.93	1.78	1.06 – 2.98
Age(years)							
15 – 19	61 (26.4)	170 (73.6)	231	1		1	
20 – 224	143 (36)	254 (64)	397	1.57	1.10 – 2.25	1.60	0.92 – 2.77
VRS*							
Once a week	49 (19.5)	202 (80.5)	251	1		1	
Occasionally	155 (41.1)	222 (58.9)	377	2.29	1.49 – 3.53	1.73	1.04 – 2.90
Visit libraries							
Yes	47 (22.1)	166 (77.9)	213	1		1	
No	130 (36.2)	229 (63.8)	359	2.00	1.35 – 2.95	1.77	1.02 – 3.05
PAC*							
Yes	41 (31.8)	88 (68.2)	129	1		1	
No	154 (33)	313 (67)	467	1.05	0.69 – 1.00	0.77	0.42 – 1.40
VHT*							
Yes	95 (22.6)	326 (77.4)	421	1		1	
No	101 (55.8)	80 (44.2)	181	4.33	2.98 – 6.28	2.56	1.42 – 4.62
VSV*							
No	118 (24.9)	355 (75.1)	473	1		1	
Yes	80 (60.6)	52 (39.4)	132	4.62	3.08 - 6.93	4.46	2.22 – 8.92

VRS – Visit religious sites regularly

PAC – Participate in anti- AIDS clubs with membership

VHT – Voluntary to have HIV test

VSV – Visit sexy video shows

* Totals vary due to non-responses

Result from focus group discussions and in-depth interviews conducted on institutional factors

Presence of leisure places and youth programs to pass leisure time

All participants agreed that there were no adequate and attractive places in the town for out of school youth to pass their ample leisure time safely. Despite this, even though there were some places, they were not being utilized by majority of youth. Some of the reasons forwarded why youth didn't visit these places were:

1. These places are costly and not attractive
2. These lakeside cafeterias didn't have other extra programs like film shows and current music which will hold youth mind for prolonged period of time
3. Poor advocacy work by responsible organizations and parents in introducing and encouraging youth to use these places.

Where do most youth go to pass their leisure time?

All participants without exception reported that the primary places usually preferred by most youth especially by males were "khat bet" followed by "tella bet." Even though it was reported that some females also visit "khat bet," most out of school female youth will be forced to stay at home unless they have male partner. It was stressfully mentioned that sport activities were almost non-existent in the town. This has been reported as a factor that leads most youth to shift their mind to "khat bet" and "tella bet".

Visit to libraries

It was reported that there were two public libraries in the town and it is expected to go to these places if he/she is a student. This is because as these two libraries were not adequate, it will be overcrowded by students and even during exam periods it is expected to show students identification card to get in to these libraries. It was also reported that there were no adequate and comfortable information center so that youth will get recent information on sexuality and HIV/AIDS.

Anti- AIDS clubs

Study participants reported that anti-AIDS clubs do have positive effect in changing youth sexual behavior and in preventing HIV/AIDS but it was reported that these clubs were not functioning in a way as expected. Majority of the participants mentioned that at this stage even though there are anti-AIDS clubs in each “kebele” they didn’t have significant effect in preventing HIV/AIDS. Some of the reasons forwarded for this were:

1. They were poorly organized and weekly coordinated by responsible organizations
2. Almost all anti-AIDS clubs found in the town have no any kind of financial support from any source. They facilitate their activities collecting money from their club members
3. The community sees these clubs negatively due to poor behavioral change among club members and parents were not voluntary to send their children to these places
4. They didn’t have responsible leaders and there were no any higher body that control their activity
5. Weak commitment by club members due to poor support from governmental and non-governmental organizations.

Sexual health services

Majority of the study participants expressed that governmental health institutions were not comfortable for getting sexual health services. They appreciated services provided by non-governmental health institutions especially by Family Guidance Association of Ethiopia and Marie-stopes and they recommended expanding these services to other “kebeles” also.

Role of Media in disseminating information meant to prevent HIV/AIDS

All participants explained that information passed by media were poor in quality and not adequate. They expressed that the way most messages passed were not attractive and each message was not stratified with age and the same kind of message was passed to every segment of the community.

“Most of the time we hear about conferences arranged in large hotels. These conferences may not have any kind of meaning to the majority. They will bring to us interviews and conferences. This will make the program disinteresting and due to this most people close their TV/radio when they see the topic HIV ...” (A female participant explained)

It was recommended that using role-plays and dramas were better to reach majority of the population.

6.6- Economic factors

Among the 622 study participants, 386 (63%) reported that they didn't have either permanent or temporary job and as they were not engaged in any kind of formal education these young people have no any thing to do. Five hundred fifty one (90%) youth claimed that there were no adequate employment opportunities meant for out of school youth in the town. In addition to this, 261 (42.4%) youth leveled their family economical status as not good and not bad but fair and the rest 120 (19.5%) poor, 132 (21.4%) good, and 52 (5.4%) participants reported that their families' living standard was very poor.

Number of income earners in each youth family was assessed and 219 (35.5%) reported two income earners in their house, 168 (27.2%) reported only one income earner, 103 (16.7%) reported three income earners and the rest 52 (8.4%) youth reported that there was not any income earner in their family. Among the total 227 youth who reported one and below one income earner in their family, 55 (25.3%) reported to have sex in exchange for money or gift. On the other hand among a total of 377 youth who reported two and more number of income earners in their family, only 47 (12.5%) reported that they had sexual intercourse in exchange of money or gift in the past 12 months. This data show that low number of income earner in youth's family is significantly associated with youth sexual behavior to have sex in exchange of money or gift [OR=1.82 and 95% CI 1.02 - 3.21].

In addition to this, out of school youth who reported one and lower number of income earner in their family were found to be predisposed to symptoms of STIs than those youth who reported two and more number of income earners in their families [OR=3.26, 95% CI 1.83 - 5.81].

A statistically significant association was also observed between number of income earners in youth's family and pattern of khat chewing behavior. This data show that out of school youth who reported only one and below one number of income earners in their family were found more likely to chew khat or drink alcohol which may be a sign of hopelessness [OR=1.72, 95% CI= 1.10 - 2.69]. Youth who didn't have any temporary or permanent job were more than three times more prone to chew khat or drink alcohol than those who have job [OR= 3.35 95% CI 2.13 – 5.26] (Table 7).

Out of school youth who leveled their families living condition to be “fair” were less likely to have sex in exchange of money than those youth who leveled their living condition as “poor” [Table 7].

Table 7- Multiple logistic regression model on risky sexual behavior with socio-economic predisposing risk factors in Bahir Dar town, Dec.2003.

<i>Exchanged sex for money or money for sex</i>								
Variables	Yes (%)	No (%)	Total	Crude Odds ratio		Adjusted Odds ratio		
				OR	95% CI	OR	95% CI	
Sex								
Female	40 (22.3)	259 (86.6)	299	1		1		
Male	72 (22.3)	251 (77.7)	323	2.39	1.41 – 4.05	1.85	1.21 – 2.83	
Age(years)								
15 – 19	32 (14)	197 (86)	229	1		1		
20 – 24	80 (20.4)	313 (79.6)	393	2.03	1.16 – 3.54	1.57	1.00 – 2.46	
NIE*								
Two and above	55 (25.3)	162 (74.7)	217	1		1		
One and below	47 (12.5)	330 (87.5)	377	2.38	1.54 – 3.67	1.82	1.02 – 3.21	
MIF*								
<500	57 (22)	202 (78)	259	1		1		
500 – 1500	33 (21.8)	236 (86.8)	235	0.70	0.30 – 1.37	0.57	0.39 - 0.83	
>1500	3 (8.6)	32 (91.4)	35	0.54	0.13 – 2.13	0.53	0.24 – 1.18	
FEC*								
Poor	48 (28.4)	121 (71.6)	69	1		1		
Fair	31 (12)	228 (88)	259	0.50	0.26 - 0.95	0.34	0.20 - 0.56	
Good	22 (13.3)	143 (86.7)	165	0.81	0.35 – 1.85	0.38	0.22 - 0.67	
HTPJ*								
Yes	36 (16.5)	182 (83.5)	218	1		1		
No	68 (17.8)	315 (82.2)	383	1.22	0.72 – 2.08	1.09	0.70 1.700	

NIE: number of income earners in youth family

MIF: monthly income of the family

FEC: family economic condition

HTPJ: have temporary or permanent job

* Totals vary due to non-responses

Result from focus group discussions and in-depth interviews conducted on economic and cultural factors predisposing out of school youth to HIV/AIDS

All study participants in the focus group discussions and in-depth interviews agreed that the major and key factor predisposing out of school youth to HIV/AIDS in Bahir Dar town is poverty and an ever increasing number of unemployed out of youth over time.

“I heard a shocking event that in this town as there are many construction works if females want to be employed there as a day laborer, they must be voluntary to have sex with different builders working with them. If they were not voluntary to do this, they will be terminated from their work with different false reasons. In addition to this, most of STI cases visiting the health center are construction workers....” (A participant expressed)

“There is a say that “war is better than hunger.” I was a prostitute and now I became old and two of my female children are starting prostitution very recently. Even though I love them what else can I do?”(A female elderly expressed)

All participants agreed that the main problem fueling the HIV/AIDS epidemic in Bahir Dar town is the increasing problem of unemployment. They explained that there was no adequate employment opportunity created to involve majority of out of school youth found in the town and the condition is being aggravated due to migration of rural people to the town searching for job and weak commitment by responsible organizations in creating employment opportunities.

“The number of jobless youth is increasing from time to time. Most youth do not have any direction in their life and are not voluntary to hear you when you talk to them to protect themselves from HIV. For these people the slogan “Value your life” doesn’t give them sense. Because you will care for yourself if tomorrow is hopeful and attractive. If you are poor and if the future seems gloomy you will be hopeless, you will not be worried about living tomorrow...”
(A male participant expressed)

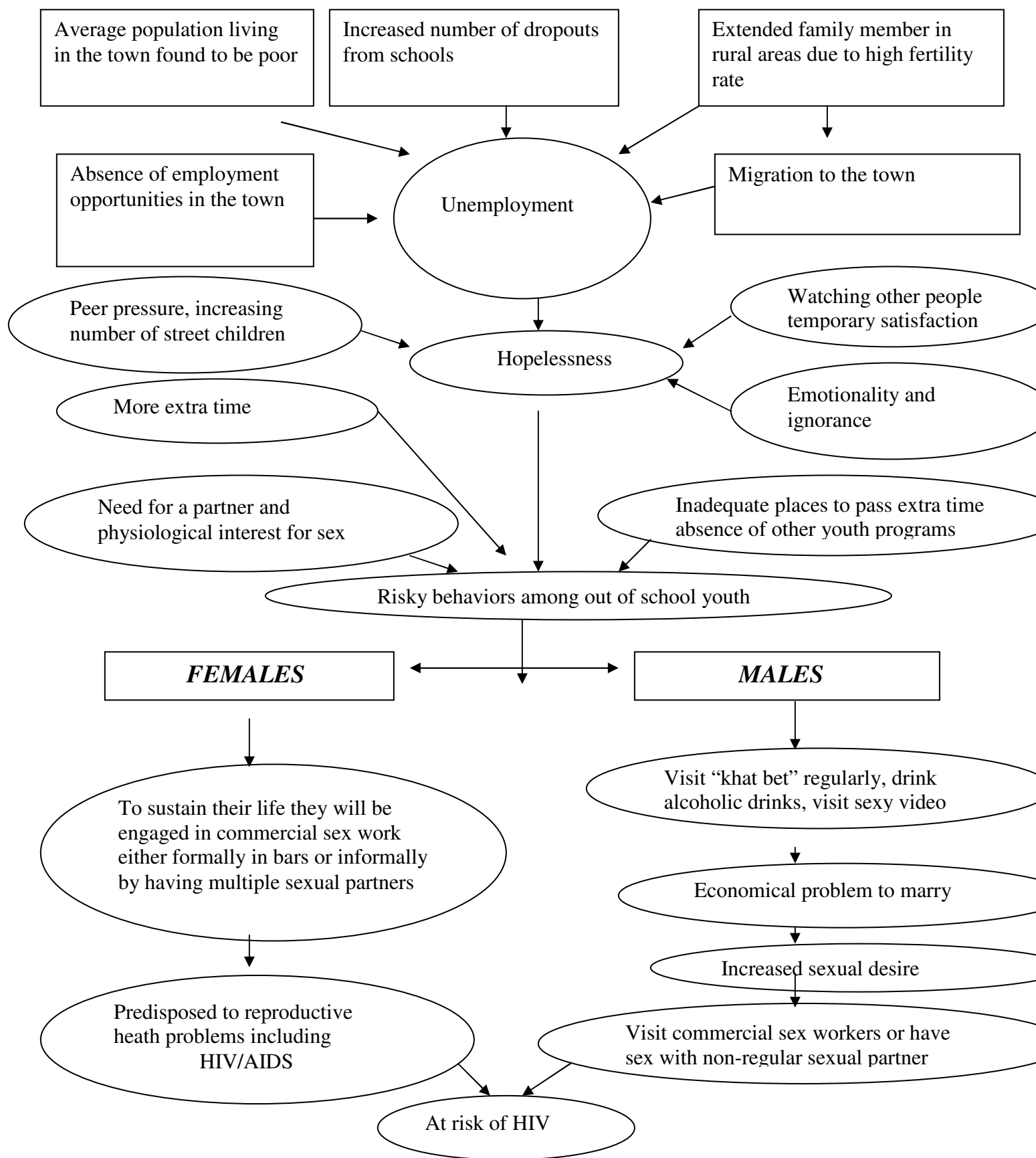
A male elderly participant expressed his feeling as follows:

“We elderly people love our life. We want to live more and more despite we are old. But today’s young people don’t love their life and most of them want to die because their futurity is gloomy due to inadequate employment opportunities...”

It was reported that as majority of out of school youth have no job they are hopeless and have ample extra time so they will enforce their parents to give them some money and visit “khat bet” and “tella bet” which will predispose them to risky sexual practices.

The qualitative study finding on the effect of individual, institutional, family, peer and economic predisposing risk factors in leading out of school youth to risky sexual practices and to HIV/AIDS was summarized with a framework as follows:

Figure 5- Framework from qualitative data findings on predisposing risk factors



6. Discussion

From this study it was found that among the unmarried out of school youth, 49.6% have already started sexual intercourse. Among the 157 youth who were within the age range of 15 up to 18 years, sixty-three (40.1%) had had sexual intercourse in the past 12 months. About 47% of youth were not married and didn't have regular sexual partner, but 64.2% of out of school youth have already started sexual intercourse. From the total 628 study participants, 204 had had sexual intercourse either with non-regular sexual partner or exchanged sex for money (especially for females) or money for sex (especially for males) at least once in the past 12 months before the study. This will give a 34% prevalence of risky sexual practice among out of school youth. Among the 174 respondents who had sex with non-regular sexual partner, 76 (44.5%) never used condom or used it sometimes. Among the 111 respondents who exchanged sex for money, 53 (48.1%) never used condom or used it sometimes. This indicates that a significant number of out of school youth didn't use condom consistently. From the total study participants 15.2% reported more than one sexual partner and 9.6% reported history of ulcerative discharge on the genital tract in the past 12 months.

Lower educational background, chewing khat and alcohol intake were found to be significant predisposing risk factors which put youth at risk of having sex either with non-regular sexual partner or to have sex in exchange of money. On the other hand absence of parental monitoring in shaping youth sexual behavior and peers behavior to be sexually active were found to be associated with youth risky sexual practices. Weak connectedness to religion, less tendency to visit libraries and youth preference to visit sexy video shows were also found to predispose youth to have sex either with non-regular sexual partners or exchanged sex for money (money for sex).

Economic factors; one or lower number of income earner in the family and youth who leveled their living condition “ poor” were more predisposed to have sex in exchange of money (money in exchange for sex).

The key predisposing risk factor that was reported as a reason why youth were not showing the desired behavioral change was the ever-increasing problem of unemployment. This was reported to create a sense of hopelessness and lead youth to chew khat and drink alcohol to pass their ample leisure time. After these youth will loss their ego control and be predisposed to risky sexual practices. Families were blamed for their poor involvement in shaping their children sexual behavior and for their deficiency in providing accurate sexual health information. Absence of attractive and adequate leisure places and youth programs were reported to be other predisposing risk factors.

These findings were almost similar to other studies conducted among out of school youth. In Bahir Dar it was detected that 59.3% of the study participants had ever had sex and in Dera “woreda” 64.6% [41, 32]. The finding was found to be a little beat higher than the studies conducted in Awassa, Addis Ababa, Eastern Gojjam, Duptie town of Afara and Behavioral Survey Surveillance (BSS) which detected that 49.3%, 51.4%, 45% 49.2% and 49% of out of school youth reported that they have already started sexual intercourse [36, 38, 37, 33, 44]. According to this study majority of youth have already started sexual intercourse and possess some risk for HIV infection than those who hadn’t ever had sexual intercourse.

The mean age at first sexual commencement detected by this study was 17.67 ± 2.06 years which was almost similar to the studies conducted in Bahir Dar, Awassa, Addis Ababa, Dupitie and Dera which detected mean ages at first sexual commencement of; 16 ± 0.9 , 17 ± 2 , 17.7 ± 2.3 , and 16 years respectively [41, 36, 38, 37, 33]. But this age was higher than age reported from Eastern Gojjam, which was 13.6 ± 2.7 year [37]. This finding indicates that a significant percentage (14.3%) of out of school youth start sexual intercourse before the age of 18 years, which is a risk factor for HIV transmission and other reproductive health problems before they mature well. A study conducted in Nigeria, a country which is found to be highly affected by HIV/AIDS, it was reported that 44% of the study participants were sexually active before 18 years of age and 80% were active before the age of 20 years [45]. According to a qualitative study done in Uganda also among out of school youth 15 – 24 years of age, it was found that adolescents were often sexually active from a young age; out of school youth experience strong financial pressures that impact their health particularly through commercialization of sexual activity [46].

Only 37.3% and 36.8% of out of school youth reported that they used condom every time when they have sexual intercourse with commercial sex partner and with non-regular sexual partner respectively. This finding indicates that majority of out of school youth were at increased risk of HIV/AIDS because they were not using condom consistently or they were not abstaining from sex. This percentage is found to be higher than the 22.3% regular condom use rate detected in Bahir Dar town before nine years and from other studies [41, 37]. This may be the effect of intervention activities in educating and negotiating people to use condoms consistently. But it is still lower than other findings [38, 36, and 38]. A very serious issue to be considered is that, a significant percentage, 23.6% and 28.1% of out of school youth reported that they haven't ever

used condom at least once when having sex with commercial sex partner and with non-regular sexual partner in the past 12 months respectively. This needs to be considered so that we can decrease this number to the possible minimum.

It was found that to be within the age range 19 – 21 years, educational back ground below 6th grade education, alcohol intake and khat chewing were significantly associated with youth sexual behavior to have sex with non-regular sex partner or to have sex in exchange of money or gift in the past 12 months. This finding is almost similar to the study conducted before two years in Addis Ababa which showed that age above 25 years, ever used hard drugs and ever drinking alcohol and khat chewing were positively and significantly associated with HIV sero- positivity [22].

In Mozambique more schooling was associated with more use of condoms. In Uganda, young women with secondary school education exhibited the most dramatic declines in HIV prevalence from 1991 to 1997. In Tanzania, youth ages 16 to 24 years who smoked and drink alcohol were four times more likely than others that age to have multiple sexual partners. In Kenya the single most important predictor of sexual activity among adolescent women was using alcohol or tobacco. Among US college students, those who had sex under the influence of alcohol or other drug were 2.5 times more likely not to have used any protection [6]. In this study also increase in educational status was significantly associated with a decrease in risky sexual practices among out of school youth.

This study showed that a number (15.2%) of out of school youth have more than one sexual partners in the past 6 months. This percentage was found to be smaller than other similar studies done in Awassa, Addis Ababa and Dera [36, 38, 32]. A study conducted by Abate S. in Addis Ababa investigated that 25.1% of out of school youth had two or more sexual partners in the past 6 months before the study which was higher than the 15.2% detected by this study. But this was found to be even higher than the study conducted in Dupitie town of Afar [38, 33].

From the total study participants, 9.6% of them reported history of ulcerative discharge on their genital tract at least once in the past 12 months. This percentage were found to be higher than the studies conducted in Awassa and Addis Ababa [36, 37] but similar to the findings from Dupitie and East Gojjam [33, 37]. In addition to this, long duration of ulcerative discharge before treatment makes the condition worse. Among the total who reported the symptom, 84.9% took treatment after one week duration time.

Peers behavior to be sexually active and families not supporting their children to have accurate information on sexuality were found to be significantly associated with youth behavior to have sexual intercourse with non-regular sexual partner or with commercial sex partner. During the qualitative study also, inability to manage peer pressure, poor involvement by parents in shaping their children sexual behavior and lack of open communication on sexuality issues were raised as important predisposing factors putting youth at risk of risky sexual practices. This was almost similar to the study conducted by Taffa N. in a rural community of Ethiopia [62].

Institutional factors were also found to be other contributing risk factors for the prevalence of risky behavior among out of school youth in the town. It was investigated that about 80% of the total study participants didn't want to participate in anti-AIDS clubs. Even though there were 128 study participants who reported to be members in anti- AIDS clubs, 27.3% and 15.7% of them reported that they had sexual intercourse with non-regular sexual partners and with commercial sex partners at least once in the past 12 months respectively. This was comparable to the study conducted in Jimma town among club and non-club member out of school youth [56]. Poor connectedness to religion and visiting sexy video shows were found significantly associated with youth behavior to have sex with non-regular sexual partner or with commercial sex partner.

From the total study participants, 68.2% reported that there were no adequate and attractive leisure places, youth programs and libraries (information centers) for youth to pass their leisure time safely. This may be the reason why most youth prefer to chew khat or drink local alcoholic drinks.

Similar finding was obtained from the qualitative study. Absence of adequate, attractive and safe places to pass extra time leading youth to pass their leisure time in khat chewing and drinking local alcoholic drinks were mentioned to contribute significantly for the increased prevalence of risky sexual practices among out of school youth in Bahir Dar town.

It was also investigated that a significant percentage (62.9%) of out of school youth didn't have any kind of permanent or temporary job. These same percentages of youth were out of school (not engaged in any formal education or other vocational trainings). This situation may lead them

to hopelessness situations and then to risky behaviors like chewing khat, drinking alcohol and other risky sexual practices. About 90% of youth reported that there was no adequate employment opportunities designed for out of school youth in the town. Majority (70.3%) of youth leveled their living condition as “fair” which may not allow them to design self-sustaining income generating activities.

It was tried to assess the effect of economical status on youth sexual behavior and presence of only one income earner or absence of any income earner in youth family was found to be significantly associated with youth behavior to have sex in exchange of money. This may be due to their hopeless situation or being taken as a means of gaining income to sustain their life. This was found to be similar to the study conducted in Ecuador which showed that sexual risk taking by adolescents was more common among families with only one income earner than in those with two or more [6].

During the focus group discussion and in-depth interviews the main point raised as the primary problem leading youth to risky sexual practices was the ever-increasing problem of unemployment from time to time. It was reported that there were many out of school youth who dropped from schools or forced to stay at home completing their school education and became hopeless about their future life. This problem was aggravated from time to time due to increasing rate of migration of rural people to the town and absence of employment opportunities created by governmental and non-governmental organizations. This was reported to be the main reason why youth were forced to visit “khat bet” and “tella bet” which may be a sign of hopelessness.

7. Strengths and limitations of the study

Some the strengths of this study were;

1. It tried to focus in a town that is highly affected by the HIV/AIDS epidemic in Ethiopia among vulnerable and productive population groups of the country.
2. It tried to assess the effect of multiple variables on youth sexual practices.
3. All “kebeles” found in the town were included in the study to obtain representative information.
4. Qualitative data were utilized to complement the survey findings.
5. Multiple logistic regression was applied to control for confounding variables.

Some of the limitations of this study were;

Total number of respondents varies because of non-responses that may arise as some study participants didn't want to respond to certain specific questions. It was tried to analyze only those who responded to the specific questions. This may introduce some bias if those who rejected to respond had some specific behavior. To compensate the effect of non-responses a 10% non-response rate was added on to the total sample size. A case control study would have been more effective to assess the predisposing risk factors than a simple descriptive cross-sectional study but it was not possible due to resource limitation and time constraint. The qualitative section of the study is expected to fill this gap. Lack of references especially on institutional and economic predisposing factors was another problem that posed a difficulty to compare the findings of this study with other similar studies.

8. Conclusion

From this study finding it can be said that out of school youth are at risk for HIV/AIDS. They are practicing multiple sexual partnerships and at the same time consistent condom use is at a low rate. Many out of school youth were practicing sexual intercourse with commercial sex partner (changing sex for money or money for sex) and with non-regular sexual partners.

A significant number of out of school youth reported to chew khat and drink alcoholic drinks. These were found to be significantly associated with risky sexual practices. These may have happened because of hopelessness, which arises from poor support from families and also from governmental and non- governmental organizations.

Families (parents) were found to be poorly involved in shaping youth sexual behavior. They didn't discuss or inform openly the right (accurate) information on issues of sexuality to their children. This will induce youth to seek information from their peers, which may lead them to risky sexual practice due to inaccurate information received from them. The community and other elderly people involve hardly in shaping youth sexual behavior. Still majority of parents think sexuality education will induce sex, but the research findings didn't support this idea. Peer pressure was also found to be another driving force that predispose youth for risky sexual practices.

It was also found that there were no adequate and attractive places and youth programs arranged for youth to pass their leisure. This has lead most youth to visit “khat bet” and “tella bet”. Libraries and information centers designed for out of school youth are almost nonexistent. Anti-

AIDS clubs were found to be poorly organized and weekly co-coordinated to facilitate their activities

It was investigated that the major problem of out of school youth was the ever-increasing problem of unemployment and poor support from families, governmental and non-governmental organizations in order to sustain their life through some income generating activities and other employment opportunities. This has led youth to be hopeless and become ignorant about the HIV/AIDS epidemic. When the future seems to hold little or no hope, the risk of unprotected sex leading to HIV/AIDS seems to be very important. Lack of regular job, lacking clear direction in life and selling excitement and pleasure through alcohol and khat chewing was found to be the main problem of these out of school youth.

9. Recommendations

1. Out of school youth are found to be at increased risky for risky sexual practices and more efforts need to be exerted to save them from being predisposed to HIV/AIDS and other sexually transmitted diseases.
2. Risk taking behaviors like alcohol intake and khat chewing are highly prevalent among out of school youth, which may put them to be increasingly predisposed to risky sexual practices. This may be a sign of hopelessness due to lack of job and absence of other safe places to pass their leisure time. Efforts need to be made to make their life hopeful and prepare safe and attractive places to pass their leisure time.
3. Parents need to be involved in the efforts made to prevent HIV/AIDS. They must be putted at the center in shaping their children sexual behavior and they must be negotiated to inform (discuss) sexuality issues openly to their children starting from early childhood periods. This will help them to manage external pressures and will not be exposed to seek sexuality information from external and inappropriate sources.
4. Media need to pass attractive, appropriate, open and complete information on sexuality issues and about HIV/AIDS. Messages passed by Medias also need to be segmented by age. Health education services need to be provided in the best way to address the interest and problems of out of school youth.
5. Efforts need to be made by responsible governmental and non-governmental organizations to prepare safe places to pass their leisure time. Establishing youth programs, sport activities, libraries and information centers in order to hold youth safely during their leisure time needs consideration. This also allows them to get accurate and recent information on adolescent sexuality and HIV/AIDS so that it will allow them to

protect themselves from HIV/AIDS and other sexually transmitted diseases. Great advocacy work need to be done by parents and other responsible organizations so that youth will be able to utilize the available lakeside cafeterias and other youth programs rather than visiting “khat bet” and “tella bet” regularly during their leisure times.

6. Reproductive health services need to be made use friendly and need to be expanded to other “kebeles” also. Youth need be encouraged to seek treatment for sexually transmitted diseases as early as possible and service providers need to distribute condoms and other contraceptives in the best possible out lets which will be suitable for youth.
7. Anti-AIDS clubs need to be well organized and need to be supported by responsible organizations so that they will be effective in protecting youth from risky sexual practices and from other risk taking behaviors.
8. HIV/AIDS prevention activities need to focus also on creating employment opportunities for youth and in alleviating poverty so that their futurity will be hopeful and they will have bright vision to protect themselves.

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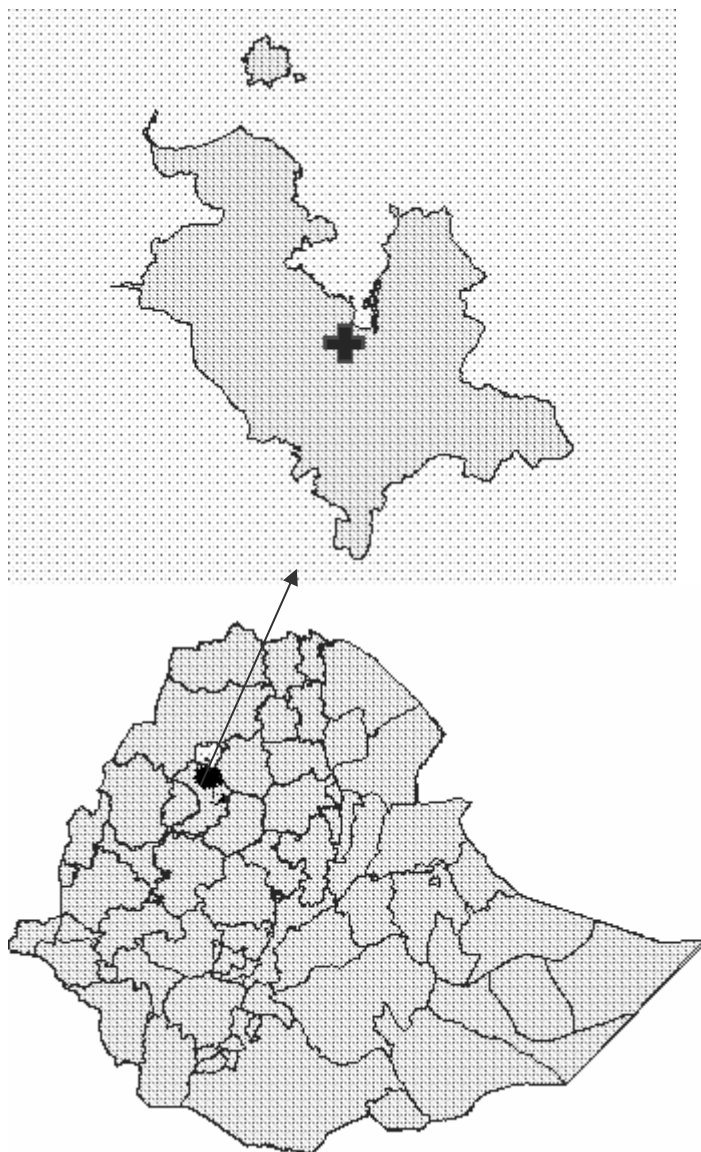
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11. Annex

Annex 1: Map of Bahir Dar town



Annex 2: Structured questionnaire

001 QUESTIONNAIRE IDENTIFICATION NUMBER |__|__|__|__|__|

002 REGION Amhara

003 Town Bahir Dar

004 SITE All kebeles found in the town

Confidentiality and consent: “I’m going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us better understand what people think, say and do about certain kinds of behaviors. The main aim of the study is to assess predisposing risk factors, which puts youth at risk of HIV/AIDS. We would greatly appreciate your help in responding to this survey. The survey will take about 20 minutes to ask the questions. Would you be willing to participate?”

If yes, proceed.

If no, thank and stop here.

(Respondent has given Signature of interviewer certifying that informed consent verbally)

Interviewer visit

	Visit 1	Visit 2	Visit 3
Date			
Interviewer			
Result			

Result codes: Completed 1; Respondent not available 2; Refused 3; partially completed 4; Other 5.

005 INTERVIEWERS’: Code [__|__] Name_____

006- SUPERVISORS’: Code [__|__] ____] Name_____ Signature _____
Date _____

007 DATE INTERVIEW: ______

N.B – Please fill on each answer sheet as follows

Time of start of interview_____

Time of end of interview_____

Section one-Back ground characteristics

<i>No</i>	<i>Question filters</i>	<i>Coding categories</i>	<i>Skip to</i>	<i>Code</i>
101	Record sex of the respondent	1-Male 2-Female		
102	How old were you at your last birthday?	Age in completed years.....		
103	What is your religion	1-Orthodox 2-Catholic 3-Muslim 4-Protestant 5-No religion Other specify..... 99-None response		
104	What is the highest level of education you completed	0-No education 1-Read and write 2-Grade 1 to 6 3-Grade 7 to 8 4-Grade 9 to 12 5-Above grade 12		
105	Are you circumcised?	1- Yes 2- No 88-Don't know 99- No response		

Section two; Marriage and live in partnership

106	Have you ever been married	1-Yes 2-No 99-No response	If no skip to Q.108	
107	How old were you when you First married	Age in years		
108	What is your current sexual relationship?	1-Married and living with spouse 2-Divorsed and living with other sexual partner 3-Divorsed and not living with spouse or any other sexual partner 4-Not married living with sexual partner 5-Not married not living with sexual partner 6-Spouse died and living alone 99-No response	Skip to Q.114	

109	If married Men; Do you have more than one wife? Women; Do your husband have other wife?	1- Yes 2- No 88- Don't know 99- No response		
110	Women Do you have an extramarital sexual relationship?	1- Yes 2- No 99- No response		
111	For unmarried Have you ever had sexual intercourse?	1- Yes 2- No 99- No response		
112	At what age did you first have sexual intercourse?	Age in years		
113	Have you had sexual intercourse in the last 12 months?	1- Yes 2- No 99- No response		

Section three; Sexual history; regular partner

114	Did you have sex with regular partner in the past 12 months?	1- Yes 2- No 88-Do not remember		
115	The last time you had sex with this regular partner, did you and your partner use condom?	1- Yes 2- No 88-Do not remember 99- No response		
116	With what frequency did you and all of your regular partner(s) use condom during the past 12 months?	1-Every time 2-Almost every time 3-Some times 4-Never 5-Don't know 6-No response		

Section four; Sexual history in exchange for money (gift)

117	Did you have sex in exchange of money (gift) or money (gift) in exchange for sex in the past 12 months?	1- Yes 2- No 88-Do not remember 99- No response		
118	The last time you had sex with a commercial partner, did you and your partner use condom?	1- Yes 2- No 88-Do not remember 99- No response		

119	With what frequency did you and all of your regular partner(s) use condom during the past 12 months?	1-Every time 2-Almost every time 3-Some times 4-Never 88-Don't know 99-No response		
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Section five; Sexual history with non-regular non-commercial partner

120	Did you have sex with non-regular, non-commercial sex partner during the last 12 months?	1- Yes 2- No 88-Do not remember 99- No response		
121	The last time you had sex with non-regular, non-commercial partner; did you and your partner use a condom?	1- Yes 2- No 88-Do not remember 99- No response	If no skip to Q.128	
122	With what frequency did you and all of your non-regular, non-commercial partner(s) use condom during the past 12 months?	1-Every time 2-Almost every time 3-Some times 4-Never 88-Don't know 99-No response		
123	For those who are sexually inactive; When do you want to start sexual intercourse?	1- After marriage 2- Before marriage 88- Don't know 99- Didn't want to respond		
124	When do you think most youth start sexual intercourse?	1-During junior school studies 2-During high school studies 3-When they stay at home completing high school studies 4-After marriage 88-Don't know 99- No response		

Section six; Sexually transmitted diseases

125	Have you ever heard of diseases that can be transmitted through sexual intercourse?	1- Yes 2- No 99- No response		
126	Have you had genital discharge during the past 12 months?	1- Yes 2- No 88-Don't know 99- No response		
127	Have you had genital ulcer/sore during the past 12 months?	1- Yes 2- No 88-Don't know 99- No response		
128	How long after first experiencing symptoms did you seek advice from a health worker in a clinic or hospital?	1-1 week or less 2-Less than 1 month but more than 1 week 3-One month or more 88-Don't remember 99- No response		
129	Did you receive a prescription for medicine?	1- Yes 2- No 88-Don't know 99- No response		

Section seven; Substance use

130	During the last 12 months, how often have you had drinks containing alcohol?	1-Every day 2-Twice a week 3-At least once a week 4-Less than once a week 5-Never 99- No response		
131	What was the type of drink you usually had?	1-Whisky 2-Beer 3-Draft 4-“Areke” 5-“Tela”		
132	Some people have tried a range of illegal (non-medical) addictive drugs. Have you tried one?	1- Yes 2- No 88-Don't know 99- No response		
133	Some people have tried injecting drugs using syringe. Have you injected drugs in the last 12 months?	1- Yes 2- No 88-Don't know 99- No response		
134	Do these drinks and drugs increase your sexual desire?	1- Yes 2- No		

		88-Don't know 99- No response		
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135	Have you tried khat chewing in the last 12 months?	1- Yes 2- No 88-Don't know 99- No response		
136	How often did you chew khat in the last 12 months?	1-Every day 2-Every two days 3-Every week 4-Every month 5-Occasionally 99-No response		

Section eight; Family conditions

137	What is the highest level of school your mother completed?	0-No education 1-Read and write 2-Grade 1 to 6 3-Grade 7 to 8 4-Grade 9 to 12 5-Above grade 12 88-I don't know 99-No response		
138	What is the highest level of school your father completed?	0-No education 1-Read and write 2-Grade 1 to 6 3-Grade 7 to 8 4-Grade 9 to 12 5-Above grade 12 88-I don't know 99-No response		
139	Do you communicate regularly with your family on issues of sexuality?	1- Yes 2- No 88-Don't know 99- No response		
140	Do your family control (support) you how you could have sexual partner?	1- Yes 2- No 88-Don't know 99- No response		
141	Do you have male or female peers?	1- Yes 2- No 88-Don't know 99- No response	If no skip to Q. 156	

142	Do your peers encourage pre-marital sexual intercourse?	1- Yes 2- No 88-Don't know 99- No response		
143	Are your peers sexually active?	1- Yes 2- No 88-Don't know 99- No response		
144	Do your peers use alcohol, chew khat or use drugs?	1- Yes 2- No 88-Don't know 99- No response		
145	Do you have sexual partner (Boy friend or Girl friend)?	1- Yes 2- No 88-Don't know 99- No response		
146	How many partners do you have?	1-One 2-Two 3-More than two 99- No response		
147	Do you communicate on issues of safe sexual relationship with your sexual partner?	1- Yes 2- No 88-Don't know 99- No response		

Section nine; Institutional factors

148	Do you go to Church or Mosque	1- Yes 2- No 88-Don't know 99- No response	If no skip to Q.160	
149	How frequent do you go to Church or Mosque?	1-Every day 2-Every week 3-Every month 4-Occasionally 99-No response		
150	Do you know any anti-AIDS associations in your locality?	1- Yes 2- No 88-Don't know 99- No response	If no skip to Q.163	
151	Do you participate with membership in these organizations?	1- Yes 2- No 88-Don't know 99- No response		

152	Do you think that these organizations are helpful to prevent HIV/AIDS?	1- Yes 2- No 88-Don't know 99- No response		
153	Do you know any public library in the town?	1- Yes 2- No 88-Don't know 99- No response	If no skip to Q.165	
154	Do you regularly visit this library?	1- Yes 2- No 88-Don't know 99- No response		
155	Are there adequate youth programs to pass your extra time?	1- Yes 2- No 88-Don't know 99- No response		
156	Do you visit sexy video shows regularly?	1- Yes 2- No 88-Don't know 99- No response		
157	Are you voluntary to have HIV screening test to know your HIV sero-status?	1- Yes 2- No 88-Don't know 99- No response		
158	Do you know where to get these services?	1- Yes 2- I don't know 99- Didn't want to respond		
159	Are there adequate health education services to the youth in the town?	1- Yes 2- No 88-Don't know 99- No response		

Section ten; Socio-economic and cultural factors

160	How many income earners are there in your family	1-No one 2-Only one 3-two 4-three 5->three 88-Don't know 99- No response		
161	How much is the total monthly income of your family?	1-<200 2-200-500 3-500-1000 4-1000-1500 5->1500 88-Don't know 99- No response		
162	Do you have permanent or temporary work?	1- Yes 2- No 99- No response		
163	Is there adequate job opportunity for the youth in the town?	1- Yes 2- No 88-Don't know 99- No response		
164	How do you explain your family living condition?	1-Very poor 2-Poor 3-Fair 4-Good 5-Very good 88-Don't know 99- No response		

Annex 3: Semi-structured questionnaire

How are you? Good morning/ Good after noon! I am Hibret Alemu who came from Addis Ababa University Faculty of Medicine attending a post graduate study in community health. Currently I am doing my master thesis in Bahir Dar town on assessing factors which contribute for the prevalence of risky sexual practices and for the transmission of HIV/AIDS in the town among out of school youth. You are free to talk what ever information you think as a predisposing factor based on the topic guideline prepared. I assure you that you will not face any kind of harm for your participation in this study. What ever information that you give me will be very useful for the study. This information will help policy makers to design intervention activities based on research findings. I thank all of you for your voluntary participation. Are you voluntary to participate in the study?

Yes, continue

If there is any one who don't want to participate in the study thank and leave him/her

Guidelines for Focus Group Discussions (FGD)

How do you see the current HIV/AIDS epidemic in Bahir Dar town?

Which groups of people are at increased risk of acquiring HIV/AIDS?

- Why?

How do you explain the life situation, in terms of economical status, of average population living in Bahir Dar town? (Very poor, poor, fair, good, very good)

- Do you think poverty and unemployment lead one to risky sexual practices?
- How could that happen?
- How about adequate employment opportunities for youth?

How about adequacy of leisure places to pass extra time?

- Do you think absence of these places will lead to risky behavior?
- How could that happen?
- Which places are most usually preferred by youth?
- How do you see the participation of youth in anti-AIDS association?
- Do you think these associations have impact in protecting youth from risk sexual practices?
- How could that happen?
- How do you see the prevalence of illegal sexy video shows in the town?
- How do explain the association of visiting sexy video shows and risky sexual practice?
- How could that happen?

Comparing with the past how do you explain the pattern of risky sexual practice, khat chewing and alcohol intake among out of school youth?

- Do you think this will increase sexual desire?
- Do you think unprotected sexual practice is decreasing due to HIV/AIDS?

Do families discuss sexuality issues openly with their family members?

- If not, why?
- Do families monitor or support their children sexual behavior?

Generally what conditions predispose out of school youth to risky sexual practices and to HIV/AIDS in Bahir Dar town?

How could HIV/AIDS be best prevented?

Guideline for in-depth interview

Demographic details

- How old are you?
- How about your marital status and religion?
- With whom do you live now?
- What is the highest level of education you completed?
- How about your occupation and income level?

Role of parents and the media as a source of information on sexuality issues

- How do you explain the role of parents, medias and other elder peoples of the community in informing young peoples about sexual health matters?
- How do you see the quality and relevance of information received from this sources?

Sexual development and first sexual intercourse

- Have you had sexual intercourse?
- What pressurized you to have sex for the first time?
- With whom did you have sex for the first time?
- What preventive measures did you use?
- How was the role of parents, peers, cultural norms in shaping your first and current sexual practices?
- How did your first time sexual exposure happened? Was it incidental or developed gradually?
- What does sex means to you?

Subsequent sexual behavior

- Would you recall and describe your sexual history?

- What kinds of partners do you want to have?
- Do you practice protective behaviors?
- How do you control the different sources of sexual pressure?

Use of sexual health services

- Do you visit sexual health services provided in the town?
- Do you think this services are use friendly?
- How do you think the appropriateness of these services?

Substance use and alcohol intake

- Do you chew khat or drink alcoholic drinks?
- What are your reasons to use theses substances?
- Do these all increase your sexual desire?

Family condition

- How do you explain your families' attitude on sexuality?
- How do you explain the effect of your families' attitude on your sexual behavior?

Economic factors

- How do you explain the association of economical status and risky sexual practices (HIV transmission)?
- How do you see employment opportunities for youth in the town?