

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT OF PSYCHOLOGY**

ADDIS ABABA UNIVERSITY  
LIBRARIES  
P.O. BOX 1176  
ADDIS ABABA ETHIOPIA

**PERCEIVED BARRIERS TO UNDERGO VOLUNTARY  
HIV COUNSELING AND TESTING AMONG  
BAHIR DAR UNIVERSITY STUDENTS**

**BY: ANDARGACHEW MOGES**



**JUNE 2006**

**PERCEIVED BARRIERS TO UNDERGO VOLUNTARY  
HIV COUNSELING AND TESTING AMONG  
BAHIR DAR UNIVERSITY STUDENTS**

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT OF PSYCHOLOGY**

**BY: ANDARGACHEW MOGES**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS  
IN COUNSELING PSYCHOLOGY**

**JUNE 2006**

## *Acknowledgements*

I would like to express my deep gratitude to my advisor Ato Tamirie Andualem for his constructive and enlightened comments and suggestions through brotherly approach.

I am also indebted to my dear friends Ato Asnakew Tagele and Ato Kerebih Asrese for their invaluable advice and moral encouragement.

# Table of Contents

	<b>Pages</b>
Acknowledgements -----	i
Table of contents -----	ii
List of Tables -----	iv
Abstract -----	v
 <b>Chapter One</b>	
1. Introduction -----	1
1.1. Background of the study -----	1
1.2. Statement of the problem -----	3
1.3. Objectives of the study -----	6
1.4. Significance of the study -----	6
1.5. Delimitation of the study -----	6
1.6. Definition of terms and abbreviations -----	7
 <b>Chapter Two</b>	
2. Review of Related Literature -----	8
2.1. Introduction -----	8
2.2. The concept of voluntary counseling and testing -----	8
2.3. The evolution of voluntary HIV counseling and testing -----	9
2.4. The process of voluntary HIV counseling and testing -----	10
2.5. Potential benefits of VCT -----	13
2.5.1. Prevention of HIV transmission -----	13
2.5.2. Gateway to care services-----	14
2.5.3. Entry point for prevention of mother-to-child transmission---	14
2.5.4. Entry point for social support -----	15
2.5.5. Entry point for on going emotional and spiritual support ----	15
2.5.6. Decreasing HIV/AIDS stigma and discrimination -----	15
2.6. Studies on the effectiveness of voluntary HIV counseling and testing -----	16
2.7. Barriers to undergo voluntary HIV counseling and testing -----	18
2.7.1. Fear of positive test result and its associated outcomes -----	18
2.7.1.1. Stigma and discrimination -----	18
2.7.1.2. Concern about confidentiality -----	20
2.7.1.3. Fear of mental anguish and depression-----	21
2.7.2. Unfavorable attitude towards testing services-----	22
2.7.3. Doubt about the reliability and accuracy of HIV test result --	22
2.7.4. Structural Barriers -----	23
2.7.5. Other barriers -----	23

### **Chapter Three**

3. Design of the Study -----	24
3.1. Introduction -----	24
3.2. Population, sample and sampling techniques -----	24
3.3. Data collecting tools -----	25
3.3.1. The Questionnaire -----	25
3.3.2. Focus group discussion -----	27
3.4. Procedure -----	27
3.5. Data analysis -----	28

### **Chapter Four**

4. Results -----	29
4.1. Knowledge of the respondents about VCT-----	29
4.2. Attitude of the respondents towards VCT -----	32
4.3. Perceived barriers to undergo VCT -----	33

### **Chapter Five**

5. Discussion -----	38
---------------------	----

### **Chapter Six**

6. Summary, Conclusion and Recommendations -----	49
6.1. Summary -----	49
6.2. Conclusion -----	50
6.3. Recommendations -----	51

References -----	53
------------------	----

#### Appendices

Appendix A: Questionnaire: Open-Ended-first stage

Appendix B: Questionnaire-structured -2<sup>nd</sup> stage

Appendix C: Questionnaire (Amharic) -Final version

Appendix D: Questionnaire (English)- Final version

## **List of Tables**

- Table 1: Knowledge of the respondents about VCT
- Table 2: Means and percentage distributions of students' responses to the attitude scale
- Table 3: t - test for significance of mean differences of the attitude scale
- Table 4: Means, standard deviations and percentage distributions of students' responses to the perceived barrier items
- Table 5: Chi - square test for observed frequency distributions of students' responses to the perceived barrier items

## **Abstract**

*This study was carried out among 410 Bahir Dar University students. Its major purpose was to identify the significant perceived barriers of university students to undergo voluntary HIV counseling and testing (VCT). As a subsidiary objective, knowledge of the study participants about VCT and their attitude towards the service were explored. To collect data from the respondents, a structured questionnaire that comprised of knowledge, attitude and perceived barrier items was administered. To supplement the quantitative data gathered through the questionnaire, focus group discussion was held with 48 samples. Percentage, t-test and Chi-square were used to analyze the quantitative data. Information obtained from focus group discussion was summarized qualitatively.*

*Results indicated that students' knowledge about VCT was generally high and their attitude towards the service was positive. The important barriers among the study population to undergo VCT were-fear of a positive test result and its associated outcomes: stigma and discrimination, hopelessness, worry and stress; lack of care and support services for people who test positive; family reluctance to accept a positive result, and lack of support and encouragement in campuses to undergo VCT. Based on the findings, recommendations were made.*

## **CHAPTER ONE**

### **1. INTRODUCTION**

#### **1.1. Back Ground of the Study**

HIV is a relatively newly discovered infection that hasn't even scored three decades of existence. However, soon after the time it was first reported in 1981, the infection has rapidly developed into an epidemic and has caused great suffering and profound development challenges (Aitken, 2005; Van Dyk and Van Dyk, 2003).

According to the UNAIDS report, in 2005, there were about 40.3 million people who were living with the virus; 3.1 million had lost their lives due to AIDS and 4.9 million people were newly infected with the virus (UNAIDS, 2005). Africa, in particular sub-Saharan Africa is the region with the highest HIV burden accounting for about 70% of the people living with the disease world wide (UNAIDS, 2005).

Ethiopia is one of the sub-Saharan African countries which are greatly affected by the HIV/AIDS epidemic. It is estimated that the country has the third largest number of people living with HIV/AIDS in the world after South Africa and Nigeria (WHO/UNAIDS, 2004). The national prevalence of the epidemic show that the disease is spreading through out the country at a fast rate. In the year when the first HIV case was reported to the Ministry of Health in 1986, the national HIV prevalence rate was only 0.2%. But this figure has soon escalated to 4.6% in 2004 (MOH, 2004; Abush *et al.*, 2005). In 2004, there were 1.6 million people living with the virus; 244 thousand new infections; 124 thousand deaths due to AIDS and 539 thousand orphans who have lost one or both of their parents due to AIDS (Abush *et al.*, 2005). Since the beginning of the epidemic to 2003, the nation has lost about 1.4 million of its citizens, with AIDS accounting for about 8% of all Ethiopian deaths (MOH, 2004).

Unlike most other infections, HIV/AIDS is a challenge not only to health institutions. It is also now becoming a matter of life and death for individuals, other institutions, and for systems as well. Dealing with it therefore requires a sense of urgency (Kelly, 2001).

One of the important intervention strategies in the effort to curb the gradual rise in the number of people infected and affected by the epidemic is to encourage people to learn their HIV sero-status and act accordingly. This strategy is what we call voluntary counseling and testing or VCT for short. Voluntary counseling and testing is a process by which an individual (couple) undergo counseling enabling him/her/ them make an informed choice about being tested for HIV. This decision is entirely the choice of the individual/s and he/she/they will be assured that the process is confidential (UNAIDS, 2001; Boswell and Baggaley, 2002)

Voluntary HIV counseling and testing is a vital intervention strategy that can benefit clients whose HIV sero-status is either positive or negative. For people whose HIV test result is positive, VCT helps them link to medical services. Discovering that one is HIV positive also helps infected individuals to become motivated to adopt a more healthy HIV/AIDS life style that improves their health status and slows down the progression from HIV infection to symptomatic disease and full blown AIDS (UNAIDS, 2001; Meursing and Sibindi, 2000). Knowing one is HIV negative similarly can serve the individual as a strong motivating factor to remain negative by reducing his/her various risk behaviors. VCT can also play a role in promoting greater social acceptance of the HIV/AIDS epidemic by reducing stigma and discrimination (Boswell and Baggaley, 2002). It is argued that involving the community in VCT and related programs can help to increase participation in the program and community ownership of the services (program). This enables people living with HIV/AIDS to be accepted within communities there by reducing stigma and denial (UNAIDS, 2001).

Studies on the effectiveness of VCT demonstrated that such programs in developing countries have brought about significant behavioral change among adult clients. Such behavioral change include increase in safer sexual behavior and use of care and support services (Coates, 1998). Similarly, an exploratory study on Kenyan and Ugandan adolescents revealed that most of the respondents reported to adopt safer behaviors like abstaining from sexual intercourse, practicing monogamy, using condoms or reducing the number of sexual partners (Horizons, 2001; Allen *et al.*, 1999). Available evidences in general indicate that VCT is an effective strategy to bring behavioral change among clients and in turn a pivotal strategy for HIV/AIDS prevention and control.

Despite the strong research support and widely acclaimed contribution of VCT in the prevention and control of HIV/AIDS, many individuals, especially those at risk for HIV infection are reluctant to undergo voluntary counseling and testing owing to various perceived barriers.

## **1.2. Statement of the Problem**

In our country, the impact of HIV/AIDS on institutions of higher learning is not clearly visible at the present. However, available evidences indicate that in the near future this will be unavoidable. According to the UNAIDS's annual report, current statistics shows that adolescents whose age ranges from 15 to 24 are the most susceptible to HIV infection both nationally and internationally (UNAIDS, 2005). We know that most of the tertiary level student population belongs to this age group. What we imply from this is that university students are among the risk groups to HIV infection.

It is reasonable to assume that students in institutions of higher learning are educated, aspirational, have access to information and would act on the information they receive and as a result a low risk population (Chetty, 2001). Nevertheless, practical observation and

existing research findings show that for many campus students the opposite appears to be the case. Even though the information is available, the chances of changing behaviors in this population are lacking (Kelly, 2001). In the campuses of institutions of higher learning many students practice high-risk sexual behaviors. These include sexual experimentation, unprotected casual sex, gender violence and having multiple partners. As Kelly explained, such risky behaviors indeed occur because institutions of higher learning bring together in close physical proximity devoid of systematic supervision, a large number of adolescents at their peak years of sexual activity and experimentation. Besides this, the readily availability of alcohol and others drugs and the divergent level of economic status among the student population makes campuses a very high-risk environment from AIDS context (Kelly, 2001).

Large scale investigation that explored university students' involvement in risky sexual behaviors is almost lacking in our case. Studies conducted abroad, however, confirmed that despite their adequate knowledge about HIV/AIDS, many undergraduate students often engage in risky sexual behaviors (practices). A survey study on undergraduate students at Oregon University, for instance, disclosed that most students while reasonably informed about HIV/AIDS didn't feel at risk for the disease. Most of the respondents reported that they were not inclined to communicate with one another about risk for HIV prior to sexual activity with a new or former partner and they frequently engage in intercourse without a condom (Baldwin and Baldwin, 1988). Similarly, a survey of undergraduates at a university in south California revealed that having accurate knowledge about how HIV is transmitted didn't induce these individuals to engage in safer sexual acts (Strunin and Hingson, 1987). Other research report on the social life of students in campuses similarly demonstrated that in most cases female students were forced to engage in risky sexual practices being unable to negotiate either for no sex or for safer sexual practices (Kelly, 2001).

In general, owing to their risky sexual behaviors, incidences of new HIV infections are clearly observed among university students. A modeling survey conducted among tertiary institutions of South Africa, for example, indicated that the university undergraduate HIV infection was 22% in 2002 and projected to be 33% in 2005 (Kinghorn, cited in the World Bank, 2004). Such existing figure indicates that the challenge posed to African Universities by HIV/AIDS especially in those highly affected countries, is really formidable.

As there was no any previous systematic attempt to assemble data on the prevalence of HIV/AIDS in our universities as the one in South Africa, the challenge of HIV is not a visible reality in university campuses. Nevertheless, the various risky sexual practices of many students in campus residences or out of the campus witness that especially in high HIV prevalence rate towns like Bahir Dar the challenge is really worth considering.

One of the effective intervention strategies to abate the present risky behaviors of university students is to encourage them to participant in VCT programs so that they will learn their HIV sero-status and act accordingly. As discussed before VCT has been proven to be an effective intervention strategy among the youth and adults in many African countries. Though the youth principle are not against the potential benefits of VCT, they express their reluctance to undergo VCT services owing to various barriers. This study was aimed at exploring the significant perceived barriers of Bahir Dar University students to undergo voluntary HIV counseling and testing.

### **1.3. Objectives of the Study**

#### **General Objective**

The main objective of this study is to investigate the perceived barriers of Bahir Dar University students to undergo voluntary HIV counseling and testing.

#### **Specific Objectives**

- Assess the attitude of Bahir Dar University students towards VCT
- Assess students' knowledge about VCT services
- Identify the significant perceived barriers of students to intended use of VCT services
- Make suggestions on how to scale up students' participation in VCT programs

### **1.4. Significance of the Study**

Voluntary counseling and testing for HIV is a gate way to prevention, treatment and care services. It is an essential tool in the effort to control HIV/AIDS epidemic. VCT is an effective intervention strategy in reducing risk behaviors among those individuals who are at risk for infection.

Knowing university students' attitudes towards VCT and identifying their major perceived barriers which hinder them from accessing VCT services plays a significant role in designing intervention programs related to VCT and this in turn contributes much in the prevention and control of the HIV epidemic among campus students.

### **1.5. Delimitation of the Study**

The scope of this study is delimited to Bahir Dar University students. The study also targeted only regular students in the university.

## **1.6. Definition of Terms and Abbreviations (Acronyms)**

### **1.6.1. Definition of terms**

Perceived barriers: reasons that students consider as important factors for not accessing voluntary HIV counseling and testing.

### **1.6.2. Acronyms and Abbreviations**

VCT voluntary counseling and testing

HIV- Human Immunodeficiency virus

MOH- Ministry of Health

UNAIDS- United Nations Program on AIDS

WHO- World Health Organization

FGAE- Family Guidance Association of Ethiopia

AIDS- Acquired Immune Deficiency Syndrome

PMCT- Prevention of Mother-to-Child Transmission

CRDA- Christian Relief and Development Association

OSSA- Organization for Social for AIDS

TB- Tuberculosis

STD- Sexually Transmitted Disease

ART- Antiretroviral Therapy

## **CHAPTER TWO**

### **2. REVIEW OF RELATED LITERATURE**

#### **2.1. Introduction**

In this chapter relevant literature pertinent to the issue under investigation will be presented. The definition of the term 'voluntary counseling and testing' and its historical evolution will be outlined first. In addition, the main components of voluntary counseling and testing will be discussed followed by its potential benefits. Following this, studies on the effectiveness of VCT to bring about behavioral change among clients will be explored. Finally, indeed more important, investigations on the major barriers to undergo voluntary counseling and testing will be reviewed.

#### **2.2. The Concept of Voluntary Counseling and Testing**

The concept 'voluntary counseling and testing' is a relatively recent introduction to the medical and psychological literature. The World Health Organization (WHO) defines voluntary counseling and testing as a confidential dialogue between a client and the care provider [counselor] aimed at creating an enabling environment for the person [client] to cope with stress and make personal decisions related to HIV/AIDS (WHO, 2002).

Somewhat a relatively broad definition of voluntary counseling and testing is the one provided by Allen and his associates. According to Allen and his colleagues VCT is the setting of information exchange between a provider and a client that is aimed at helping the individual reach an appropriate decision about HIV testing and act on it. The counseling process often includes a discussion of medical and life style issues grounded on the individual's concerns, fears, and values related to reproductive and sexual health.

Voluntary counseling and testing as defined above is, therefore, not simply providing information about HIV/AIDS for an individual and then drawing blood from him/her and testing for the presence of HIV. It is an interactive process whereby an individual or couple undergo professional counseling services to enable the client(s) make an informed choice about being tested. This decision is entirely the choice of the individual/s and he/she/they will be assured that the process is confidential (Boswell and Baggaley, 2002).

### **2.3. The Evolution of Voluntary HIV Counseling and Testing**

Before the introduction of voluntary counseling and testing, HIV testing has been carried out by different bodies for a variety of reasons. (Allen *et al.*, 1999). Blood transfusion centers, for instance, perform HIV testing to ensure an infected blood supply; physicians in health institutions use the test results to aid in patient management and to investigate the manifestations of HIV infection, and surveillance program test for HIV to determine the magnitude of the epidemic in a given risk group or geographic area. As Allen and his associates explained, depending on the reasons for testing and the priorities established by the given program, HIV test results in most cases were not linked to patient identifiers and if linked they may/ not be communicated to the individual concerned.

Many years of experience with giving HIV antibody test results have led to the recommendation that if and when an HIV test result is given, it should be voluntary, accompanied by a thorough explanation, emotional support, and practical recommendations. This view necessitated the establishment of centers that provide voluntary counseling and testing free of charge or with a small amount of payment (Allen *et al.*, 1999). Soon, however, debate arose about whether or not all programs that rendered HIV testing should give results to the individual. In order to resolve this problem, in 1987, the National Institute of Health

(NIH) in America instituted a requirement that all participants in NIH funded studies had to be given their test results with appropriate counseling. The regulation instituted by NIH was based on the underlying assumption that giving HIV test results with appropriate counseling will provoke changes in behavior that will reduce the spread of HIV (Allen *et al.*, 1999).

In Ethiopia, voluntary counseling and testing began in the late 1980s with services expanding through out the 1990s and early 2000s. In the early 1990s, several national level training programs were conducted by the Ministry of Health and other NGOs like the Christian Relief and Development Association (CRDA) and Organization for Social Service for AIDS; (OSSA). Many nurses and social workers from all regional hospitals and Addis Ababa were trained as HIV counselors (MOH, 2002; Micheal, 2001). Today, there are more than 282 VCT centers in the country and new VCT centers are getting established in many areas of the country (Irin, 2005). A situational analysis conducted in September 2000, regarding VCT services indicated that several institutions in the country are providing either HIV testing or counseling or both. The assessment further identified that the programs are facing different problems. Few of the services have full time counselors, and referral system for HIV positive individuals to care and support centers are often lacking.

## **2.4. The Process of Voluntary Counseling and Testing**

The process of voluntary counseling and testing for HIV comprises of three important stages: pre-test counseling, the HIV testing itself and post-test counseling (UNAIDS, 2001).

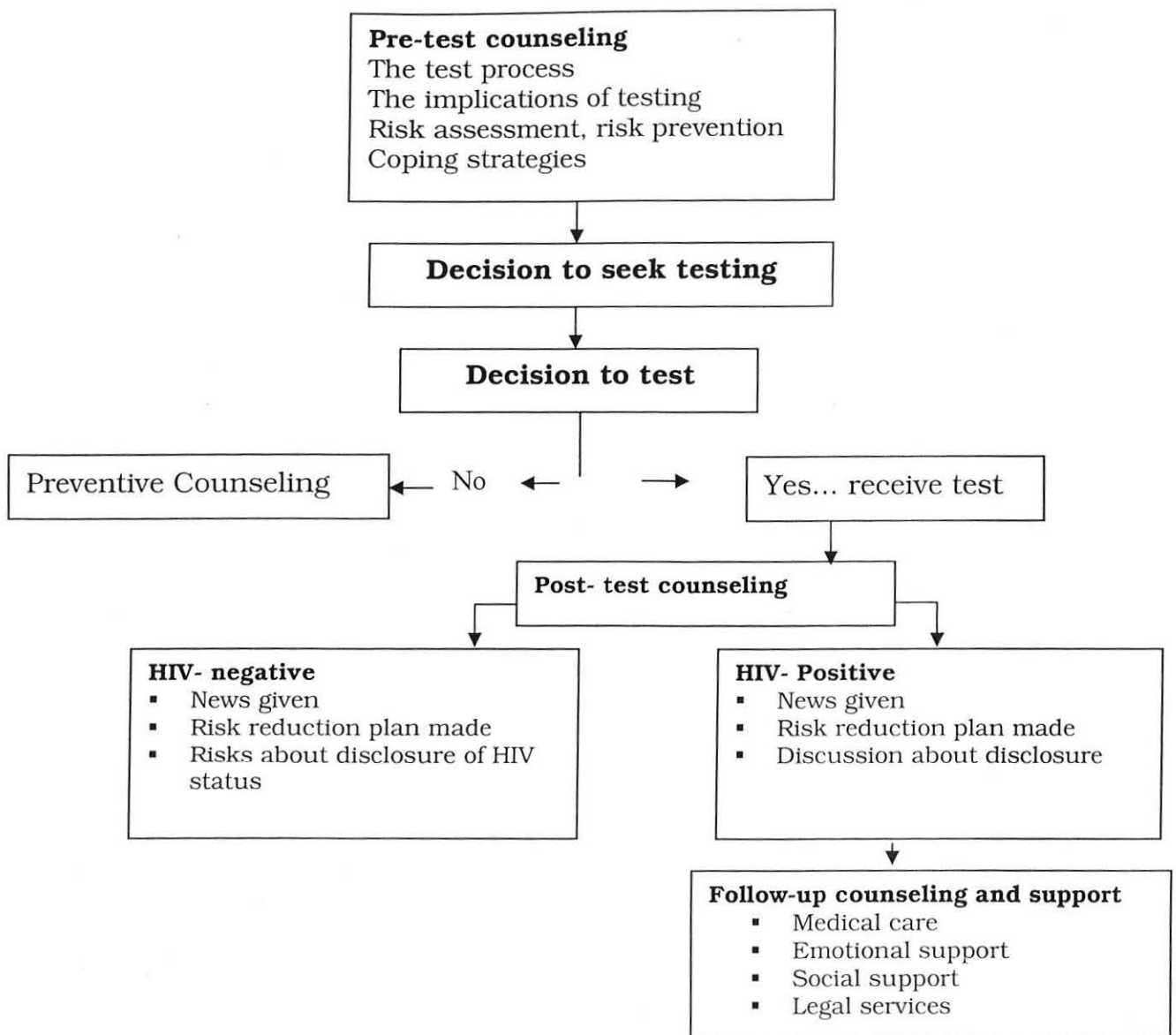
Pre-test counseling is the first VCT service that is offered before taking an HIV test. The counselor in this stage prepares the client to decide to either undergo or cancel the HIV test by explaining what an HIV test is and the reasons for taking it. The counselor also discusses

with the client his/her personal risk profile including sexuality, possible risky sexual practices or drug related behavior that increases risk of HIV infection. Myths and misconceptions, if any, are also corrected in the pre-test counseling session. Besides, discussions on the implications of knowing one's HIV status and ways to cope with that new information will be cleared out to the client during this session. Pre-test counseling in most HIV testing centers is a necessity before undergoing an HIV test. Nevertheless, some people argue that people who don't want to undergo pre-test counseling shouldn't be prevented from taking a voluntary HIV test (for instance, people who have had VCT before may request testing but not wish to have further pre-test counseling). But informed consent from the person to be tested should be a minimum ethical requirement before an HIV test (UNAIDS, 2001)

Pre-test counseling ends with making an informed decision about taking an HIV test. If the individual decides to undergo testing, a few drops of blood will be taken for the rapid HIV test. Unlike the previous ELISA HIV test which takes a week or more to know the result, the rapid HIV test determines a person's HIV status within a few minutes with nearly 100% certainty (UNAIDS, 2000). ✓

After the blood test, which takes not more than 30 minutes, the client will receive his/her test result from the counselor during the post-test session. This session depending on the test result covers issues dealing with an HIV positive or negative sero-status (UNAIDS, 2000). The main goal of post-test counseling in other words is to help clients understand their test results and initiate adaptation to their sero-positive or negative status. If the test result is positive, the counselor tells the client the result clearly and sensitively, providing emotional and psychological support by discussing how he/she can cope with the status. During this session, the counselor ensures that the person has immediate emotional support from a partner, relative or friend. If the client is willing, the counselor may offer information on referral services that may help clients accept their HIV status and adapt a positive outlook. Referral for medical treatment will also be given and the

client will be provided with nutritional advice. Discussion is also made on how the client can change his life style to prevent others from infection and protect him/her self from other infections like TB. Counseling is also important when the test result is negative. While the client is likely to feel relief, the counselor here emphasizes several points mainly discussion on the need to change behavior that can help the client stay HIV-negative. Such discussion includes the need to have safer sex practices including condom use and other methods of risk reduction. During the "window period", (4-6 weeks) immediately after a person is infected, antibodies to HIV are not always detectable. As a result, in such cases a negative result received during this time may not mean the client is definitely uninfected; the client should consider taking the test again in 1-3 months (UNAIDS, 2000). Diagrammatically the process of voluntary HIV counseling and testing can be presented as follows.



Source: Horizons, 2004:18.

## 2.5. Potential Benefits of Voluntary Counseling and Testing

The potential benefits of voluntary counseling and testing are many and varied (UNAIDS, 2000). Some of these can be illustrated as follows.

### 2.5.1. Prevention of HIV Transmission

One of the important steps in the control of HIV epidemic is the identification of those who are infected with the disease coupled with

efforts to interrupt the transmission. Studies conducted in both developing and developed countries demonstrated that voluntary counseling and testing has led to self-reported changes in high risk sexual behavior among both HIV positive and negative clients (Solomon *et al.*, 2004). The existing body of evidence is especially strong for VCT as a tool to help HIV positive persons to reduce their high risk behaviors to avoid spreading the disease to uninfected ones.

### **2.5.2. Gate way to Care Services**

In addition to its role in the prevention of HIV transmission, HIV counseling and testing is a critical first step to identify those who are HIV positive so as to effectively link them with HIV treatment, care and support services. These services include the prevention of HIV- related illnesses, psychological, social, legal and family support and comprehensive treatment with anti-retroviral therapy if it is available (UNAIDS, 2000; USAID, 2000).

### **2.5.3. Entry Point for Prevention of Mother-to-Child Transmission**

HIV counseling and testing benefits women who are or who want to become pregnant (UNAIDS,2000). For women who test positive, counseling can help them decide whether or not to have children, and helps to explore family planning options. For women who are already pregnant and who test sero-positive, counseling can help them make decisions about terminating their pregnancy, if safe, or if they choose to continue with their pregnancy, counselors discuss the use of interventions such as short term AZT to reduce the risk of transmitting HIV to the unborn child. Infant feeding choices can also be discussed where possible. If the woman agrees, partners can be involved in counseling sessions in which decisions about their present and future children are being made.

#### 2.5.4. Entry Point for Social Support

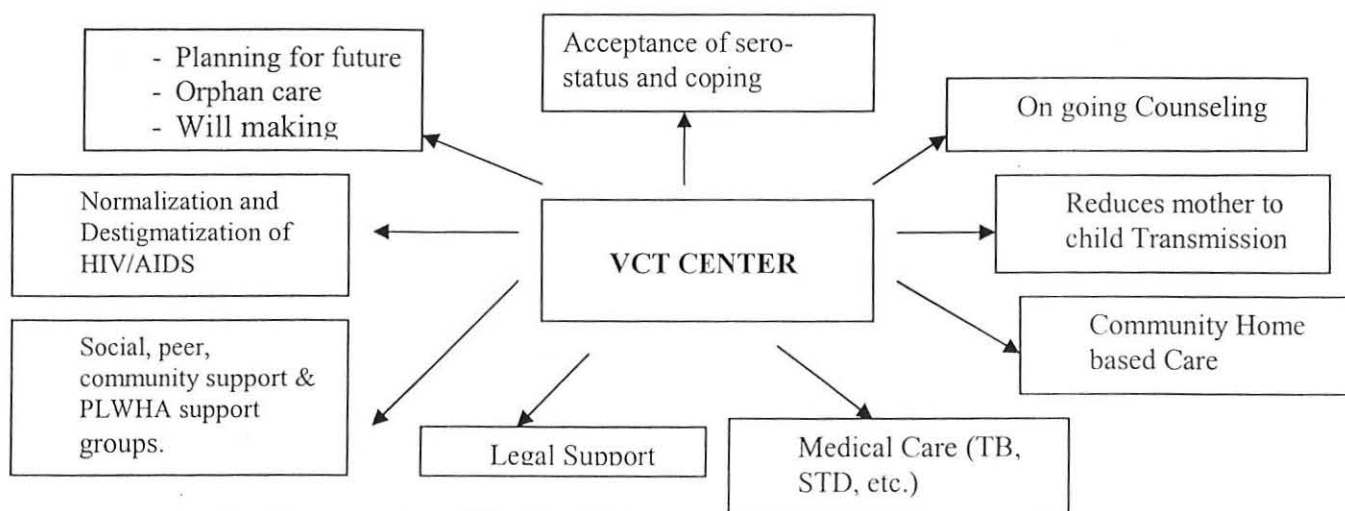
One of the benefits of VCT is that it can help clients with HIV to make plans for their future and the future of their dependants. Material and financial support can be requested for those who are unable to finance themselves and their family (UNAIDS, 2000; USAID, 2000).

#### 2.5.5. Entry Point for Ongoing Emotional and Spiritual Supports

Although the immediate emotional needs of people following testing may be met by the counseling service, some clients may require long term treatment and care. All services available for people who test positive like spiritual services, traditional medicine or support groups can be arranged (UNAIDS, 2000; USAID, 2000).

#### 2.5.6. Decreasing HIV/AIDS Stigma and Discrimination

Besides its role in the prevention and control of HIV transmission as well as a gate way to care and support for those infected, VCT may also play a role in promoting greater social acceptance of the epidemic. It is argued that widespread uptake of VCT with in communities can help to normalize HIV/AIDS, to reduce AIDS-related stigma and to raise awareness of the epidemic (UNAIDS, 2001) De Knock and Johnson, 1998). The various potential benefits of VCT can be diagrammatically presented as follows.



Source: Ministry of Health, 2002

## **2.6. Studies on the Effectiveness of Voluntary HIV Counseling and Testing in Preventing and Controlling HIV Transmission**

The main goal of voluntary counseling and testing for HIV is to provide people the opportunity to learn their HIV status and cope with a positive or negative test result. For those who test positive, VCT helps to reduce their risky sexual behaviors and access care and support services. For clients whose test result is negative, VCT serves as a strong motivating factor to remain negative.

Previous impact assessment studies on the efficacy of VCT in bringing behavioral change haven't come up with conclusive results. Some of these studies in developing countries demonstrated that VCT is successful in helping clients reduce risk behaviors (UNAIDS, 2001; VCT efficacy study group, 2000). The studies revealed that subjects showed a decrease in unprotected sexual intercourse with steady and casual partners as well as an increase in consistent condom usage following a VCT intervention program. However, in these studies it was specifically HIV positive participants and HIV sero-discordant couples who reduced their risk behavior after a VCT intervention. This means VCT hasn't brought any significant behavior change among participants who tested negative.

A study conducted in Uganda, on the other hand, showed that individuals who underwent voluntary counseling and testing reported safer sexual practices (behaviors) as compared to those who didn't regardless of their sero-status (Muller *et al.*, cited in Solomon *et al.*, 2004). A similar result was also reported by researchers who addressed the youth as their research subjects. Among the 235 youth who have undergone VCT, most intended to adopt safer sexual behaviors, after the test. These include abstaining from sexual intercourse, practicing monogamy, using condom or reducing the number of partners with whom they have sexual intercourse (Horizons, 2001).

Research findings which failed to support that VCT facilitates behavior change in sero-negative individuals are in most cases confounded by the assumption that increased condom use which is often used to measure behavior change may not be an appropriate outcome measure for sero-negative individuals. As indicated by the research team who studied the youth in Kenya and Uganda, many individuals especially adolescents use VCT (or repeat HIV test) to establish a new monogamous relationship with the implicit intention of ceasing condom use (Solomon *et al.*, 2004). The study conducted in Uganda, for example, revealed that 27% of the participants were taking an HIV test because of a planned marriage or a new relationship. This was common in the case of couples coming for VCT where 84% were planning new marriage relationship (Muller *et al.*, cited in Solomon *et al.*, 2004). When the research participants were asked about the change in response to a negative test result, the most common reported intentions were marriage 81%, followed by monogamy 17%. The use of condom was supported only by 2% of the respondents (Solomon *et al.*, 2004).

Critics argue that investigations which were unable to demonstrate the preventive efficacy of VCT were in general questioned for their methodological limitations (Solomon *et al.*, 2004). One of the methodological limitation reported by critics is that most studies that tried to look the preventive goal of VCT didn't constitute randomized controlled trial with the result that efficacy becomes extremely difficult to establish. The second methodological limitation with VCT efficacy studies is that efficacy is commonly measured in terms of two behavioral outcomes-reported condom uses and rate of sero-conversion. However, in an effort to establish the efficacy of VCT, researchers have tended to ignore that outcome measures based on sexual behavior are both unreliable and inappropriate (Solomon *et al.*, 2004). This is because VCT may not likely to be powerful to rearrange human sexual behavior.

Besides, self-reported behavior change may not be reliable to be relied upon. A third methodological limitation of previous research investigations on the efficacy of VCT is that VCT is not well defined by the researchers with the result that there can be important differences in terms of the key aspects of VCT (for example length and/or number of counseling sessions) (Solomon *et al.*, 2004).

## **2.7. Barriers to Undergo Voluntary HIV Counseling and Testing**

### **2.7.1. Fear of a Positive Result and its Associated Outcomes:**

#### ***Stigma and Discrimination, Confidentiality, and Stress***

##### **2.7.1.1. Stigma and Discrimination**

Stigmatizing attitudes among the society towards persons living with HIV/AIDS is one of the stumbling blocks for people not to get access to voluntary counseling and testing. In a national survey of adults in the United States, for example, Herek and his associates found that 38% of the respondents expressed their concern about stigma if they tested HIV positive and 44% of the clients who expressed this concern indicated that stigma influences their decisions to undergo HIV testing (Herek *et al.*, cited in Kalichman and Simbayi, 2003). Similarly, a study conducted in the same nation by Stall and his colleagues on homosexuals revealed that two out of the three homosexual who were unaware of their HIV status were worried about AIDS related stigma and this was a decisive factor in their decisions not to undergo voluntary HIV counseling and testing (Stall *et al.*, cited in Solomon *et al.*, 2004).

Besides the western research reports on the role of stigma and discrimination as an important factor for people's reluctance to learn their HIV status through VCT, studies conducted in the African context have also disclosed that this barrier is determinant for people not to get access to VCT. In a sample study of South African mine workers, only 1/3 of whom had underwent VCT, fear of testing positive for HIV and

potential consequences such as stigmatization, disease and death were identified by the respondents as the main barriers to testing (Day *et al.*, 2003). In their analysis of calls to the National AIDS Helpline in South Africa, Birdswall and his colleagues also noted that fear of stigma and discrimination emerge to be one of the most important concerns for callers. This concern was verified from counselors' discussion as illustrated below.

*A lot of callers phone in, they want to get tested; they want know their status, but they fear how their families, friends or (community) react as well as fearing being positive itself.*

*(Birdsall et al., 2004: 4)*

Fear of stigma and discrimination is not only a concern of adults who seek VCT. An exploratory study carried out in Kenya and Uganda among the youth also discovered that together with other factors, stigma is one of the important barriers for adolescents not to undergo VCT and learn their HIV status (Horizons, 2001).

A local study conducted in Bahir Dar town similarly indicated that a significant percent of the research respondents were concerned about stigma and discrimination and perceived it to be a significant obstacle for not benefiting from VCT services (Micheal, 2001).

Indeed, people's fear of stigma and discrimination was confirmed by many research findings which explored community's attitude towards people living with HIV/AIDS. In south Africa, for example, a national survey showed that 26% of the respondents reported that they would not be willing to share a meal with a person living with AIDS, 18% were unwilling to sleep in the same room with someone with AIDS and 6% reported that they wouldn't talk to a person they know to have AIDS (Sinsasa and Sibayi, cited in Kalichman and Simbayi, 2003). In his study, Micheal likewise reported that about 23% and 23.1% of the respondents admitted that they are not willing to eat together and share drinking utensils with AIDS patients respectively. Besides, 12.8% don't

want to have any type of contact with an AIDS patient and 12% believe that AIDS patients should be isolated from the society (Micheal, 2001). In general, stigma and discrimination present a great problem in the effort to expand access to voluntary HIV counseling and testing.

### **2.7.1.2. Concern about Confidentiality**

Confidentiality is one of the issues that concern people when they think of knowing their HIV sero-status. Many researchers reported that clients in principle are not against VCT, but they have serious doubts and anxieties about the confidentiality of HIV test results. Fear of lack of confidentiality is therefore an important barrier that prevents many individuals from participating in VCT programs (Van Dyk and Van Dyk, 2003).

In a study of people who were not tested before, and who didn't plan to be tested, Phillips and his colleagues found that participants, especially women in stable relationships, black people, young people and those with a lower income were only willing to be tested if no one else could have access to their results (Phillips *et al.*, cited in Van Dyk and Van Dyk, 2003). Similarly, among sexually active American adolescents, it was found that 35% of the respondents didn't believe or didn't know that the HIV test results were kept in confidence and 19% thought that counselors or health personnel would disclose their sero-status to others if the result turned out to be positive (Samet *et al.*, cited in Peltzer, Nzewi and Mohan, 2004).

In an analysis of calls to 'AIDS Helpline' in South Africa, Birdsall *et al.*, (2004) also reported that callers were concerned about both the confidentiality of the process of being tested and the possibility of a positive result being disclosed to others. The 'AIDS Helpline' counselors noted that there are instances when young people in particular would voice concerns about the confidentiality of VCT. The young helpline

participants expressed their fear that parents could find out they had sought testing. Some callers were also worried that VCT staff (sometimes from their community) may not respect their right to confidentiality and may disclose the results to others (Birdsall *et al.*, 2004). A survey study of untested youth in Kenya and Uganda likewise showed that fear of people finding out their HIV test result was one of the factors that prevented them from having an HIV test.

### **2.7.1.3. Fear of Mental Anguish and Depression**

To know one's HIV positive status in the context of a stigmatizing society and without any follow up and support services or treatment can be detrimental to a person's mental and physical wellbeing (Van Dyk and Van Dyk, 2003). A study by Macintyre, Brown and Sosler, for instance, indicated that feeling of mental anguish and depression were reported by clients who believed that there is nothing they could do about being infected with HIV (Macintyre, Brown and Sosler, cited in Van Dyk and Van Dyk, 2003).

In their investigation on the consequences of announcing HIV seropositivity to women in African settings, Gaillard and his associates found that 15% of the HIV positive respondents felt that it would have been better not to have known their status, because they were depressed as a result of discovering their positive HIV status since there is no cure for the infection and hence nothing they could do about it. A similar result was also reported in a study where the majority of sex workers in South Africa, who were willing to be tested monthly for HIV, didn't want a positive result disclosed to them. They believed that knowledge of a positive result would cause mental anguish that it would threaten their relationships with steady partners and that they would lose their clients and income (Morar and Ramjee, cited in Van Dyk and Van Dyk, 2003). Van Dyk and Van Dyk's national survey in South Africa, similarly confirmed that fear of mental anguish and depression was an important

barrier for people not to decide to get access to VCT, 86% of their research participants felt that it is not advisable for someone to know his/her HIV status or to go for VCT in the absence of any possibility of follow up care and support as it causes depression, despair and death.

### **2.7.2. Unfavorable Attitude Towards Testing Services**

Many people in high HIV prevalence countries like Ethiopia are aware that VCT services are available at different sites as hospitals and free-standing VCT centers. However, a very small proportion of the population who know about the availability VCT have been tested for HIV. Among the reasons why many individuals may not seek HIV testing can be negative perceptions of testing services. Such attitude was demonstrated to be one of the barriers for high risk individuals in the United States. In a study of homosexual men and adults receiving sexually transmitted clinic services, individuals who viewed more positive and fewer adverse outcomes from HIV testing were more likely to have been tested as compared to those who don't (Stall *et al.*, cited in Kalichman and Simbayi, 2003). However, the relationship between testing attitudes and seeking VCT is not a direct one.

### **2.7.3. Doubt about the Reliability and Accuracy of HIV Test Result**

Concern about the accuracy and reliability of HIV testing particularly that of rapid test can be one of the reasons that deter people not to use VCT services. Such concern was verified from counselors' report that provided service in the AIDS Helpline in South Africa. This can be observed from Birdsall and his associates (2004:4) analysis of calls to the helpline.

*People have been told (in the past) that in an HIV test service providers have to draw blood from the client and he/she has to wait for one or more week. But now they give the result within 30 minutes. Can the results be trusted? Most people don't think that the test is reliable enough [when] counselors tell them they are HIV negative. So there are [such], questions of trust towards VCT.*

Doubt about the reliability and accuracy of the test result is therefore one of issues that worries people when they think of getting or accessing VCT services.

#### **2.7.4. Structural Barriers**

Together with the various factors that deter people especially the youth from seeking VCT, structural barriers like distance of service, inconvenient working hours and cost of the service can play a significant part. In an exploratory study among the Kenyan and Ugandan youth, cost, inconvenient working hours, distance and waiting time were reported by the respondents as important barriers for not accessing VCT services (Horizons, 2001).

#### **2.7.5. Other Barriers**

The failure to use voluntary HIV counseling and testing services can also be attributed to a number of other factors both at individual and social level (Peltzer, Nezewi and Mohan, 2004). To exemplify, among high risk individuals in the United States, reasons given for failing to get access for VCT include fear of learning a positive result (25%) belief that they are unlikely to have been exposed to HIV and as a result thinking that they are HIV negative. Other barriers that the respondents identified for not seeking VCT are reluctance to think about the possibility of being positive (8%) as well as the assumption that there is little they can do about being HIV positive (6%) (Galvan and Bing, cited in Peltzer, Nazewi, and Mohan, 2004).

## **CHAPTER THREE**

### **DESIGN OF THE STUDY**

#### **3.1. Introduction**

This study is a cross-sectional survey aimed at investigating the significant perceived barriers of Bahir Dar university students to undergo voluntary HIV counseling and testing. Besides, the study has a subsidiary objective of examining the study participants' knowledge about VCT and their attitude towards the service.

#### **3.2. Population, Sample and Sampling Technique**

A total of 410 (287 male and 123 female) students in Bahir Dar University participated in the study. The university has five faculties (education, business education, agriculture, law and engineering). A multi-stage sampling technique was used to select the sample participants of the research. Accordingly, first from the five faculties, three (education, law and engineering) were selected randomly. Except law, since the education and engineering faculties have more than one department, the second stage random sampling was made from the departments. From the twelve and ten departments in the education and engineering faculty respectively, three from the education faculty and two from the engineering faculty were randomly selected.

After identifying the specific departments: Amharic, Pd.Sc. and history from the education faculty; civil and electrical engineering from the engineering faculty and the department of law-list of students' names whose educational level ranged from first to fifth year in the respective departments were taken from the registrar. There was a total of 3188 students in the six departments. This total number was then classified by year and department. There were 961, 873, 657, 543 and 204 first, second, third, fourth and fifth year students respectively from the six

departments. From these total numbers, proportional samples (123, 112, 85, 70 and 26) respectively were selected randomly and included in the sample population. However, six students (4 male and 2 female) didn't complete the questionnaire correctly and were excluded from the study which reduced the total sample to 410.

A multi-stage sampling technique was preferred because it was difficult to manage the total 11, 578 regular students of the university. In addition, the writer believes that the exclusion of faculties and departments using successive random sampling technique wouldn't impact the finding of the study.

### **3.3. Data Collecting Tools**

To gather the necessary data, a structured questionnaire and focus group discussion were used.

#### **3.3.1. The Questionnaire**

The structured questionnaire comprised of items on knowledge of the respondents about VCT, attitude towards VCT and barriers to access VCT.

Items for the knowledge component of the questionnaire were adapted from previous studies related to HIV VCT. These items were then structured in to a Yes/No format, but for some, giving respondents the chance to list additional information about the specified issue.

Similarly, items for the attitude component of the questionnaire were adapted from past investigations in relation to voluntary HIV counseling and testing. Then, the items were structured in to a five point scale that ranged from strongly agree to strongly disagree. Numbers were assigned to each alternative, with 5 representing strongly agree and 1 strongly disagree. Some of the items for the attitude scale were negatively phrased, scores for these items being recorded in the reverse way, that is 1 for strongly agree and 5 for strongly disagree.

After structuring the knowledge and attitude items, the questionnaire was given to three psychology instructors specialized in measurement and evaluation so as to assess the face and content validity of the items as well as for any instances of ambiguity. Based on the comments received from the instructors, modifications were made on some items.

As there was no previously validated instrument for assessing the perceived barriers of people to access VCT, the component used to measure students' perceived barriers to undergo VCT was developed by the writer. Since the major purpose of the study was to identify the significant perceived barriers of university students to access VCT, the writer first elicited pool of items from the target population and developed these pool of items into a structured questionnaire. To achieve this, first two open-ended questions: "Have you undergone voluntary HIV counseling and testing?" and if "no" "what are the perceived barriers that become an obstacle for you to access VCT?" were presented to 75 randomly selected samples.

Interestingly, many of the students each produced about 15 lists of barriers, the estimated average being 10. Several items produced by the students have much similarity except a matter of wording. For example, it is possible to say that almost all mentioned "fear of stigma and discrimination" as one of their important barrier. The writer then listed all the perceived barriers produced by students avoiding redundancy and similarity. This reduced the total pool of items to 52. The semi-structured questionnaire was then given to two graduate students and three psychology instructors who specialized in measurement and evaluation of the department of Pedagogical Science in Bahir Dar University. This was done for the purpose of further screening of the items by avoiding redundancies and evaluating the relevance of each item for the intended purpose. Based on the comments, the items were reduced to 29. The 29 screened items were then structured into a four point scale (4=very

important, 3=important, 2=less important and 1=not important). Next, the scale was administered to 95 randomly selected students in the university. But two students didn't complete the scale correctly and hence the data obtained from 93 students were entered to the computer SPSS program. A factor analysis was then run to identify most important barriers. A factor analysis was carried out based on the assumption that items whose eigenvalues are less than 1.00 will be ignored. This statistical analysis reduced the items to 20. Then the final screened 20 items were prepared for the pilot study.

### **The Pilot Study**

To come up with the final version of the structured questionnaire, a pilot study was conducted on 105 randomly selected students from the university. Both the attitude scale and perceived barrier items were administered at this time. However, five students failed to complete all the items in the questionnaire and were excluded from the pilot analysis. The internal consistency of both the attitude and perceived barrier scales were then computed. Results of cronbach alpha ( $\alpha$ ) showed that both scales were found to be reliable with  $\alpha$  coefficients 0.77 for the attitude scale and 0.80 for the perceived barrier scale.

#### **3.3.2. The Focus Group Discussion**

To complement the information gained through the structured questionnaire, a focus group discussion was held with 48 randomly selected participants assigned into 8 groups. To enable group participants generate more specific ideas about the study, issues related to the knowledge, attitude and perceived barrier of university students to undergo VCT were prepared and given as main points of discussion.

### **3.4. Procedure**

The writer first contacted and discussed about the purpose of the research with the academic and research vice president of the university.

This helped me to establish contact with the research and publication officer of the university. Having a formal letter from this office, I collected students' list from the registrar. Using this record, sample respondents were selected. Then to facilitate the administration of the structured questionnaire I contacted my colleague instructors in the university. This helped me to create close relationship with department heads and subject teachers in the sampled departments. After gathering sample students from each department, orientations were given to the participants about the purpose of the study and the procedure of completing the questionnaire. Then, the questionnaires were distributed to the participants of the study with the help of subject teachers. Subject teachers of course distributed the questionnaires depending on the name list provided from the writer. This increased the response rate to a great extent. Respondents were requested to return the questionnaires to their subject teachers after they have completed them.

### **3.5. Data Analysis**

The main purpose of the study was to identify the significant perceived barriers of university students to access VCT. As a subsidiary objective, the knowledge and attitude of the participants towards VCT were explored. To achieve this, both quantitative and qualitative methods of data analysis were employed. To analyze the data obtained from the structured questionnaire, both descriptive and inferential statistics were used. The descriptive statistics include means, standard deviations and percentage distributions and the inferential statistical tests employed were t-test and chi-square. A significance level of  $\alpha=0.05$  was used for the study. Data generated from focus group discussions were analyzed qualitatively.

## CHAPTER FOUR

### 4. RESULTS

#### Introduction

This chapter presents the results of statistical analysis used in the study. Both descriptive and inferential statistics were used to analyze the results. Information gained from focus group discussion was analyzed qualitatively. For the purpose of this study, a statistical significance level of  $P \leq 0.05$  was used as an accepted level.

#### 4.1. Knowledge (Awareness) of the Study Sample about VCT

As presented in Table 1 below, all the respondents (N = 410) reported that they are aware of the availability of voluntary HIV counseling and testing services. To the question "How one can check his/her HIV status?" almost all the respondents (98.2%) replied that having HIV testing is the only way to know (check) one's HIV status. However, a very small number (almost negligible) said that looking symptoms (0.7%) and observing one's physical appearance (0.2) can help to check one's HIV status.

Free-standing voluntary counseling and testing centers, government and private health institutions where the common sites that the majority of the respondents identified as places where one can get VCT services (72.4, 64.9% and 41% respectively). Similarly, 40.5% of the participants indicated FGAE as one VCT site where one can get HIV counseling and testing services.

Additional (other) sites where one can get voluntary HIV counseling and testing services as listed by the respondents include mobile VCT services. On the other hand, although all the participants confirmed their awareness of the existence of voluntary HIV counseling and testing services, 7.1% of them admitted that they are not clear about the sites where VCT services are delivered.

Radio, television, magazine (newspapers), clubs and friends were the major sources of VCT information for the respondents. Among these, radio and television were dominantly used (by 72.4% and 64.9% of the respondents). Health institutions and family were also used as VCT information sources by a significant number of the respondents (35.1% and 24.6% respectively).

When asked to list additional sources of VCT information, some of the respondents produced religious institutions and social gatherings as important additional sources of VCT information for many individuals. On the other hand, 2% of the respondents replied that though they are aware of the existence of VCT, they don't have specific source from which they could get VCT information.

A relatively high percentage of the respondents (68.3) reported that they make discussion about VCT with a friend/family/other people they know. But 31% of them replied that they don't make any kind of discussion with a friend, family or other people on any occasion.

Only a very small number of the research participants (11.2%) had prior HIV testing. The rest 87.6% reported that they haven't undergone voluntary HIV counseling and testing before. Percentage distribution of students' responses to the knowledge inventory items is presented in Table 1 below.

**Table 1: Knowledge (Awareness) of the Respondents about Voluntary HIV Testing and Counseling**

		<b>Frequency (N = 410)</b>	<b>Percent</b>
1	Awareness about the availability of VCT services Yes No	410 -	100 -
2	Ways of checking one's HIV status - Undergoing HIV testing - Looking symptoms - Looking one's physical appearance - Other	405 3 1 1	98.2 0.7 0.2 0.2
3*	Sites where one can get the service - Free- standing VCT - Government health institutions - Private health institutions - FGAE VCT centers - Others - No knowledge of VCT sites	297 266 168 166 7 29	72.4 64.9 41 40.5 1.7 7.1
4*	Sources of information about VCT - Radio - Television - Newspapers, magazines - Friends - Family - Clubs - Health institutions - Other sources - No source	323 272 240 176 101 164 144 21 8	78.8 66.3 58.5 42.9 24.6 40 35.1 5.1 2
5	Experience of discussing about VCT with a friend/family/ other people - Yes - No - Missing	280 127 3	68.3 31.0 0.7
6	Prior HIV testing experience - Yes - No - Missing	46 359 5	11.2 87.6 1.2

\* Multiple Responses

## 4.2. Attitudes Towards Voluntary HIV Counseling and Testing

A majority of the respondents in the present study replied that VCT is beneficial to reduce HIV transmission, plan one's future life, provide care and support for the infected and avoid worry and stress (refer Table 2). Students' responses to the attitude inventory also depicted that people who should get tested for HIV are not only those who are at high risk, with the implication that everybody, especially the youth, need to know their HIV status and act accordingly.

When asked their readiness to get tested, nearly four-fifth of the respondents said that they are willing to undergo voluntary HIV counseling and testing. However, more than half of the respondents (59%) replied that they didn't want to get tested if their test result turns out to be positive and also didn't want to disclose the result to anybody. Finally, a very small proportion of the respondents (24%) indicated that they were not totally interested to get tested and know their HIV status. For a detailed observation, means and percentage distributions of students' responses to the attitude inventory are presented in Table 2 below.

**Table 2: Means and Percentage Distributions of Students' Responses to the Attitude Scale**  
N=410

No	Items	x	SD	D	U	A	SA
1	VCT helps to reduce HIV transmission	4.39	5.1	1.5	3.5	28.5	61.2
2	VCT helps to plan one's future life	4.59	4.4	1.0	2.7	15.4	76.6
3	VCT helps to provide care and support services for the infected	4.22	3.2	4.1	6.3	40.0	46.3
4	VCT helps to avoid worry and stress about one's HIV status	3.88	7.3	9.0	14.4	27.1	42.2
5	People who should get tested are those who are at high risk	2.31	42	27.3	4.1	10.5	16.1
6	I don't want to know my HIV status if it is to be positive	3.56	13.4	9.3	20.5	21.5	35.4
7	I don't want to get tested and know my HIV status	2.15	50.7	19.5	5.9	11.5	12.4
8	I need (want) to undergo HIV testing	4.10	5.4	8.0	8.5	27.6	50.5
9	I don't want to disclose my HIV status to anybody	3.36	16.6	10.5	21.7	23.2	28.0

Note: x=mean SD=strongly disagree D=disagree U=undecided A=agree SA=strongly agree

In attitudinal studies participants' responses are often summed up and dichotomous category (positive or negative) is made after testing the difference between the observed and expected means. Accordingly, in this study, first the observed and expected means of students' responses to the attitude scale were calculated and then a one-sample t-test was computed to see significant differences between the two means. The result is illustrated in Table 3 below.

**Table 3: t-test for Significance of Mean Differences**

N	$\mu$	Mean	SD	t	P value
410	27	32.56	5.68	19.83	<0.05

Note  $\mu$ = expected mean SD=standard deviation

As indicated in Table 3, the calculated t-value, i.e 19.83 is greater than the critical t-value at 0.05 level of significance. This shows that there is a significant difference between the observed sample mean (32.56) and the expected mean (27) of students' responses to the attitude scale. Thus, as the sample mean significantly outnumber the expected mean, it can be reported that students have a positive attitude towards voluntary HIV counseling and testing.

#### **4.4. Perceived Barriers of Students to Undergo VCT**

As presented in Table 4 below, percentage distribution of students responses to the perceived barrier measuring tool showed that among the total 20 factors (barriers) assumed to be preventing untested students from having VCT, only seven were rated as "important" or "very important" by the majority of the respondents.

The other thirteen were rated by several respondents as "less important" or not important". Mean value for each perceived barrier also indicated that only those seven items rated as "important" or very important" by a greater percentage of the respondents had means greater than the expected mean (2.5). Means, and percentage distributions of students' responses to the perceived barrier items are presented in Table 4 below.

**Table 4: Means, Standard Derivations and Percentage Distributions of Students' Responses to the Perceived Barrier Items**

	Items																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Not important	25.9	32.6	37.9	10.3	64.6	11.1	10.9	45.7	40.9	90.2	57.9	51.8	45.7	10.3	54.6	5.3	65.5	40.7	37.6	7.0
Less important	27.3	24.0	25.1	12.8	21.4	13.1	10.0	21.2	25.9	10.3	20.6	23.4	17.8	10.3	19.2	11.1	16.2	30.1	18.9	13.4
Important	20.1	23.1	18.1	24.0	8.1	28.7	34.8	13.1	19.8	36.2	10.9	13.1	15.6	36.5	3.16	36.8	8.4	5.3	21.2	36.5
Very important	26.7	20.3	18.9	52.9	5.8	47.1	44.3	20.1	13.4	44.3	10.3	11.7	20.9	42.9	12.5	46.8	10.0	13.9	22.3	43.2
Mean	2.48	2.31	2.18	3.19	1.55	3.12	3.18	2.08	2.06	3.16	1.74	1.85	2.12	3.12	1.84	3.25	1.63	2.03	2.28	3.16
Standard deviation	1.14	1.13	1.14	1.02	0.87	1.02	0.98	1.18	1.07	0.94	1.02	1.05	1.20	0.97	1.08	0.85	1.00	1.06	1.18	0.91

To test whether the observed frequencies for ratings of the items were significant or not and identify the important barriers, a chi-square test was computed for each item. Results indicated that except item 1, the remaining highest frequencies for each item were found to be significant. Based on the chi-square test, seven items

- Fear of stigma and discrimination
- Fear of worry and stress if tested positive
- Fear of a positive result
- Fear of hopelessness if tested positive
- Lack of care and support services for the infected
- Family reluctance to accept a positive result
- Lack of coordinated support and encouragement in universities to undergo VCT.

were identified as significant barriers for the majority of the respondents to access VCT services. Chi-square test results for goodness of test of the perceived barrier items are presented in Table 5 below.

**Table 5: Chi-square Test for Observed Frequency Distribution of Students Responses**

Items																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Not important	93	117	136	37	232	40	39	164	147	33	208	186	164	37	196	19	235	146	135	25
Less important	98	86	90	46	77	47	36	76	43	37	74	84	64	37	69	40	58	108	68	48
Important	72	83	65	86	29	103	125	47	71	130	39	47	56	131	49	132	30	55	76	131
Very important	96	73	68	190	21	169	159	72	48	159	38	42	75	154	45	168	36	50	80	155
$\chi^2$	4.8	12.1	35.9	164.5	321.1	119.9	128.2	87.4	60.0	138.4	217.1	149.4	83.9	127.0	171.4	171.5	318.3	70.0	31.3	132.5

As indicated in Table 5, results of the chi-square test showed that except item 1, all the rest highest frequencies were significant at 0.05 level. The seven items, which were rated as "very important" and "important" by the majority of the respondents were found to be importantly determinant in explaining students' reluctance to undergo VCT. The rest 12 items which were rated as "less important" and "not important" by the majority of the respondents were not found to be detrimental in explaining students' reluctance to access VCT.

## **CHAPTER FIVE**

### **5. DISCUSSION**

#### **Knowledge of the Study Participants about VCT**

The present study showed that knowledge of the participants about VCT was generally high. All the participants (100%) replied that they were aware of the availability of voluntary HIV counseling and testing services. More than half of the respondents (68.3%) in addition indicated that sometimes they make discussion about VCT service with a friend, family or other people. Students were also clear about the sites where they could get VCT service and gain such knowledge from various information sources like radio, television and friends.

In addition to the quantitative data obtained from the structured questionnaire, focus group discussions held with sample students similarly proved that the study participants' knowledge about VCT program was quite sufficient. Participants in all the 8 groups were observed being actively involved in the discussion about the places where one could get VCT services, information sources about the program as well as the process that an individual goes through at the time of a voluntary HIV counseling and testing intervention. Personal experiences were also shared among group participants. One student from Addis, for example, was sharing his experience that he had watched TV when the VCT center at Zewditu Hospital was launched by the city's Mayor, Arkebe, being the first higher official in the country to publicly test for HIV voluntarily. Other focus group participants also indicated that in case of marriage, scholarship and DV, it is compulsory to undergo voluntary HIV testing.

Previous studies conducted on university and college students provide a strong support for the present finding. It is noted that tertiary level students in general appear to have a reasonably high level of knowledge about HIV/AIDS and related intervention programs (Kelly,

2001). Most of such knowledge has come from the media or obtained while at high school and some gained much of what they know about HIV/AIDS and VCT from university sources (Kelly, 2001). As reported by Kelly, students' knowledge about the disease and related intervention programs, however, didn't lead them to a scale that is required to bring desirable behavioral change. Instead, risky sexual practices are the common features observed in university campuses (Kelly, 2001)

A local study conducted by Tilahun (1997) similarly revealed that AIDS related knowledge was generally high among Gondar Medical College students, but their knowledge was not consistent with the students' sexual behavior. From his investigation on "teacher training institute students' knowledge and their risk reduction behavior", Ashebir (1995) also concluded that despite their adequate knowledge changes in behavior in response to the advent of HIV is minimal among TTI students, revealing that message based AIDS education used before was necessary but not sufficient to stop HIV transmission.

In general, most studies show that tertiary level students are responsibly well informed about HIV/AIDS and related intervention programs like VCT, but are reluctant to change their sexual behavior unless the threat of infection is personalized (Beyene *et al.*, 1997).

### **Attitude of Students Towards VCT**

The present study also disclosed that students' attitude towards VCT service was positive. Majority of the respondents replied that voluntary HIV counseling and testing is important to reduce HIV transmission, plan one's future life and provide care and support services for the infected. Seventy eight percent of the respondents expressed their willingness to undergo HIV testing, though some 24% said they were not voluntary to undergo HIV testing.

In a similar vein, data gathered from focus group discussion revealed that almost all the participants in the focus group discussion

believe on the importance of VCT and they were able to list various specific benefits of the program. These include:

- It motivates campus students to reduce risk behavior
- It motivates students who get tested positive to take necessary precautions not to be infected by other diseases like TB.
- If possible, it helps HIV positive students to access ART early before the infection progresses into its fatalistic stage.
- It helps to plan one's future life.
- It helps to provide ongoing emotional, spiritual as well as medical support for infected students
- It motivates students who tested negative to remain negative by avoiding various risky behaviors.

In sum, whether one's HIV status turns out to be positive or negative, VCT is considered by the majority of the discussants as a useful intervention program in HIV prevention. When asked to reflect their decision on whether or not they were ready (willing) to undergo VCT, many group participants kept silent for a while. After minutes, some respondents replied that they do volunteer to get tested if the process is confidential and no one has access to their test result and they also expressed their various concerns in relation to undergoing HIV VCT such as fear of being seen at the VCT center, fear of a positive result, and fear of stigma and discrimination. Some participants, on the other hand, admitted that they haven't thought of going for HIV testing and were not ready for the time being. Majority of the focus group participants believed that it is good for all campus students to know their HIV status and prevent the transmission of the epidemic by serving as a model for the society. Concerning test result disclosure several focus group participants felt that in the presence of a stigmatizing society it is very difficult to disclose one's HIV status, instead, they prefer to keep it personal.

To conclude, students' responses to both the structured questionnaire and focus group discussion reveal that several students believe on the importance of VCT program and a substantial percent of them were willing to undergo voluntary HIV counseling and testing. Despite this, many students express their fear and concern about undergoing VCT service.

Studies on the attitudes of different groups of society towards HIV testing showed that such above case often exist. An investigation on attitudes to HIV and HIV testing among health professionals and pregnant antenatal care followers, in high prevalence area of China, for instance, revealed that the respondents' level of knowledge was high and their attitudes to HIV testing was generally positive. Younger health professionals and better educated pregnant women were found to have a better attitude towards HIV testing as compared to those who were less educated and some who are elder. A national survey conducted in south Africa by Van Dyk and Van Dyk (2003) similarly disclosed that most of the participants (87.3%) believed that every person should know his/her HIV status and nearly 4/5 of them (79.1%) were personally prepared to go for VCT. Only 12.8% of the participants said they wouldn't definitely go for VCT, while 8.1% being not sure.

In the Ethiopian context, a study by Shitaye and his colleagues also revealed that about 98% of the respondents felt VCT as a necessary intervention strategy, with the implication that most of the respondents had a positive attitude towards the program (Shitaye *et al.*, 2004). A community based survey in Bahir Dar town by Micheal likewise showed that the participants' attitude towards VCT was generally positive (Micheal, 2001).

With particular reference to university students, a comparative survey among Indian, South African and United States sample University students demonstrated that participants' attitude towards voluntary HIV

counseling and testing was generally positive with a slight difference among nations.

Despite their sufficient HIV related knowledge and favorable attitudes towards voluntary HIV counseling and testing, the common experience (observation) among university students, as in the case with other young people, is a feeling of reluctance to undergo VCT. Studies attribute such paradox to the presence of various barriers which hinder young people from accessing voluntary HIV counseling and testing.

### **Perceived Barriers to Undergo Voluntary HIV Counseling and Testing**

From the present research, it was found out that among the total respondents, only 11.2% had undergone prior HIV testing and counseling. The result implies that though students have adequate knowledge and favorable attitudes toward VCT services, most of them (87.6%) were reluctant to undergo voluntary HIV counseling and testing. A research conducted by Peltzer, Nezewi and Mohan (2004) coincides with this finding. Their comparative survey on Indian, South African and American sample undergraduate university students revealed that among the total respondents (200 from each nation) only 1/5 of the American and South African participants and only 10% of the Indian students had an HIV test before.

Though not abundant, available research evidences indicate that individuals' reluctance to undergo voluntary HIV counseling and testing is attributed to the existence of different real and/or perceived barriers. The present study revealed that among the twenty perceived barriers assumed to explain students' reluctance to undergo voluntary HIV counseling and testing only seven were found to be significantly determinant. These were discussed here after.

## **Fear of a Positive Result and its Associated Outcomes: Stigma and Discrimination, Hopelessness, and Worry and Stress**

One of the reasons for students' failure to use voluntary HIV counseling and testing services was fear of a positive result. Of the total respondents who haven't had prior HIV testing, 44.3% rated this factor as "very important" and the other 34.8% as "important." Studies conducted in both the western and African context have shown that fear of a positive result is a significant barrier for individuals' hesitation to access VCT. A survey of high risk individuals in the United States, for example, revealed that as compared to other factors, fear of a positive result was found to be a decisive barrier by the majority of the respondents (25%). Other barriers: belief that they are unlikely to have been exposed to HIV and belief that they are HIV-ve were considered important by only 18% and 13% of the participants respectively (Galvan, Bing and Bluthenthal, cited in Peltzer, Nzewi and Mohan, 2004). By the same token, the exploratory survey conducted by the Horizons on Kenyan and Ugandan Youth displayed that fear of a positive result was one of the important prevailing factors preventing the untested youth from accessing the program (Horizon, 2001).

Stigma and discrimination is another important underpinning factor in prohibiting university students from accessing VCT. Students are concerned that if they tested positive, they may be ostracized from their peers, friends, family and community. Among the total respondents who haven't had prior HIV testing, 52.9 and 24 percent of them rated "fear of stigma and discrimination" as "very important" and "important" barriers respectively.

Previous studies conducted on different segments of the society including adults and young people provide a strong support for this finding (Herek *et al.*, cited in Kalichman and Simbay, 2003; Day *et al.*, 2003; Horizons, 2001; Solomon, 2001). In a national survey of adults in

the United States, for example, Herek and his associates found that 38% of the respondents expressed their concern about stigma and discrimination if they tested positive. Studies conducted in the African context also disclosed that people's reluctance to undergo VCT was mainly determined by stigma and discrimination. In a sample study of south African mine workers only 1/3 of whom had undergone VCT, fear of testing positive and potential consequences such as stigma and discrimination were identified by the respondents as main barriers to testing (Day *et al.*, 2003). A survey conducted on Kenyan and Ugandan Youth, similarly, revealed that together with other factors, stigma and discrimination played an important role for adolescents' reluctance to undergo VCT (Horizons, 2001). A community based survey conducted at Bahir Dar town also showed that a significant percent of the participants were concerned about stigma and discrimination when they aspire to know their HIV status.

The other prevalent barrier that could dissuade university students from accessing VCT is fear of worry and stress if one tested positive. Forty seven percent and twenty nine percent of the participants who haven't had prior HIV testing rated this barrier as "very important" and "important" respectively. Of course, stress and feeling of worry are the common experiences of many clients, who attend VCT programs. This experience is clearly observed before and after an individual undergoes the service. This is particularly intensified if the person's HIV status turns out to be positive. In a study of commercial sex workers in South Africa, who were willing to be tested monthly for HIV, majority of the respondents replied that if their test result turns out to be positive, they didn't want to undergo VCT because this knowledge would cause them stress and depression (Morar and Ramjee, cited in Van Dyk and Van Dyk, 2003).

Together with other social and psychological barriers, fear of feeling hopeless if one tested positive is one of the major obstacles for

individuals' reluctance to access VCT services. In the present study, 44.3 and 36.2 percent of the respondents rated this barrier as "very important" and "important" respectively. Stigmatizing attitudes towards people with AIDS and the absence of cure for the epidemic were the underlying motives for people to develop a feeling of hopelessness. So the feeling "If I tested positive, I will not have hope for the future" develops and gradually influence the person's quality of life.

### **Lack of Care and Support Services for People Who Test Positive**

This is another decisive factor determining students' reluctance to undergo VCT services. In the present study, 42.9 and 36.5 percent of the respondents considered this barrier as "very important" and "important" respectively. In principle, it is recommended that when private, government and non government organizations establish VCT services they should try to integrate care and support services for HIV positive individuals. In line with this finding, in a study by Van Dyk and Van Dyk (2003), 86% of the participants reported that knowing one's HIV status or going for VCT is not advisable for someone if there are no treatment options available. These respondents felt that to know one's HIV positive status without any possibility of follow up, care and support services would only cause depression, despair and death (Van Dyk and Van Dyk, 2003). Similarly, at a WHO meeting held in Switzerland in 2003, with the title "consultation on the health services response to the prevention and care of HIV/AIDS among young people", most participants considered it unethical to provide testing without ensuring that the required treatment, care and support elements were in place. (McCauley, 2004)

### **Family Reluctance to Accept a Positive Result**

The widespread negative attitude of the society towards people with AIDS has brought about a great influence on the attitude of the family even to their HIV positive family members. It is true that university

students depend on their family until they get employed and begin an independent life. One of the reasons for many university students' reluctance to access VCT is therefore, the fear that if they tested positive their families would not accept the positive result and treat them in the same way as they did before. In the present study, this factor was replied by 46.8 and 36 percent of the respondents as "very important" and "important" respectively. Students' fear that their families would not accept their positive test result was implied from Krumira and his associates' survey. In their study, family members in Zambia expressed a variety of reactions for their adolescents' decisions to get tested for HIV. They felt that knowledge about their youth's testing should be kept within the family and be kept secret so that it wouldn't be exposed for other people to gossip. Similarly, in a study from Uganda, 22 families with one or more adult members with HIV were interviewed about their responses to HIV and stigma (Me Grath *et al.*, cited in Krumira *et al.*, 2003). Approximately half of the people living with HIV/AIDS interviewed said that they hadn't informed any of their family members, and indicated that they feared family members would worry or would not understand. Some said that they feared rejection if their families know of their positive status.

### **Lack of Coordinated Support in Universities**

In his article on African universities responses to HIV/AIDS crisis Kelly argues, "In many universities despite the serious threat of the HIV/AIDS epidemic, a kind of silence surrounds the disease at institutional, academic, and personal levels (Kelly, 2001:35). Many universities in our country as indicated by Kelly display characteristics like failure to attend to systematic impacts, lack of coordination, absence of well-developed action plans, minimal policy framework and heavy reliance on the initiatives of a few interested and committed staff and students. In this study lack of encouragement is perceived by 43.2 and

36.5 percent of the respondents as "very important" and "important" perceived barrier for undergoing VCT. Students' responses to the structured perceived barrier items were strongly supported by the data obtained from focus group discussion.

From the focus group discussion, it was observed that there was a general agreement among many participants that in countries like Ethiopia where people's beliefs and attitudes are greatly influenced by different beliefs, values and expectations, there do exist various barriers which become an obstacle for students' reluctance to access VCT services. The most commonly mentioned barrier by almost all the participants in the focus group discussion was fear of stigma and discrimination if they tested positive. Some discussants shared their experience that they have observed HIV positive individuals being deprived of job opportunity, discriminated from various social services and forced to leave their houses which were previously rented for them for many years. Some participants also raised the issue that if they tested positive and this goes to the public, health professionals would discriminate them and may not give them the necessary treatment in case they get sick. Other discussants similarly expressed their fear that if they tested positive and this was discovered by others, they would not have job access to government or non-government organizations. Most importantly, fear of quitting their studies because of great pressure from others which would be implied by stigma and discrimination in the campus was the dominant barrier for the majority of the focus group participants. All these factor played a great role for their reluctance to undergo VCT. Other barriers stressed by many participants in the group dissension include:

- Feeling that they are negative as they had no previous sexual intercourse
- Fear of being hopeless if they tested positive

- Feeling that it is only when they intend to get married that they need to undergo VCT
- Fear that their families would not treat them in the same way as they did before if they tested positive
- Absence of care and support services for people who test positive
- Since the university didn't encourage students to participate in VCT programs
- Absence of campus VCT service center

Generally, when the focus group discussion participants were encouraged to discuss on "why many university students become reluctant to use VCT services? they tried to enumerate different prevalent barriers of which only some most commonly stressed by the majority of the participants are presented here.

Other barriers like concern about confidentiality, distance of service, feeling that one is negative, fear of the stigma of being seen at VCT centers and inconvenient hours of service were considered as "less important" or "not important" barriers by the majority of the respondents.

Previous studies, however, revealed that such above barriers may play a significant role for individuals' reluctance to access VCT. From their national survey, Van Dyk and Van Dyk (2003), for example, found out that about 30% of the respondents who indicated they would definitely no go for VCT which was located nearby their village considered confidentiality as a significant barrier for their reluctance. The inconsistency between the present finding and past research works can be explained by the difference in the context of the study and university students' better awareness about VCT services.

## **CHAPTER SIX**

### **6. Summary, Conclusion and Recommendations**

#### **6.1. Summary and Conclusion**

##### **Summary**

As stressed by Kelly, in the absence of biomedical remedies, the only remedy left to society to fight against HIV/AIDS is education or behavioral intervention. Education should be part and parcel of every intervention against the disease. It is the only vaccine that we rely on (Kelly, cited in World Bank, 2004).

Research has shown that VCT as one of the behavioral intervention strategies can bring about significant change in clients' behaviors whose test result turns out to be either positive or negative. Despite such research evidence, the uptake of VCT services in countries where the impact of HIV/AIDS is highly threatening is very low. Especially, the young who often engage in risky sexual behaviors seem to be reluctant to access VCT. University students are cases in point here. In spite of their risky sexual practices inside and out of the campus, they perceive themselves as if they are invulnerable to the epidemic and are often reluctant to undergo VCT services. The insignificant participation of university students in VCT programs can be attributed to the existence various barriers that obstacle their intentions to access the service. This study was instigated with the motive of exploring such significant barriers.

The main objective of the study was then to identify the significant perceived barriers of Bahir Dar University students to undergo VCT. As a subsidiary objective, the knowledge and attitude of the study participants towards VCT were explored.

The target population for the study was regular students of Bahir Dar University which comprised of those from first to fifth year. From a

total of 3,188 students 410 samples were selected randomly and included in the study.

To collect data from the target sample, a structured questionnaire that comprised of knowledge, attitude and perceived barrier items related to VCT was administered. To complement the quantitative data, a focus group discussion was held with 48 sample participants assigned in to 8 groups. After collecting the data, they were tabulated analyzed and interpreted. Both descriptive and inferential statistics were used to analyze the data. The information gathered through focus group discussions was summarized qualitatively.

### **The Findings are the following:**

- Students have adequate knowledge about VCT
- The attitude of students towards VCT was positive
- The significant perceived barriers to undergo VCT among the student population were
  - Fear of a positive result and its associated outcomes: stigma and discrimination, worry and stress, and hopelessness
  - Lack of care and support services for people who test positive
  - Family reluctance to accept a positive result
  - Lack of encouragement in university campus to undergo VCT.

### **Conclusion**

Based on the findings of the study, the following conclusions were drawn.

- Despite their adequate knowledge and positive attitude towards VCT, students' reluctance to undergo HIV counseling and testing was attributed to the existence of pertinent personal and social

barriers that impact individual students' intentions to know their sero-status.

- Lack of encouragement and support in campus to undergo VCT may imply that efforts made by concerned university personnel to create awareness about VCT haven't reached to a scale that bring about behavioral change among the student population.

## **6.2. Recommendations**

In efforts to increase the acceptability of VCT in the university and scale up students' participation in the program:

- HIV testing should be encouraged by institutions of higher learning and supportive policy related to the practice should be developed.
- Incentives should be given for those dedicated and actively participating students in VCT programs. This may include training opportunities and or other forms of reinforcements.
- Efforts to manage the epidemic in the university should not depend on the initiatives of few individuals and groups. All the university community should be concerned about the problem.
- Anti-AIDS clubs should be strengthened so as to create better awareness about HIV/AIDS and VCT.
- To assist students who test HIV positive, the university needs to create a link with care and support organizations so as to establish financial independence. This can be done through skills training and other forms of continuous self-support
- VCT post-test clubs with the aim of addressing stigma and discrimination should be established.

- Mobile or free-standing campus VCT centers should be institutionalized to avoid some structural barriers like distance and inconvenient working hours.
- Formal integration of contents related to HIV/AIDS with the university curriculum should be considered so as to bring significant behavioral changes among students.
- Public debate on HIV/AIDS issues should be organized in the university. This helps campus students to involve and learn from the program often raising difficult issues related to HIV/AIDS like "challenges to access VCT services".
- Sound and viable information, education and communication and counseling interventions need to be intensified to reduce stigma and discrimination that prevail in the society.

## References

- Abush Ayalew *et al.* (2005). "የኢትዮ ስርጭትና ሞት በኢትዮጵያ በ2004:." Medical Magazine (Amharic) 7 December 2005.
- Aitken, Lisa (2005). *The influence of HIV knowledge, beliefs, and religiosity on sexual risk behavior of private school adolescents.* Unpublished MA Thesis: University of Western Cape, Bellville.
- Allen, Susan A. *et al.* (1999). *The evolution of voluntary testing and counseling as an HIV prevention strategy.* In Laura Gibnay; R.J. Declomete and Sten H. Vermud. (Editors). New York: Kluwer Academic Plenum Publishers.
- Ashebir Since (1995). *Difference in awareness about AIDS and risk reduction behavior among teacher training institute students of Ethiopia.* Unpublished MA Thesis, AAU.
- Baggaley, R. *et al.* (1997). Knowledge and attitudes to HIV and AIDS and sexual practice among university students in Lusaka, Zambia and London, England: Are they so different? **Journal of the Royal Society Health**, 117, 2, 88-94.
- Baldwin, JD. and Baldwin J.I. (1988). Factors affecting AIDS related sexual risk taking behavior among college students. **Journal of Sex Research**, 25, 2, 181-196.
- Beyene Petros, *et al.* (1997). AIDS and college students in Addis Ababa: A study of knowledge, attitude and behavior. **Ethiopian Journal of Health Development**, 2, 115-123.
- Birdsall, Karen *et al.* (2004). *Voluntary counseling and testing (VCT) in South Africa: Analysis of calls to the National AIDS Helpline.* <http://www.cadre.org.za/>

- Boswell, Deborah and Baggaley, Rachel (2002). *Voluntary counseling and testing (VCT) and young people: A summary overview*. Family Health International.
- Chetty, D. (2001). *HIV/AIDS and South African Universities: Current issues and future challenges*. In M.J. Kelly.
- Coats, T. *et al.* (1998). *Voluntary HIV counseling and testing (VCT) reduces risk behavior in developing countries: Result from the voluntary counseling and testing study*. Paper presented at the international conference on AIDS. Geneva, Switzerland, 28 June - 3 July.
- Day, J.H. *et al.* (2003). Attitudes to HIV voluntary counseling and testing among mine workers in South Africa: Will availability of anti-retroviral therapy encourage testing? **AIDS Care**, 15, 665 - 672.
- Ekanem, EE. and Gabdegesin, A. (2004). Voluntary counseling and testing (VCT) for human immunodeficiency virus: A study on acceptability by Nigerian women attending antenatal clinics. **African Journal of Reproductive Health**, 8, 2, 91-100.
- FGAE (2004). *Ethiopia: Youth friendly voluntary counseling and testing*. Family Guidance Association Ethiopia.
- Gibney, L.; Diclemente, R.J., and Vermud, Sten H.( Editors). (1999). *Preventing HIV in developing countries: Biomedical and behavioral approaches*. New York: Kluwer Academic Plenum publishers.
- Hesketh, T.; Duo, L.; Li, H., and Tomkins, A.M. (2005). Attitudes to HIV and HIV testing in high prevalence areas of China: Informing the introduction of voluntary counseling and testing programs. **Sex Transm Infect**, 81,108-112.

- Horizons (2001). *HIV voluntary counseling and testing among youth: Results from an exploratory study in Nairobi, Kenya and Kampala and Masaka, Uganda*. New York: Population Council. <http://heapol.oxfordjournals.org/>
- Irin Africa (2005). *Ethiopian Leaders urged to publicly test for HIV/AIDS*. 6 September 2005 (Irin) <http://www.Irinafrica.com>.
- Kalichman, SC., and Simbayi, LC. (2003). *HIV testing attitudes, AIDS stigma, and voluntary HIV counseling and testing in black township in Cap Town, South Africa*. **Sex Transm Infect**, 79, 442-7. <http://www.sextrans.journals.com/>
- Kelly, M.J. (2001). *Challenging the challenger: Understanding and expanding the response of universities in Africa to HIV/AIDS*. Washington: ADEA Working Group on Higher Education.
- Kirumira, E. et al. (2003). "Youth and VCT in Uganda" presented at the national dissemination meeting of the youth and VCT project. Kampala, Uganda.
- McCauley AnnP. (2004). *Equitable access to HIV counseling and testing for youth in developing countries: A review of current practice*. Washington: The Population Council Inc.
- Meursing, Karla, and Sibindi, Flora (2000). *HIV counseling - A luxury or necessity?* <http://heapol.oxfordjournals.org/>
- MHO (2002). *National guidelines for voluntary HIV counseling and testing in Ethiopia*. Addis Ababa: MOH Disease Prevention and Control Department.

- \_\_\_\_\_ (2004). *AIDS in Ethiopia*. 5th Edition. Addis Ababa: MOH, Disease Management and Control Department.
- Micheal Dejene (2001). *Barriers and concerns for VCT services among youth and antenatal care followers in Dire Dawa Town*. (Draft Report).
- \_\_\_\_\_ (2001). *Study on factors affecting accessibility and acceptability of voluntary counseling and testing services for HIV/AIDS in Bahir Dar Town, North Western Ethiopia*. Family Guidance Association of Ethiopia, North Western Association. FGAE, Northwestern Branch.
- O'Reilly, Kevin R. (1999). "Behavioral interventions in developing nations" In Diclemete Gibney and Sten H. Vermud (Editors).
- Peltzer, Karl; Nezewi, Esther and Mohan, Krishvna (2004). Attitudes towards HIV-antibody testing and people with AIDS among university students in India, South Africa and United States. **Indian Journal of Medical Sciences**, 58, 3, 95-108. <http://www.bioline.org.br/lms>
- Petersen, I., Bhagwanjee, A., Bhana, A., and Mahintsho, Z. (2004). The development and evaluation of a manualized participatory HIV/AIDS risk reduction programme (Sex and Risk) for tertiary level learners: A pilot study. **African Journal of AIDS Research**, 3, 1, 93-100.
- Shitaye Alemu, Nuru Abseno, Getu Degu, Yared Wondinkun and Solomon Amsalu (2004). Knowledge and attitude towards voluntary counseling and testing for HIV: A community based study in northwest Ethiopia. **Ethiopian Journal of Health Development**, 18, 2, 82 - 89.

- Solomon, V. *et al.* (2004). *Critical review and analysis of voluntary counseling and testing literature in Africa*. Report. Health Systems Trust and University of Kwazulu-Natal.  
<http://www.hst.org.za>.
- Struni, L. and Hingson, R. (1987). Acquired immune deficiency syndrome and adolescents: Knowledge, attitudes and behaviors. **Pediatrics**, 79, 825-828.
- Tilahun Teka (1997). *AIDS related knowledge and behavior among college students, Gondar, Ethiopia*.  
 MA Thesis (Unpublished): Addis Ababa University.
- UNAIDS (2000). *Voluntary counseling and testing. UNAIDS Technical Update*. <http://www.unaids.org>.
- UNAIDS (2001). *The impact of voluntary counseling and testing: A global review of the benefits and challenges*. Geneva: Switzerland. <http://www.unaids.Org>.
- UNAIDS (2004). *Report update on the global HIV/AIDS epidemic*.  
<http://www.unaids.org/>
- UNAIDS (2005). *Report update on the global HIV/AIDS epidemic, December 2005*. [http:// www.org/ bang kook 2005/ report.html](http://www.org/bang_kook_2005/report.html).
- USAID (2000). *Voluntary HIV/AIDS counseling and testing: Many Africans do want to know*. U.S. Agency for International Development Fact Sheet. <http://www.usaid.gov/>
- Van Dyk, Altac, and Van Dyk, Peet J. (2003). "What is the point of knowing?": Psychosocial barriers to HIV/AIDS voluntary counseling and testing programmes in South Africa. **South African Journal of Psychology**, 33, 2, 118-125.

- VCT Efficacy Study Group (2000). *The Voluntary HIV-1 counseling and testing efficacy study: A randomized controlled trial in three developing countries*. Sanfrancisco: University of California. AIDS Research Institute Center for AIDS Prevention Studies. <http://www.caps.ucsf>.
- WHO/UNAIDS (2004). *Summary country profile for HIV/AIDS treatment scale*. <http://www.who.unaid.com>.
- World Bank (2004). *Crafting institutional responses to HIV/AIDS: Guidelines and responses for tertiary institutions in Sub-Saharan Africa*. Washington: African Region Human Development
- World Health Organization (2002). *Increasing access to HIV testing and counseling. Report of a WHO consultation, November 19-21*. Geneva, Switzerland.

# Appendix- A

አዲስ አበባ ዩኒቨርሲቲ

የሥነ ትምህርት ኮሌጅ

የሳይኮሎጂ ትምህርት ክፍል

በዩኒቨርሲቲ ተማሪዎች የሚሞላ መጠይቅ

ይህ መጠይቅ የተዘጋጀው የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዳይሆኑ እንቅፋት ናቸው የሚሏቸውን ምክንያቶች ለመለየትና በተገኘውም መረጃ መሰረት ለችግሩ የመፍትሄ ሐሳብ ለመጠቀም ነው።

ውድ ተማሪዎች በቅድሚያ ይህን መጠይቅ በመሙላት ለምታደርጉልን ትብብር ምስጋናዬን አቀርባለሁ።

1. ያታ ----- የትምህርት ደረጃ -----
2. ከዚህ በፊት በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የደም ምርመራ አድርገሃል/ሻል? መልሳችሁን የ "x" ምልክት በማድረግ አሳዩ።  
አዎን  አላደረግኩም
3. የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የደም ምርመራ አገልግሎት ተጠቃሚ እንዳይሆኑ የተለያዩ እንቅፋቶች እንዳሉባቸው ይገለጻል። አንተ/ቺ በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዳትሆን/ኝ እንቅፋት ሆነውብኛል የምትላቸውን/የምትያቸውን ምክንያቶች ከዚህ በታች በዝርዝር አስቀምጥ/ጭ።

1. -----
2. -----
3. -----
4. -----
5. -----
6. -----
7. -----
8. -----
9. -----
10. -----
11. -----
12. -----
13. -----
14. -----
15. -----
16. -----
17. -----
18. -----
19. -----
20. -----



ተ.ቁ	ምክንያት	አማራጮች			
		1	2	3	4
1	ከኤች አይ ቪ የመተላለፊያ መንገዶች ራሴን ጠብቄ ስለምኖርና ከቫይረሱ ነፃ ነኝ ብዬ ስለማስብ				
2	በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና ምርመራ ለማድረግ ስለምፈራ				
3	ኤች አይ ቪ የለም ብዬ ስለማምን				
4	ነፃ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጥባቸው ተቋማት በቅርብ አለመገኘት				
5	ኤች አይ ቪ በደሜ ውስጥ ከተገኘ ማግለልና መድሎ ይደርስብኛል ብዬ ስለማስብ				
6	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጡ ባለሙያዎች ሚስጢር ያወጡብኛል ብዬ ስለምፈራ				
7	ቫይረሱ በደሜ ውስጥ ከተገኘ የሚያስከትለውን ጭንቀትና ስቃይ ስለምፈራ				
8	የኤች አይ ቪ የደም ምርመራ ውጤትን ተአማኒነት /እውነተኛነት/ ስለምጠራጠር				
9	የኤች አይ ቪ የደም ምርመራ ውጤቱ ፖዘቲቭ ይሆናል ብዬ ስለምፈራ				
10	ቫይረሱ በደሜ ውስጥ ከተገኘ ከፍቅረኛዬ ይለያየኛል ብዬ ስለማስብ				
11	ጋብቻ ለመፈጸም ስላላሠብኩኝና የኤች አይ ቪ የደም ምርመራ ለማድረግ ስላልተዘጋጀሁ				
12	የኤች አይ ቪ የምክርና የደም ምርመራ እንዳደርግ የሚያበረታታኝ ጓደኛ /ቤተሰብ/ ስለሌለ				
13	ኤች አይ ቪ መድሃኒት ስለሌለው ቫይረሱ በደሜ ከተገኘ በህይወት የመኖር/የመቆየት/ ተስፋ አይኖረኝም ብዬ ስለማስብ				
14	ከኤች አይ ቪ ጋር የመኖር ተስፋ አናሳ ስለሆነ ራሴን አለማወቅ ስለምመርጥ				
15	የኤች አይ ቪ ኤድስ ተጠቂ ከሆንኩ ወደፊት ሥራ መቀጠር የምችል ስለማይመስለኝ				
16	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጡት ባለሙያዎች ተመርምረው ለሌላው አርአያ ስለማይሆኑ				
17	የምክርና የምርመራ አገልግሎት የሚሰጡት ባለሙያዎች አገልግሎቱን በቀናነት የሚሰጡ ስለማይመስለኝ				
18	ለኤች አይ ቪ ተጠቂዎች መንግስት አስፈላጊውን ድጋፍና እገዛ ስለማያደርግ				
19	ፍቅረኛዬ በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የደም ምርመራ ለማድረግ ፈቃደኛ ስላልሆነ/ች				
20	ከኤች አይ ቪ ነፃ ነህ ከተባልኩ ሌላ ስህተት ውስጥ እገባለሁ ብዬ ስለማስብ				
21	የግል የኤች አይ ቪ የምክርና የምርመራ አገልግሎት መስጫ ተቋማት ተመጣጣኝ ያልሆነ ክፍያ ስለሚጠይቁ				
22	የኤች አይ ቪ የምክርና የደም ምርመራ ለማድረግ የተመቻቸ ጊዜ ስለሌለኝ				
23	ቫይረሱ በደሜ ውስጥ ከተገኘ ይህን አምኖ የሚቀበል ቤተሰብ አለመኖር				
24	ሰለ ኤች አይ ቪ ኤድስ ማሰብ ስለማልፈልግ				
25	ጓደኞች/ቤተሰብ/ የኤች አይ ቪ ምርመራ አድርገው ስለማያውቁ				
26	የኤች አይ ቪ ኤድስ የደም ምርመራ ማድረግ በበሽታ እንደተየዘ ተደርጎ ስለሚቆጠር				
27	ስለ ኤች አይ ቪ የምክርና የደም ምርመራ አገልግሎት ግልጽ ውይይት ስለሌለ				
28	የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዲሆኑ በቂ ቅስቀሳ ስለማይደረግ				
29	በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የደም ምርመራ ማድረግ እንደ አገልግሎት ባህል ስለሚቆጠር				

## Appendix- C

አዲስ አበባ ዩኒቨርሲቲ  
የሥነ ትምህርት ኮሌጅ  
የሳይኮሎጂ ትምህርት ክፍል

በዩኒቨርሲቲ ተማሪዎች የሚሞላ መጠይቅ  
ውድ ተማሪዎች

የዚህ መጠይቅ ዓላማ የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሠረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዲሆኑ እንቅፋት ናቸው ብለው የሚያስቧቸውን ምክንያቶች መለየትና ለችግሩም የመፍትሔ ሃሳብ መጠቀም ነው። ከመጠይቁ የሚገኘው መረጃ በከፍተኛ ትምህርት ተቋማት ያለውን የኤች አይ ቪ ስርጭት ለመቀነስና ለመግታት ጉልህ አስተዋፅኦ ይኖረዋል ተብሎ ይታመናል። ትክክለኛና እውነተኛ መረጃ በመስጠት ለምታደርጉልኝ ቀና ትብብር በቅድሚያ አመሰግናለሁ።

ስም መጻፍ አያስፈልግም።

ከዚህ በታች ለቀረቡት ጥያቄዎች የ "X" ምልክት በማድረግ መልሳችሁን ስጡ።

- የዩኒቨርሲቲ የት/ት ደረጃ፡- 1ኛ ዓመት  2ኛ ዓመት  3ኛ ዓመት   
4ኛ ዓመት  5ኛ ዓመት
- ያታ፡- ወንድ  ሴት



**ክፍል ሁለት**

ከዚህ በታች የተዘረዘሩት ዐ/ነገሮች የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ ስለተመሠረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ያላቸውን አመለካከት ለመረዳት የቀረቡ ናቸው። እያንዳንዱን ዐ/ነገር በጥንቃቄ ካነበባችሁ በኋላ የራሳችሁን አስተያየት ከቀረቡት አምስት አማራጮች አንዱን ብቻ በመምረጥ የ "X" ምልክት በማድረግ ምላሽ ስጡ።

የአማራጮች መግለጫ እንደሚከተለው ነው።

5. በጣም እስማማለሁ
4. እስማማለሁ
3. ለመወሰን እቸገራለሁ
2. አልስማማም
1. በፍፁም አልስማማም

ተ. ቁ	ስለ ኤች አይ ቪ የምክርና የደም ምርመራ አስተያየት	አማራጮች				
		1	2	3	4	5
1	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሻይረሱን ስርጭት ለመቀነስ እንዲሁም ለመግታት ከፍተኛ ጠቀሜታ አለው					
2	የራስን የኤች አይ ቪ ሁኔታ /የምርመራ ውጤት/ ማወቅ ለወደፊት ህይወት አስፈላጊውን ጥንቃቄ ለማድረግ ይረዳል					
3	የ ኤች አይ ቪ የምክርና የምርመራ አገልግሎት ለሻይረሱ ተጠቂዎች እንክብካቤና ድጋፍ ለማድረግ ይረዳል					
4	የራስን ኤች አይ ቪ ሁኔታ /የምርመራ ውጤት/ ማወቅ ከህሳብና ከጭንቀት ለመላቀቅ ይጠቅማል					
5	የኤች አይ ቪ የምክርና የደም ምርመራ ማድረግ ያለባቸው ለሻይረሱ የተጋለጡ ሰዎች ናቸው					
6	የኤች አይ ቪ የምርመራ ውጤት ፓዘቲቭ ከሚሆን ውጤቱን አለማወቅ እመርጣለሁ					
7	የኤች አይ ቪ ምርመራ በማድረግ ራሴን ማወቅ አልፈልግም					
8	የኤች አይ ቪ የደም ምርመራ ለማድረግና ራሴን ለማወቅ ፍላጎት አለኝ					
9	የኤች አይ ቪ ሻይረስ በደሜ ውስጥ ከተገኘ ውጤቱን ለማንም ሰው ማሳወቅ አልፈልግም					

### ክፍል ሶስት

የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሠረተ የ ኤች አይ ቪ የምክርና የደም ምርመራ እንዲያደርጉ እንቅፋት ናቸው የሚሏቸው ምክንያቶች ከዚህ በታች ተዘርዘረዋል። ለእያንዳንዱ ምክንያት አራት አማራጮች ተሰጥተዋል። እያንዳንዱን ምክንያት በጥንቃቄ ካነበባችሁ በኋላ ከአራቱ አማራጮች አንዱን ብቻ በመጠቀም የ "X" ምልክት በማድረግ የራሳችሁን መልስ ስጡ። የአማራጮች መግለጫ እንደሚከተለው ነው።

4. በጣም ወሳኝ ምክንያት ነው
4. ወሳኝ ምክንያት ነው
2. በመጠኑ ምክንያት ነው
1. ምክንያት አይደለም

ተ ቀ	ምክንያት	አማራጮች			
		1	2	3	4
1	ከኤች አይ ቪ የመተላለፊያ መንገዶች ራሴን ጠብቄ ስለምኖርና ከቫይረሱ ነፃ ነኝ ብዬ ስለማስብ				
2	በፈቃደኝነት ላይ የተመሠተ የኤች አይ ቪ የምክርና የደም ምርመራ ለማድረግ ስለምፈራ				
3	ነፃ የ ኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሠጥባቸው ተቋማት በቅርብ አለመገኘት				
4	ኤች አይ ቪ በደሜ ውስጥ ከተገኘ ማግለልና መድሎ ይደርስብኛል ብዬ ስለማስብ				
5	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጡ ባለሙያዎች ሚስጢር ያወጡብኛል ብዬ ስለምፈራ				
6	ቫይረሱ በደሜ ውስጥ ከተገኘ የሚያስከትለውን ጭንቀትና ስቃይ ስለምፈራ				
7	የኤች አይ ቪ የደም ምርመራ ውጤቱ ፖዘቲቭ ይሆናል ብዬ ስለምፈራ				
8	ጋብቻ ለመፈጸም ስላላውብኩኝና የ ኤች አይ ቪ የደም ምርመራ ለማድረግ ስላልተዘጋጀሁ				
9	የኤች አይ ቪ የምክርና የደም ምርመራ እንዳደርግ የሚያበረታታኝ ጓደኛ ወይም ቤተሰብ ስለሌለ				
10	ኤች አይ ቪ መድሃኒት ስለሌለው ቫይረሱ በደሜ ከተገኘ በህይወት የመቆየት ተስፋ አይኖረኝም ብዬ ስለማስብ				
11	ቫይረሱ በደሜ ውስጥ ከተገኘ ከፍቅረኛዬ ይለያየኛል ብዬ ስለምፈራ				
12	የኤች አይ ቪ ኤድስ ተጠቂ ከሆንኩ ወደፊት ሥራ መቀጠር የምችል ስለማይመስለኝ				
13	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጡት ባለሙያዎች ራሳቸው ተመርምረው ለሌላው አርእያ ስለማይሆኑ				
14	ለ ኤች አይ ቪ ተጠቂዎች መንግስት አስፈላጊውን ድጋፍና እገዛ ስለማያደርግ				
15	የኤች አይ ቪ የምክርና የደም ምርመራ ለማድረግ የተመቻቸ ጊዜ ስለሌለኝ				
16	ቫይረሱ በደሜ ውስጥ ከተገኘ ይህን አምኖ የሚቀበል ቤተሰብ አለመኖር				
17	ስለ ኤች አይ ቪ ኤድስ ማሰብ ስለማልፈልግ				
18	ጓደኞቼ /ቤተሰብ/ የኤች አይ ቪ ምርመራ አድርገው ስለማያውቁ				
19	ስለ ኤች አይ ቪ የምክርና የደም ምርመራ አገልግሎት ግልጽ ውይይት ስለሌለ				
20	የዩኒቨርሲቲ ተማሪዎች በፈቃደኝነት ላይ የተመሠረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዲሆኑ በቂ ቅስቀሳ ስለማይደረግ				

## ***Appendix- D***

**Addis Ababa University  
College of Education  
Department of Psychology**

**A questionnaire to be completed by university students**

### **Dear students**

The purpose of this questionnaire is collect data on the perceived barriers of university students to undergo voluntary HIV counseling and testing. The information obtained from the questionnaire is believed to have a valuable contribution in the prevention and control of HIV transmission among university students. So you are kindly requested to provide your genuine response to the questionnaire. Thank you in advance for your cooperation.

There is no need to write your name!

Complete the following information by using an "x" mark.

1. Educational level: 1<sup>st</sup> year     2<sup>nd</sup> year     3<sup>rd</sup> year   
4<sup>th</sup> year     5<sup>th</sup> year
2. Sex: Male     Female

## Part One

The following items are presented to assess university students' awareness about voluntary HIV counseling and testing. Read each item carefully and provide your own response to each question.

1. How do you think one can check whether or not he/she is infected with HIV?

- A. By having blood test
- B. By looking his/her physical appearance
- C. If he gets sick for a long time
- D. When he/she observes some symptoms
- E. If any other, please specify \_\_\_\_\_

2. Do you know the availability voluntary HIV counseling and testing services?

- A. Yes
- B. No

3. Among the following institutions which one/s do you think provide/s VCT services? Indicate your response by encircling only "1" or "0" provided under 'yes' or 'no'.

	Yes	No
A. Free standing VCT centers	1	0
B. Government hospitals and clinics	1	0
C. Private hospitals and clinics	1	0
D. FGAE	1	0
E. If any other, please specify _____		
F. I don't know where VCT services are provided		

4. Do you make discussion with a friend, family or any other person about VCT?

- A. Yes
- B. No

5. Which source/s of information do you use to gain knowledge about VCT? Show your response by encircling "1" or "0" provided under 'yes' or 'no'.

	Yes	No
A. Radio	1	0
B. Television	1	0
C. News paper/magazines	1	0
D. Friends	1	0
E. Family	1	0
F. Health institutions	1	0
G. If any other, please specify _____		
H. I don't have any source of information about VCT		

6. Have you made HIV testing before?

- A. Yes
- B. No

## Part Two

Below, there are 9 items (statements) that reflect students' attitudes towards VCT. For each item five alternatives are provided. Choose only one of the alternatives and put an "x" mark in front of each item. The numbers 1-5 for the alternatives refers to:

5. Strongly agree
4. Agree
3. Undecided
2. Disagree
1. Strongly disagree

No	Attitude Items	Alternatives				
		1	2	3	4	5
1 ✓	VCT plays a significant role in the prevention and control of HIV transmission					
2 ✓	Knowing one's HIV status helps to plan one's future life					
3 ✓	VCT helps to arrange care and support services for people who test positive					
4	Knowing one's HIV status helps to avoid worry and stress					
5	People who need to get tested are those who are at high risk					
6	I prefer not to know my HIV status if it turns out to be positive					
7	I don't want to get tested and know my HIV status					
8	I wish to get tested and know my HIV status					
9	If my HIV status becomes positive, I don't want to disclose to anyone					

### **Part Three**

Below the perceived barriers that university students feel important for not accessing VCT services are presented. Each perceived barrier is provided with four alternatives (1,2,3, and 4). Read each item (statement) carefully and rate whether they are very important, important, less important or not important. Show your response by putting an 'x' mark on the space provided after each item. The correspondence between the numbers and their descriptions is as follows.

- 4. Very important
- 3. Important
- 2. Les important
- 1. Not important

No	Perceived Barriers	Alternatives			
1	Feeling that I'm -ve because I'm not exposed to different risk factors	1	2	3	4
2	Fear of the stigma of being tested				
3	Absence of nearby VCT services				
4	Fear of stigma and discrimination if tested positive				
5	Doubt about the confidentiality of VCT services				
6	Fear of worry and stress if tested positive				
7	Fear of a positive result				
8	Feeling that I need to get tested when I intend to get married				
9	No encouragement from family/friend to undergo VCT				
10	Fear of getting hopeless if tested positive				
11	Fear of rejection by a partner if tested positive				
12	Fear of losing job opportunity if tested positive				
13	Since practitioners don't serve as models for other people by getting tested first				
14	Since there are no care and support services for people who test positive				
15	Inconvenient hours of VCT services				
16	Absence of family who accept a positive result				
17	Not wanting to think about HIV/AIDS or being HIV +ve				
18	Since I don't have friend or family who had made an HIV test and motivate me to undergo VCT				
19	Absence of open discussion about VCT				
20	Lack of encouragement for students in campus to undergo VCT				