ADOLESCENTS WITH HEARING IMPAIRMENT AND HIV/AIDS:
THEIR AWARENESS AND SEXUAL BEHAVIOR

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<tr>
<td>AIDS</td>
<td>Acquired Immune-deficiency syndrome</td>
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<tr>
<td>HIV</td>
<td>Human Immuno-deficiency Virus</td>
</tr>
<tr>
<td>IEC</td>
<td>Information Education Communication</td>
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<tr>
<td>ILO</td>
<td>International Labor organization</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>PLWHA</td>
<td>People living with HIV/AIDS</td>
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<tr>
<td>UNAIDS</td>
<td>United Nation program on AIDS</td>
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<tr>
<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>GAP</td>
<td>Global Program on AIDS</td>
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<tr>
<td>PWD</td>
<td>people with disabilities</td>
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<tr>
<td>BCC</td>
<td>Behavior Change Communication.</td>
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<tr>
<td>ENAD</td>
<td>Ethiopian National Association of the Deaf.</td>
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<td>EWLA</td>
<td>Ethiopian Women Lawyers Association.</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<td>STD</td>
<td>sexually transmitted diseases.</td>
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The objective of this study was to assess the level of awareness students with hearing impairment and their sexual behavior in relation to HIV/AIDS. To achieve this goal qualitative and quantitative method of analysis were used. Minilik II secondary school was selected because there are students with hearing impairment at secondary school level. Purposeful sampling was the method used to select students. Accordingly, all (48) students with hearing impairment were participated in the study. From the participant of the study, 23(47.92%) are female and 25(52.08%) of them are male. Questionnaire and interview were used as a means of data collection. Questionnaire was prepared for students with hearing impairment. Interview was conducted with some selected club representatives, school guidance and counselors, students with hearing impairment, and people who are working with individuals with hearing impairment in a VCT centers.

The result of the study indicates that, almost all students with hearing impairment have adequate HIV/AIDS knowledge. Regarding their sexual behavior about 70% of the participants have a sexual behavior which is healthy that is abstinence. Eventhough, about 30% of the participants of the study had experienced sexual intercourse and of which most of them involved in a risky sexual activity which may expose them to HIV infection.

According to the findings of the study, the main sources of HIV/AIDS knowledge for students with hearing impairment are friends, television, printed materials and peer educators. The main strategy used to teach students with hearing impairment are drama and theatre, peer education, panel discussion, television, captioned films, and teaching using sign language.

With regard to gender difference in the level of awareness about HIV/AIDS, this study found out that there is no significant difference between male and female students with hearing impairment in their level of HIV/AIDS awareness.

Finally, the result of this study indicates that there is no significant relationship between the awareness and the sexual behavior of students with hearing impairment.
CHAPTER ONE

Introduction

1.1 Background of the study

Nowadays, HIV/AIDS is a global problem. It is not a problem of only some countries. It influences people from every walk of life; economic, social, political and cultural spheres of any country. By and large, adolescents are vulnerable to this deadly disease. The fact that this section of the society is the productive age makes the problem a serious challenge to the welfare of the society.

According to the Ministry of Health report (2004), people living with HIV/AIDS in the world are estimated to be 40 million out of which 37.1 million are adults, 18.5 million are women and 3 million are children under 15 years of age. In the same year there were 3 million deaths due to HIV/AIDS of which 2.4 million are adults and 580,000 are children under 15 years.

In the Ethiopian context, the total number of people living with HIV/AIDS (PLWHA) the year 2003 was 1.5 million from which 1.4 million are adults and 96,000 children MOH (2004). Compared to the other age groups adults are highly prone to the disease. In the case of persons with disabilities, UN estimates that even though they are 10% of the total population of Ethiopia, they are hardly included in the AIDS education packages so that they can learn about the disease. Above all, the problem is more severe for young people with disabilities. This is for the reason that the disease is additional problem that needs much attention than the disability that they are suffering from. Moreover,
adolescents with disabilities are not provided with appropriate services. For example, adolescents with hearing impairment need to use sign language in order to get voluntary counseling and testing services (VCT). But, there are only limited services facilitated with sign language to help these groups of adolescents. Therefore, the limited services given in different VCT centers can be the ground to say that they are the most uninformed and ignored groups of the society no matter how critical the problem is. In light of this, it is mandatory to pay much attention in creating awareness for peoples with disabilities about HIV/AIDS in the country.

The problem of HIV/AIDS is severe for adolescents with hearing impairment. This group of adolescents has communication gap which stops them from getting enough knowledge and expose them to the disease for they cannot hear and speak. So, it is important to study the level of awareness they have on HIV/AIDS and the ways of transmission, prevention and protection. And also it is very important to assess their sexual behavior together with their awareness in the prevention and protection of the transmission of this fatal disease. Therefore, it will be possible to save the lives of these disadvantaged groups.

According to the strategy developed by the Ministry of Health, it is believed that to prevent this problem the main point is to raise the awareness level of the society concerning the methods of prevention, ways of transmission and generally the nature of the disease. Adolescents with hearing impairment are not only disadvantaged by the disability (lack of information access) but also by the little attention and care given to them by the society to make them aware about the disease.
Moreover, there is no statistical data from the Ministry of Health to estimate the prevalence rate of the disease among people with disabilities in general and persons with hearing impairment in particular so as to portray the scope and coverage of the epidemic among this group of the society.

1.2 Statement of the Problem

HIV/AIDS is spreading at an alarming rate throughout the world including Ethiopia. Since adolescents are sexually active segment of the community, they are the first victims of this deadly disease. According to the report of Ethiopian National Association of the Deaf (2005), in Ethiopia adults 15-45 of age are estimated to be 91% of all AIDS carriers. The worldwide report indicates that, half of persons with HIV are in the age of 20’s and it is estimated that they have contracted the disease during their adolescence period. Consequently, it is understood that young people are the most affected group by HIV/AIDS epidemic.

Adolescents with disabilities are the most forgotten groups of the society in HIV/AIDS knowledge expansion programs. They are neglected because people are thinking individuals with disabilities are not exposed to the disease compared to the non-disabled peers.

However, according to Groce, N, Zewdw, D, Judith, H (2004, p.7)

"too often individual with disabilities have not been included in HIV prevention and AIDS outreach efforts because it is assumed that they are not sexually active and at little or no risk for HIV infection but, individuals with disability have equal or greater exposure to all known risk factors for HIV infections."
As adolescents with hearing impairment are sub groups of people with disabilities, they are at greater risk like other groups of persons with disabilities and their non-disabled peers. According to Boswell (2000, p.1),

"Most people think the deaf would have no greater chance of getting AIDS than any one else. But deaf adolescents may only read on a third to fifth grade levels, depending on their hearing level and their age at the onset. They missed the AIDS messages that bombard the hearing world via radio, television and casual conversation. They do not routinely read newspapers or magazines."

Adolescents with hearing impairment are isolated from the sound because the specific impairment which cannot allow them to speak or hear. So, they are more likely to contract the disease easily. According to CDC HIV/STD/TB prevention news (1993, p.5), "a 1992 study estimates that the deaf population is eight year behind the hearing population in HIV/AIDS knowledge and awareness."

Different studies indicate that adolescents with hearing impairment have large information gap concerning HIV transmission and prevention knowledge. According to Groce et al. (2004, p.10), HIV infection rate among deaf individuals is twice that of the surrounding hearing population. From the above point one can conclude that lack of proper information is a cause to aggravate the problem.

Besides, in the area of disability in general and of hearing impairment in particular, locally written literatures or researches are not yet available at least to me. As the problem is the world's major point of discussion, much attention should be paid in expanding the knowledge of these groups of individuals.
Moreover, it is well known that unsafe sex is one of the major causes of HIV infection. There is a need for behavioral change in addition to awareness creation about the nature of the disease. So, sexual behavior of adolescents play great role in preventing the disease.

According to MOH (2004, p.13), "young people who are sexually active are generally unstable in their sexual relationships and may have frequent change of sex partners. They are often ignorant of the health risks of sexual behavior and they may have poor access to health care services" So, it is very important to assess the sexual behavior of adolescents with hearing impairment. Then after that it will be possible to get more information about their sexual behavior. In addition, MOH (2004) reported that, amongst all youth aged 17 and 45 is reported to have had risky sex with commercial or non-commercial partners. So, in preventing this disease knowing about the sexual behavior of adolescents with hearing impairment is a decisive factor.

Therefore, promotion of safer sex practices, encouraging monogamous relationships, discouraging multi sexual partner and promotion of the use of condoms are some of the major components of HIV/AIDS prevention strategies that adolescents with hearing impairment should follow.
Therefore, the study is designed with the intention of answering the following research questions:

- Do adolescents with hearing impairment have enough awareness about HIV/AIDS?
- What are the main sources of AIDS information for adolescents with hearing impairment?
- How is their sexual behavior? (Is it healthy or risky in relation to HIV transmission and prevention?)
- Is there any relationship between their awareness and their sexual behavior?
- Is there significant difference between sexes on their level of awareness on HIV/AIDS?

1.3 Objectives of the Study

1.3.1 General Objective

The objective of this research is to determine the level of awareness and sexual behavior adolescents with hearing impairment have about HIV/AIDS.

1.3.2 Specific Objective

The specific objectives of the study are to:

- Assess the level of awareness that adolescents with hearing impairment have about HIV/AIDS.
- Investigate their sexual behavior in relation to HIV prevention, protection and transmission.
➢ Find out the main source of information of adolescents with hearing impairment for HIV/AIDS knowledge.

➢ Find out whether there is a discrepancy between the two sexes in their level of awareness.

➢ Recommend appropriate intervention strategies to teach adolescents with hearing impairment about HIV/AIDS.

1.4 Significance of the Study

Since the study focuses on adolescents with hearing impairment and their awareness on HIV/AIDS and their sexual behavior, the expected results of the study help in many ways.

• It provides information about the level of awareness and sexual behavior that adolescents with hearing impairment have about HIV/AIDS.

• It will be a base for concerned bodies to design appropriate educational services about HIV/AIDS for adolescents with hearing impairment.

• The study helps to develop more materials, brochures, books, magazines and other up-to-date materials for adolescents with hearing impairment so that they can get enough information that can help them to protect themselves from the disease.

• It helps to arrange voluntary counseling and testing services which are well organized with interpreter so that adolescents with hearing impairment can benefit a lot.
• The result would also help in influencing knowledge and attitudes of policy makers and implementers so as to include different activities about AIDS in favor of adolescents with hearing impairment.

• It helps to identify issues related to people with hearing impairment to make them points of concern in order to get much attention for the problem and the victims.

1.5 Delimitations of the Study

This study is delimited to Minilik II Secondary School for the reason that there is no other school that registers adolescents with hearing impairment on secondary school level in Addis Ababa. Thus, the researcher is convinced to use only this school. Here, I believe a better picture would have been obtained if more schools and participants had been included in the study.

The study does not assess whether the level of awareness exacerbates the problem among adolescents with hearing impairment or not for there is no specific information which can tell the number of adolescents with hearing impairment who are infected with HIV/AIDS.

Secondary school level is selected for students at this age are assumed to be found at adolescents' period. And this is the time when sexual contacts are starts and the time when they may be vulnerable to the disease.

It is a problem to get local literature or other researches done specifically on adolescence with hearing impairment and HIV/AIDS. Thus obviously it is difficult to support the study in the context of Ethiopia.
1.6 Limitation of the Study

- The researcher is convinced to include sexual related questions in the questionnaire. This is made in order to avoid any reservations in the side of the respondents in giving their real feelings for fear of the interpreters.
- The cultural taboos related to sexual matters impede students from giving their real sexual affairs.
- The financial and time constraints are also considerably limiting factors to handle detailed surveys for the research.

1.7 Operational Definitions of Terms

a. Adolescence: It is a period of maturation between childhood and adulthood. The term denotes the period from the beginning of puberty to maturity; it usually starts at about age 14 in males and age 12 in females. It is a period marked by increased sexual behavior.

b. Awareness: knowledge and information that adolescents with hearing impairments have about HIV/AIDS, Its mode of transmission and ways of prevention and protection.

c. Sexual Behavior: Can be defined as sexual related activities of a human being. A person may have a good or healthy sexual behavior in the prevention of HIV/AIDS if he/she has safer sex practice. These are abstinence from sex before marriage, having monogamous sexual relationships or consistent use of condoms. Risky sexual behaviors involve unsafe sexual activities like inconsistent use of condoms, unprotected sexual
intercourse, having more than one partner. These risky sexual behaviors expose the person to be infected by HIV/AIDS.

d. Hearing impairment: It can be defined as inability to hear. It ranges from minor to severe. People may have a hearing loss so severe that they cannot benefit from different kinds of amplification. These groups of people are called deaf. Hard-of-hearing persons often can benefit from the use of different amplification.
CHAPTER TWO

Review of Related Literature

2.1 Basic Facts about HIV AIDS

AIDS stands for acquired immune deficiency syndrome, a pattern of devastating infections caused by the human immunodeficiency virus or HIV/AIDS, which attacks and destroys certain white blood cells that are essential to the body’s immuno system (UNAIDS 1999).

When we consider the spread of this disease and its effect on human being, it is one of the major problems of our world. Lack of proper vaccination has persisted as a global challenge. Hence, the spread of the disease is resulting in a serious impact on social and economic problem.

The Human immune Deficiency Virus (HIV) that causes AIDS is transmitted through blood fluids, particularly blood, semen, vaginal secretion and breast milk. It has been demonstrated that the means of transmission is through four ways:–

- Unprotected sex with a person who is already infected by the virus.
- Through blood transfusion from the infected person.
- HIV can be transmitted by injection if the same needle is used to inject many people without being sterilized after each use.
- Prenatal transmission that is many children may be infected prenatally, at the time of pregnancy or through breast milk (MOH, 2002).
Even though the above points are the main means of HIV transmission, there are misconceptions on the way of transmission from infected person to another. For instance, some people think that casual physical contact like coughing, sneezing and kissing, sharing toilets; washing facilities or using eating utensils or consuming food with the infected person may cause infection. In addition, some people think that HIV can be transmitted through mosquito or other insect bites.

According to the report of MOH (2002, p.2),

"An infected person can transmit the infection in most cases, through sexual contact to other uninfected people. Infected women may also transmit the disease to her infant during pregnancy, delivery or breast feeding. HIV may also be spread by transfusion of contaminated blood and by sharing needles used for injection drug use"

A person, even if he is infected, is not going to develop AIDS directly. HIV undergoes some process to develop into AIDS and this is called incubation period. It lasts three to twelve years even though some people may survive longer than this or other may die two or three years after (MOH, 2000). Eventhough the incubation period is some how elongated the fact that HIV is a fatal disease is undeniable. Whether it is short or long the person will die.

Different medical personnel are trying to get vaccination but no vaccination has been found. However, there are some antiretroviral drugs that slow the progression of the disease and can prolong life. At present, the drugs are very expensive and consequently unavailable to most sufferers, but the situation is changing rapidly.
The next important question that leads to the solution is that how can we prevent HIV. This can be possible through two ways that is IEC (Information, Education, Communication) and BCC (Behavior Change Communication).

Some groups of people, like adolescents with hearing impairment have low level of HIV/AIDS awareness. Therefore it is important to increase the level of awareness of these populations. The strategy information, education, communication has a major role to bring a change in behavior. Because most people lack information about the way of transmission, prevention and how to care and support those who are living with the virus (NAC, 2000). According to MOH (2004), the tremendous increase in condom distribution and the increasing utilization of VCT services by different social group is supported by the level of awareness about the disease.

BCC is beyond providing information alone. It is the means of changing individual persons and community behaviors. Among important behaviors that should be changed are to reduce the transmission of the disease and reducing high risk sexual behavior (that is decreasing the number of partner, delayed sexual activity, use of condom consistently and correctly can be mentioned (MOH, 2001).

A number of people are infected with HIV/AIDS in the world. Therefore, care and support for those who are living with the virus is important. In other words, there should not be stigma and discrimination. According to NAC (2001, p.25),"care and support initiatives range from clinical management and nursing care to psychological, social and economic support."
Elements which are included in the prevention to care have got acceptance in the community so that to decrease stigma and to support those who are infected with the virus. To do all these VCT is an important point for prevention and care in addition to stigma reduction (NAC, 2001).

2.2 The Global Epidemic

HIV/ AIDS has impact on the world’s population. The impact has direct and indirect effect on the economy, social, educational and other aspects of the country. Because of this disease a lot of people are dying. According to WHO (1994, p.15),”AIDS is probably the biggest development challenge for the quarter of the new century,”

It was estimated that worldwide 40 million people, including 2.5 million children under the age of 15, were living with HIV infection or AIDS. From 1981 to the end of 2002 about 20 million people died as a result of AIDS. About 4.5 million of those who died were children under the age of 15. 3 million people died in 2003 alone from AIDS, and 5 million more people became infection (UNAIDS and WHO 2003 cited in Jhon, 2005).
2.3 The Prevalence of HIV/AIDS in Africa.

As Africa is one part of the world countries, it is also exposed to the epidemic of this deadly disease. According to Africa legal Aids (2001, p.5), "Sub Saharan Africa accounts for 80% of the worlds’ AIDS cases." The epidemic of the virus started earlier and programmed further in Africa than in any other developing regions.

Sub-Sahara Africa has just over 10% of the world’s population, but is home to close to two-third of all people living with HIV, some 25 million. In 2003 alone, an estimated 3 million people in the region became newly infected, while 2.2 million died of AIDS. Among young people 15-24 years of age, 6.9% of women and 2.1% of men were living with HIV by the end of 2003 (UNAIDS, 2004, p.30).

In addition, it describes that today 90% of all people living with HIV are in developing countries. Sub-Saharan Africa stands first in the infection of its people by HIV/AIDS followed by South and south East Asia and Latin America, due to high prevalence of the pandemic, which is also associated with poverty, these continents are leading the world in deaths caused by HIV/AIDS. Sub Saharan Africa with three in five of all HIV infected people alive today remains the most affected part of the world (UNAIDS, 1999, p.35).

Approximately 70% of the world’s 40 million HIV positive population lives in sub-Saharan Africa out of the 5 million newly infected persons in 2001, 3.5 million live in sub-Saharan Africa (MOH, 2002).
2.4. HIV/AIDS in Ethiopia

Ethiopia is one of the most seriously affected countries in the world by HIV/AIDS. Ethiopia’s national adult prevalence for 2003 was estimated at 4.4 percent, with a 12.6 percent urban rate and a 2.6 percent rural rate. The number lost to AIDS was an estimated cumulative total of 900,000 by 2003 and is projected to reach 1.8 million by 2008 if present trends continue.

The prevalence of HIV was low in 1980’s in Ethiopia but increased rapidly in the 1990’s. The highest prevalence of HIV is seen in the age group of 15-24 years, representing recent infections. The reported AIDS cases show that about 91% of infections occur among adults between 15 & 49 years. The age range encompasses the most economically productive segment of the population the epidemic impacts negatively on labour productivity (MOH, 2002).

According to the report of WHO (2006), approximately 1 million people are disabled in the country. Of which 19% of them are from the group hearing impairment. However, no satisfactory efforts have done in the area of disability and HIV/AIDS. In the world the spread of HIV/AIDS is increasing rapidly. In the country no statistical data has been established which indicate the estimate of individuals with disabilities in general and with hearing impairment in particular. Therefore, it is difficult to tell the prevalence of the disease in this group of the society.
2.5 HIV/AIDS and Adolescents with Disabilities

2.5.1 Prevalence Rate of HIV/AIDS

HIV/AIDS among persons with disabilities is untouched phenomena. According to UN (2001) “International reports by WHO estimate that the disabled persons account for at least 10 percent of any given National age cohort” they are not as such included in HIV/AIDS prevention, transmission, care and support programs. According to Asindua (2005, p.11) “HIV/AIDS is a significant and almost wholly unrecognized problem among disabled population worldwide”. Despite the fact that, there are 335 million people in the world with moderate to severe disabilities, out of which 70% are living in developing, countries most in Africa (Nkya, 2005).

It is possible to say, there is little effort to study HIV/AIDS in line with disability to determine its prevalence rate or to estimate the actual number of people living with the virus. As Asindua (2005,p.12) “Limited research studies have been done in terms of disability and HIV/AIDS only a few studies have estimated prevalence and no prevalence data exist for any disabled population from sub-Saharan Africa.”

In Ethiopia, there is quite a little of reliable information about the actual number of people with disabilities. There exists no statistics to indicate the number of people with disabilities who are living or infected with HIV/AIDS.
2.5.2 Disability and HIV AIDS Information

People with disabilities are at a greater risk of HIV/AIDS infection. But there are little efforts to save these groups of population from this deadly disease.

People with disabilities are more vulnerable because they

a. have limited access to HIV/AIDS information.

b. have limited access to HIV/AIDS testing and treatment.

c. especially women and other minority groups are socially vulnerable. Many people with disabilities are unable to negotiate safe sex (Asindua, 2005).

Different researches tried to include non-disabled individuals in terms of HIV/AIDS. Although, these researches exclude individuals with disabilities are at risk for the virus (Asindua, 2005).

Over and above that, no service given at the public level considers the special needs of person with disabilities. To mention, according to Asindua (2005, p.10),

"Persons with sensory disabilities also often have no access to information due to their specific communication need. Deaf persons are, therefore, excluded from any information unless interpreters are available and sign language is developed and recognized as a medium of communication."

There are a lot of organizations that are working on HIV/AIDS prevention. Different programs are prepared at national and international levels. But, they overlook people with disabilities.
Non-disabled population is only included in different HIV/AIDS education programs since these programs exclude from giving vital information about HIV/AIDS those with disabilities because they have no access because of the disability they have (Asindua, 2005, p.2). Communities and development programs are often ignorant of the need of people with disabilities, and they don’t consult them in development processes. People with disabilities did not get opportunities to voice their needs in the fight against AIDS. Thus, they remain vulnerable with little or no access to information or intervention service.

Besides, people with disabilities are not educated. They have low levels of education. Even if they may get access to HIV/AIDS information, the fact that they did not get opportunity to education exacerbates the problem of grasping the message. Communicating HIV/AIDS messages for people with disabilities is difficult given that they have low education (Asindua, 2005).

2.5.3 HIV/AIDS Awareness among Disabilities

Different countries did not include the issue of HIV/AIDS and people with disabilities in their policies. This makes individuals with disabilities not to be included in different intervention programs. But, it is essential to include people with disabilities into different endeavor of HIV/AIDS education to rescue them from the disease. According to Asindua (2005, p.13), “Today there is an urgent need for action, for collaboration and support of innovative efforts for the inclusion of disabled population in HIV/AIDS outreach and service efforts.”
It is also vital to create global awareness and commitment from a system that helps to convey the information barrier they have as well as the vulnerability of them to be infected by the virus because of contextual factors that create situation of risk (Asindua, 2005).

It is necessary to work to decrease factors for vulnerability of persons with disabilities to HIV/AIDS. This can be possible through making prevention message accessible to all disability groups to improve access to HIV testing and care service. Moreover, it is highly important to create awareness among non-disabled groups to inform them that people with disabilities are at greater risk than their non-disabled peers for HIV/AIDS.

2.5.4 Misconceptions around Adolescents with Disabilities

Different kinds of misconceptions revolve around adolescents with disabilities. The basic one is around their sexuality. According to Nidrosy (2005, p.3-4),

"Most communities have misconceptions about people with disabilities especially in terms of their sexuality which lead to their exclusion from situation which offers appropriate information and experience. There is a tendency to look at PWD’s as either asexual or sex objects. This predisposes them to sexual abuse and the risk of HIV/AIDS."

In addition, people with disabilities are considered as not having interest in sex or as not capable (Marilyn, 1997).
Moreover, different myths are revolving around them which make them to be vulnerable to the disease. According to Asindua (2005,p.11), "They are indeed at risk of HIV/AIDS because in this dire age of HIV/AIDS there are a lot of myths like about virgin cleansing the belief that persons who are HIV positive can rid themselves of the virus by transferring it, through sexual intercourse to a virgin."

Especially women with disabilities are vulnerable because they are assumed to be virgin. Women with disabilities are target because people think that they are sexually inactive that is virgin (Asindua, 2005). So, virgin cleansing is performed on them. This makes them vulnerable to the virus.

As a result of different misconceptions in the society, people with disabilities are excluded from different services given specially on health, sex education and HIV which exposes them not to prevent themselves from the spread of the virus. This can be improved by giving awareness raising program for the society to minimize the misconceptions and to include people with disabilities in the mainstream HIV/AIDS program.
2.6. HIV/AIDS and Persons with Hearing Impairment


Eventhough the estimate of people with disabilities in Ethiopia accounts for approximately about 1 million, the country’s policy on HIV/AIDS contains no specific components concerning people with disabilities in general or people with hearing impairment in particular. Therefore, there is a need for people with disabilities as well as with hearing impairment to take action to commence a campaign that will raise public awareness on HIV/AIDS.

Despite the fact that much efforts have been made in the area of HIV/AIDS with non-disabled people, hardly any disability area had been included on it. There has been no survey done to establish the exact number of deaf and hard of hearing individuals who have either contracted or died of HIV/AIDS. Deaf and hard of hearing people are about 19% of the disability population in Ethiopia, which are the third largest group next to persons with physical impairment and visual impairment.

On the contrary, if we consider the case of America, the fact that deaf and hard of hearing individual cannot access HIV/AIDS information, increase the number of people who are infected with the virus. According to the report of the HRSA (1999), about 28 million individuals are persons with hearing impairment that is 10% of the total population. It is estimated that 7,000 deaf people in the USA are infected with the virus because of lack of information access about the disease (HIV/AIDS/STI, 2003).
2.6.2. Communication Gap and Knowledge of HIV/AIDS among Persons with Hearing Impairment

Persons with hearing impairment are far from HIV/AIDS knowledge because of the nature of the specific disability. They have been given that they are in a hazard of becoming infected with the disease. According to the report of HRSA (1999,p. 4), “In 1992, 12 years after the onset of the epidemic in the United States experts estimated that the deaf population was about 8 years behind the hearing population in its knowledge and awareness about HIV/AIDS.” The above estimate explains that in most countries of the world adolescents with hearing impairment are the most neglected group in HIV/AIDS education and awareness creating programs.

The Research Done on HIV/AIDS prevention for the deaf (2003,p.3) explicates that, “Most HIV/AIDS/STI prevention efforts overlook those with disabilities and are unaware of the unique limitations often posed in providing them with information.” Therefore, deaf and hard of hearing adolescents have low level of HIV/AIDS knowledge. According to Luckner and Gonzales (2000,p.2), “Deaf and hard of hearing individuals demonstrated important gaps in their knowledge of how HIV and AIDS is transmitted and prevented and how one can get AIDS.”

The communication gap created by the nature of the disability made deaf and hard of hearing individuals to be disadvantaged particularly in connection to getting adequate information about the disease. Deaf people are blocked from the vital HIV/AIDS
information because the prime mode of communicating AIDS education and awareness program are through radio (Global AIDS Program, 2005).

Some deaf and hard of hearing adolescents have low level of HIV/AIDS knowledge to the extent of not having a single knowledge about the existence of the disease. According to Time Magazine (1994) cited in Scott (1988, p.6), “many deaf adults and teen-ager may have just learned that the disease even existed.” Deaf students have only partial knowledge about HIV/AIDS transmission and prevention (Duncar et al., 1997 cited in Mathew et al., 1998)

In spite of the fact that, deaf and hard of hearing individuals have got some idea about the disease, there are some misconceptions on the mode of transmission. According to Woodroffe et al. (1998, p.2), “Deaf and hard of hearing individuals believe that using public restrooms, kisses on the check and visiting AIDS patients increase their chances of contracting AIDS.”

From the above points, it is possible to understand that, the knowledge level of the deaf and hard of hearing person about the disease is very limited. Lack of appropriate level of knowledge exposes them to the disease. HIV/AIDS is a question of todays and future generation. Adolescents are at risk of HIV/AIDS if they lack information about its way of transmission and prevention (Luckner et al., 1993 cited in Mathew et al., 1998). By inference, it is possible to understand this virus is killing our youth, both hearing and none hearing particularly, those with lack of information about it.
Lack of suitable information about ways of prevention and transmission of the disease makes this group of adolescents more vulnerable to the disease. Despite the fact that different countries general prevalence rate of HIV infection is decreasing by some amount from year to year, the practice is contrary among the deaf and hard of hearing adolescents. The rate is increasing because of their low level of awareness about the disease.

People with hearing impairment are endangered of becoming infected with AIDS. They are also specifically exposed to this disease because of language barrier, different culture they have and lack of community service and educational program and general information directed to this population (Peinkotes, 1994 cited in Mathew et al., 1998).

Different reasons can be mentioned for the deaf and hard of hearing adolescents not to benefit from the information education and communication campaigns. According to Nidrosy (2005, p. 14) “The deaf are more disadvantaged due to linguistic barrier. The deaf people have been unable to access the information effectively due to low education, low reading ability and low economic level.”

The communication barrier may be at the family level. Families of children with hearing impairment may not have adequate knowledge of sign language to communicate effectively with their children so that they can be able to make them aware about HIV/AIDS. According to African Children Initiative (2005,p.3), “Even within a family set up, communication is a big challenge and sometime deaf people are left out because of lack of knowledge of sign language, leaving them marginalized and cut off from day to day activities and events.”
2.6.3 Awareness Raising Programs among the Deaf and Hard of hearing Adolescents

Awareness raising programs among the deaf and hard of hearing adolescents are very important so that they learn about HIV/AIDS. Most awareness raising programs fail to include persons with disabilities or persons with hearing impairments.

HIV/AIDS education programs are inaccessible to those adolescents with hearing impairment for different limitations these programs have. Lack of sign language interpreters and lack of materials which considers the special needs of adolescents with hearing impairment can be taken as an example.

Centers for HIV counseling and testing are not equipped with sign language interpreters who have adequate knowledge both with sign language and HIV/AIDS. According to Nidrosy (2005, p.9), “Interpreter should be equipped with appropriate skill in deafness, sign language and HIV/AIDS information.”

According to Nidrosy (2005, p.16), “Adequacy in the number and ability of sign language interpreter may also hinder prevention efforts. Interprets need to be well versed in issues and terminologies pertaining to HIV/AIDS and the most appropriate way to present the information to the deaf.”

Moreover, different services of the countries on HIV/AIDS did not consider the special needs of adolescents with hearing impairment. According to African News Service (2002), deaf lack the ability to operate as the hearing society because of lack of interpretation service. According to African Children Initiatives (2005, p.5), “inadequate
knowledge of sign language and lack of interpreter results in limited knowledge of HIV/AIDS among deaf people.”

Generally, all the above literature emphasizes on lack of sign language as the main source for limited amount of knowledge about HIV/AIDS among deaf and hard of hearing individuals.

Lack of deaf friendly materials is also one problem that needs emphasis to create awareness among the deaf and hard of hearing adolescents about HIV/AIDS. According to Scott (1988, p.6), “A primary reason for the ignorance about HIV stem from the fact that information has not been made accessible or disseminated in the proper format to deaf people.”

Even if there are written materials, they are not incomprehensible because of low educational level deaf adolescents have. In addition, sign language is different from written English structurally as well as grammatically (Scott, 1998). Moreover, according to Nidrosy (2005, p. 11), “Materials developed are not deaf friendly and is difficult for the deaf to understand the terminologies used because of their low educational level.”

Furthermore, there is no effort to generate materials which can help deaf and hard of hearing individuals to train or help them get information or generally issues, relating to health specifically HIV/AIDS. (African News Service, 2002).

Above all, the educational level of adolescents with hearing impairment has great effect on their access to HIV/AIDS knowledge. Because of different factors, deaf and hard of
hearing individuals have low level of education. It is possible to say that, they are not far from elementary school level. So, this determines their knowledge of getting HIV/AIDS information. Those who have less educational status and with less access to AIDS information are at greater risk of HIV/AIDS (Mathew et al., 1998).

Deaf and hard of hearing individuals are disadvantaged not only in accessing HIV/AIDS information but also they lack information about the services given at different HIV/AIDS center. According to Scott (1998, p.4), “No one advertised that they had sign language interpreters. If that information is not listed as a service, deaf people automatically assume it will not be provided.”

2.7. Sexual Behavior of Adolescents with Hearing Impairment

The sexual behavior of adolescent with hearing impairment is a decisive factor for prevention and transmission of HIV/AIDS. People need to change their sexual behavior in order to prevent HIV/AIDS transmission. But, deaf and hard of hearing individual are not aware of this vital information because of lack of adequate information about HIV/AIDS mode of prevention and transmission. According to Woodroffe et al. (1998, p.13), “people with hearing impairment were more likely to believe they did not need to change their sexual behavior as a result of the AIDS epidemic.” Therefore, it is possible to deduce that lack of information about mode of HIV transmission and prevention makes them to have risky sexual behavior.
Besides, educating deaf and hard of hearing individuals about sex and sexuality and reproductive health is essential for parents, teachers and schools. Lack of sex education for persons with disabilities is the main factor to have appropriate sexual behavior among themselves. According to Shall (1998, p.5) cited in Mathew et al. (1998), “It appears that many deaf children, while in need of sexual information and opportunities for effective development, are generally exposed to neither.”

People with disabilities are not given a chance to get education about sex and sexuality because some people believe that they are not sexually active. There is a misconception because of the disability they have, people with disabilities are not eager for sex (Marilyn, 1997).

Even though it is necessary to educate people with disabilities or deaf and hard of hearing individuals about appropriate sexual behavior there is no effort made to apply it into practice. Schools do not have well developed sex education program for persons with disabilities. Even families may have a problem of communication to educate their children who have hearing impairment about sexuality, reproductive, health or HIV/AIDS. This may lead to problem of HIV/AIDS infection and unwanted pregnancies.

Lack of knowledge of HIV/AIDS and appropriate sexual behavior leads not to have appropriate sexual behavior which in turn leads to the way to HIV/AIDS infection. Adolescents risky sexual behavior makes them to be endanger for sexually transmitted disease, unintended pregnancies and HIV/AIDS infection. (CDC/HIV AIDS prevention fact sheet, 1993).
Lack of sex education for deaf and hard of hearing individuals is a cause for early sexual involvement and lack of HIV information creates a problem in their sexual behavior which become a reason for HIV/AIDS infection. Most young people are sexually active before they are 15 years old that is in their teenage. Furthermore, according to the report of FOCUC (2004, p. 3), “Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure and they are not likely to use condoms.”

Thus, many adolescents begin having sexual intercourse earlier and with multiple sexual partners prior to marriage. All these factors facilitate STD’s and HIV Transmission.

Specifically, women with hearing impairment are not be able to negotiate safer sex because that they have no background knowledge about the prevention and transmission of HIV/AIDS and most of the time they are dependent of men. According to the research done by UNPD (2004, p. 12) “women hardly negotiate safe sex such as use of condoms partly due to their socialization that makes them to be ignorant of sex and to be afraid of men.”

All in all, it is very important to give adolescent sex education, especially for those who are vulnerable to HIV/AIDS because of the information gap they have, so that they can be aware and become more responsible for their life. According to Douglas (2002, p. 15), “Professionals concerned with adolescent can help reduce HIV transmission among youth by supporting the adaptation of program that hold promise for reducing adolescent unprotected sex especially those programs identified as effective and by encouraging the
development, evaluation and replication of program specifically designed for adolescents who engage in particularly high-risk sexual activities.”

2.8 Adolescents and HIV/AIDS

Adolescents are highly vulnerable to HIV/AIDS because this is the period that most young people are sexually active and the main mode of HIV transmission is unsafe sex. Eventhough there are myths about adolescents with disabilities, they are sexually active as their non-disabled peers. Consequently, they are also vulnerable to HIV/AIDS infection. According to the report of CDC/HIV prevention fact, sheet (1993, p.1), young people, particularly adolescents, are vulnerable to HIV infection and AIDS. In America, it has been estimated that fifty percent of all new infections are among people under 25 and the main means for their infection is proved to be sex (THE BODY, 2001).

According to the report of FOCUS (2004, p.5), “young people between the ages of 15 and 24 are both the most threatened, globally accounting for half of all new cases of HIV and the greatest hope of turning the tide against AIDS.” It is possible to infer from the above description that from all reported AIDS cases over half of the infection rate is among adolescents including those with hearing impairment. Therefore, in order to reduce HIV infection rate, the intervention should start from adolescents.

According to the report of UNAIDS (2003) cited in FOCUS (2004, p.4), “young people are exposed to HIV in different ways. In high prevalence sub-Saharan Africa, the main mode of transmission is heterosexual intercourse. This region contains almost two third of all young people living with HIV- approximately 6.2 million people, 75% of whom are
female.” As per the above statistics, adolescents cover the largest group of infection through heterosexual transmission for they are sexually active at this period of time.

Different reasons can be mentioned for the vulnerability of adolescents for HIV/AIDS infection. Different factors bring adolescents for HIV/AIDS vulnerability some of these are, lack of HIV information, education and services and the fact that adolescents are eager for experimentation and curiosity (FOCUS, 2004).

Lack of AIDS education is one major problem for adolescents to be exposed for the virus. Most adolescents with hearing impairment, who are living in Ethiopia, did not get a chance to learn more than elementary school level. Because there is no sign language interpreters in schools who are near them. There are no supportive materials that can help these students to achieve more or there are no special schools to support this group of students. Therefore, they are far from HIV/AIDS education because they are far from the school environment in addition to the communication problem they have by the nature of the disability.

Besides, according to the report of Focus (2004,p.4-5), “for instance in sub-Saharan Africa, only 8% of out of school youth and slightly more in school youth have access to prevention education.” Generally, lack of HIV/AIDS education exposes adolescents to HIV/AIDS infection generally and adolescents with hearing impairments specifically.

Lack of HIV/AIDS education places adolescents with hearing impairment to have risky sexual behavior. According to Duglas (2002, p.1), ‘Many adolescents engage in sexual intercourse with multiple partners and without condoms. Thus, they engage in sexual behaviors that place them at risk of sexually transmitted diseases including HIV.” Having
multiple sexual partner and lack of consistent use of condoms are reasons for adolescents with hearing impairment to be exposed to HIV/AIDS infection. According to Duglas (2002,p.4), “adolescents, in general, are at risk of contracting HIV through sexual transmission, because a large majority of them engage in sexual intercourse, have multiple partners over a period of time, and fail to consistently use condom during every act of intercourse.”

Access to health services is also important factor to decrease vulnerability of adolescents with hearing impairment to HIV/AIDS infection. To decrease HIV/AIDS prevalence among young adults, there should be access to confidential health service and condom in addition to securing the rights of young girls (Focus, 2004).

There should be an urgent and effective strategy for intervention to rescue adolescents with hearing impairment from the disease. One means can be on the hands of parent. Parents should be able to give sex education for adolescents at early age so that they can have safer sexual behavior and rescue themselves from HIV/AIDS infection. Parents of young people should discuss sex issues openly with their children. With their children so that it would be helpful for adolescents to maintain secured sexual behavior (THE BODY, 2001).

Abstinence from sex before marriage is also an important strategy for rescuing oneself from HIV/AIDS infection. Helping to teach adolescents with hearing impairment to abstain from sex before marriage is important factor to reduce the vulnerability of these groups of adolescents. According to THE BODY (2001,p.6), “Research has clearly shows that the most effective programs are comprehensive ones that include a focus on delaying sexual behavior and provide information on homosexually active young people
can protect themselves.” Generally, it is very important to save young adolescents and adolescents with hearing impairment from HIV/AIDS infection by adopting important strategy. Initially, it is important to have effective HIV education program for all adolescents. Moreover, there should be supplementary and more focused program that targets those adolescents who are at higher risk of HIV infection (FOCUS, 2004).

2.9 Hearing Impaired Women and HIV/AIDS

Despite the fact that they are highly vulnerable because of different factors that accompany them, deaf and hard of hearing women are excluded from HIV/AIDS education. According to Nidrosy (2005, p.7), “majority of service providers have excluded the deaf people in their mainstream programs. The deaf women and girls are more vulnerable and are not involved in matters pertaining to HIV/AIDS and reproductive health policies.”

Some of the challenges that deaf and hard of hearing individuals face will be discussed as follows. Barrier to HIV/AIDS information is the main cause for the vulnerability of deaf and hard of hearing women for HIV. Since the nature of the disability disadvantaged them not to get HIV/AIDS information, they are far from HIV/AIDS education campaign. This causes them not to protect themselves from HIV/AIDS. Moreover, the fact that women are highly vulnerable to HIV/AIDS because of physiological vulnerability they are greatly disadvantaged.

According to EWLA (2005, p.1) report, “Although slogan proclaims that HIV/AIDS does not discriminate, the reality is that women and girls are often the most severely
impacted.” In addition, according to the report of UNAIDS (2004) cited in EWLA (2005:2), “the physiological vulnerability of women and girls to HIV/AIDS have been well documented male to female to male transmission.” In Ethiopia, women who are infected with HIV/AIDS constitute 55% while adolescent girls who are living with the virus are three times that of their male counterparts UNAIDS and WHO (2000) cited in EWLA (2005). In considering the physiological vulnerability, women are highly vulnerable when the mode of transmission is heterosexual. According to FOCUS (2004, p.7), “when the primary mode of transmission is heterosexual, young women are the worst affected.”

Another cause for the vulnerability of women than men is poverty. Specifically women who are deaf and hard of hearing have less job opportunity. Since the deaf do not have the opportunity to higher education and vocational training they are increasingly finding it difficult to get any employment. Eventhough there are many deaf persons who are able to work have problem of securing employment.

Therefore, they can not get-access to food, shelter clothing medicine and other important needs so, they are becoming prostitutes. According to UNDP (2004, p.7), “a significant number of women are forced to live on commercialization of sex.” The reason for leading such life, according to the research done among Addis Ababa commercial sex workers, is a financial problem (Fisseha, 1997 cited in UNDP, 2004).

Besides, in Ethiopia most women are financially dependent on men. According to UNDP (2004, p.5), “socio cultural and economic dependence of women on men means that
they can not control when, with whom and in what circumstance they have sex. Women are not expected to discuss or make decision about sexuality.”

Social and cultural factors make women more vulnerable to HIV/AIDS. According to EWLA (2005, p. 2), “social cultural and religious norms also result in women having little control over their sexual relations.” Even women in Ethiopia have no right to discuss sex matters. Women have little bargaining power, severely limiting their ability to negotiate safer sex (EWLA, 2005).

In addition to the pointes discussed, different myths and misconception which revolve around persons with disabilities make them more vulnerable to HIV/AIDS. There is misconception that, if they made sex with deaf women, they are not to be infected with HIV/AIDS. As a result, many deaf women are raped.

Generally, lack of HIV/AIDS education, poverty and other decisive factors make deaf and hard of hearing impaired women more vulnerable to HIV/AIDS. Therefore, there should be support program that considers the need of deaf and hard of hearing individuals. Families, teachers as well as the society at large should fully involve in the programs.
2.10 Substance Abuse and HIV/AIDS

Behavior associated with drug abuse is now one factor in the spread of HIV infection. As one of the major HIV modes of transmission is unsafe injection, adolescents use unsafe way of injecting drug among themselves which inturn exposes them to the disease.

According to FOCUS (2004, p.4), “young injecting drug users are particularly at risk, since they may not have the knowledge or skills to protect themselves from infections via contaminated injecting equipments.”

Moreover, using alcohol may lead to unsafe sex that causes to HIV infection. Using drug or alcohol intrudes with judgment in any action that the person is performing. Thus, there may be a probability of engaging in unplanned and unprotected sex. Therefore, this may be a cause for contracting HIV from infected person (NIDA, 2002).

Deaf and hard of hearing individuals are more exposed to the disease through substance abuse problem. According to Groce et al. (2004,p.2), it is estimated that one in seven deaf persons have substance abuse problems compared with one in ten in the hearing population. So, by implication, it is possible to deduce that deaf and hard of hearing people are at high risk of contracting AIDS than their hearing peers.

Therefore, it is important to intervene, to reduce the risk of this people by creating awareness. Drug use treatments are important in reducing HIV/AIDS transmission and prevention especially if it focuses on people who are at risk. In doing this, it can be possible to minimize drug use and drug related HIV risk behaviors such as needle sharing and unsafe sexual practice. It helps to reduce transmission of HIV/AIDS through injecting drug (NIDA, 2002).
CHAPTER THREE

Methodology of the Study

3.1 Research Design

The purpose of this study is to determine the level of awareness and sexual behavior of adolescents with hearing impairment have about HIV/AIDS. In order to meet this purpose both quantitative and qualitative method of analysis were employed. Quantitative method was used as a main means of analyzing the collected data through questionnaire. In addition, qualitative method was used for supplementing the data collected through questionnaire.

3.2 Population and Sampling

The sampling technique that was applied for this research was purposeful sampling method. According to the information obtained from Ethiopian National Association of Deaf, students with hearing impairment were enrolled only in two schools in Addis Ababa: Intoto Technical and Vocational School and Minilik II Secondary School. Intoto has only three students and Minilik II 48 students from grade 9-12. Consequently, the researcher was convinced to use Intoto Technical and Vocational School for the pilot study and Minilik II for the main study. But, because of the small number of students in Intoto School the researcher decided to use Mekanisa Deaf School (primary school) for the pilot study.
The grade levels selected for the main study were grade 9, 10 and 12. Grade 11 was not included because there was no students with hearing impairment in that grade level. Since, students who were registered on these three grade levels were only 48 in number; the researcher was again convinced that it would be better to include all students in the sample.

In addition, MinilikII Secondary School teachers of representatives from three different clubs were participated in the study. These teachers are representative from HIV/AIDS Club, Girls Club and Guidance and Counseling. Moreover three students with hearing impairment participated in the interview. To triangulate the information obtained in the study two organizations working with individuals with hearing impairment on HIV/AIDS were included. These were NIGAT Ethiopia Deaf Association for Prevention of AIDS and St. Mery Counseling and Social Service Center. Two counselors from each organization were participated in the study.

3.3 Data Collection Instrument

As indicated above, the purpose of this study is to get information on the awareness of students with hearing impairment about HIV/AIDS and their sexual behavior. Two vital data collection instruments were used to gather data for this study.

3.3.1 Questionnaire

The questionnaire was prepared for students with hearing impairment. It was the main data gathering instrument.
3.3.2 Interviews

Three kinds of semi-structured interviews were prepared for gathering data. The first type was prepared for students with hearing impairment. The second type was for club representatives and the third for counselors working with adolescents with hearing impairment.

3.4 Data Collection Procedure

The following procedures were followed in the process of undertaking the research.

3.4.1 The Pre Pilot Work

In the pre pilot work, first the questionnaire and the interview guide were prepared in English. Then both instruments were translated into Amharic by the researcher. The translated copies were given to language experts for checking the translation. Subsequently, corrections were made on the questions based on discussions between the language expert and the researcher. Finally, the Amharic version of the questionnaire and the interview guides were made ready for pilot administration.

3.4.2 The Pilot Study

In the pilot study, the school used was Mekanisa Deaf School. Thirteen grade seven and eight students whose age is over fifteen were participated in the pilot study. Students over fifteen years of age from Mekanisa deaf school were involved in the pilot study. The reason was that no other school can be found in Addis to enroll students with hearing impairment at high school level other than Minilik II Secondary School and Intoto Technical and Vocational School. It was impossible to include students with hearing
impairment from Intoto Technical and Vocational School for the pilot study because the number of students who enrolled in the year 1998 was only three.

From the thirteen students that were participated in the pilot study, eight of them were male and five female. The time that they took to complete the questionnaire was one hour and fifteen minutes. Sign language interpreters were used in completing the questionnaires. For this purpose, one teacher was used from the school. Before the students started completing the questionnaire, the researcher and the teacher (sign language interpreter) discussed the content and procedure to be followed to complete the questionnaire, so that there could be mutual understanding between the students and the sign language interpreter.

The next step was, to obtain the reliability and validity of the instruments. To find out the reliability of the questionnaire, Kuder Richardson formula (KR20) was applied. Then the reliability of the questionnaire become 0.89 which is reliable Therefore, from the result we can deduce it is possible to use the questionnaire for the main study.

Regarding the validity of the instrument, content validity of the questionnaire was proved. First, it was given to three different people that have professional background in the area of HIV/AIDS. Then, they confirmed that the questions included have direct relationship with topic of the research. The researcher also checked whether the questions included were ambiguous, simple and clear. Moreover, the instruments were given to teachers who are expert in sign language and have some knowledge about HIV/AIDS so that they can test the content and specifically the ambiguity of words. They gave their comments in relation to the experience they have with the students under discussion.
Next, the researcher found out the difficulty level of each item. Totally there were twentyone items that is four items for background information of students with hearing impairment, eight items for HIV/AIDS awareness and source of information and nine items for sexual behavior. Under each item different number of choices was included. To decide the difficulty level of each item, the researcher used each choice as one item and found out the difficulty level of each choice. This was done with the purpose of checking the difficulty level of each choice given and to make the correction followed simple. Then after, answers given to each item were corrected on the bases of 0 and 1 (that is right and wrong). Then all results were changed to standard scores subsequently the difficulty level of each item were tested and finally thirteen items had negative discrimination index. The following changes were made on the thirteen questions.

From the thirteen questions, seven were ambiguous. Therefore, difficult words were substituted by words which are simpler to understand and on some questions some kind of additional explanations were added. Five questions were dropped, because three of them were repeated and two of them were irrelevant. Finally, one question was double barreled and it was improved.

The interviews were also tried out in the pilot study. Three kinds of interview guides were used. The first was prepared for students with hearing impairment. The second for teachers (representative of HIV/AIDS Club, representative of Girls Club and Guidance and Counselors). The third for counselors working with adolescents with hearing impairment.
Before the interview guides were tried out, they were given to three professionals. These professionals tried to evaluate the content validity of the interview guides. Then the interview guides were tested on the three groups of individuals according to the aim of the research. First, it was held with three students with hearing impairment. Sign language interpreters were used to conduct the interview. Next, interview with one HIV/AIDS club representative and interview with counselors were conducted. All interviews were tape recorded. Finally, based on the result of the interview, some items were improved. Ambiguous items were substituted with simple and clear words. Spellings were also corrected. Then the instruments were ready for administration.

3.4.3 The Main Study

The following procedures were followed in the main study. The last draft of the questionnaire was given to students with hearing impairment. Interpreters of students with hearing impairment of the school were trained to create conducive environment with the students. Interpreters who are still working with these students are used in the research because they can easily understand the students need. First, the questionnaire with students with hearing impairment was administered. And then, the interview with the students was conducted and recorded. Finally, interviews with teachers and the counselors were conducted by the researcher.

3.5 Data Analysis Procedure

In this study, quantitative and qualitative research methods of data analysis were employed. Data gathered through questionnaire were analyzed using statistical methods like descriptive statistics, t-test and correlation. Qualitative method was used to analyze data gathered through the interview. Depending on the findings of the study discussions were made and recommendations formulated.
CHAPTER FOUR

Findings and discussions

In this chapter, based on the response of the participants, the core findings of the study will be presented. The information gathered is presented using tables and charts, and discussion and analysis are made on the basis of the obtained result.

4.1 Findings

4.1.1 Background of the Participants

In this section, the background information of the participants of the study will be presented. Tables and charts 1-3 focuses on the participants' background information collected through questionnaire.

Table 1: Number of students with hearing impairment by sex

<table>
<thead>
<tr>
<th>Response</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>23</td>
<td>47.92</td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>52.08</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

According to Table 1, the total number of students with hearing impairment who participated in the study are 48. Out of which, 25 (52.08%) are male and 23(47.92%) are female. The number of male participants is slightly higher than the female participants of the study.
Table 2: Number of students with hearing impairment by age

<table>
<thead>
<tr>
<th>Age range</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-20</td>
<td>41</td>
<td>85.4</td>
</tr>
<tr>
<td>20-25</td>
<td>7</td>
<td>14.58</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

As it is indicated in Table 2, from all participants of the study 41(85.4%) are in the age range of 15-20, 7(14.58%) are in the age range of 20-24. The mean age of participants is 18.4.

Chart 1: Distribution of respondents by age and sex.

From the above chart, it is understood that from all the participants of the study, 22(45.8%) are male and in the age range of 15-20. Whereas, 19(39.6%) of them are female and in the age range of 15-20. Those who are in the age range of 20-25 accounts...
for 3(6.3%) male and 4(8.3%) female. From this we can understand that, in this study most of the students with hearing impairment are in the age range of 15-20.

Chart 2: Distribution of respondents by religion.

From chart 2 it is understood that, the number of the Orthodox Christians is predominantly the biggest constituting 28(58.33%) of the total respondents, 9(18.75%) the Muslim group, while 11(22.95%) were protestants.

Table 3: Distribution of respondents by grade level

<table>
<thead>
<tr>
<th>Grade</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>9</td>
<td>18.75</td>
</tr>
<tr>
<td>10</td>
<td>38</td>
<td>79.17</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

According to Table 3, from the participants of the study 9(18.75%) are grade nine students. A total of 38 (79.17%) are grade ten whereas, 1 (2.1%) is a grade 12 student. It means that the majority of the participants of the study are grade ten students. In terms of their marital status, 48(100%) of the respondents are unmarried.
Chart 3: Distribution of respondents by their parents’ educational level.

As chart 3 makes it plain, out of the total number of respondents fathers’ educational level indicates that, 11(22.9%) of them are illiterate, 17(35.4%) elementary school level, while 20(41.7%) attend secondary school.

With regard to the participants mothers’ educational level, 22(45.83%) of them are illiterate, 22(45.83%) are at elementary school level, while, 4 (8.34%) are at secondary school level.

Generally, the result tells, the educational level of parents of students with hearing impairment is not more than secondary school level. The response received from the participants shows that none of their parents attended college or above level.
4.1.2 HIV/AIDS Awareness

According to chart 4, 43(89.6%) of the participants responded that unprotected sexual intercourse is the main means of HIV transmission, whereas, 5(10.4%) of the respondents explained that unprotected sexual intercourse is not the mode of HIV transmission. The result reveals that, most students with hearing impairment are aware that the first and main mode of HIV transmission is through sexual intercourse.

From all participants of the study, 38(79.2%) described that HIV can be transmitted by blood contamination, whereas 10(20.81%) stated that, HIV is on no account transmitted by blood contamination. According to chart 4, most students with hearing impairment that is about 80% know the second mode of HIV transmission.

Concerning the third mode of transmission, 39(81.25%) of the respondents of the study pointed out that, HIV can not be transmitted through mosquito bite, while 9 (18.75%) of
them stated mosquito bite transmits HIV/AIDS. The result of the study indicates that, students with hearing impairment have general understanding about the mode of HIV transmission even though some still have misconceptions especially about mosquito bite. They tend to consider it to be the modes of transmission.

With regard to the fourth mode of HIV transmission, from the participants of the study 40 (83.3%) talked about using sharp material together with the infected person as one means, whereas 8(16.7%) indicated that using sharp material used by infected person can not be the means of HIV transmission. From the study it is understood that, more than 80% of the participants of the study are familiar with the fourth means of HIV transmission.

As it is indicated in chart 4, students with hearing impairment were asked whether HIV is transmitted by using food utensils with HIV infected person. Accordingly, 42(87.5%) responded that HIV by no means is transmitted by sharing food materials with HIV positive person. Though, 8(12.5%) mentioned that, HIV is transmitted by using food utensils with the infected person.

In addition to the above mode of transmission, 34(70.8%) of these students portray that, HIV can be transmitted from the infected mother to a child. However, 14(29.2%) stated that there is no HIV transmission from mother to child.

By and large, students with hearing impairment are found to have adequate knowledge about the main modes of HIV transmission. According to this study majority of the students with hearing impairment know almost all modes of HIV transmission.
On the topic of the symptoms of HIV/AIDS patient, 45(93.75%) of the respondents of the study declared, lose of weight as symptom for HIV/AIDS patient. However, 3(6.25%) of the respondents said that it can not be a symptom for HIV/AIDS patient.

From chart 5, it is understood that, 36(75%) of the participants of the study revealed, lose of appetite as a symptom for HIV/AIDS patient. But 12(25%) of them indicated that, lose of appetite has nothing to do with symptom for HIV/AIDS patient.

Concerning diarrhea, 41(85.42%) of the participants of the study responded that it is a symptom that can be seen on HIV/AIDS patient while, 7(14.6%) of them explicate that it can not be a symptom on HIV/AIDS patient.

From the above chart it is understood that, 35(72.9%) of the participants of the study mentioned increasing of weight on no way can be the symptom for HIV/AIDS patient.
Generally, when we consider all the responses given by students with hearing impairment concerning symptoms on HIV/AIDS patients, it is possible to generalize that, most of the Participants of the study are familiar with the symptoms that can be seen on HIV/AIDS patient.

Table 4: Main ways of HIV prevention as perceived by respondents

<table>
<thead>
<tr>
<th>Response</th>
<th>Having one sexual partner</th>
<th>Abstinence</th>
<th>Using condoms</th>
<th>Using vaccination</th>
<th>Not sharing sharp materials with others</th>
<th>Using pills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Right</td>
<td>30</td>
<td>62.5</td>
<td>43</td>
<td>89.6</td>
<td>43</td>
<td>89.6</td>
</tr>
<tr>
<td>Wrong</td>
<td>18</td>
<td>37.5</td>
<td>5</td>
<td>10.4</td>
<td>5</td>
<td>10.4</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

According to Table 4, 30(62.5%) of the participant of the study responded that having one sexual partner is one means of prevention for HIV. However, 18(37.5%) of the respondents mentioned that, having one sexual partner is not a way of HIV prevention.

Moreover, from the participants of the study, 43(89.6%) stated that, abstinence is one measure to prevent HIV/AIDS. Whereas, 5(10.4%) mentioned, it is not a preventive measure.
Pertaining to condom as a means of HIV prevention, 43 (89.6%) of the respondents of the study declared, it is a means for HIV prevention. However, 5 (10.4%) of the participants of the study explicate that condom by no means can be a preventive way for HIV/AIDS.

When the participants of the study were asked whether vaccination prevents HIV/AIDS or not, 40 (83.3%) declared vaccination as an HIV preventive measure. However, 8 (16.7%) stated, vaccination can not be a preventive measure for HIV/AIDS.

Regarding not sharing sharp materials with others, 29 (60.42%) of the participants of the study confirmed it is one means for HIV/AIDS prevention. The remaining 19 (39.58%) argued, it is not HIV prevention method.

Concerning the last means of HIV preventive measure, 30 (37.5%) described using pills can never be HIV prevention measure. But 18 (62.5%) stated it as a means of HIV prevention. In general, students with hearing impairment have better understanding about the main measures of prevention.
Table 5: Reason for stigma and discrimination as perceived by respondents

<table>
<thead>
<tr>
<th>Response</th>
<th>Not having information about the means of HIV transmission</th>
<th>Not having information about the means of prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Right</td>
<td>44</td>
<td>91.7</td>
</tr>
<tr>
<td>Wrong</td>
<td>4</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

In line with reason for stigma and discrimination, 44(91.7%) of students with hearing impairment responded, not having appropriate information about the means of HIV transmission is a cause for stigma and discrimination. Moreover, 35(72.9%) of the respondents explained that not having appropriate information as a reason for stigma and discrimination.

Table 6: Distribution of respondents by HIV/AIDS test

<table>
<thead>
<tr>
<th>Response</th>
<th>Have you ever tested your blood for HIV/AIDS?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>

53
When the participants of the study were asked whether they had a blood test for HIV/AIDS or not, 17(35.42%) explained that they had a blood test for HIV/AIDS. Out of which 17(100%) mentioned their primary reason is that they want to know their status. While 4(23.53%) of which have a strong belief that even if they are HIV positive they can live. The rest, 7(41.2%) expressed that they had a blood test because they had an experience which exposes them to the virus. From the result it is understood that, most students with hearing impairment had a blood test for HIV/AIDS even though some of them did not have a blood test.

4.1.3 Sexual Behavior

Table 7: Distribution of respondents by their sexual experience.

<table>
<thead>
<tr>
<th>Response</th>
<th>Have you ever had an experience of sexual intercourse?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>

From all the respondents, 13(27.1%) admitted that they had an experience of Sexual intercourse, while the majority 35 (72.9%) said, they never had sexual intercourse in their life time. From the above finding, most students with hearing impairment never had sexual experience.
Table 8: Distribution of respondents by use of condom

<table>
<thead>
<tr>
<th>Response</th>
<th>Did you use condom in your last sexual intercourse?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>

From the participants of the study those who had sexual experience are only 27.1%, out of which, 4(8.3%) described that they used condom in their last sexual intercourse. On the contrary, 9(18.75%) said that they did not use condom in their last sexual intercourse.

From the finding of the study, from those who had sexual experience, 18.75% they did not use condom in their last sexual intercourse. This kind of risky sexual activity is a means of HIV transmission for most adolescents.

Table 9: Distribution of respondents by the place where they can buy condoms

<table>
<thead>
<tr>
<th>Response</th>
<th>If you in case want to buy condoms from where do you think you get it?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>43</td>
</tr>
<tr>
<td>Store</td>
<td>9</td>
</tr>
<tr>
<td>Health centers or clinics</td>
<td>41</td>
</tr>
<tr>
<td>My partner</td>
<td>7</td>
</tr>
</tbody>
</table>

55
As Table 9 makes it plain, students with hearing impairment mentioned where they can find condoms. The majority of the respondents 43(89.6%) and 41(85.4%) of them stated condoms can be found in a pharmacy and health centers respectively. The remaining 9(18.8%) and 7(14.6%) of them mentioned store and their partners in that order.

Students with hearing impairment have information where to get condoms. Having such awareness is important in such a way that if they want to get it they can find it easily.

4.1.4 Source of HIV/AIDS Information

Chart 6: Distribution of respondents by their source of information

According to Chart 6, 37(77.1%) of the students with hearing impairment get HIV/AIDS information from their friends, 6 (12.5%) from their families. For 6(12.5%) of the participants radio is their source of information.

Regarding television 36 (75%) of the respondents sited it as their source of HIV/AIDS information. Printed materials are source of HIV/AIDS information for 37(77.1%) of the...
participants of the study. From the participants of the study, 3 (6.25%) described Anti AIDS club as their source of HIV/AIDS information, 19(39.6%) teachers as their source of HIV/AIDS information.

Religious leaders are source of information for 13(27.1%) of the participants of the study. From the participants of the study, 12 (36%) of them mentioned clinics as their source of HIV/AIDS information. Concerning peer education, 40(83.3%) of the participants mentioned that peer educators are their source of HIV/AIDS knowledge.

From the above chart it is possible to understand that the main sources of HIV/AIDS information for students with hearing impairment to be their friends, television, printed materials and peer educators.

4.1.5 Strategy to Teach Students with Hearing Impairment about HIV/AIDS

Chart 7: Distribution of respondents by strategy suggested to teach students with hearing impairment about HIV/AIDS
As illustrated in chart 7, it is understood that, 45(93.75%) of the respondents mentioned drama and theatre as a good strategy to teach students with hearing impairment about HIV/AIDS. From the participants of the study, 42(87.5%) explained the importance of peer education in teaching the students about HIV/AIDS.

Regarding panel discussion, 41(85.42%) explained that panel discussions are important way to teach these students about HIV/AIDS. All (100%) of the participants of the study declare radio can not be a good teaching method for students with hearing impairment.

In relation with, television31 (64.6%) of the respondents of the study explicate that television can be one strategy to teach students with hearing impairment about HIV/AIDS if and only if it is supported with sign language interpreters.

Concerning captioned films, 30 (62.5 %) of the participants mentioned that, captioned films can be used to teach students with hearing impairment about HIV/AIDS. With reference to the use of sign language, all (100%) of participants declare it as the main and important teaching strategy.

Most students with hearing impairment who participated in the study choose drama and theatre, peer education, panel discussion, television, captioned films, and teaching using sign language as the strategy to teach students with hearing impairment about HIV/AIDS.
4.1.6 Correlation between Awareness and Sexual Behavior

Table: 10 Correlation between awareness and sexual behavior

<table>
<thead>
<tr>
<th>No</th>
<th>variables</th>
<th>correlation</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sexual behavior</td>
<td>1.00</td>
<td>0.13*</td>
</tr>
<tr>
<td>2</td>
<td>awareness</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

*Not significant

To describe the research question which says “Is there any relationship between the awareness of students with hearing impairment about HIV/AIDS and their sexual behavior”, the result indicates that there is no significant relationship between the awareness and the sexual behavior of students with hearing impairment.

4.1.7 Comparisons of Gender and HIV/AIDS Awareness

Table: 11 Comparisons of gender and HIV/AIDS awareness

<table>
<thead>
<tr>
<th>Sex</th>
<th>Mean</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>17</td>
<td>0.10*</td>
</tr>
<tr>
<td>Male</td>
<td>17.08</td>
<td></td>
</tr>
</tbody>
</table>

*Not significant

To find out whether there exists a significant difference between male and female participants on the variable awareness, statistical procedure was performed. The mean values for the variable awareness were found to be 17.08 and 17 for male and female respectively. The t-value 0.10 shows that there is no significant difference between the two sexes. This difference could not be explained by the deaf students' gender.
4.2 Summary for the Interview Result

In this section the interview result will be presented. In this study students with hearing impairment, school club representatives and people who work in two different organizations with individuals with hearing impairment were participated.

All interviewed students with hearing impairment mentioned the four means of HIV transmission. They mentioned that AIDS is caused by HIV virus. The main means of transmissions are through unprotected sexual intercourse, through blood transfusion, using sharp materials together with the infected person and from mother to child transmission. To mention one student with hearing impairment stated that;

"AIDS is a deadly disease. It comes from a virus called HIV. It is transmitted by having sex with the person who is infected by the virus which is not safe. Most people are infected with this virus in this way of transmission. HIV is also transmitted from mother to child that is if the mother is HIV positive she may transmit the virus to her baby. HIV can be transmitted from one person to another by using sharp instruments used by HIV infected person. The last means of HIV transmission is by blood transfusion from infected person. All these are the ways that HIV transmits from one person to the other". (SA)

Students with hearing impairment mentioned that before they attend the awareness raising program from Nigat Ethiopia they, had elementary level of HIV/AIDS awareness.
Some of them remarked that, they had misconception about the means of transmission and prevention too. For example, one interviewee mentioned that;

"I thought HIV is transmitted through casual contact with an infected person, such as hand shake, hugging or kissing or even sharing dishes. However, after I learned all the main means of transmission, I started to teach my family about the disease. Now, I have better understanding about the nature of the virus." (SB)

Students with hearing impairment answered the question about the main means of HIV prevention. All students with hearing impairment who participated in the interview mentioned the following means of HIV prevention abstinence from sexual intercourse before marriage, having one sexual partner and condom use. For example one student with hearing impairment explained that

"The first and the main means of HIV transmission is refraining from sex before marriage. Not involving in sexual activity which is risky is important measure one has to follow in his life time. Having one to one relationship should be the step that should be followed next to abstinence. Using condom is the third preventive measure inorder to keep one self from HIV infection." (SA)

All students with hearing impairment interviewed support abstinence as the best way of HIV prevention. Generally they emphasized on changing ones sexual behavior in the prevention of HIV/AIDS.
In addition one interviewee clarifies that “some people never had sex in their life time but, when they checked their blood they become HIV positive. The reason of infection may be by blood transfusion or by using contaminated materials.”

The source of HIV/AIDS information for students with hearing impairment are different magazines and newspapers, pamphlets given to them from Nigat Ethiopia deaf association for prevention of HIV/AIDS, discussions with their friends and television. To mention one student said that, “I always follow different television programs and I try to understand the message by lip reading. I saw dramas about the HIV/AIDS and learn about the disease.” Another student mentioned written materials as his source of information “I get information about HIV from newspapers. There is one person who lives around our house he always gives me different reading materials like newspapers which i get information about HIV/AIDS and other important issues.” One interviewee mentioned he gets information about HIV/AIDS from his friends. He said most of the time he discussed about different issues with his friends.

Students with hearing impairment were asked whether they discussed about HIV/AIDS with their parents. The response shows, most students participated in the interview did not discussed about HIV/AIDS with their families. However, one student with hearing impairment stated that her families always interpret information from radio and television including information about HIV/AIDS.

All students with hearing impairment confirmed, there is no vaccination or medicine found for HIV/AIDS. The best medicine is protecting one self from the conditions which can exposes from the infection of the virus.
Students with hearing impairment stated symptoms on HIV/AIDS patients like; lose of weight, lose of appetite, diarrhea, fever, sore throat and skin rash. They explained the above symptoms may not be seen always from the person who is HIV positive some people look healthy even if they are HIV positive. Therefore, a person may be identified after having blood test. Otherwise we cannot judge a person by simply looking at his/her physical appearance. As one student with hearing impairment mentioned in the interview,

"Some people try to judge a person by simply looking at his or her physical appearance. This is because these people have misconception. A person may lose his weight not only because he is HIV positive. Lose of weight is not only the symptom for HIV/AIDS but it can be a symptom for other disease too." (SC)

One student with hearing impairment on the interview stated that, he knows around his village one person who is HIV positive, from which he saw symptoms like lose of weight, lose of appetite, sore throat and skin rash.

People with low level of HIV knowledge may subject HIV patients to stigma and discrimination. People may stigmatize and discriminate HIV patients if and only if they do not have information about the way of HIV transmission and prevention. Nevertheless, it is possible to give the necessary care and treatment for HIV patients by taking appropriate measures not to be infected by the virus.
"Stigma and discrimination happen if the surrounding people know a person is HIV positive. This is mainly due to lack of information these people have. If the people know about the means of transmission and prevention of AIDS, they never subject HIV/AIDS patients to stigma and discrimination. There are some people who are hearing but don't have general knowledge about HIV/AIDS. Such kinds of people are stigmatizing and discriminating HIV positive individuals". (SC)

One student with hearing impairment added in the interview,

"HIV patients may fear to tell about their status even to their families fearing stigma and discrimination. They themselves need treatment not only to their health but also to different kinds of feelings they have like fear, anxiety, anger, loneliness. Therefore we are the only people to help those people who are HIV positive. If we know the means of HIV transmission and prevention, we take care of ourselves by giving appropriate care for them at the same time. Most people are not happy to help HIV positive people because they have misinformation about AIDS, how it is transmitted, which triggered widespread fear of contracting the disease." (SB)
All students with hearing impairment participated in the interview mentioned that they have no information about the existence of the anti-aids club in the school.

As the information of the anti-aids club representative in the school;

"There is anti-aids club in the school with 65 students with hearing students. The club did not include students with hearing impairment. In our school, we cannot get sign language interpreters; therefore, it was difficult for us to include them. However, there is a plan in the future to include these students but we need the help of sign language interpreters so that we can communicate. The main problem is the communication problem we have to work together. In the school there is no special program prepared for these students with hearing impairment to give them education about HIV/AIDS." (TA)

Concerning Girls club, there are about 85 hearing students in the club but hardly any girl with hearing impairment included in the club. According to the information of the club representative they did not include students with hearing impairment because they are few in number and students did not ask them to join the club.

"The club did not include students with hearing impairment because of communication problem students with hearing impairment have. In the school there are only few interpreters and we cannot use them for our purpose because these students use them for their education. The number of interpreters is not enough. I my understanding, students with hearing impairment are vulnerable for this disease even more than their non-disabled peers. Because of lack of information they have. But in the school I did not see awareness raising program for these students." (TB)
The interview with the school guidance and counselor indicates, the guidance and counseling sector is not responsible for educating students with hearing impairment about HIV/AIDS.

St. Merry Counseling and Social Support Service Center have counseling and testing center at St. Merry laboratory. The center is giving the service for individuals with hearing impairment in particular and for persons with disabilities in general. The counseling service given for persons with hearing impairment is using sign language. All counselors working in St. Mery are given sign language training for two months.

The center was obliged to begin the program because of one client who is hearing impaired. When the women come to get the service at the center, it became difficult to communicate with her in order to give the counseling service. Then after, the center started the service with sign language for individuals with hearing impairment. The counselor from St. Mery stated that;

“One day women with hearing impairment came to get the counseling and testing service in our center. We tried to communicate with her using ordinary signs. But it is difficult to give the counseling for us. Then we ask the women to bring someone which can create communication between us. The next day the women came with her friend who can use sign language. In that case, the center decides the importance of including people with disabilities in its program. Then after, all counselors working in St. Merry are given sign language training for two months". (CB)
St. Merry has a project at Minillik II primary school. The program is for students with disabilities specifically for students with hearing impairment and for students with visual impairment. The counselor mentioned;

“For students with hearing impairment, there is a program every week to educate them about HIV/AIDS. In this program, teachers of students with hearing impairment who are hearing impaired are participating. After the center decided to use teachers of students with hearing impairment, the center decided it has to be given continues training for these teachers because they themselves do not have sufficient awareness about the disease. Concerning the awareness level of students with hearing impairment the counselors stated that individuals with hearing impairment have low level of HIV/AIDS knowledge. Individuals with hearing impairment are far from HIV/AIDS information because of communication problem they have. Even they are more vulnerable than a hearing society because of lack of information access they have.” (CA)

Individuals with hearing impairment are far from HIV/AIDS information in general. Most ordinary people get HIV/AIDS information from different Media. However, persons with hearing impairment can not use different media for the disability he/she has. Medias like television can not be able to include individuals with hearing impairment in their programs. The media have programs about HIV in different forms like drama and discussions. But the message is not accessible to individuals with hearing impairment because it is not interpreted by sign language.
The counselors mentioned that;

"Because of lack of information many individuals with hearing impairment have, they are infected by the virus. Even though there is no tangible data, many people are died by this disease. In order to solve this problem awareness raising programs should be prepared using sign language." (CA)

Individuals with hearing impairment can be infected by all means of HIV transmission. It is difficult to categorized one means that they are mostly affected with. To categorize, there should be concrete data. But the center has no data in reference to this.

St. Merry Counseling and Social Support Service uses sign language to teach students with hearing impairment. In addition to their teachers, counselors working at the center have a program to teach students about HIV/AIDS. St. Mery counseling and social support service prepare leaflets to announce they are giving Counseling and Testing Service to individuals with hearing impairment.

Nigat Ethiopia deaf association for prevention of HIV/AIDS has counseling and testing service. The center mainly focuses on awareness raising program. In addition, the center is working with different organizations working on VCT because there is no laboratory at the center. The center works with individuals with hearing impairment who are interested to get the service. People who can use sign language are working with medical professionals. The sign language interpreters promise to keep the secret. The center uses announcements posted on announcement board to inform there is HIV awareness program.
"The center prepared awareness raising program at Minilik II secondary school. The program was designed because students did not have enough level of awareness. People who are working at the center participated in the awareness program. In addition some selected students were trained to train their peers under the supervision of the center. This is to encourage peer education. The awareness creation program for students was held every weekend including different kinds of programs like drama and jokes. In addition, audio visual materials were used to teach about HIV/AIDS." (ARA)

One of the interviewee from Nigat Ethiopia deaf association for prevention of AIDS stated,

*Both the awareness raising program and the counseling and testing service is given using sign language. Because the center has no laboratory for testing, it works with Family guidance association. Sign language interpreters from the center were used to facilitate the communication process their. People who are working with individuals with hearing impairment learned sign language and deaf culture. Therefore, they can transmit the message accordingly. The confidentiality of the testing is uncertain but all interpreters promised to keep the secret as theirs'. In order to solve this problem the center trained 20 counselors who can use sign language for giving the counseling service. Until now about 150 individuals with hearing impairment get the service out of which about 10% were found out to be HIV positive. (ARB)*

In relation to women and HIV/AIDS, the interview at Nigat Ethiopia confirmed, individuals with hearing impairment married each other. This time because they do not have sufficient knowledge about the disease there may be a case of HIV infection. So, women may be the victim for the incident. Besides, there are misconceptions around the
society that, HIV positive individuals can rid themselves of the virus by having sex with virgins. This time women may be vulnerable to the virus.

Nigat Ethiopia deaf association for prevention of HIV/AIDS mentioned that, most of the time they use peer educators to learn from each other about HIV/AIDS. The counselors mentioned, rather than learning through hearing doctors or different professionals, it would be easy and clear for individuals with hearing impairment learn each other. Specially, rather than using sign language interpreters in awareness creation program or discussion about HIV/AIDS, it would be better to learn each other.

Nigat Ethiopia use audiovisual materials in teaching students with hearing impairment about HIV/AIDS. Individuals with hearing impairment use their eyes to collect information from the surrounding environment. Therefore, it is important if pictures are used in giving them information. Using their unique language is also important in teaching them.
CHAPTER FIVE

Discussion

AIDS is caused by the Human Immuno deficiency Virus (HIV), which slowly attacks its victim's immune system. It is transmitted through sex, exchange of body fluids such as blood, sharing of needles and mother to child transmission can be mentioned. AIDS is considered as the last stage of HIV infection.

This section discusses the results in reference to the basic questions raised at the begging of the study. The first basic question reads, "Do adolescents with hearing impairment have enough awareness about HIV/AIDS?" according to the findings of the study students with hearing impairment at Minilik II secondary School do have sufficient awareness about HIV/AIDS. As it was stated on the finding section, almost all adolescents with hearing impairment know all the means of HIV transmission and prevention

Students at Minilik II Secondary School were given HIV/AIDS education by Nigat Ethiopia Deaf Association for prevention of AIDS. This was held at the school every Saturday and Sunday. It was conducted by individuals with hearing impairment who work in the organization.

The finding of the interview from St. Merry and Nigat Ethiopia indicates that, individuals with hearing impairment have low level of knowledge about HIV/AIDS. The survey done by ENAD (2005) has the same result with this finding. The finding pointed out, HIV/AIDS awareness level of the deaf community is low and, there are misconceptions
about HIV/AIDS transmission due to communication gap. Students who participated in the interview stated Nigat Ethiopia prepared awareness raising program for them in the school, before attending the program they had low level of knowledge about the disease.

Contrary to the findings of the study, different literatures support the low level of HIV/AIDS knowledge among the deaf and hard of hearing individuals. According to Luckner and Gonzales (2000, p.2), “Deaf and hard of hearing individuals demonstrated important gaps in their knowledge of how HIV and AIDS is transmitted and prevented and how one can get AIDS.”

The finding of the interview shows, before students are given education about HIV/AIDS they lack the knowledge. Counselors from St. Merry emphasized lack of access to information for their low level of HIV knowledge. The communication problem they have and the amount of information they get is a reason for their lack of HIV/AIDS information.

Almost all students with hearing impairment mentioned, AIDS is caused by the human immunodeficiency virus (HIV). HIV has no vaccination or medicine except that there are antiretroviral drugs. HIV is transmitted from one person to another mainly through four ways. The first way of transmission is through unprotected sexual intercourse. Sexual intercourse is the main mode of HIV transmission in the world. About 70% of the world’s infection is from sexual intercourse. Specially having multiple sexual partners makes the infection rate bigger. The second means of HIV transmission is through blood transfusion. If there is blood transfusion from the infected person to the healthy person there is HIV infection. The third means of HIV transmission is by using sharp materials
infected used by infected person. The last mode of HIV transmission is mother to child transmission at the time of pregnancy. According to chart 4, 43(89.6%), 38(79.2%), 40 (83.3%), 34(70.8%) of the participants of the study mentioned unprotected sexual intercourse, contact with infected blood, using sharp material used by infected person and transmission from infected mother to a child respectively as a means of HIV transmission.

According to table 4, 30(62.5%), 43(89.6%), 43(89.6%), 29(60.42%) of the participants of the study stated the prevention methods: having one sexual partner, abstinence, condom use and not sharing sharp material with others in that order. In compliance with this point, the interview held with students with hearing impairment assures that most students have knowledge about HIV/AIDS prevention measure. In addition, they tried to mention the best preventive measures from all preventive measures. As they stated, “the main and the best preventive measure is abstinence, refraining from sex before marriage.” But if this is not possible having one sexual partner is necessary to keep oneself not to be infected by the virus. The third means of HIV prevention can be using condom. Nevertheless, students with hearing impairment emphasized on the preventive measure abstinence. Moreover, they pointed out that, HIV can also be transmitted through using sharp instruments with others even though the main mode is through unsafe sex, so keeping oneself away from sharing such material is important for a person to keep himself from HIV infection.

Students with hearing impairment mentioned possible symptoms that can be seen on HIV/AIDS patient. Symptoms like: lose of weight, lose of appetite, diarrhea, fever, sore throat and skin rash. According to chart five, 41(85.42%), 36(75%), 45(93.75%) of the
participants of the study mentioned diarrhea, lose of appetite, lose of weight as symptom on HIV/AIDS patients respectively.

From the interview it is understood that, a student with hearing impairment cite one example from a person who live in his surrounding and he mentioned, he saw some of the symptoms mentioned above. Furthermore, some of the interviewees stated that, some individual who are HIV positive never show any symptoms which are mentioned above. We can not judge a person HIV status simply by looking at his physical appearance. They emphasized on the importance of blood test to say either one is HIV positive or not. Generally, from the study it is possible to understand that, students with hearing impairment have good understanding about the symptoms of HIV/AIDS.

Regarding stigma and discrimination, students with hearing impairment point out that lack of understand about HIV/AIDS subject HIV positive individuals for stigma and discrimination. Even sometimes school administrators tend to refuse the enrollment of HIV positive students. The interview held at St. Mery Counseling and Social Service Center with the counselors proves this idea. They informed the researcher that, one mother went to a school to get her HIV positive daughter registered. She informed the director and the unit leader about the status of her daughter. When they learned the story of the girl, they refused to accept her. Finally with the help of St. Mery counseling and social service center, the girl was registered and started to learn. After this incident, the center started to give awareness raising program at that school.

Students with hearing impairment at Minilik II secondary school have generally understanding about HIV/AIDS. According to the result of questionnaire and interview
with students with hearing impairment indicates, they know the ways of transmission, means of prevention, symptoms on HIV patients and other general points about the disease. Therefore, it is possible to conclude that students with hearing impairment have enough awareness about the disease. However, individuals working at organizations St. Mery and Nigat Ethiopia do not comply with this idea. They confirmed that generally people with hearing impairment have low level of HIV/AIDS knowledge because of lack of information and communication problem they have as a result of the disability they have.

Possible cause for students with hearing impairment to have good level of HIV knowledge is the awareness raising program provided for them. Students themselves compared their level of knowledge before and after attending the program. One student explained that he had misconception about the means of transmission and prevention before.

In educating students with hearing impairment, parents have a great role, but most parents of students with hearing impairment did not discuss about HIV/AIDS with their children. Lack of sign language knowledge can be the challenge to communication problem. According to African children Initiative (2005,p.3), “Within a family set up, communication is a big challenge and sometime deaf people are left out because of lack of knowledge of sign language, leaving them marginalized and cut off from day to day activities and events.” Therefore, educational programs for parents of children with hearing impairment should be prepared inorder to solve the communication problem they have and give early education for their children.
Joining hands in organizations like Nigat Ethiopia and St. Merry counseling centers with schools should be appreciated. The awareness raising programs they stated at Minilik II primary and secondary school plays a great role in saving these groups of the society. Especially children with hearing impairment should be learned at their early age so that they can keep themselves from the disease. Those who are at the adolescent age also need urgent support because they may involve in risky sexual activity which may exposes them to HIV infection.

Concerning voluntary counseling and testing services given in two centers, Nigat Ethiopia focuses on awareness raising program even though they work with Family Guidance association for testing. The problem is they use sign language interpreters in the counseling and testing process. The confidentiality of the service is uncertain. However, the case of St. Merry they have their own laboratory in addition the counselors have the ability to use sign language.

St. Merry Counseling center is on the way to prepare different pamphlets to publicize the services it renders for person with disabilities. Such experience is appreciated because most people with disabilities may not know the availability of the service. When it is compared with the experience of Nigat Ethiopia Deaf association for prevention of HIV/AIDS they mentioned that, when they prepare awareness creation programs they use announcement posted on the announcement board. This announcement may not be reachable to all people who need the service. So, learning from the experience of St. Merry Counseling Center is important. In addition, According to Scott (1998, p.4), "No one advertised that they had sign language interpreters. If that information is not listed as
a service, deaf people automatically assume it will not be provided.” Giving appropriate information early is important to make them use the services.

Regarding testing their blood for HIV/AIDS, the result of the study describes that, most 31(64.58%) of the participants of the study did not have a blood test for HIV/AIDS. From which, 20(64.52%) described that they did not have a blood test for fear to be subjected to social stigma and discrimination if they are HIV positive. Even, sometimes people never allow renting house or employing someone for she/he is HIV positive.

Furthermore, 10(32.26%) of the participants pointed out that, if they are HIV positive they think they die soon. This is a misconception which is deep-rooted in the mind of the society. For some people death overwhelms their mind the time they think about HIV/AIDS.

The result makes it clear that, most (64.58%) of the students with hearing impairment did not take a blood test. As it was described earlier, even though students with hearing impairment have enough knowledge about HIV/AIDS they did not take a blood test.

For the research question, “what are the main sources of AIDS information for adolescents with hearing impairment?” The result shows that, students with hearing impairment get information about HIV/AIDS from different sources. The major sources cited are their friends, television, printed materials and peer educators the result from chart 6 confirms this. The result of this study matches with some sources of information and contradict with others sources of HIV/AIDS. According to Heuttel and Rothstein...
(2001, p.280) “the deaf students obtained more of their information about HIV/AIDS from family and friends than the hearing students.” The result described that, students with hearing impairment get information from friends. As one student with hearing impairment mentioned in the interview, most of the time he discussed current information with his friends. Sometimes they discussed about HIV/AIDS ways of transmission and prevention. At early age youngsters with hearing impairment need to get HIV/AIDS as well as sex education from their parents. Specially, children with hearing impairment need more HIV/AIDS information. Because they are far from information because of the disability they have. In Ethiopia, it is not a tradition to teach teenagers or young people about sex education. Children rarely receive the first information on sexual matter from their parents. In this study, most students did not discuss about HIV and their source of information are not their families for most of them.

Because of the disability they have, deaf and hard of hearing individuals need to use sign language to get information they need. News and educational programs transmitted about HIV/AIDS should be interpreted by sign language. Individual with hearing impairment need more information not only about HIV/AIDS but also about current and new information. But mass Media are not giving such information for this specific group of people. Therefore, different programs from the mass media should be interpreted so that the information is accessible to them.

For the research question which says “How is the sexual behavior of students with hearing impairment? “The following results were found. As this study find out, most, more than 70%, students with hearing impairment have a sexual behavior which is positive and important in the prevention of HIV/AIDS. They stated that, they have never
had sex that is, the preventive measure they following is abstinence. Sexual behavior of a person plays a great role in the prevention of HIV/AIDS. Different scholars in the area of HIV/AIDS mentioned, behavior modification as the main prevention of the spread of HIV virus including safer- sex practices, condom use or abstinence from sex. Effective prevention involves enabling people to alter sexual practices to behavior which is considered to be natural to health.

Even though, 27.1% of the participants that is less than fifty percent had risky sexual behavior, most of the participants are on the safest side. They did not involve in risky sexual activity. As it was mentioned above abstinence should be the major way that should be followed by youngsters to prevent oneself from contracting HIV/AIDS. As sexual transmission contributes to about 70-80 % of the global transmission of HIV infection, the measure that was taken by these adolescents is worth appreciating.

According to the report of MOH (2002), the reported AIDS cases show that about 91% of infections occur among adults between 15 & 49 years. The finding of this study has similar result with the above report. From the respondents of the study, 27.1% had their first sexual intercourse in the age range of 15-20. Adolescence period is a period that most youngsters perform risky sexual activity which in turn may expose to HIV/AIDS or other sexually transmitted diseases.

Supporting the finding of the research Frank and William (2005) described that,

"Almost 50 percent of adolescents under the age of 15 and 75 percent under the age of 19 reports having had sexual intercourse. Despite their involvement in sexual activity, some adolescents are not interested in, or knowledgeable about, birth-control methods or the symptoms of sexually transmitted disease. Consequently, the rate of illegitimate births and the incidence of sexually transmitted disease are increasing."
From the participants of the study those who had sexual experience that is 27.1%, out of which, 4(30.77%) described that they used condom in their last sexual intercourse. On the contrary, 9(69.23%) of the participants said that they did not use condom in their last sexual intercourse. Furthermore, according to the report of FOCUS (2004,p.3), “Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure and they are not likely to use condoms.”

HIV is transmitted through sexual intercourse, contact with HIV-infected blood, and from mother to infant. When the participants of the study mentioned their reasons why they did not use condom, from all those who mentioned they had sexual experience that is 9 of them did not use condom and their reason is because they fear to buy condoms. In our society buying condoms is thought as something shameful. Even though there is awareness about HIV AIDS, practicing the theory is difficult especially in our society. People choose involving in risky sexual activities rather than buying condoms in public. Here, it is possible to suggest that, education about using condom is important. Youngsters, who are the productive part of the society, should be given priority to be educated to have safer sexual practice.

From all who have an experience of sexual activity 55.6% stated their reason as not having knowledge about condom use. Here, we can understand that education about condom use should be given to students with hearing impairment. Even, some of the respondents mentioned that they or their partner don’t want to use condom. Last but not
least, some of the participants explicate that they never believe the fact that condom never protects oneself from HIV/AIDS.

According to Person (1998) adolescents may have a negative belief about safer sex practices. For example, they believe that condoms adversely affect sexual enjoyment. The finding of the study describes that some of the participants of the study do not want to use condoms because of the wrong perception they have. From the result it is understood that, having knowledge is not by itself a preventive measure unless there is willingness to change our behavior so that we can prevent HIV/AIDS effectively from at the grass root level. For most people, engaging in heterosexual intercourse without the use of a condom is the behavior that puts them at greatest risk of HIV/AIDS infection which is often ultimately fatal.

From those who used condom in their last sexual intercourse, that is 4 (30.77%) described that, they used condom because they believe that it prevents them from HIV/AIDS, STD’s and unwanted pregnancy.

Individuals can reduce their exposure to sexual risks by practicing abstinence, and using of safer sex practices. Such practices include using condoms to avoid exchanging bodily fluids, limiting the number of sexual partners. But, many teenagers are knowledgeable about the risks and consequences of HIV, yet a large percentage do not perceive that they are personally at risk.
By and large, the sexual behavior of adolescents with hearing impairment is important in the prevention of HIV/AIDS. No matter how much knowledge a person has about HIV/AIDS, the sexual behavior he/she has determines his infection rate. Effective prevention involves enabling large number of people to change sexual practices that are widely considered to be natural and essential to health. The major thing in preventing HIV/AIDS is having positive sexual behavior that is safe sexual activity. Adolescence is a period marked by increased sexual behavior. Therefore, this period is important in determining ones infection rate. As a result of the increase of sexual behavior, the person may be exposed to HIV infection. According to Woodroffe et al. (1998, p.13), "people with hearing impairment were more likely to believe they did not need to change their sexual behavior as a result of the AIDS epidemic."

It was found out that there is no significant relationship between the awareness and the sexual behavior of students with hearing impairment, from the result it is understood that, the students' sexual behavior is not directly related with their awareness. Their sexual behavior is not resulted from their awareness level they have now. Before the awareness raising program they had a sexual behavior which is healthy. Even though, their awareness level increases their sexual behavior remains unchanged.

The main thing in the prevention of HIV/AIDS is having a sexual behavior which is healthy. Some of these measures may be abstinence; being faithful to the partner and using condom. Most about 80% of the participants of the study were following some of the healthy sexual behaviors. The sexual behavior which they have is not a result from their increasing of their awareness.
The interview with teachers and school guidance and counselors describe that, even though they know students with hearing impairment are in the school, they are forgotten communities. There is anti AIDS Club in the school but it never tried to include students with hearing impairment. As the report of the representative of the Club, students with hearing impairment were not included in the club, because their number is small and because of a language problem they have to communicate with them.

Most students with hearing impairment said that, they don’t have the information about the existence of the club in the school. This may happen because; the society has wrong belief about adolescents with disability, which they are less likely to be sexually active as their non-disabled peers. Therefore, they never invite the unfortunate ones in educational programs about safer sex practice and/or HIV/AIDS. According to Nidrosy (2005, p.3-4), “Most communities have misconceptions about people with disabilities especially in terms of their sexuality which lead to their exclusion from situation which offers appropriate information and experience. There is a tendency to look at PWD’s as either asexual or sex objects. This predisposes them to sexual abuse and the risk of HIV/AIDS.”

Most Students with hearing impairment complained that teachers did not give them HIV information in their lessons. Even though much is expected from teachers of students with hearing impairment to teach issues like HIV/AIDS or sex education, teachers at Minilik II secondary school, did little for students with hearing impairment in providing such informations.
Students with hearing impairment were asked whether they think they may catch HIV/AIDS or not, they tried to mention their feelings accordingly. From all the participants of the study 16.7% described that they think they caught HIV/AIDS because they have experience of sexual intercourse with different people. 12.5% of the participants of the study stated that, they have sexual experience with commercial sex workers. 18.8% of the respondents mentioned they think they may catch HIV/AIDS because they had sex with out condoms. The other group of participants described that, they used sharp materials used by others. Whereas 6.3% stated that they suspect they caught HIV because they took blood from others.

The participants of the study described their reasons as to why they think they never catch HIV/AIDS. A total of 62.5% mentioned that, they have no experience that can expose them to the virus. Not having sex before marriage is an important decision in life. In addition, 6.25% of the participants of the study described that, they always use condom. Having consistent and regular use of condoms is important in preventing oneself from the virus. Some people may have HIV/AIDS knowledge, but it becomes difficult to change their sexual behavior. Having sexual behavior which is not healthy exposes the person to the virus.

The main thing in the prevention of the spread of the virus is changing sexual behavior. Abstinence, having one sexual partner or using condoms is a measure that should be followed by young people. In HIV prevention process, the main thing is persuading youth to delay sexual activity, to use condoms, and to remain faithful to a single partner over time. Effective prevention involves enabling a number of people to change the sexual practice he or she has. Is there a significant difference between sexes on their level of
awareness on HIV/AIDS, as the finding of the study makes it clear, there is no discrepancy between male and female students with hearing impairment in their level of HIV/AIDS awareness. Both have the same level of HIV knowledge. This result tells that having proper knowledge of HIV/AIDS is important because they are the most vulnerable group. According to Grundfest (2005), females affected six times than male of the same age by HIV/AIDS. Therefore, having sufficient knowledge is important in the prevention of the disease.

In addition, there are misconceptions around the society that, HIV positive individuals can rid themselves of the virus by having sex with virgins. In addition, disabled girls are assumed to be virgins. All this incidents makes girls with disability more vulnerable to sexual abuse and the infection of the virus. As the report of Groce et al. (2004), disabled women in particular are likely to have more sexual partners than their non disabling peers. Extreme poverty and social sanctions against marrying a disabled person mean that they are likely to become involved in a series of unstable relationship. Moreover, different myths are revolving around them which make them to be vulnerable to the disease. According to Asindua (2005, p.11) “They are indeed at risk of HIV/AIDS because in this dire age of HIV/AIDS there are a lot of myths like about Virgin cleansing the belief that persons who are HIV positive can rid themselves of the virus by transferring it, through sexual intercourse to a virgin.” Women with disabilities are target because people think that they are sexually inactive that is virgins. So, virgin cleansing is performed on them. This makes them vulnerable to the virus.
Possible reason for both sexes to have the same level of knowledge is, they passed through the same awareness raising program in the school. Nigat Ethiopia includes both sexes at the same place and the same program in HIV/AIDS education campaign. The result tells to the policy makers that, HIV/AIDS education programs can be prepared at the same level for both sexes.

Concerning best teaching strategy for students with hearing impairment about HIV/AIDS, the participants of the study mentioned different strategies which they think is pertinent to them. Most students with hearing impairment who participated in the study choose drama and theatre, peer education, panel discussion, television, captioned films, and teaching using sign language as the strategy to teach students with hearing impairment about HIV/AIDS.

All students with hearing impairment prefer the way of teaching which involves sign language. As sign language is the main mode of communication for individuals with hearing impairment, using this strategy will help the education to be conveying the message effectively to the receiver.

As it was described above, about 83.3% of the participants mentioned peer educators as their source of information. Using peers for teaching such information is a good strategy to teach young people about sex or sex related lessons like HIV/AIDS. According to the report of the councilors of Nigat Ethiopia Deaf Association for Prevention of HIV/AIDS, most of the time they use peer educators to learn from each other about HIV/AIDS. The counselors mentioned that, rather than learning through hearing doctors or different professionals it would be easy and clear for individuals with hearing impairment learn
each other. Specially, rather than using sign language interpreters in awareness creation program or discussion about HIV/AIDS, it would be better to learn from each other. So, there are about 20 trained counselors who are teaching individuals with hearing impairment. Even at Minilk II Secondary School, we did the same thing, we trained some of them for continues period of time then they teach each other every Saturday and Sunday in the supervision of the association.

From the interview result, it is understood that, in addition to the above mentioned strategies using audio visual material in teaching students with hearing impairment about HIV/AIDS is important. One classical example is Nigat Ethiopia the organization is using this method in teaching individuals with hearing impairment.
CHAPTER SIX

Conclusions and Recommendations

6.1 Conclusions

Students with hearing impairment have adequate awareness about HIV/AIDS. Almost all students with hearing impairment know all the mode of HIV transmission and the methods of HIV prevention. Some individuals who are working with hearing impaired people argue that students with hearing impairment do not have enough information about HIV/AIDS. They claimed that they do not have access to information. On the contrary, it is found out that students with hearing impairment have knowledge about HIV/AIDS.

According to the findings of the study, there is no awareness discrepancy on HIV/AIDS between male and female students with hearing impairment. In addition, it is found that there is no significant relationship between the awareness of students with hearing impairment and their sexual behavior.

Most students with hearing impairment have healthy sexual behavior. They preferred abstinence from sexual intercourse before marriage. Nevertheless, some students with hearing impairment had sexual behavior, which may expose them to HIV/AIDS.

The main sources of HIV/AIDS information for students with hearing impairment are friends, television, printed materials and peer educators. The best strategies for teaching students with hearing impairment as per the findings of the study are drama and theatre, peer education, panel discussion, television, captioned films, and teaching using sign language.
6.2 Recommendations

From the findings of the study the following recommendations were forwarded.

1. There should be additional awareness creation programs for individuals with hearing impairment. Even though, some individual with hearing impairment have sufficient knowledge about HIV/AIDS, most of them may not get access to HIV/AIDS information. Therefore, further education about HIV/AIDS should be given to youngsters with hearing impairment which is facilitated with sign language.

2. Different organizations that work with individuals with hearing impairment should expand their programs especially those related with awareness creation programs. Trainers who are working with students with hearing impairment are expected to provide the necessary information about HIV/AIDS in order to fill the information gap.

3. There should be voluntary counseling, testing center for individuals with disabilities in general, and individuals with hearing impairment in particular. The VCT service should consider the special needs of the target group. In addition, professionals who are working at the center should have adequate knowledge about HIV/AIDS and the target group they are serving. For example, if they are working with individuals with hearing impairment they should know about hearing impairment.

4. Experience sharing programs among organizations with the same goal and objectives is important. This helps to join hands and share their unique experiences. It also serves to come up with multi faceted solutions for the problem at hand.
5. Different advocacy activities should be organized for individuals with hearing impairment to help them know about the service given with their own language.

6. Organizations that work with disability and HIV/AIDS should take the initiative to launch different television programs particularly programs related with HIV/AIDS to be interpreted with sign language. This helps individuals with hearing impairment to get the information easily.

7. School clubs like Anti–AIDS and Girls Club including the guidance and the counseling should encourage the participation of students with hearing impairment and invite them in different HIV programs in the school. It is appreciated if they prepare sign language aided awareness raising programs for students with hearing impairment in the school.

8. Parents of students with hearing impairment should understand the special needs of their children and address them in appropriate way. In addition, they should have to teach them about HIV/AIDS and other important issues, which are necessary.

9. Education campaigns should be arranged by organizations working with individuals with hearing impairment. These campaigns should focus on behavior modification in a prevention of HIV/AIDS. These educational programs should instruct about altering risky behaviors, safe-sex campaigns, encourage sexual abstinence, sexual relations with only one partner and the proper use of condoms.
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Appendixes
Appendix 1
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY
QUESTIONNAIRE FOR STUDENTS WITH HEARING IMPAIRMENT

The primary purpose of this questionnaire is to obtain data concerning sexual behavior and awareness of adolescents with hearing impairment about HIV/AIDS. The study will be useful for adolescents with hearing impairment, for various professionals who are working in the area of hearing impairment and HIV/AIDS. You were selected for this study because it is believed that you could provide adequate and enough information on the subject. Therefore, your unlimited cooperation in providing the real information will be appreciated. Thank you for your cooperation in advance.

Direction: Read the following items and give your opinions and reactions by putting the √ on the space provided.

Part one: Background information of students with hearing impairment.
1. a. Sex________________ c. School_____________
   b. Age________________ d. Grade_____________
2. Religion
   a. Muslim____________ c. catholic_________
   b. orthodox_________
   e. other, please mention_________
   d. protestant_________
3. Marital status
   a. Unmarried________
   b. married________
   c. Divorced________ d. widowed________
4. Educational level of your parents
   4.1 educational level of your father
      a. Illiterate________
      c. Elementary school (1-8)________
      e. College and above________
      b. Literate________
      d. high school(9-12)________
      f. other mention________
4.2 educational level of your mother
   a. Literate________
   c. Elementary school (1-8)________
   e. College and above________
   b. Illiterate________
   d. high school(9-12)________
   f. other mention________
Direction: answer the following question according to the instruction given before
the question. Use ✓ mark.

Part two: HIV/AIDS Awareness and Source of Information

1. Which of the followings are the main modes of transmission for HIV/AIDS? (You
can give more than one answer).
   a. Unprotected sexual intercourse
   b. Blood transfusion from the infected person to the healthy
   person
   c. From mosquito bite
   d. From sharp instruments together with the infected person
   e. By sharing food utensils together with the infected person
   f. Contamination of floods from the body of the infected person
   g. From the infected mother to the fetus

2. Which of the following symptoms can be seen on HIV/AIDS patient? (You can give
more than one answer.)
   a. Lose of weight
   b. Lose of appetite
   c. Diarrhea
   D. Increase of weight

3. Which of the following are the main prevention measures for HIV/AIDS? (You can
give more than one answer).
   a. Having one sexual partner
   b. Abstinence
   c. Using condom
   d. Using vaccination
   e. Not sharing sharp materials with others
   f. Using pills

4. From the following sources of information for HIV/AIDS which of the following
source provide you important information to prevent your self and bring behavioral
change. (You can give more than one answer.)
   a. My friends
   b. My family
   c. Radio
   d. Television
   e. Printed materials
   f. Anti-AIDS club
   g. Teachers
   h. Religious leaders
   i. Health workers
   j. Clinics
   k. Peer educators
   l. Sex partner
   m. No one has given me
   n. If others please mention
Direction: answer the following question according to the instruction given before the question. Use √ mark.

**Part two: HIV/AIDS Awareness and Source of Information**

1. Which of the followings are the main modes of transmission for HIV/AIDS? (You can give more than one answer).
   a. Unprotected sexual intercourse
   b. Blood transfusion from the infected person to the healthy person
   c. From mosquito bite
   d. From sharp instruments together with the infected person
   e. By sharing food utensils together with the infected person
   f. Contamination of floods from the body of the infected person
   g. From the infected mother to the fetus

2. Which of the following symptoms can be seen on HIV/AIDS patient? (You can give more than one answer.)
   a. Lose of weight
   b. Lose of appetite
   c. Diarrhea
   d. Increase of weight

3. Which of the following are the main prevention measures for HIV/AIDS? (You can give more than one answer).
   a. Having one sexual partner
   b. Abstinence
   c. Using condom
   d. Using vaccination
   e. Not sharing sharp materials with others
   f. Using pills

4. From the following sources of information for HIV/AIDS which of the following source provide you important information to prevent your self and bring behavioral change. (You can give more than one answer.)
   a. my friends
   b. My family
   c. Radio
   d. Television
   e. Printed materials
   f. Anti-AIDS club
   g. Teachers
   h. Religious leaders
   i. Health workers
   j. Clinics
   k. Peer educators
   l. Sex partner
   m. No one has given me
   n. If others Please Mention
14. If you in case want to buy condoms from where do you think you get it? (You can give more than one answer)
   a. Pharmacy
   b. Stores
   c. Health centers or clinics
   d. My partner
   e. Other mention

15. Do you think that you may catch HIV/AIDS? From the following list which one is your reason? (You can give more than one answer)
   a. Because I have an experience of sexual intercourse with multiple partners.
   b. Because I kissed with different people
   c. Because I have an experience of sexual intercourse with commercial sex workers
   d. Because I used sharp materials used by others
   e. Because I have an experience of sexual intercourse without condom
   f. Because I took blood from other person
   g. Other mention

16. Do you think that you may not catch HIV/AIDS for ever? From the following list which one is your reason? (You can give more than one answer)
   a. Because I have only one sexual partner
   b. Because I don’t think that I have an experience that can expose me to the virus
   c. Because I consistently use condoms
   d. Because I believe my partner
   e. Because I never took blood from other person
   f. Other mention

17. What strategies do you suggest to educate deaf and hard of hearing students about HIV/AIDS? (You can give more than one answer)
   a. Drama and theatre
   b. Peer education
   c. Panel discussion
   d. Print materials
   e. Radio and TV
   f. Captioned films
   g. Other mention

THANK YOU FOR YOUR COOPERATION.
Dear student, first of all I would like to thank you to be my interviewee. The principal purpose of this interview is to get data concerning sexual behavior and awareness of adolescents with hearing impairment about HIV/AIDS. The study will be helpful for various professionals, organizations and policy maker who are working in the area of hearing impairment and HIV/AIDS. You were selected for this study because you could provide adequate information on the point. Therefore, your unreserved cooperation in providing genuine information will be appreciated. The interview will be tape recorded in order not to miss any relevant data and to transcribe it easily. However the information will be kept confidential.

Direction: Listen to the following items and provide your reactions and feelings which are necessary by signing.

1. What are the means of HIV transmission?
2. How do you think it is possible to prevent HIV/AIDS?
3. From where did you get the information about AIDS?
4. Do you know someone who is infected by the virus?
5. What kind of symptoms did you see from the person?
6. Have you ever discussed about HIV/AIDS with your Parents?
7. Is there any anti-AIDS club in your school?
8. Are you the member of your school’s anti-AIDS club?
9. Why do you want to join this club?
10. Does the anti AIDS club gives adequate information for the member of the school especially for those students with hearing impairment?
11. What do you think “HIV positive” means?
12. How do you interpret if a person is “HIV negative”?
13. Do you think that we can stop HIV/AIDS transmission by stopping stigma and Discrimination?
14. Do you believe that one can be cured from HIV/AIDS by using vaccination?
15. Can we identify a person who is infected by HIV/AIDS simply by looking at his or her external appearance?
16. Do you think that having no experience in sexual intercourse mean that the person is free from HIV/ AIDS?

THANK YOU FOR YOUR COOPERATION.
Appendix 3
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY
INTERVIEW GUIDE FOR CLUB REPRESENTATIVES.

Dear Sir/Madam, first of all I would like to thank you to be my interviewee. The principal purpose of this interview is to get data concerning sexual behavior and awareness of adolescents with hearing impairment about HIV/AIDS. The study will be helpful for various professionals, organizations and policy maker who are working in the area of hearing impairment and HIV/AIDS. You were selected for this study because you could provide adequate information on the subject. Therefore, your total cooperation in providing genuine information will be respected. The interview will be tape recorded in order not to miss any relevant data and to transcribe it easily. However the information will be kept confidential.

Direction: Listen to the following items and give your reaction which is necessary orally to the person reading the question to you.

1. What kind of activities does the school’s anti AIDS club/girls club or guidance and counseling service have?
2. Did you initiate your students with hearing impairment to be members of the Anti-AIDS/girls club?
3. Is there any plan in the school to involve students with hearing impairment in HIV/AIDS programs?
4. Is there any awareness creation program for students with hearing impairment in the school?
5. Does it consider the special needs of students with hearing impairment?
6. Do you think that students with hearing impairments have adequate knowledge about the disease?
7. Do you think students with hearing impairment are equally vulnerable as other peers for HIV/AIDS?
8. Does the school have a special program for educating girls with hearing impairment about HIV/AIDS?
9. What kind of strategy do you suggest to teach students with hearing impairment about HIV/AIDS?

THANK YOU FOR YOUR COOPERATION
Appendix4
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY
INTERVIEW GUIDE FOR PEOPLE WORKING WITH ADOLESCENTS WITH HEARING IMPAIEMENTS

Dear sir/madam, first of all I would like to thank you to be my interviewee. The principal purpose of this interview is to get data concerning sexual behavior and awareness of adolescents with hearing impairment about HIV/AIDS. The study will be helpful for various professionals, organizations and policy maker who are working in the area of hearing impairment and HIV/AIDS. You were selected for this study because you could provide adequate information on the subject. Therefore, your total cooperation in providing genuine information will be valued.

The interview will be tape recorded in order not to miss any relevant data and to transcribe it easily. However the information will be kept confidential.

Direction: Listen to the following items and give your reaction which is necessary orally to the person reading the question to you

1. Do you have any special VCT service for adolescents with hearing impairment?
2. How do you inform them that there are especial VCT services for them?
3. Do you have interpreter for adolescents with hearing impairment who are your clients?
4. Are the professionals trained to use sign language or they are using sign language interpreter?
5. Do you think that using sign language interpreter can originally transmit the message to adolescents with hearing impairment?
6. What do you think of the confidentiality of the counseling service if they are using sign language interpreter?
7. Have you ever prepared training for adolescents with hearing impairment facilitated with sign language?
8. Do you think adolescents with hearing impairment have enough knowledge about HIV/AIDS?
9. Do you think adolescents with hearing impairment are equally vulnerable for HIV/AIDS like hearing peers?
10. In your center how many adolescents with hearing impairment take the service until now?
12. What are the most means of HIV infection for adolescents with hearing impairment? (That is through sex, blood contamination, mother to fetus,)
13. From your clients, how many of them are HIV positive or negative?
14. Do you think that lack of knowledge about the disease exacerbate the problem?
15. What do you suggest as a solution to solve this problem?
16. Do you have any information on how many individuals with hearing impairment have died from HIV/AIDS?
17. Do you have any information on how many individuals with hearing impairment are living with HIV/AIDS?
18. What strategies are you using to teach adolescents with hearing impairment about HIV/AIDS?
19. What kind of strategy do you suggest to teach students with hearing impairment about HIV/AIDS?

THANK YOU FOR YOUR COOPERATION.
1. እን ከፋት

2. በይፋት

3. ካወን በፋት
4. የወደት ያለት ወረዳ

4.1 ያለት ያለት ወረዳ

u. የወደት ያለት ወረዳ (1-8)

4.2 ያለት ያለት ወረዳ

u. የወደት ያለት ወረዳ (9-12)

መጋ Horde የወደት ያለት ወረዳ ከማይሆን በንት ለማድረግ ያሇመወረድ

መጋ የወደት ያለት ወረዳ ከማይሆን በንት ለማድረግ ያሇመወረድ

1. ከማይሆን በንት ይወጣውና ይህ ወረዳ ያወድ ያለት ወረዳ

u. የወደት ያለት ወረዳ ይህ ወረዳ

d. የወደት ያለት ወረዳ (9-12)

u. የወደት ያለት ወረዳ (9-12)

d. የወደት ያለት ወረዳ (9-12)

u. የወደት ያለት ወረዳ (9-12)

d. የወደት ያለት ወረዳ (9-12)
3. millal võttetud oli panorama fotod? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)

4. millal võtnud foto autonoomliiku? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)

5. millal võttetud oli panorama fotod? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)

6. millal võtnud foto autonoomliiku? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)

7. millal võttetud oli panorama fotod? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)

8. millal võtnud foto autonoomliiku? Parki või aerasi. millal soovin ligi? (harrastus valdavad rõhutused)
8. ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋል ከፋல
13. ზიარი ჰატ-ჰატის რა პროფესია რომ დაღუპულ დარჩენ ასწორად? (გამოცდილ ქაღალდ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰატ ჰa
16. እይ እጠቀም የሆነ እና ይህን? ከወ ይን ከጠቀም የሆነ ያስገር ያት ወይ ይህን? (ከወ ልጆ መሰን መስጡ ይጋገር):: (የወ 16 ከወ ልጆ ወቅት መሰን ያሰጣ ይጋገር)::

 v. ከተ የሆነ የሆነ ከተ የሆነ

 ከ. ከተ የሆነ የሆነ ከተ የሆነ

 d. ከተ የሆነ የሆነ ከተ የሆነ

 s. ከተ የሆነ ከተ የሆነ ከተ የሆነ

 w. ከተ የሆነ ከተ የሆን

 17. እንወ የሆነ የሆነ የሆነ የሆን ከወ ይን ከጠቀም የሆነ ያስገር ያት ወይ ይህን? (ከወ ልጆ መሰን መስጡ ይጋገር)::

 v. የሆን ያስገር

 ከ. የሆን ያስገር

 d. የሆን ያስገር

 s. የሆን ያስገር

 w. የሆን ያስገር

 የእንወ የሆን ያስገር
DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for any other degree and that all sources of materials used for the thesis have been fully acknowledged.

Name: 
Signature: __________________
Place: Addis Ababa University
Date of Submission: __________________

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

Name: 
Signature: __________________
Date of Approval: __________________