ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

A COMPARATIVE STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE ABOUT HIV/AIDS AND VCT AMONG DEFENSE UNIVERSITY COLLEGE STUDENTS

By

Ibrahim Yimer Assen

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Addis Ababa University
School of Graduate Studies

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Approved by board of Examiners

Tekeu Zewdie	
Chair, Department Graduate Committee	Signature
Dr. Sentayehu Tadesse	July 22/06
Advisor (Name)	Signature
D. Agodew Regie	July 22/06
External Examiner (Name)	Signature
R.S. Kumar	
Internal Examiner (Name)	Signature

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III. Abbreviation

AAII = African AIDS Initiative International

AIDS = Acquired Immune Deficiency Syndrome

AZT = Azidothymidime, Zidovudine or Retroviral

DUC = Defense University College

FDA = Food and Drug Administration

HIV = Human Immunodeficiency virus

KAP = Knowledge, Attitude and Practice

MOH = Ministry of Health

NAC = National AIDS Council

PWA = People With AIDS

SPSS = Statistical Package for Social Sciences

STD = Sexually Transmitted Diseases

STI =Sexually Transmitted Infections

VCT = Voluntary Counseling and Testing

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Abstract

The major objectives of this study were to compare knowledge, attitude and practice about HIV/AIDS and voluntary counseling and testing (VCT) among Defense University College Students who identified their HIV negative status and those who do not.

The sample of the study consists of students who identified their HIV negative status and those who do not. A total of 236 purposefully selected subjects were participated in the study.

Data collectors administered a questionnaire prepared by the investigator for subjects in the three campuses of the Defense University College namely: Defense Health Sciences College, Human Resource Management College and Mulugeta Buli Technical Training Institute.

The statistical analysis in this study consisted of percentage and Chi- Square.

The study shows that 94.3% of over all, 95.5% of the tested and 93.3% of the non tested respondents had good knowledge and 72.54% of over all, 75% of the tested and 66% of the non tested respondents had favorable attitude towards HIV/AIDS. When compared between the tested and the non tested on knowledge and attitude about HIV/AIDS there is no statistically significant difference between the tested and the non tested on their knowledge and attitude about HIV/AIDS(Chi-square = 0.015, P<0.05).

Regarding practice on HIV, 17.4% of over all students, 12.7% of the tested and 25.6%of the non- tested respondents had STDs during the last two years. . Moreover, 17.4% of over all, 16.7% of the tested and19.6% of the non-tested had unsafe injection during the last two years. Concerning their knowledge about VCT, 76.3% of over all, 81.6% of the tested and 67.05% of the non tested had good knowledge, and also 77% of over all, 84.74% of the tested and 70.9% of the non tested had favorable attitude about VCT. When the tested and the non tested are compared there is statistically significant difference on knowledge about VCT (Chi-square = 23.99, df=1 P<0.05). Bbut there is no statistically significant difference on attitude about VCT (Chi-square = 3.49, P<0.05)... Concerning their practice, 83.3% of the tested 54.7% of the non- tested are willing to be retested and tested if the service is available. There is statistically significant differences between the tested and the non tested to be tested if the service is available, that is more of the tested are willing to be tested than the non tested if the service is available(Chi-square = 19.09, df=1 P<0.05).

The study made practical recommendations amide at preventing the spread of HIV/AIDS.

CHAPTER ONE

Introduction

1.1 Background of the Problem

What is HIV?

Initially HIV was named HTLV (Human, T-lymphathocyte virus) but now has been named HIV (Human Immunodeficiency virus

- " Human " The virus causes disease only in people.
- " Immunodeficiency" The immune system which mainly protects a person from disease becomes weak and unable to protect from different germs.
- " virus " very small organism that infects living things and Uses them to make copies of it self (Granch and Mermin 2001)

Virus can't live without the help of the person, animal or bacteria they infect. Virus can't reproduce themselves. They are dependent upon the cell they infect to make copies of the virus, so that the infection can spread (Albers 1990)

What is AIDS? Before defining AIDS, let's see the immune system first. Immune system is a specialized group of cells that protect the host against invasive organisms such as bacterial, virus, fungi, and parasites. In addition immune cells function as surveillances network to guard against the growth and dissemination of tumor cells .Any individual who exhibits a deficiency in immune status run the risk of developing recurrent infections and neoclassic tumors. Primary immunodeficiency states occur as a result of genetically transmitted defects in selected elements of the immune system. Secondary immunosuppressive can develop subsequent to drug or radiation exposure or in association with viral infection. Infection with HIV for example results in profound immunes' suppression, largely due to a selective depletion of certain cellular elements of the human system (Durham and coke 1991).

AIDS (Acquired Immune Deficiency Syndrome) is defined primarily by a severe immune deficiency, and is distinguished from virtually every other disease in history by the fact that it has no constant specific symptoms. Once the immune system has begun to malfunction, a broad spectrum of health complications can set in. AIDS is an umbrella term for any of all of 26 known disease and their symptoms. When a person has any of these 26 microbial or viral caused opportunistic infections, and also tests positive for antibodies to HIV, he or she is diagnosed with AIDS. An AIDS diagnosis is also given to HIV positive people with a T4 cell count of less than 200 UL of blood (Stine 1999)

AIDS is a group of diseases that occur when HIV damages a person's immune system. Most people with HIV feel healthy for the first few years after getting the virus but later they become sick with AIDS (Grasnch and Mermin 2001)

The spread of HIV appears to have begun in the late 1970s, early in 1980 in America, West Europe and Australia (MOH, 2003). According to Akon(2001) AIDS which is caused by HIV, was first reported in late spring of 1981 by Michael S. Gottieb and four of his colleagues at the University of California School of Medicine, Los Angeles, United States of America. According to these authors, the discovery was first made among five young male homosexuals (Akon, 2001). Later reports showed that HIV could affect other segments of the society through different modes of transmission. The first report of slim disease (AIDS) was from Uganda in 1982 (MOH 2003)

Currently AIDS has reached epidemic proportion world wide. Geographic variation in epidemiology has been reported. Accordingly in industrialized, the spread of HIV started in late 1970s and early 1980s, male to female ratio is 5 - 6:1. Most cases occur among homosexual or bisexual and, infecting drug users. In sub-Saharan African countries the HIV epidemic started in late 1970s like the industrialized countries. Heterosexual transmission accounts for most of the HIV /AIDS cases and male- to female ratio is approximately 1:1. Injecting drug use and homosexual transmission either

occurs rarely or not at all. Heterosexual intercourse is the predominant and increasing mode of HIV transmission world wide (MOH, 2003).

To date, HIV has been isolated from a variety of body fluids cells, and tissues including peripheral blood, lymph nodes, brain tissue, cerebrospinal fluid, tears, bone marrow, cell-free plasma, saliva, retina, cornea, ear secretions, bronchial fluid, semen, breast milk, and cervical cells, cells of the skin and mucus membranes, cervical fluid, and Vaginal secretion. How ever the importance of these fluids, cells, and tissues in transmission varies as does the concentration of HIV within them (Durham and Cohen,1991).HIV can be found in large number of body fluids especially blood, semen, fluid from female genital and breast milk (MOH,2003).

The major documented ways that HIV may be transmitted are by intimate sexual contact both homosexual and heterosexual with an HIV infected person, exposure to contaminated blood or blood products by transfusion, sharing or drug apparatus or other methods and through passage of the virus from infected mothers through their fetus or new born period. It has been postulated that HIV could not be spread by insects such as mosquitoes particularly in tropical climates, but strong evidence and epidemiological patterns for such transmission are lacking (Durham and Cohen 1991) Within this few years the disease has spread in every corner of the continent. It has been spreading at varying rate in different parts of the world. According to Ministry of Health reports 2003, global situation of HIV/AIDS is as follows:

- Infected by HIV - - - 64.8 million
- Death due to AIDS - - - 24.8 million
- Living with HIV/AIDS - - - 40 million
- Adult living with HIV/AIDS - - - 17.6 million
- Children under 15 years living with HIV - - - 2.7 million
- The developing world comprises - - - 32.5 million (> 90% of the world total)
- Death of children < 15 years of age - - - 4.5 million

- Orphaned by AIDS at age 14 years 1 younger 13.2 million.

Cumulated sub Saharan Africa

- Infected by HIV - - - - - - - - - - 42.5 million
- Death due to AIDS - - - - - - - - 17.2 million (79%)
- Living with HIV/AIDS - - - - - - 28.1 million
- Death of children < 15 years - - - - 2 million
- orphaned by AIDS at age 14 years /younger 12.1 million
- New infection in a day 15,000

More than 95% of the HIV infected people live in the developing world, most in sub-Saharan Africa. The region has also experienced 83% of all deaths,(MOH).

Although Ethiopia has been hit by HIV/AIDS epidemic later than many African countries, HIV has now spread throughout the country, and is still spreading in an alarming rate, more and more new infections occur every day, not to mention the many who don't even know they have the virus (USAID, 2000).

Ethiopia, with just one percent of the world's population contributes nine percent of world wide cases of HIV/AIDS (Garbus, 2003).

According to Ministry of Health report the prevalence of HIV in Ethiopia is estimated to be 4.4% in 2003, and 4.6% in 2004. Among the urban population the prevalence is estimated to be 12.6% in 2003 and 12.55 in 2004. Among the rural population the corresponding estimate are 2.6% in 2003 and 2.8% in 2004. The incidence is remaining fairly constant in the subsequent years to come. In Ethiopia, the urban epidemic seems to be stabilizing after around 2001/02, whereas the rural epidemic shows a rising trend. The total general trend is increasing.

A total of 1.47 million and 1.59 million persons were estimated to be living with HIV/AIDS in the years 2003 and 2004, respectively. It is also estimated that there were a total of 231,000 and 244,000 new HIV infections in 2003 and 2004, respectively. In the same years it is estimated that there were a total of 123,000 and 133,000 new AIDS cases. The corresponding figures for the annual AIDS deaths were 115,000 and 124,000(MOH, 2004).

By realizing the seriousness of HIV epidemic the government of Ethiopia formulated its HIV/AIDS policy in 1998. Ethiopia established the National AIDS Council (NAC) in April 2000 under the direction of the president of the country. It brings together under one umbrella organization all government and non-governmental groups engaged in the fight against HIV/AIDS. Ethiopia created in April 2001 the National AIDS Council Secretariat (NACS) and placed it under the Prime Minister's office ((Shinn, 2004)).

In spite of the fact that Ethiopia was late to engage the HIV/AIDS pandemic, it has made significant progress since1996 when government authorities were reluctant to even recognize it had a serious problem (Shinn 2004). Even though different efforts are being carried out in Ethiopia for almost two decades at preventing the infection, HIV infection is still on the increase and AIDS is now recognized as the leading cause of adult morbidity and mortality in the country. The direct cause for the fast progress of the epidemic in the country is un protected sex and high frequency of casual partners. Also several underlying factors that promote the direct cause in Ethiopian context include: poverty, resulting in high rate of unemployment, prostitution; low level of awareness on HIV/AIDS gender inequality inability of women to negotiate about sex cultural, barriers, silence about the epidemic, stigma and discrimination, war displacement big mobile military population in the country (Garbus , 2003).

Military members are also touched by the HIV pandemic. According to 2003 national AIDS council (NAC) HIV prevalence estimate the military HIV prevalence is 15.3 % (MOH, 2003). Defense University College is a newly established military higher institution in Ethiopia. In defense university there are students who are HIV tested and identified their HIV negative status and those who are not tested and not identified their HIV status .Then this study attempt to know and compare the knowledge, attitude and practice (KAP) of DUC students, who had been HIV tested and identified their HIV negative status and of those who had not HIV tested and not identified their status.

1.2 Objectives

The study is conducted with the aim of attaining the following objectives.

1.2.1 General objective

The general objective of this study is to compare the knowledge, attitude and practice about HIV/AIDS and VCT among Defense University Students who identified their HIV negative status and those who do not

1.2.2 Specific objectives

The specific objectives are:

1.2. 2.1- to compare the knowledge about HIV/AIDS among DUC Students Who identified their negative status and those who do not.

1.2.2.2- to compare the attitude towards HIV/AIDS among DUC students Who identified their negative status and those who do not.

1.2.2.3- to compare the practice about HIV/AIDS among DUC students who identified their negative status and those who do not.

1.2.2.4- to compare the knowledge about VCT among DUC students who identified their negative status and those who do not.

1.2.2.5- to compare the attitude towards VCT among DUC students who identified their negative status and those who do not.

1.2.2.6- to compare the practice about VCT among DUC students who identified their negative status and those who do not.

1.3 Statement of the Problem

1.3.1 Is there difference between DUC students, who identified their HIV negative status and those who do not on knowledge towards HIV/AIDS?

1.3.2 Is there difference between DUC students, who identified their HIV negative status and those who do not on attitude towards HIV/AIDS?

1.3.3 Is there difference between DUC students, who identified their HIV negative status and those who do not on practice about HIV/AIDS?

1.3.4 Is there difference between DUC students, who identified their HIV negative status and those who do not on knowledge about VCT?

1.3.5 Is there difference between DUC students, who identified their HIV negative status and those who do not on attitude about VCT?

1.3.6 Is there difference between DUC students, who identified their HIV negative status and those who do not on practice about VCT?

1.4 Significance of the study

1.4.1 The study may help governmental and nongovernmental organizations who deal with HIV/AIDS to evaluate their educational and prevention programs.

1.4.2 The investigator has tried to see some of the research findings which have been done before this research. There is no study done on the comparison of DUC students, of those who identified their HIV negative status and of those who do not on the knowledge, attitude and practice about HIV/AIDS and VCT. The study is done to fill this gap.

1.4.3 It may encourage other researchers to pursue the subject matter in a wide scale.

1.5 Operational Definition of Key Terms

1. **Defense University College**: is a newly opened military higher institution located in Addis Ababa.
2. **HIV**: is a newly acquired disease which has no vaccine or cure
3. **AIDS**: is a severe immune deficiency that has no constant specific symptoms. Ones the immune system, has began to malfunction a broad spectrum of health complications can set in.
4. **Knowledge about HIV/AIDS**: is the understanding of students about the cause, way of transmission and preventing HIV/AIDS.
5. **Knowledge about VCT**: is the understanding of students about HIV testing and its use.

6. **Attitude**: is the belief of students about HIV/AIDS and VCT.
7. **Practice**: is the action students took about the prevention of HIV and of being HIV Tested.
8. **Tested students**: are students who identified their HIV negative status.
9. **Non-tested students**: are students who are not HIV tested and not identified their HIV status.

1.6 Limitation of the Study

Defense engineering college students are not included in the study.

CHAPTER TWO

Review of Related Literature

2.1 Mode of HIV Transmission

The HIV virus can be transmitted in several ways from the infected person to others. HIV can be found in large numbers of body fluids especially blood, semen, fluid from the female genitals and breast milk(MOH,2003).

HIV is transmitted in three major modes:

2.1.1 Sexual Transmission

Sexual Transmission of HIV in the united states has mainly occurred between homosexual males while in Africa the Caribbean and other pattern II countries sexual transmission of HIV mainly occurs between male and female .Both male - to -female and female -to -male sexual transmission has been documented (Durham and Cohen,1991)

The virus is found in the sexual fluids (semen, vaginal and cervical fluid) of people with HIV infection. Heterosexual contract is the most common form of transmission in Ethiopia (MOH, 2003).

2.1.2 Mother- to- child HIV transmission

The basic routes by which HIV can pass from mother to child are:- prepartum through the placenta (before birth) intra partum (at the time of delivery and postpartum (mainly through breast milk).The risk of mother to child transmission is variable from country to country and is generally estimated between 15-40%. The contribution of mother to child transmission to the global HIV infection ranges between 5-10%. The baby can be infected at any point from early pregnancy until the end of breast feeding (MOH, 2003).

2.3.3 Transmission of HIV through blood and blood products

Infection can also occur if HIV infected blood and blood products gains entry in to the body through the following ways.

- Through blood transfusion of transplanted organ or tissue.
- Exposure of contaminated skin piercing and cutting instruments (MOH, 2003).

2.2 Relationship between HIV and other sexually transmitted infections (STI)

There are about 25 infectious organisms that are transmitted through sexual intercourse. Relationship between STI and HIV

- Both share the same route of transmission
- The behavior that puts a person at risk of contraction STI puts the same person at risk of contraction HIV infection.
- A person who has STI with ulcer (open skin) makes it easier for HIV to be transmitted to other person. If the person with ulcer or sore is infected with HIV and exposed sexually with infected individual the HIV can easily inter through the broken skin
- A person who has a weaker immune system due to HIV infection has increased susceptibility to contracting STI.
- The course STI takes in persons who are HIV infected will be unusual. Mostly severe and protracted, making it difficult to treat conventionally the STI effectively.
- STI prevention measures reduce the transmission of HIV. (MOH,2003)

2.3 Risk Reduction and Prevention

Risk reduction strategies focus on initiating and sustaining behavior change that reduce a person's chance of acquiring or transmitting HIV. To provide

focused risk reduction strategies an individuals risk behaviors and the consistent practice of risk reduction behavior should first be passed.

Risk reduction strategies will be more relevant if they are tailored to each individuals behaviors, educational level, culture, race/ethnicity, age, social and economic background, personal circumstances, knowledge, skills and desires.

Reducing the risk of sexual transmission focuses on promoting safer sex behaviors. Safer sex is a term used to define those sexual practices which have a lower probability of HIV transmission from one sexual partner to another .Practices that are completely "safer" from HIV transmission are abstains and sexual intercourse between two mutually monogamous and uninfected partners. As long as the relationship is mutually monogamous, both partners are uninfected, and no other risk behaviors exist, there is no risk for HIV transmission. The consistent and proper use of latex condoms significantly reduces the risk of HIV transmission during sexual intercourse, although it does not provide 100% protection against HIV. Condom failure can occur (e.g. tearing, slipping off, leakage, improper usage), causing a risk of infection. Having multiple partners has been associated with increased rates of HIV infection, particularly in areas with a high prevalence of HIV. The more sexual partners an individual has the greater the probability of having contact with an HIV infected person. Anonymous or casual sex should be eliminated. Limiting sexual contact to one partner offers no protection if the partners are already HIV infected or has multiple partners. Individuals should be encouraged to choose their sexual partners carefully. Since many HIV infected persons are asymptomatic and look healthy, partners should know about each other (sexual and drug history) before initiating sex. A partner who had previous STDS, multiple sexual partners, used injection drug or used crack, Cocaine, or has lived or is living in geographic areas with HIV prevalence may be at risk for infection (Fakey and Flamming, 1997).

2.4 Drug and Alcohol Use

Using drugs or alcohol can increase a person risk of getting HIV. HIV can be spread if needles are shared during drug use. Drugs and alcohol affect a person's judgment. Some people may risk unsafe sex when they are under the influence of one or both. No decision about sexual activity should be made under the influence of alcohol and drug. The use of drugs or alcohol impairs judgment leading to unprotected sex or sharing dirty needles (Granich and Mermin, 2001).

2.5 Anti-retroviral Drug

In 1986, AZT (also known as Azidothymidine, Zidovudine or Retrovir) a drug that delayed the degenerative effects of the virus, was developed. The food and drug administration (FDA) approved AZT as the first anti-retroviral therapy for HIV in March 1987.The virus eventually reproduced a version of itself that was resistant to treatment with AZT. This familiar story had transpired with other drugs like DDT and penicillin. Resistance to AZT occurred rather quickly due to the phenomenal rate of mutation of the virus. About 80 percent of large sample of PWAS in Canada and the united states in 1999 were carrying mutated versions of the virus that were resistant to at least one of the drugs in the triple cocktail. In late 1999, ddi (Didanasine) was approved by the FDA, and the world was rerouting to the so-called "triple cocktail". When a nucleoside analogue reverse transcriptase inhibitor and a non-nucleoside reverse transcriptase inhibitor were added to the cocktail they acted to thwart HIV genes before they could integrate into the helper T lymphocyte cell to reprogram the white cell into a virus-producing "factory". By adding the third component to the triple cocktail, a protease inhibiter, a component of HIV called protease enzymes was blocked, so that HIV made copies itself that could not infect new cells. The triple anti-retroviral therapy attacks the virus in three ways by the name triple cocktail. Anti-retroviral drugs are neither a prophylactic nor a cure for AIDS. They simply disrupt the virus stages in the life cycle of the virus as it invades the

T. lymphocyte white cells in the human body and converts them into factories producing future generations of HIV. The anti-retroviral are a kind of chemical miracle, in that they reduce an individuals' viral load tenfold within eight weeks. In six months, an individual's viral load is so low that it cannot be detected. Thus the onset of AIDS and the opportunistic infections that come with it are delayed indefinitely, if a person living with HIV/AIDS takes the triple cocktail of drugs for the rest or his of her life. (Singlal and Rogers, 2003)

2.6 Why HIV/AIDS is stigmatized

Stigma is prejudice and discrimination against a set of people who are regarded by others as being "flawed incapable, morally degenerate or undesirable" and who are treated in a negative way. A stigmatized person is one who possesses an undesired difference from members of main stream society, which leads society to discredit them. Society officially opposes racism, sexism ageism and other type of prejudice, and the unequal treatment of certain individuals.

Through an accident of history, AIDS became a disease of already stigmatized groups. In the initials era of the epidemic in most countries, HIV infection spread though sexual networks of guy men, commercial sex workers, and/or injecting drug users. These marginalized groups were already heavily stigmatized by society and this prejudice was carried over, and strengthened, when such individuals became identified as carriers of HIV. This "double stigma of AIDS stemmed from the identification of AIDS as serious illness and from the identification of AIDS with already- stigmatized groups.

Another important reason for the stigma attached to AIDS, based in large part on ignorance of the means of transmission, is a common fear that by associating with people living with AIDS, individuals might put themselves at risk. Such fear of infection, even among people who know and understand

the actual means of transmission may be based on an irrational reaction. The nature of HIV/AIDS undoubtedly raised level of fear (Singhal and Rogers 2003).

2.7 Magnitude of HIV /AIDS and its prevention in Ethiopia

HIV infection appears to be moved into Ethiopia several years later than into much of central and East Africa. As a result of seroprevalence rates and AIDS, cases are still some what lower than for many other African regions. Beginning in the late 1980s, however, new infections began to occur in Ethiopia at alarming rates. (Essex, 1993)

In Ethiopia, AIDS has been spread through out the country; cases have been reported from every region (MOH, 2003).

The current adult HIV prevalence at national level is reported as 7.3%. The adult HIV prevalence in most urban Ethiopia is estimated to be 13.4% (16.8% in Addis Ababa) and rural Ethiopia the prevalence is estimated to be about 5% (MOH, 2003).

According to MOH average life expectancy has gone down from 53 to 46 in 2001 (MOH, 2004).

The rank order of HIV/ death of Ethiopia are 7th in the world (The Fact Book, 2003).

According ICA (2002) Nigeria, Ethiopia, Russia, India, and China are categorized as the next wave of HIV/AIDS.

The number of people with HIV/AIDS will grow significantly by the end of the decade. The increase will be driven by the spread of the disease in five populous countries—Nigeria, Ethiopia, Russia, India, and China—where the number of infected people will grow from around 14 to 23 million currently to an estimated 50 to 75 million by 2010HIV/AIDS is spreading at different rates in the five countries, with the epidemic the most advanced in Nigeria and Ethiopia. .It will be difficult for any of the five countries to check their

epidemics by 2010 without dramatic shifts in priorities. The disease has built up significant momentum, health services are inadequate, and the cost of education and treatment programs will be overwhelming. Government leaders will have trouble maintaining a priority on HIV/AIDS. Nigeria and Ethiopia have very limited public services to mobilize.The rise of HIV/AIDS in the next-wave countries is likely to have significant economic, social, political, and military implications. Nigeria and Ethiopia will be the hardest hit, with the social and economic impact decimating key government and business elites, undermining growth, and discouraging foreign investment (ICA,2002).

According to AAII (2006) some of the underlying factor that aggravates spread of AIDS Virus disease is poverty, low level of literacy, stigma and discrimination. High rate of unemployment, widespread practice o9f sex marketing, gender disparity, inter and intra rural/urban movement and rampart harmful traditional practice. HIV/AIDS is turn exacerbate the poverty situation by taking out the most active labor force out of production and increasing work load responsibility on a few of healthy family members AAII,2006).

The spread of HIV/AIDS in the next-wave countries will be difficult to check by 2010. Treatment of existing infections and prevention of new infections is minimal. Even if effective programs could be implemented in the coming years, such practical concerns as cost, scale, and experience in health service delivery probably will result in the omission of services to a large number of infected individuals, and the burden of disease will continue to rise (ICA 2002).

The further deterioration of already weak government institutions by the escalating HIV/AIDS crisis could leave Nigeria and Ethiopia seriously weakened states and is likely to reduce their ability to continue to play a regional leadership role (ICA, 2002).

According to AAII (2006) By realizing the potentiality devastating impact of HIV/AIDS epidemic, the government of Ethiopia has given timely response

by establishing National AIDS Task Force (1994), formation of Department of AIDS control, issuance of National AIDS policy (1998) and the strategy frame work for the national response (1999) updated 2002), establish of HIV/AIDS Prevention and control office (2002) to coordinate spread all the activities (AAII, 2006).

According UNAIDS, Report of the Global AIDS Epidemic, 2004.Critical interventions for AIDS prevention, care and treatment is as follows.

2.7.1 Critical Interventions for HIV/AIDS Prevention

- Supported peer education and life skills programs for in and out of school youth, anti-AIDS youth clubs and religious youth groups that develop the knowledge of HIV/AIDS and life skills of youth.
- Directed comprehensive behavior change communication programs targeting most-at-risk populations to reduce the number of persons who engage in risky behavior.
- Provided mass media and community programs for the general population to increase knowledge of HIV transmission and prevention methods.
- Supported expansion of voluntary HIV counseling and testing centers and implemented a promotional campaign called "Knowing is a modern way of living" to increase awareness of HIV status and increase the number of individuals tested.
- Supported strong partnerships for prevention and care services with faith-based organizations, particularly the Ethiopian Orthodox Church and the Islamic Supreme Council.

2.7.2 Critical Interventions for HIV/AIDS Care

- Sutraditional burial societies known as idirs. The respect held for idirs in the community is helping to reduce the stigma surrounding those with AIDS.

- Contributed to the production of the first song and music video that promotes compassion and caring for people living with HIV/AIDS. It has become a big hit, and people of all ages have embraced it.
- Developed a national program to strengthen and support local grassroots organizations for the provision of services for HIV and AIDS orphans and vulnerable children.
- Supported important linkages between TB and HIV services, a critical pathway to improve patient care and reduce the burden of TB.

2.7.3 Critical Intervention for HIV/AIDS Treatment

- Strengthened leadership at central, regional and facility levels by supporting establishment of an effective management system in the Ministry of Health and the creation of a National HIV/AIDS Executive Committee.
- Assisted in the selection of hospitals for antiretroviral therapy (ART) implementation in the country and in assessing, prioritizing and preparing them to meet the minimum package for accreditation to deliver ART.
- Supported laboratory services through a consortium of private laboratories that guide initiation and monitoring of ART, procurement of laboratory supplies and reagents, and QA/QC setup and lab maintenance.
- Supported assessment of capacity for pharmaceutical management system in hospitals, to support ART services, renovation of facilities, procurement and distribution of drugs, and human capacity development for delivery of ART services

2.8 HIV/AIDS in the Military

According to Clingedael, AIDS security, democracy (2005), for about a decade controversial is among researchers and advocators has been that

rates of HIV prevalence are typically two-to- three times greater among solders than the comparable civilian population. While HIV levels in the military population remain a controversial an inadequate.(clingedael Institute.(2005)..Even though there is no complete information about HIV prevalence in the military of Ethiopia some reports are as follows:

In Ethiopia less than 0.1% of 5,265 military recruits were infected in 1985 and 1986. By 1991, the seroprevalence rate for this population had risen to 2.6% (Essex, 1991) Ministry of Health report shows the prevalence of the military was 15.3 % (MOH, 2004).

According to the protocol for HIV surveillance among the sera Leon military personnel in Sera Leon (2003) Military Personnel are a population group at special risk of exposure to sexually transmitted diseases (STDs), including HIV. In peace time, STD infection rates among armed forces are generally higher than in civilian populations; in time of conflict the difference can be as high as 50 times or more. A 1995 survey estimate in Zimbabwe places the infection rates for the armed forces at 3 to 4 times higher than in the civilian population. Recent comparative studies in UK and USA showed that military personnel have a much higher risk of HIV infection than groups of equivalent age/sex in the civilian population. Armed forces in other parts of the world reflect the same phenomenon.

Probably the single most important factor leading to high rates of HIV in the military is the practice of posting personnel far from their accustomed community or their families for long period of time. Aside from the emotional stress this places on the individual, the practice encourages use of commercial sex. In addition, the military's professional ethos tends to excuse or even encourage risk-taking. For instance, the willingness to accept risk is highly important in combat, but off the battlefield it may increase soldiers' willingness to engage in unprotected needlessly risky behavior, such as, unsafe sexual intercourse (Protocol for HIV surveillance, 2003).

According to Radhika (2003) Soldiers are among the most vulnerable to the disease, and in many countries HIV infection rates are several times higher in the military than among

civilians. Senior military officials and national defense ministers are beginning to recognize this emerging security threat, but there are still considerable differences in how militaries are approaching such issues as HIV testing among soldiers. Radhika (2003) explains,that there are a number of ways in which AIDS threatens national security. The spread of HIV/AIDS within the military can undermine combat readiness. In fact, the National Intelligence Council (an arm of the CIA) has warned that military capabilities could deteriorate if HIV spreads unchecked among soldiers. For nations that are already politically unstable, even the perception of a weakened military can make them susceptible to an internal coup d'etat or enemy attack. Many security analysts have also warned that soldiers' risk-taking increases when HIV/AIDS is rampant and access to treatment is low Radihika(2003).

According to Reta Ayele,(2001) as the HIV epidemic continues to rage unabated the true significance of HIV/AIDS will be seen in its destabilizing influence on security affected countries. If military populations are highly infected it may finally result in dissemination of those forces loss of key leaders will also contribute to socio-economic disruption with possible military-political instability. That is why the disease may be a "war starter" or "war-outcome-determinant" Within the army, the HIV/AIDS pandemic has become the leading cause of lose of senior leadership and skilled man power as well as lower troop vigor, resulting in reduced military capability, discipline, and moral while negatively affecting civilian and national security Reta ayele, (2001).

On the other hand the spread the virus among members of the army will have negative consequence on the defense budget. In the country like Ethiopia, the defense budget is limited due to different economic and social reasons and the expense to treat the victims of the virus and their family will be another burden. There will be a need to train and produce new personnel instead of those who are put out of service due to the disease (pilots, commanders, intelligence officers, ...etc), which will in tern, be another burden on the national budget (Reta Ayele,2001).

HIV/AIDS has proven to force the Ethiopian Armed force to face cost and policy issues associated with care, strain on hospital service securing blood supplies, replacing trained man power, testing troops, keeping more medical records, and designing and implementing training programs to prevent the infection Considering the seriousness of the matter and its future consequences, the Ethiopian Ministry of National Defense Health Bureau has drafted a

strategy through which gradual behavioral change in the members of the defense force will be developed so that the intervention efficiency increases from time to time (Reta Ayele 2001).

2.9 HIV Testing

Approved commercial blood testing for detection of HIV- I antibodies has been available in the United States since 1985. A confirmed positive antibodies test is considered capable of transmitting infection. If an infected individual is tested during the interval between HIV infection and development antibodies (i.e. the "Window period"), the individual will test negative for HIV antibodies, even though transmission is possible because the virus is present. Seroconversion (i.e., the appearance of detectable HIV antibodies) occurs within eight weeks of infection include gene amplification of HIV DNA or RNA sequences (e.g. polymerize chain reaction), HIV antigen testing, and HIV viral culture.(Fakey and Flamming 2004).

Early identification of HIV infection in individuals is important for several reasons. The availability of therapies and preventive measures can delay disease progression and prevent opportunistic infections. In addition, education, counseling as well as linking the HIV-infected individual to supportive networks can assist in maintaining good health, delaying on set of symptoms, and preventing transmission to other. (Fakey and Flamming, 2004)

HIV testing and counseling in Ethiopia began in the late 1980s with services expanding throughout the 1990s .Yet, it is reported that many people with HIV in Ethiopia do not know they are infected As there is no cure for HIV/AIDS voluntary counseling and testing remains a key strategy to control the spread of HIV and to provide support to those who are positive (MOH, 2003).

2.10 Studies done on Knowledge, Attitude and Practice about HIV/AIDS and VCT

According to AAII (2006)Addis Ababa University students CABP survey some of the groups who have participated in the study expressed their worry and concern that there is little behavioral change among the university students despite their knowledge on the mode of transmission of the AIDS virus. The following were some of the factors cited for lack of behavioral change.

1. Most of the students in the university are very young. Therefore, they may lack far sightedness to appreciate the consequences of their act or behavior.

2 Lack of adequate and proper orientation about their new environment which negatively affects their behavior during their stay in the university.

3. Lack of intellectual maturity associated with attractive but usually dangerous /risky urban environment.

4. Lack of organizations /facilities engaged in providing out-of- school activities. There are practically no or few facilities for extracurricular programs that develop hobbies and other activities like clubs and sporting events.

5. Students resort to dangerous sexual intercourse as a means of getting relief from stress created by workload especially during exams. Penetrative and unprotected sex is usually the nominal for the youth.

6. Lack of sex education during their elementary and high school years, which is critically important to build their knowledge and minimize the existing sex, related problem.

7. Most students also fall to develop responsible behavior because they want to prove that they have grown up to adulthood by engaging in high – risk sexual intercourse.

8. Peer pressure encouraging students to engage in sex in return for sex. There is also a widely accepted belief that the marital sex can be practiced so long as the parties trust each other and agreed to get married after they graduate (AAII, 2006).

According to CDC Path finder (1995), HIV/AIDS prevention theorists believe that increased knowledge, along with positive attitudes and beliefs about HIV/AIDS, will lead to positive behavior changes, i.e., behaviors that are less risky, or safer, such as use of condom, abstinence, and avoidance of risky situations. However, studies indicate that increased knowledge of HIAIDS does not always result in a positive behavior change (CDC pathfinder, 1995).

According Ceyaziow (2005) On the KBP study done of Nigerian university students, the results indicated that the students were knowledgeable about transmission and symptomatology but there were some misconceptions about the mode of transmission of HIV. Few students identified themselves to be at high risk even though majority of them (92%) were sexually experienced. The study also showed that even though these students are knowledgeable and concerned about contracting HIV/AIDS from their partners, this did not prevent them from engaging in unprotected sexual intercourse (Cyaziow, 2005).

According Serlo and Aavorinne (1999), of the study done on the attitude of university students towards HIV/AIDS, the most important source of knowledge concerning HIV/AIDS was television (84%). Even when there was a lot of knowledge available to the students they estimated their knowledge as in sufficient and defined HIV more correctly than AIDS. Knowledge did not increase the use of safe sex but limited sexual behavior. Religion had an importance for sexual behavior. ....The feelings towards HIV/AIDS were more often negative than positive neutrals and the students felt stronger negative feelings towards AIDS than HIV. The negative feellings based on fear. (Serlo and Aavorinne, 1999)

Attitude about VCT

According to Peltzer (2004) of the study done on the attitude towards HIV - Antibody Testing among University students in India, South Africa and United States, Stigmatizing attitudes towards persons with AIDS may reduce people's willingness to have themselves tested for HIV There by increasing

the risk of transmission. Testing for HIV antibodies is an important component of prevention and intervention programs assigned to curb the spread of HIV infection. Because pre-test and post-test counseling are offered to individuals who test either HIV positive or HIV negative, there is an opportunity for individualized in intervention to discuss risky and safer behaviors and ways to modify risky behavior patterns. HIV testing and counseling have shown to promote risk reduction (in certain groups). Most studies involving couples in Africa show that knowledge of HIV test results promote behavior change and reduce transmission (Peltzer, 2004).

According to the dstudy of Pertzer (2004), the study found some country differences regarding HIV testing and attitude. American students had a significantly more positive attitude towards HIV testing and stronger intentions to go for HIV testing than South African and Indian students. This may be in part, related to the strong presence in many universities in the US of programs on education and presentation of infection with HIV-Virus and indicates some positive out came of such programs. The failure to use HIV testing services by significant numbers of individual at risk of HIV can be attributed to a number of factors, both individual as well as, societal level. For example, among high risk individuals in the Us, reasons given for failing to be tested include fear of learning they are HIV-positive (25%). belief that they are likely to have been exposed to HIV (18%) and belief that they are HIV-negative 13%). Other reasons are reluctance to think about the possibility of being HIV-positive (8%) as well as the assumption that there is little they can do about being HIV-positive (6%). Other barriers to HIV testing include the perceived stigma and fear of discrimination if sero positive concerns over privacy and the issue of who has access to information about one's HIV status (Petzer, 2004).

According to Norman and Yitades Gebre (2001) on their study done on Jamaican university students, the stigma discrimination, and violence faced by Jamaicans living with HIV/AIDS contribute to the avoidance of HIV

testing by most people in the country. Concerns regarding violations of confidentiality and test privacy, which may be compounded by negative social conditions, can serve as major barriers to testing. In addition to fear, students in the present study report not having an HIV test because they believed they were not at risk of contracting HIV nor infected by with the virus. Unfortunately, among those who reported being at no risk a number of them were engaging in high-risk sexual behaviors. Perception of risk leads individuals to be tested.

According the study of Norman,(2004) When persons in the study who reported previous HIV testing were specifically asked what behavioral change if any, had they made after testing, the majority reported no behavior change. This may be reflective of an attitude that if an optimal test result was received then it is not necessary to change or adopt protective behavior. However a significant proposition of tested persons reported engaging in behaviors associated with risk of HIV transmission, including inconsistent condom use and having multiple sex partners. (Norman ,2004)

According to Tefra Belachew (2004) of the study done on knowledge, Attitude, practice about HIV/AIDS, VCT among students of Jimma university,

The study showed that over 485 (97%) of the respondents have good knowledge and over 80% had favorable attitude towards the preventive methods of HIV/AIDS and VCT. 58.2% do not know that a significantly healthy perform can transmit HIV. Over half 18 (56.5%) of the students who indulged in unsafe sexual practices did not perceive that they are at risk of HIV infection. Regarding attitude towards the methods of the presentation of HIV/AIDS, 377 (74.8%) preferred being abstinent or being faithful to ones partner than using condom. Their practice showed that out of 166(33.2%) of students who has sexual intercourse 48(28.9%) had multiple sexual partner and only 31(64.5%) used condom persistently. Thirty-one (18.7%) had sexual contact with prostitutes but only 29(64.5%) used condom. The majority,

413(82.6%) of respondents had an intension to use VCT and 391(78.2) would like to ask their parents for voluntary counseling and testing.

To conclude the students have high level of knowledge and favorable attitude about the preventive methods of HIV/AIDS and VCT. Despite this there was a high risk sexual practice over fifty percent of the study respondents involved in un safe sexual practice do not have risk perception. There was a positive attitude towards using VCT Service. (Tefera Belachew, 2004).

According to Richter (1994), on the study done on HIV/AIDS knowledge and attitude among university students in Sera Leon, 20% of the respondents believe that AIDS is not actually a public threat. Two-thirds of the respondents were convinced that HIV/AIDS infection posed a serious threat to them (Richter, 1994) According to Oyziwo (2005) on assessing, Nigerian university students' knowledge about HIV/AIDS the finding of the respondents has a highly favorable knowledge about HIV/AIDS (Richter, 1994).

CHAPTER THREE

Methodology

The general objective of the study is to compare the Knowledge, Attitude and Practice about HIV/AIDS and Voluntary Counseling and Testing (VCT) Among Defense University College Students Who Identified Their HIV Negative Status and Those Who Do Not.

3.1 Participants of the Study

The study was conducted among the student population of DUC, which is located in Addis Ababa. DUC has 3 colleges and one technical training institute, namely Defense Engineering College and Defense Health Science Colleges which are located in Debre Zeit, Human Resource Management College located in Addis Ababa and Mulugeta Buli Technical Training Institute located at Holeta Genet. Defense Engineering College is not included in the study for their personal reason of not easy access to students. So the populations of the study are the students of the two colleges and one institute.

According to the interview with the head of Students Admission Office of DUC, all students who join DUC up to September 2005 are HIV tested and identified their HIV negative status as a mandatory criterion to join DUC. Those who join the university after September 2005 are not HIV tested as mandatory criteria to join the university.

According to the information of Students Admission Office those students who are attending 3rd year and above degree program and those attending 2nd and above diploma program are HIV tested and identified their HIV negative status while, 1st year diploma program are not HIV tested and not identified their status. The total population of students is 940. Their HIV status is as follows.

Of the total 940 studentes633 (67.4%) are tested and the remaining 307 (32.6%) are non-tested.

Total number of DUC students in accordance to their respective colleges and their HIV status is;

1. Defense Health Sciences College tested 248 (26.4 %), non-tested122 (13%), Total370 (39.4%).
2. Human Resource Management College tested225 (24%) non-tested105 (11.1%) Total330 (35.1%).
3. Mulugetra Buli Technical Training Institute tested160 (17%) non-tested80 (8.5%) total240 (25.5%).

Based on the above information the investigator uses systematic sampling. The study participants are selected in relation to the total number of the students in the colleges and institute. 150 students from the tested and 92 students from the non-tested were selected for the study.

From the selected respondents all 150 students from the tested and 86 students from the non-tested, total 236 students had filled the questionnaire. Out of the non-tested 8 students has failed from filling the questionnaire.

The number of students for each college participated in the study is as follows:

1. Defense Health Sciences colleges tested 59(25%) non-tested34 (14.4%) Total93 (39.4%).
2. Human Resource Management College tested53 (22.5%) non-tested 30 (12.7%) total 83 (35.2%).
3. Mulugeta Buli Technical Training Institute Tested38(16.1%) non-Tested22(9.3%) Total60(25.4%).Of the total 236 students participated in the study 150 (63.6%) were tested and 86(36.4%)were non-tested.

DUC students in relation to sex is: Health Sciences colleges male329 female41 total370. Human Resource Management male260 female70 total

330. Mulugeta Buli Technical Training Institute male240 total 240. total male829 total female111.

There is no special criteria to include the female students in the study The female respondents are those students who are found in the classes, where the questionnaire were administered.

3.2 Tools Utilizes for the Study

As self administered English version questionnaire was developed and administered. The questionnaire questions are adopted from Tefera Belachew et al, (2004) study done on knowledge, attitudes, and practice about HIV/AIDS and VCT among students of Jimma University, Reltzer K. et al (2004) study on attitudes towards HIV anti-body testing and other source found from internet which studies about the selected topic.

The content of the questions were questions about demographic factors (6) HIV status (1) knowledge questions about HIV/AIDS (14) and VCT about(10), attitude questions about HIV/AIDS (10) and VCT (9) practice questions about HIV/AIDS (10) and about VCT (6) and others which clarify about and VCT (23).

Permission of the colleges and institute deans was secured through an official letter from Addis Ababa University. The questionnaire was administered in classes where the selected students are found. Before data collection participants were clearly told about the benefits of participating in the study through a two-way communication. The questionnaires were pre tested and revisions were made according to the main study. The study participants were briefed about the filling of the questionnaire. The investigator and the two assistants supervised the whole session of filling the questionnaire.

The data were checked before entering into a computer and then analyzed using SPSS (Statistical Package for Social Sciences) window version 12.0. Statistical test for significance were carried out where ever appropriate.
Each knowledge and practice questions about HIV/AIDS and VCT has two choices yes or no. For those positive statements those who choose yes and for those negative statements those who choose no are considered to have positive response and those who say no to positive statements and those who say yes for negative statement are considered to have negative response.

Each attitude questions for HIV/AIDS and VCT has five choices strongly agree, agree neutral, disagree and strongly disagree. For positive statements those who chose strongly agree and agree were considered to have positive response while those who chose neutral disagree and strongly disagree categorized as having negative response. On the other hand, for negative statements, those who chose strongly disagree and disgree were grouped to have a positive response where as those who chose agree, strongly agree and neutral were leveled to have negative response.

For all knowledge, attitude and practice questions a score above the mean was considered as "good knowledge" favorable attitude" and "good practice" while a sum below the mean was considered as "poor knowledge" "Unfavorable attitude" and "poor practice".

CHAPTER FOUR

Results

4.1 socio demographic characteristics of respondents

Table 1: socio demographic characteristics of respondents

socio demographic characteristics	Number	Percent
Sex		
Male	207	87.7
Female	29	12.3
Total	236	100.0
Age		
17 -24	65	27.5
25-32	145	61.6
33 and above	26	10.9
Total	236	100.0
Martial Status		
Single	151	64.0
Married	80	33.9
Divorced/Separated	4	1.7
Widowed	1	.4
Total	236	100.0
Ethnicity		
Amhara	71	30.0
Oromoo	46	19.9
Tigray	44	18.6
Gurage	8	3.4
Others*	11	4.7
Omission	55	23.3
Total	236	100.0
Religion		
Orthodox	173	73.3
Islam	11	4.7
Protestant	26	11.0
Others**	4	1.7
Omission	20	8.5
Total	236	100.0

* Yem, Dawro, kembata, kefa **Jehova, Wakafata

As shown in the table 1 above the majority, 207 (87.7%) of the subjects were male and the rest 29 (12.3%) female giving a sex ratio 7:1. The mean age of the respondents was 27.48 years with standard deviation 5.128 minimum 17 and maximum age 50 respectively.

The predominant ethnicities were Amhara 71 (30.1%) Oromo 47 (19.9%), Tigrai 44 (18.6%).The majority 151 (64%) were not married, followers of Orthodox Christianity 173 (73.3%) (Table 1)

Table 2: Means, Standard Deviations, Minimum, Maximum and Range of Responses

HIV status		HIV knowledge	HIV attitude	HIV practice	VCT knowledge	VCT attitude	VCT practice
Tested and negative	Mean	13.30	6.82	3.63	7.76	7.59	3.72
	Std	.947	1.395	2.560	1.721	1.439	1.088
	Minimum	10	4	0	2	3	2
	Maximum	14	10	10	10	9	6
	Range	4	6	10	8	6	4
	N	150	150	150	150	150	150
non-tested and not identified their status	Mean	13.03	6.44	4.4.1	6.57	6.64	3.79
	Std	1.514	1.508	2.002	2.252	2.046	1.440
	Minimum	7	4	1	1	2	0
	Maximum	14	10	10	10	9	6
	Range	7	6	9	9	7	6
	N	86	86	86	86	86	86
Total	Mean	13.20	6.68	3.92	7.33	7.24	3.75
	Std	1.189	1.446	2.37	2.010	1.742	1.225
	Minimum	7	4	0	1	2	0
	Maximum	14	10	10	10	9	6
	Range	7	6	10	9	7	6
	N	236	236	236	236	236	236

Program of study of the respondents is degree program 69(29.2%) and diploma program 167(70.8%)total 236.Year in college of respondents is 1st year 88(37.3%),2nd year 105(44.5%),3rd year 5(2.1%) 4th year 38(16.1%) total 236.

A total of 236 students from two colleges and one technical institute were involved in the study. The response rate was 96.7%. Then 150 students from the tested and 86 of the non-tested participated in the study.

Response on HIV/AIDS status (notable)

A. Tested and identified their HIV negative status 150 (63.6%)
B. Not tested and not identified their status ----------86 (36.4%)
Total----------236 (100%)

4.2 Response on Knowledge statements about HIV/AIDS

Table 3: Response on knowledge questions about HIV/AIDS

Knowledge statements about HIV	Response of the tested n 150		Response of the non-tested n 86		Response of overall students n 236		
Know disease that can be transmitted by sexual intercourse:	150 (100%)	0(0%)	82 (95.3%)	4 (4.7%)	232 (93.3%)	4 (1.7%)	236 (100%)
Know the symptoms of sexually transmitted disease (STD)	145 (96.7%)	5 (3.3%)	74 (86%)	12 (14%)	218 (92.4%)	18 (7.6%)	236 (100%)
HIV infected person may not show sign of the disease for many years.	137 (91.3%)	13 (8.7%)	77 (89.5%)	9(10.5%)	213 (90.3%)	23 (9.7%)	236 (100%)
HIV can be transmitted by sexual intercourse with HIV infected person	150 (100%	0 (0%)	84 (97.7%)	2 (2.3%)	234 (99.2%)	2 (.8%)	236 (100%)
HIV can be transmitted by blood transfusion from a person who has HIV.	150 (100%)	00%)	85 (98.8%)	1 (1.2%)	234 (99.2%)	2(.8%)	236 (100 %)
HIV can be transmitted by injection and cutting with HIV infected needles and cutting instruments which are not sterilized after each use.	150 (100%)	0 (%)	84 (97.7%)	2 (2.3%)	233 (98.7%)	3 (1.3%)	236 (100%)
HIV can be transmitted from mother to child during pregnancy, delivery and by breast feeding if the mother has HIV	147 (98.%)	3 (2%)	84 (97.7%)	2 (2.3%)	230 (97.5%)	6 (2.5%)	236 (100%)
People can protect themselves from HIV by abstain from sexual intercourse	141 (94%)	9 (6%)	77 (89.5%)	9 (10.5%)	217 (91.9%)	19 (8.1%)	236 (100%)
People can protect themselves from HIV by being faithful to their partner and having un infected faithful sexual partner	140 (93.3%)	10 (6.7%)	81 (94.2%)	5 (5.8%)	220 (93.2%)	16 (6.8%)	236 (100%)
People can protect the transmission of HIV from mother to the fetus and new born child	141 (94%)	9(6%)	83 (96.5%)	3 (3.5%)	223 (94.5%)	13 (5.5%)	236 (100%)
People can prevent the transmission of HIV by blood transfusion by to taking HIV screened blood.	131 (87.3%)	19 (12.7%)	78 (90.7%)	8 (9.3%)	209 (88.5%)	27 (11.5%)	236 (100%)
A person who looks healthy and carrying HIV virus can transmit to other people	134 (89.3%)	16 (10.7%)	70 (81.4%)	16 (18.6%)	203 (86%)	33 (14%)	236 (100%)
Using condom consistently prevent to both STD and HIV	143 (95.3%)	7 (4.7%)	80 (93%)	6 (7%)	222 (94.1%)	14 v(5.9%)	236 (100%)
Having many sexual partners increases the risk of being infected with HIV	147 (98%)	3 (2%)	83 (96.5%)	3 (3.5%)	229 (97%)	7 (3%)	236 (100%)
Average response	143 (95.5%)	7 (4.5%)	80 (93.3%)	6 (6.7%)	223 (94.3%)	13 (5.7%)	236 (100%)

As shown on the above table 100% of the tested respondents Know diseases

that can be transmitted by sexual intercourse, HIV can be transmitted by sexual intercourse with HIV infected person, it can also be transmitted by blood transfusion from a person who has HIV, and can be transmitted by injection and cutting with HIV infected needles and cutting instruments which are not sterilized after each use.

Table 4: Knowledge of respondents about HIV/AIDS

Variables		HIV Status		Total n=236	$X^2 = 0.015$
		Tested n=150	Non-tested n=86		
HIV knowledge sum	Low	64(63.5)	36(365)	100	
	High	86(86.5)	50(49.5)	136	
Total		150	86	236	

Critical x^2 (df1, n=236, $p<0.05$ = 3.84) 0.015

As show in the table, the knowledge observed and expected (the result seen in parenthesis) frequencies are in the appropriate cell. The result shows high knowledge respondents about HIV/AIDS but the X^2(chi-squire) test shows that there is no significant difference between the tested and the non-tested on knowledge about HIV/AIDS.

Regarding knowledge of respondents about the HIV/AIDS the majority of 223 (94.3%) of the over all, 143 (95.5%) of the tested negative and 80 (93.3%) of the non-tested s know about the cause, mode of transmission and preventive methods of HIV/AIDS. While 13(5.7%) of over all students, 7 (4.5%) of the tested and 6(6.7%) of the non-tested students do not know about different issues about HIV/AIDS. When compared the tested with the non-tested even though there is difference 143 (95.5%) for the tested and 80 (93.3%) for the non-tested, the difference is not significant.

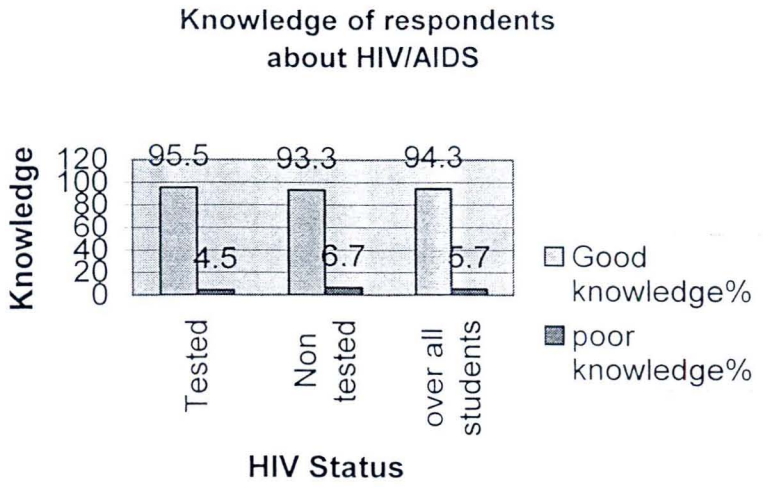

Figure 1 Knowledge of respondents about HIV/AIDS

4.3 Response on attitude statements about HIV/AIDS

Table 5: response of overall respondents to attitude statements pertaining to HIV/AIDS, (on the next page)

Attitude statement about HIV/AIDS	Responses (n=236)					
	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)	Total n(%)
I believe that HIV/AIDS is not as a big problem as the media suggests	34(14.4%)	20 (8.5%)	6(2.5%)	39 (16.5%)	137 (58.1%)	236 (100%)
IT is believed that a person with STD has high risk of acquiring or transmitting HIV	139(58.9%)	76 (32.2%)	6(2.5%)	6 (2.5%)	9 (3.8%)	236 (100%)
In my belief except HIV, being infected with STD is not as such a heath problem	12(5.1%)	21 (8.9%)	11(4.7%)	68 (2.8%)	124 (52.5%)	236 (100%)
People can protect themselves from getting infected with HIV by being abstain from sex	92(5.1%)	98 (41.5%)	19(8.1%)	18 (7.6%)	9 (3.8%)	236 (100%)
People can protect themselves from getting infected with the HIV virus by having one un infected sex partner, who also has no other partners.	116(49.2%)	83 (35.2%)	11(4.7%)	9 (3.8%)	17 (7.2%)	236 (100%)
I would rather be faithful to my partner than using condom.	100(42.4%)	78 (33.1%)	29(12.3%)	19 (8.1%)	10 (4.2%)	236 (100%)
Person with HIV had led immoral lives	43 (18.2%)	67 28.4%)	34(14.4%)	49 (20.8%)	43 (18.2%)	236 (100%)
People with HIV should be isolated to stop the further spread of the disease	51(21.6%)	33 (14%)	12(5.1%)	25 (10.6%)	115 (48.7%)	236 (100%)
People with HIV deserves to suffer	44 (18.6%)	64 (27.1%)	35 (14.8%)	32 (13.6%)	61 (25.8%)	236 (100%)
Person with HIV should be given the same opportunities as every one else in life	135 (57.2%)	55 (23.3%)	8 (3.4%)	23 (9.7%)	15 (6.4%)	236 (100%)

As shown above on table 5 of the total respondents 54(22.9%)respondents believe that HIV is not a big problem as the media suggests,33(14%) of the total respondents believe that except HIV, being infected with STD is not as such a health problem,110(46.6%) believe that person with HIV had led immoral lives,84(35.6%)believe that people with HIV should be isolated to stop the further spread of the disease and 108(45.7%) believe that people with HIV deserves to suffer.

Table 6: Response of tested attitude statements pertaining to HIV/AIDS

Attitude statement about HIV/AIDS	Responses (n=150)					
	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)	Total n(%)
I believe that HIV/AIDS is not as a big problem as the media suggests	21 (14%)	9 (6%)	3(2%)	28(18.7%)	89(59.3%)	150 (100%)
IT is believed that a person with STD has high risk of acquiring or transmitting HIV	99 (66%)	44 (20.9%)	5(3.3%)	2(1.3%)	0(0%)	150 (100%)
In my belief except HIV, being infected with STD is not as such a heath problem	10 (6.7%)	11 (7.3%)	9(6%)	38(25.3%)	82(54.7)	150 (100%)
People can protect themselves from getting infected with HIV by being abstain from sex	61 (40.7%)	67 (44.7%)	9(6%)	8(5.3%)	5(3.3%)	150 (100%)
People can protect themselves from getting infected with the HIV virus by having one un infected sex partner, who also has no other partners.	69 (46%)	64 (42.7%)	3(2%)	5(3.3%)	9(6%)	150 (100%)
I would rather be faithful to my partner than using condom.	63 (42%)	52 (34.7%)	14(9.3%)	12(8%)	9(6%)	150 (100%)
Person with HIV had led immoral lives	27 (18%)	36 (24%)	17(11.3%)	37(24.7%)	33(22%)	150 (100%)
People with HIV should be isolated to stop the further spread of the disease	28 (18.7%)	19 (12.7%)	3(2%)	16(10.6%)	84(56%)	150 (100%)
People with HIV deserves to suffer	25 (16.7%)	35 (23.3%)	16(10.7%)	23(15.3%)	51(34%)	150 (100%)
Person with HIV should be given the same opportunities as every one else in life	88 (58.7%)	37 (24.7%)	5(3.3%)	15(10%)	5(3.3%)	150 (100%)

As table 6 above shows of the students who identified their HIV negative status 30(20%) believe that HIV/AIDS is not as a big problem as the media suggests, 21(14%) believe that except HIV being infected with STD is not as such a health problem, 63(42%) believe that person with HIV had led

immoral lives, 47(31.4% believe people with HIV should be isolated in order to stop the further spread of the disease and 60(40%) believe that people with HIV deserves to suffer.

Table 7: Response of the non- tested on attitude about HIV/AIDS

Attitude statement about HIV/AIDS	Responses (n=86)					
	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)	Total n(%)
I believe that HIV/AIDS is not as a big problem as the media suggests	14(16%)	9(10.5%)	6(7%)	13(15.3%)	44(51.2%)	86(100%)
IT is believed that a person with STD has high risk of acquiring or transmitting HIV	39(45.3%)	32(37.2%)	3(3.5%)	3(3.5%)	9(10.5)	86(100%)
In my belief except HIV, being infected with STD is not as such a heath problem	1(1.2%)	6(7.5%)	6(7.5%)	28(32%)	45(52.3%)	86(100%)
People can protect themselves from getting infected with HIV by being abstain from sex	41(48%)	26(30%)	6(7%)	7(8%)	6)7%)	86(100%)
People can protect themselves from getting infected with the HIV virus by having one un infected sex partner, who also has no other partners.	48(56%)	17(20%)	6(7%)	9(10%)	6(7%)	86(100%)
I would rather be faithful to my partner than using condom.	37(43%)	30(35%)	14(16%)	5(6%)	0(0%)	86(100%)
Person with HIV had led immoral lives	17(20%)	27(31.2%)	10(11.6%)	16(18.6%)	16(18.6%)	86(100%)
People with HIV should be isolated to stop the further spread of the disease	23(27%)	13(15%)	4(5%)	11(13%)	35(40%)	86(100%)
People with HIV deserves to suffer	21(24.4%)	21(24.4%)	10(11.6%)	13(15.2%)	21(24.4%)	86(100%)
Person with HIV should be given the same opportunities as every one else in life	35(40.9%)	21(24.3%)	9(10.4%)	7(8.1%)	14(16.3%)	86(100%)

As shown on table 7 above of the respondents who do not identifies their HIV status 23(26.5%)believe that HIV is not as a big problem as the media

suggests,7(8.7%)believe that except HIV being infected with STD is not as such a health problem,44(51.2%)believe that person with HIV had led immoral lives,36(43%) believe that people with HIV should be isolated in order to stop the spread of the disease and 42(48.8%)believe that people with HIV deserves to suffer.

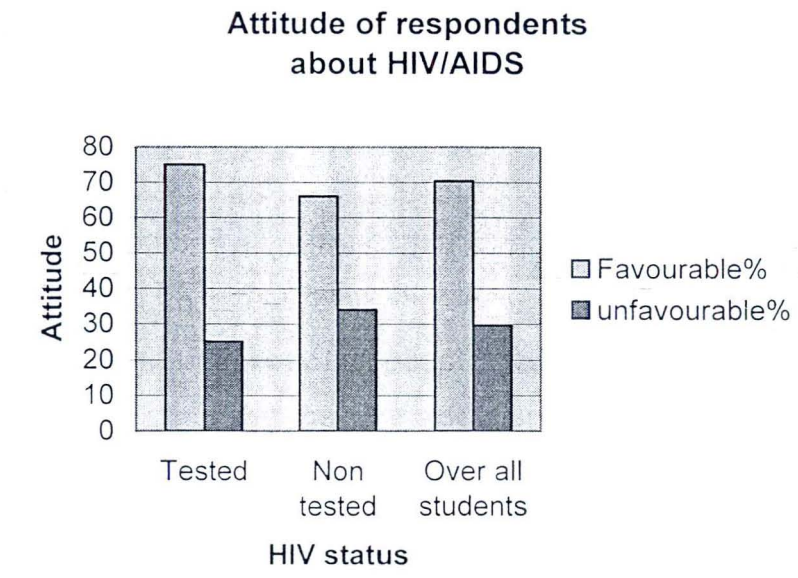

Figure2 Attitude of Students about HIV

Figure 2 shows that 72.54% of overall students, 75% of the tested and 66% of the non-tested of students had favorable attitude, while 27.46% of overall students, 25% of the tested and 34% of the non-tested has unfavorable attitude about HIV/AIDS When compared the tested had more favorable attitude than the non-tested.

Table 8: attitude of respondents about HIV/AIDS

Variables		HIV attitude Sum		Total	
		High	Low		
HIV status	tested	88(87.6)	62(62.2)	150	$X^2 = 0.03$
	non-tested	50(50.2)	36(356)	86	
Total		138	98	236	

Critical X^2df1, n = 236, p< 0.05 =3.84) 0.03. As show in the table above the attitude observed and expected frequencies are in the appropriate cell. The result shows favorable attitude of the students about HIV/AIDS, but the x^2 (Chi-square) test shows as there is no statistically significant difference between the HIV tested and non- tested students on attitude about HIV/AIDS.

4.4 Response on practice statements about HIV/AIDS.

Table 9: Response on practices statements about HIV/AIDS (for all , the tested and non-tested)

Practice Statements on HIV/AIDS	Response overall students n(236)			Response of the stated and non-tested n(236)					
				Tested			Non-tested		
	Yes N (%)	No N (%)	Total	Yes N (%)	No N (%)	Total	Yes	No	Total
Ever had sexual intercourse during the last one or two years.	137 (58.1%)	99 (41.9%)	236 (100%)	92 (61.3%)	58 38.7%)	150 (100%)	46 (53.5%)	40 (46.5%)	86 (100%)
Had multiple sexual partners the last one or two years.	55 (23.3%)	181 (76.7%)	236 (100%)	30 (20%)	120 (80%)	150 (100%)	25 (29%)	612 (71%)	86 (100%)
Use condom persistently during sex with multiple partner.	166 (70.3%)	70 (29.7%)	236 (100%)	103 (68.7%)	47 (31.3%)	150 (100%)	63 (73.3%)	23 (16.7%)	86 (100%)
Had sexual contact with prostitute during the last one or two years.	66 (28%)	170 (72%)	236 (100%)	34 (22.7%)	116 (77.3%)	150 (100%)	32 (37.2%)	54 (62.8%)	86 (100%)
Used condom persistently during sex with prostitute.	148 (62.7%)	88 (37.3%)	236 (100%)	86 (57.3%)	64 (42.7%)	150 (100%)	63 (73.3%)	23 26.7%)	86 (100%)
Had sex with casual (not permanent) partner the last one or two years.	74 (31.4%)	162 (68.6%)	236 (100%)	42 (28%)	108 (72%)	150 (100%)	32 (37.2%)	54 (62.8%)	86 (100%)
Used condom during sex with casual partner the last one or two tears.	130 (55.1%)	106 (44.9)	236 (100%)	75 (50%)	75 (50%)	150 (100%)	32 (37.2%)	54 (62.8%)	86 (100%)
Had sexually transmitted disease (STD) during the last one or two years.	41 (17.4%)	195 (82.6%)	236 (100%)	19 (12.7%)	131 (87.3%)	150 (100%)	22 (25.6%)	64 (74.4%)	86 (100%)
Sought treatment for STD.	66 (28%)	170 (72%)	236 (100%)	36 (24%)	114 (76%)	150 (100%)	30 (34.9%)	56 (65.1%)	86 (100%)
Had un safe injection	41 (17.4%)	195 (82.6%)	236 (100%)	25 (16.7%)	125 (83.3%)	150 (100%)	16 (18.6%)	70 (81.4%)	86 (100%)

As shown above in table 9 their practice indicate that 41(17.4%) of overall students, 19(12.7%) of the tested and 22(25.6%) of the non-tested students had Sexually transmitted diseases during the last one or two years.

Both, the tested and the non–tested, had sexually transmitted disease, the last one or two years. When compared between the tested and the non-tested the more of the non-tested had sexually transmitted diseases the last one or two years.

Table 10: Response of having STDs during the last one or two years

Variables	yes	no	total	
Tested	12.7(19.5)	87.3(80.85)	100	X^2 =5.27
Non-tested	25.6(19.5)	74.4(80.85)	100	
Total	38.3	161.7	200	

Critical X^2 (df1, n=236, p<0.05 = 32.84) 5.27

As show in the table10, X^2 (chi square) test shows that there is statistically significant difference between the tested and the non-tested respondents on having STDs.

41(17.4%). of overall students, 25% (16.7%) of the tested and 16(19.6%) of the non-tested had unsafe injection. When the tested and non-tested are compared more of the non-tested had unsafe injection. Concerning their sexual practice 55(23.3%) of overall 30(20%) of the tested and 25(29%) of the non-tested had multiple sexual partners, 66(28%) of overall students, 34(22.7%) of the tested and 32(37.2%) of the tested has sexual contact with prostitute and 74(31.4%) of overall, 42(28%) of the tested, 37.2%) of the non-tested has sex with casual partner the last one or two years.

Table11: Practice of respondents about HIV/AIDS

Variables		HIV attitude Sum		Total	
		High	Low		
HIV status	Tested	82(86.4)	68(63.5)	150	X^2 = 1.47
	Non-tested	54(49.5)	32(36.4)	86	
Total		136	100	236	

Critical X^2 (df1, n=236, p< 0.05 =3.84) 1.47

as show in table11, the result shows high Practice about HIV/AIDS, but Chi-square test result shows as there is no statistically significant difference between the tested and the non-tested in overall practice about HIV/AIDS.

Table 12: Response for having any relative friends or colloquies that had HIV/AIDS.

Variables	Responses (n 236)			
	Yes N(%)	No N(%)	Not sure N(%)	Total N(%)
Tested	38(25.3%)	34(22.7%)	78(52%)	236(100%)
non-tested	14(16.2%)	28(32.6%)	44(51.1%)	

As shown above on table 12 for having any relatives, friends or colleagues who had HIV/AIDS 38(25.3%) of the tested, 14(16.2%) of the non-tested had relatives, friends or colleagues 34(22.7%) of the tested, 28(32.6%) of the non-tested had no relatives friends or colleagues, while 78(52%) of the tested, 44(51.1%) of the non-tested are not sure of having relatives, fiends or colleague (table 12).

4.5 Response on perception of personal risk about HIV/AIDS

Table 13: Response on Rating of personal and sexual partners' risk of having HIV/AIDS

Personal risk statements	HIV status	Response (n=236)						
		Very low n(%)	Low n(%)	Moderate n(%)	High n(%)	Very high n(%)	Omission n(%)	Total n(%)
Rating of personal risk of being infected with HIV at the moment	Tested	37(24.7%)	30 (20%)	23 (15.3%)	26 (17.3%)	26 (17.3%)	8 (5.4%)	150 (100%)
	Non-tested	6(7%)	21 (24.3%)	22 (25.5%)	18 (21%)	18 (21%)	1 (1.2%)	86 (100%)
Rating of sexual partners' risk of having HIV	Tested	32(21.3%)	28(18.7%)	26(17.3%)	23(15.3%)	28(18.7%)	15(10%)	150 (100%)
	Non-tested	19(22%)	16(9%)	15(17%)	13(15%)	16(129%)	7(8%)	86 (100%)

AS shown above on table13 the tested rate themselves high 26(17.3%) very high (17.3%) and had omission 8(5.4%) while the non-tested rate themselves high 18(21%), very high 18(21%) and omission 1(1.2%). When rating their sexual partners risk of having HIV/AIDS, the tested rate their partners high 23(15.3%), very high 28(18.7%) and omission 15(10%) while the non-tested rate their partners high 13(15%), very high 16(19%) and omission 7(8%)., this shows that both the tested and the non-tested themselves and their partners are under high and very high risk of being infected with HIV/AIDS. Both, the tested and the non-tested, had omissions, specially the tested had more omissions than the non-tested, so both the groups specially the tested ones had problem to decide their personal and their partners risk of having HIV/AIDS.

Table 14: Response of drinking alcohol and having sex after drinking alcohol

Variables	HIV status	Response (n=236)		Total n(%)
		Yes n(%)	No n(%)	
Drinking alcohol	Tested	51(34%)	96(64%)	150(100%)
	non-tested	32(37%)	54(63%)	86(100%)
Having sex with prostitute after drinking alcohol	Tested	9(20.5%)	35(79.5%)	44(100%)
	non-tested	24(75%)	8(25%)	32(100%)
Having sex with casual partner after drinking alcohol	Tested	12(27.3%)	32(72.7%)	44(100%)
	non-tested	7(22%)	25(78%)	32(100%)

As table 14 shows 51(34%) of the tested and 32(37%) of the non-tested drink alcohol. From those who drink alcohol 9(20.5%) of the tested, 24(75%) of the non-tested had sex with prostitute

Table15: Response of those who drink alcohol on having sex after drinking alcohol

Variable	Yes	No	Total	
Tested	20.5(47.75)	79.5(52.25)	100	X^2 =59.5
Non-Tested	75(47.75)	25(52.25)	100	
Total	95.5	104.5	200	

Critical X^2 (df1, n=236, $p<0.05$ = 32.84) 59.5

As show in the table15, X^2 (chi square) test shows that there is statistically significant difference between the tested and the non-tested respondents on having sex with prostitute after drinking alcohol.

12(27.3%) of the tested 7(22%) of the non -tested has sex with causal partner after drinking alcohol. Both the groups has sex with prostitute and casual partner after sex but the more of the non-tested visit prostitute than the tested after drinking alcohol

4.6 Response on knowledge about VCT

Table 16: Response of overall respondents, the tested and non-tested on knowledge statements about VCT,(on the next page)

Knowledge statements about VCT	Response overall students (n236)			**Response of the tested and non-tested n= 236**					
				Tested n(%)			Non non-tested n(%)		
	Yes n(%)	No n(%)	Total n(%)	Yes n(%)	No n(%)	Total n(%)	Yes n(%)	No (%)	Total n(%)
Ever hared about VCT (HIV testing)	190 (80.%)	46 (19.5%)	236 (100%)	130 (86.7%)	20 (13.3%)		60 (69.7%)	26 30.3%)	86 (100%)
Know the use of VCT service	192 (81.4%)	44 (18.6%)	236 (100%)	134 (89.3%)	16 (10.7%)		58 (67.4%)	28 (32.6%)	86 (100%)
Know where can get VCT service	189 (80.1%)	47 (19.9%)	236 (100%)	128 (85.3%)	22 (14.7%)		61 (70.9%)	25 (29.1%)	86 (100%)
Know that one can you test for HIV and know his/her status	168 (71.2%)	68 (28.8%)	236 (100%)	121 (80.7%)	30 (20.3%)		47 (54.7%)	39 (45.3%)	86 (100%)
Know that HIV positive individual benefits from being tested	188 (79.7%)	48 (20.3%)	236 (100%)	126 (84%)	24 (16%)		62 (72.1%)	24 (27/9%)	86 (100%)
Know what measures to take after knowing his/her test result	197 (83.5%)	39 (16.5%)	236 (100%)	134 (89.3%)	16 (10.7%)		63 (73%)	23 (26.7%)	86 (100%)
Know that HIV negative individuals benefits from being test	207 (87.7%)	29 (12.3%)	236 (100%)	145 (96.7%)	5 (3.3%)		62 (72.1%)	24 (27.9%)	86 (100%)
I had enough information about VCT	146 (61.9%)	90 (38.1%)	236(100%)	100 (66.7%)	50 (33.3%)		46 (53.5%)	40 (46.5%)	86 (100%)
I need more Information about VCT	170 (72%)	66 (28%)	236 (100%)	104 (69.3%)	46 (30.7%)		66 (76.7%)	20 (223.3%)	86 (100%)
The information I had about VCT is ambiguous	82 (34.7)	154 (65.3%)	236 (100%)	48 (32%)	102 (68%)		34 (29.5%)	52 (60.5%)	86 (100%)

Table 16 Shows, 72% of overall, 69.3% of the tested and 76.7% of the non-tested respondents need more information about VCT. Also 34.7% of over all 32% of the tested and 39.5% of the non-tested had ambiguous information about VCT.

Table 17: knowledge of respondents about VCT

Variables		HIV attitude Sum		Total	
		High	Low		
HIV status	tested	108(90.2)	42(59.7)	150	$X^2 = 23.99$
	non-tested	34(51.7)	52(34.2)	86	
Total		142	94	236	

Critical X^2 (df1, n=236, $p<0.05$ = 3.84) 23.99.

As show in the table17, the result shows high knowledge of students about VCT and X^2 (chi—square) test shows that there is significant difference between the tested and the non-tested students on knowledge about VCT

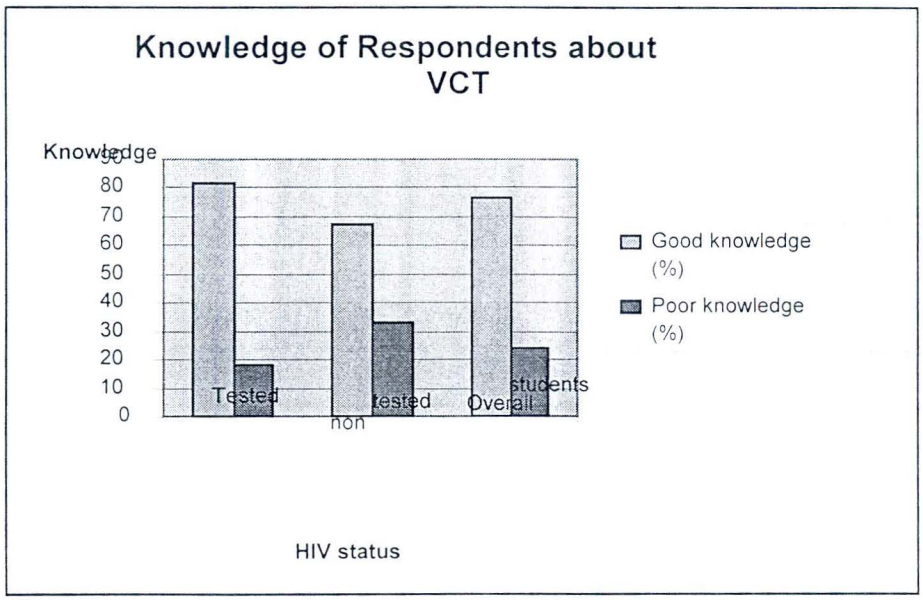

Figure 3 Knowledge of students about VCT

Regarding knowledge of respondents about VCT the majority of students, 76,3% of overall students, 81.6% of the tested and 67.05% of the non-tested had good knowledge about VCT while, 23.7% of overall students, 18.4% of the tested and 32.95% of the non- tested students had poor knowledge.

When compared to the two groups the tested had more knowledge than the non- tested (figure3)

4.7. Response on attitude statements about VCT

Table 18: Response of overall respondents on attitude statements pertaining to VCT

Attitude statements about VCT	Responses (n236)					Total N(%)
	Strongly agree n (%)	Agree n(%)	Neutral n (%)	Disagree n (%)	Strongly disagree n (%)	
It is believed that knowing one's status of HIV through VCT is more preferable to not knowing	111(47%)	52(22%)	17((7.2%)	29(12.3%)	27(11.4%)	236(100%)
In my belief people who prepare for marriage should be HIV tested before marriage	179(75.8%)	44(18.6%)	4(1.7%)	4(1.7%)	5(2.1%)	236(100%)
I fell every body in the society must be HIV tested and their status	116(49.2%)	73(30.9%)	19(8.1%)	19(8.1%)	9(3.8%)	236(100%)
VCT reduces risk behavior	114(48.3%)	75(30.8%)	28(11.9%)	11(4.7%)	8(3.4%)	236(100%)
VCT leads to earlier access to treatment (therapy)	117(49.6%)	90(38.1%)	20(8.5%)	6(2.5%)	3(1.3%)	236(100%)
I will not be tested in order not to affect my family relationship negatively if tested positive	18(7.6%)	25(10.6%)	26(11%)	69(29.2%)	98(41.5%)	236(100%)
I will not be tested not to think about being tested positive	22(9.3%)	24(10.2%)	14(5.9%)	84(35.6%)	92(39%)	236(100%)
I will not be tested not to loose my job if tested positive	22(9.3%)	36(15.3%)	14(5.9%)	76(32.2%)	88(37.3%)	236(100%)
I will not be tested not to be alienated from society if tested positive and people know that I am HIV positive.	29(12.3%)	31(13.1%)	19(8.1%)	71(30.1%)	86(36.4%)	236(100%)

As shown above on table 18 of all respondents 43(18.2%), strongly agree and agree that not to be HIV tested in order not to affect their family relationship, 46(19.5%), agree and strongly agree that not to be tested not to think about

being tested positive 58(24.6%), strongly agree and agree that they will not to be tested not to lose their job if tested positive. 60(25.4%) agree and strongly agree not to be tested not to be alienated from society if tested positive and people know that they are HIV positive

Table 19: Response of the tested to attitude statements pertaining to VCT

Attitude statements about VCT	Responses (n150)					Total N (%)
	Strongly agree n (%)	Agree N(%)	Neutral n (%)	Disagree N (%)	Strongly disagree n (%)	
It is believed that knowing one's status of HIV through VCT is more preferable to not knowing	77(51.3%)	30(20%)	12(8%)	15(10%)	16(10.7%)	150(100%)
In my belief people who prepare for marriage should be HIV tested before marriage	120(80%)	22(14.7%)	2(1.3%)	4(2.7%)	2(1.3%)	150(100%)
I fell every body in the society must be HIV tested and their status	77(51.3%)	42(28%)	10(6.7%)	14(9.3%)	7(4.7%)	150(100%)
VCT reduces risk behavior	76(50.7%)	48(323%)	13(8.7%)	9(6%)	4(2.7%)	150(100%)
VCT leads to earlier access to treatment (therapy)	74(49.3%)	60(40%)	9(6%)	5(3.4%)	2(1.3%)	150(100%)
I will not be tested in order not to affect my family relationship negatively if tested positive	9(6%)	14(9.3%)	12(8%)	50(33.3%)	65(43.4%)	150(100%)
I will not be tested not to think about being tested positive	10(6.7%)	18(12%)	3(2%)	57(38%)	62(41.3%)	150(100%)
I will not be tested not to loose my job if tested positive	6(4%)	12(8%)	8(5.3%)	55(36.7%)	69(46%)	150(100%)
I will not be tested not to be alienated from society if tested positive and people know that I am HIV positive.	14(9.3%)	10(6.7%)	11(17.3%)	54(36%)	61(40.7%)	150(100%)

As shown above on table 19 of the tested respondents, 23(15.3%) strongly agree and agree that not to be HIV tested in order not to affect their family relationship 28(17.7%) agree and strongly agree that not to be tested not to

think about being tested positive 17(12%) strongly agree and agree that they will not to tested not to lose their job if tested positive. 24(16%) agree and strongly agree not to be tested not to be alienated from society if tested positive and people know that they are HIV positive

Table 20: Response of the tested to attitude statements pertaining to VCT

Attitude statements about VCT	Responses (n86)					Total n(%)
	Strongly agree n(%)	agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)	
It is believed that knowing one's status of HIV through VCT is more preferable to not knowing	30(35%)	19(22%)	5(5.8%)	12(14%)	20(23.2%)	86(100%)
In my belief people who prepare for marriage should be HIV tested before marriage	54(62.8%)	23(26.7%)	6(7%)	1(1.2%)	2(2.3%)	86(100%)
I fell every body in the society must be HIV tested and their status	38(44%)	35(40.7%)	4(4.7%)	3(3.5%)	6(7%)	86(100%)
VCT reduces risk behavior	47(54.7%)	29(33.7%)	7(8%)	2(2.3%)	1(1.3%)	86(100%)
VCT leads to earlier access to treatment (therapy)	40(46.5%)	33(33.3%)	11(12.8%)	1(1.2%)	1(1.2%)	86(100%)
I will not be tested in order not to affect my family relationship negatively if tested positive	6(7%)	14(16.4%)	13(15%)	24(27.9%)	29(33.7%)	86(100%)
I will not be tested not to think about being tested positive	7(8%)	9(10.3%)	15(17%)	27(31.4%)	28(32.6%)	86(100%)
I will not be tested not to loose my job if tested positive	11(12.8%)	20(23.4%)	5(5.8%)	25(29%)	25(29%)	86(100%)
I will not be tested not to be elinated from society if tested positive and people know that I am HIV positive.	19(22%)	19(22%)	6(7%)	17(20%)	25(29%)	86(100%)

As shown above on table20 of the non-tested respondents 20(23.4%) strongly agree and agree that not to be HIV tested in order not to affect their family

relationship. 16(18.3%) agree and strongly agree that not to be tested not to think about being tested positive.31(36.2%) strongly agree and agree that they will not to tested not to lose their job if tested positive. 38 (44%) agree and strongly agree not to be tested not to be alienated from society if tested positive and people know that they are HIV positive

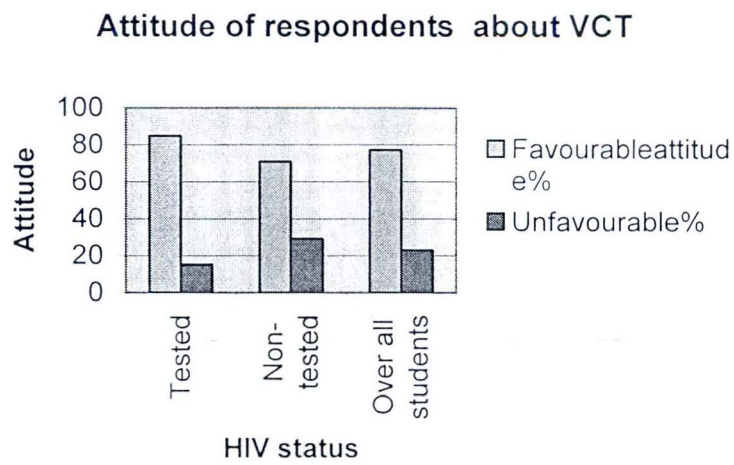

Figure 4 Attitude of respondents about VCT

As shown above on figure 4

On their favorable unfavorable Attitude, 77% and 23% of overall students 84.74% and 15.26% of the tested and 70.9% and 29.1% of the non-tested had favorable and unfavorable attitude about VCT. When compared the tested with the non-tested, tested 84.75% had more favorable attitude than the non-tested (70.9%) pertaining VCT (figure 4)

Table 21: Attitude of respondents about VCT

Variables		VCT attitude Sum		Total	
		High	Low		
HIV status	tested	86(79.4)	64(79.4)	150	$X^2 = 3.49$
	non-tested	39(45.5)	47(40.7)	86	
Total		125	111	236	

Criteria X^2 (df1, n= 236, p< 0.05 = 3.84) 3.49.

As show in the table21 respondents had favorable attitude about VCT, but there is no significant difference between the tested and the non-tested on overall attitude about VCT

4.8 Response on practice statements about VCT.

Table 22: Response on practice statements about VCT

	Response of overall students n(236)			Response of the tested and non-tested Students (n236)					
				Tested n(%)			Non non-tested n(%)		
	Yes n(%)	No n(%)	Total n(%)	Yes n(%)	No n(%)	Total n(%)	Yes n(%)	No (%)	Total n(%)
Will use VCT service if available now	198 (83.9%)	38 (16.1%)	236 (100%)	130 (86.7%)	20 (13.3%)	150 (100%)	68 (79%)	18 (21%)	86 (100%)
Will ask partner to seek VCT service	184 (78%)	52 (22%)	236 (100%)	122 (81.3%)	28 (18.7%)	150 (100%)	62 (72%)	24 (28%)	86 (100%)
Will allow ones child to marry without premarital VCT (test) for HIV	73 (30.9%)	163 (69.1%)	236 (100%)	38 (25.3%)	112 (74.7%)	150 (100%)	35 (40.6%)	51 (59.4%)	86 (100%)
Willing to pay for VCT services if asked to pay.	169 (71%)	167 (28.4%)	236 (100%)	107 (71.3%)	43 (28.7%)	150 (100%)	62 (72%)	24 (28%)	86 (100%)
Will not tell test result to any body if tested positive	99 41.9%)	137 (58.1%)	236 (100%)	60 (40%)	90 (60%)	150 (100%)	39 (45.3%)	47 (54.7%)	86 (100%)
I will not worry if tested positive, I will take electro viral drug	161 (68.2%)	75 (31.8%)	236 (100%)	102 (68%)	48 (32%)	150 (100%)	59 (68.6%)	27 (31.4%)	86 (100%)

As shown on table 22 above, on the willingness to use VCT service if available 130(86.7%) of the tested and 68(79%) of the non -tested are willing to be tested. When compared to the two groups more of the tested are willing to be tested than the non- tested. 122(81.2%) of the tested and 62(72%) of the non-tested will ask partner to seek VCT service. 112(74.7%) of the tested and 51(59.4%) of the non-tested will not allow ones child to marry without

premarital VCT service the others 38(25.3%) of the tested and 35(40.6%) of the non-tested will allow ones child without premarital HIV testing.

Table 23: Response of allowing ones child to marry with out pre marital HIV test

Variables	Yes	No	Total	
Tested	25.3(32.95)	74.7(67.05)	100	X^2=5.3
Non-tested	40.6(32.95)	59.4(67.05)	100	
Total	65.9	134.1	200	

Criteria X^2 (df1, n= 236, p< 0.05 = 3.84) 5.3.

As show in the table23 there is statistically significant difference between the tested and the non- tested in allowing ones child to marry with out pre marital HIV testing

Pertaining of telling test result if tested positive, 90(60%) of the tested and 47(54.7%) of the non-tested will tell test results if tested positive but the others 60(40%) of the tested 39 (45.3%) of the non-tested are not willing to tell test results to other. (Table20)

Table 24: Practice respondents about VCT

Variables		VCT Practice Sum		Total	
		High	Low		
HIV status	tested	84(87)	66(62.9)	150	X^2 = 0.69
	non-tested	53(49.9)	33(36)	86	
Total		137	99	236	

Criteria X^2 (df1, n=236, p< 0.05 = 3.84) 0.69

As show in the table above students had high Practice about VCT and chi-square test shows, as there is no significant difference between the tested and the non-tested on practice about VCT.

4.8.1 Clarifications on Practice Questions about VCT

4.8.1.1 Reasons to be tested for those who identify their HIV negative status

A. It was mandatory to fulfill academic criteria 72(48%)

B. Just to know my status 57(38%)

C. Because of having multiple partner 8(5.3%)

D. Thinking that my partner could have risk factor 10(6.7%)

E. Other (specify) 3(2%) *

* For marriage having sex with prostitute

From these tested students their reason to be tested was 72(48%) as it was mandatory to be tested to fulfill academic criteria, and 57(38%) respond as just to know their HIV status. This shows that most students are testing just to know their status and as a mandatory the rest are tested because of having multiple partners 8(5.3%), thinking that their partners have risk factor (6.7%).

4.8.1.2 Previous HIV safe behavior that contribute to their negative status*

A. At that time I have no sexual experience at all 35(23.3%)

B. At that time I give attention only to my study 34(22.7%)

C. At that time I have no money to charge for sex 4(2.7%)

D. I became negative by chance 31(20.7%)

E. Others (27.3%)

* Since there is multiple response is percent is not added

When students are asked their previous HIV risk safe behavior that contribute to their negative status 35(23.3%) said that at that time they had no sexual practice at all and 34(22.7%) respond that at that time they give attention to their study and 31(20.7%) became negative by chance. Here we can see that certain students became negative by chance other than their risk safe behavior.

4.8.1.3 Measures taken after their identified their negative status

A. Be abstain from sex 20(13.3%)

B. Use condom persistently 49(32.7%)

C. Be faithful and have one faithful partner 71(47.3%)

D. Other (specific) 2(1.3%)

E. Omission 8(5.3%)

The measures they have taken after they identified their negative status was 71(47.3) be faithful and have one faithful partner, 49(32.7%) use condom persistently.

4.8.1.4 Reasons that help them to take the above mentioned measures*

A. My being HIV negative status 44(29.3%)

B. The pre test and post test counseling that I got during the test 32(21.3%)

C. The education in the media 53(35.3%)

D. The education in the college 21(14%)

E. Others (specify) 15(10%)

* Sum is not added because multiple responses is given here.

When they are asked, the reasons that that help them to take the above mentioned measures 53(35.3%) respond the education in the media, 44(29.3%) their being HIV negative and 32(21.3%) the pre-test and posttest counseling.

4.8.1.5 Retested after they know their negative status

A. Yes 78(52%) B. No 63(42%) C. Omission 9(6%)

When the tested respondents asked if they had been retested after they know their HIV negative status 78(52%) respond as they had been re-tested while 63(42%) says no.

4.8.1.6 Reasons for their being retested*

A. It is my decision to be retested always, to know my present status 51(34%)

B. Because of having casual (not permanent) partner 6(4%)

C. Because of having sexual intercourse with prostitute 6 (4%)

D. Because of having multiple sexual partners 2(1.3%)

E. To marriage 15(10%)

F. Others (specify) 4(2.7%)

* Multiple responses is given here

Their reason for their being tested was 51(34%) it is their decision to be tested, 15(10%) for marriage others of having casual sexual partner 6(4%) having sexual partner with prostitute 6(4%) and having multiple sexual partners 2(1.3%)

4.8.1.7 Reasons not be retested*

A. I have no risk factor after the test 52(34.7%)

B. I do not see the importance to be tested 11(7.3%)

C. I afraid to be tested positive 8(5.3%)

D. The service is far to be retested 17(11.3%)

E. Other (Specify) 7(4.7%)

* Multiple responses is given here

The reason of these who are not retested was that they had no risk factor after the test 52(34.7%) others 8(5.3%) afraid to be tested positive.

4.8.1.8 The need of the tested students to be retested if the service is available

A. Yes 125(83.3%) B. No 21(14%) C. Omission 4(2.7%)

When asked their need to be tested if the service is available 125(83.3%) had the need 21(14%) had no the need to be retested if the service is available

4.8.1.9 Of those who had partners having being tested and known his or her status.

A. Yes 77(59%) B. No 53(41%)

Of those who had partners, 77 (59%) said as their partner is tested, while 53(41%) said as their partners are not tested Of those whose partners are not tested 34(64.2%) asked their partners to be tested, others 19(35.8%) do not ask their partner to be tested.

4.8.1.10 Of those who says no, ask partner to be tested

A. Yes 34(64.2%) B. No 19(35.8%)

Of those partners are not tested 34(64.2%) asked their partners to be tested, others 19(35.8%) do not ask their partner to be tested. From this response

we could see that those he tested negative respondents are under risk of having HIV through their untested partner.

4.8.1.11 Follow-up in the college institute for students who had got HIV testing and being negative

A. Yes 47(31.3%) B. No 96(64%) C. Omission 7(4.7%)

When asked if there is follow-up in the college for students who had been tested and being negative 96(64%) respond as there is no follow-up for the tested.

4.8.1.12 The need to be tested of those who are not tested at all if the services available.

A. Yes 47(54.7%) B. No 33(38.3%) C. Omission 6(7%)

The need of those who are not tested if the service is available was 47(54.7%) had the need while 33(38.3%) had no the need to be tested at all. When we compare the need of the tested to be retested, and the non-tested to be tested if the service in available is as show below on table 26.

Table 25: Willingness of the tested and the non-tested to be tested if the service is available

variable	The need to be Tested		Total	
	Yes	No		X^2
Tested	125(109)	25(40.6)	150	19.08
non-tested	47(62.6)	39(40.6)	86	
Total	172	64	236	

Critical X^2 (df1, n=236 $p< 0.05$ =3.84) 19.08 since X^2 (Chi-square) test is greater than the critical value there is statistically significant difference between the tested and the non-tested of the need to be tested if the service is available.

4.8.1.15 Of those who said no, the reason not to be tested was.

A. I have no risk factor 6(18%)

B. I trust my self and my partner 6(18%)

C. I do not see the importance to be tested 1(3%)

D. I afraid of being tested positive 8(25%)

E. I do not want to know my status at all 6(18%)

F. Others (Specific) 3(9%)

G. Omission 3(9%)

Of those of the non-tested who says no (not willing to be tested) 8(25%) afraid of being tested positive.

4.8.1.16 Response on source of information about VCT

Table26.Response on the Source of information about VCT *

	Source of information	Responses (n=236)		
		Response of the tested n(%)	Response of non-tested n(%)	
A	Friends	35(23%)	26(30.2%)	
B	Literature	37(24.7%)	18(20.9%)	
C	Poster	31(20.7%)	23(26.7%)	
D	Radio/TV	103(68.7%)	59(68.6%)	
	Others**	25(16.7%)	9(10.5%)	

*More than one response is given then, total is not added

** From VCT center, Hospital education from college

The source of information for both the group of respondents was 103(68.7%) of the tested and 59(66.6%) of the non-tested got their information about VCT from Radio/TV.

4.8.1.17 The presence of Anti-HIV club in the college

A. Yes 25(10.5%) B. No 201(85.2%) C. Omission 10(4.3%)

When asked the presence of Anti-HIV club in the colleges 201(85.2%) respond as there is no Anti-HIV club in their colleges.

4.8.1.18 The presence of HIV/AIDS education in the college

A. Yes 44(18.6%) B. No 181 (76.7%) C. Omission 1(4.7%)

The presence of HIV/AIDS education 181(76.7%), respond as there is no HIV/AIDS education in their colleges.

4.8.1.19 Suggestion given by respondents what has to be done to DUC students not to be infected with HIV.

- There should be VCT center to all colleges
- All students have to be tested and know their status
- There should be Anti-HIV club in all colleges
- Health education about HIV/AIDS should be given in all colleges as one type of course
- Students should be abstain from sex if possible, be faithful and use condom
- Conference should be prepared to share ideas,
- Military is a stand by person "don't for gate condom from your pocket" "should be standing order of the members
- Anti-HIV/AIDS association must be organized
- There must be association for HIV negative ones too.
- There should be follow-up for the HIV negative students in order to continue being negative.
- Condom should be putted in accessible place such as in clinic wards, in dormitories ---etc
- Every body must be tested and know his status if tested positive to take care of themselves how to live with the virus and to take medicine if necessary and if tested negative to take care of themselves not to be infected by the disease.

CHAPTER FIVE

Discussion

A total of 236 respondents from two colleges and one technical institute were involved in the study. The response rate was 96.7%. Then 150 respondents from the tested 86 students from the non-tested had participated in the study.

95.5% of the tested and 94.3% of the non-tested, 94.3% of over all respondents had got good knowledge about HIV/AIDS (figure 1). Overall respondents show high knowledge about HIV/AIDS. Compared, the tested with the non-tested respondents on their knowledge about HIV/AIDS Chi-squire test $X^2 = 0.015$ shows as there is no statistically significant difference between the two groups (table 4). According to the result in the respondents seem to have similar awareness towards HIV/AIDS. The result is consistent with the findings of Tefera Belachew et al. (2004) as his study shows the population of Jimma university students had very high level of knowledge on HIV/AIDS Edwards J. (1992)

The study also shows 72.5% of overall students, 75% of the tested and 66% of the non-tested had favorable attitude about HIV/AIDS (figure 2). The result is consistent with other studies Tefera Belachew et al (2004) that 86.2% of Jimma university students had favorable attitude about HIV/AIDS. Attitude of the respondents is high when compared, the tested with the non-tested about their attitude about HIV/AIDS Chi-square test $X^2 = 0.03$ shows as there is no statically significant difference between the two groups (table8).

Their attitude on their belief, which HIV/AIDS is not as a big problem as the media suggests, 22.9% of overall students, 19% of the tested and 26.5% of the non-tested believe that HIV/AIDS is not as big problem as the media suggests. Here respondents do not perceive HIV/AIDS as a problem. The result is congruent with other studies Richter (1994) on the study done on

HIV/AIDS knowledge and attitude among university students in Sera Leon, 20% of the respondents believe that AIDS is not actually a public threat Concerning their belief about STDs, 14% of overall students, 14% of the tested and 8.7% of the non-tested believe that being infected with STDs except HIV/AIDS is not as such a big problem. This finding is congruent with Studies of Tefera Belachew et al (2004) it has been documented that STDs facilitate the risk of HIV infection in up to 42% of the cases. MOH (2003) puts, as there is relationship between STDs and HIV/AIDS. Thomas et al (1995) said behavior that put individuals at risk for having STDs also put individuals at risk for becoming HIV positive. And also 17.4 of over all 16.7of the tested and 19.6 of the non-tested respondents had got unsafe injection.

Regarding the moral aspect 46.6% of overall students, 42% of the tested, 51.2% of the non-tested students believe that person with HIV had led immoral lives and deserves to suffer. In relation to isolation of the people with HIV/AIDS 35.6% overall students, 31.4% of the tested and 42% of the non-tested believe that people should be isolated to stop the spread of the disease and 45.7% of overall students, 40% of the tested and 48.8% of the non-tested believe that people with HIV deserves to suffer(Table 5,6,7) This is congruent with other studies of Edwards J. 91992) puts that attitudes were generally poor with 19.9% saying that people with HIV should be isolated 16.8% felt that people with HIV had led immoral lives and 16.8% again said that persons with AIDS deserves to suffer.

Concerning the practice of students about HIV/AIDS, their practice shows high practice on HIV/AIDS prevention. When tested and non-tested are compared chi-square $X^2 = 1.47$ shows as there is no significant difference. But their practice on STDs, 17.4% of overall students, 12.7% of the tested and 25.6% of the non-tested had STDs. When the tested and the non-tested are compared, on their STDs practice chi square test result $X^2 = 5.27$ shows as there is statistically significant difference between the tested and the non-

tested on having STDs (table10) and 17.4 of over all, 16.7% of the tested and 18.6% of the non-tested had unsafe injection. This shows us members had unprotected practice. On the other side of their practice students had got sex with prostitute, casual and multiple sexual partners. This study is consistent with other studies that of Tefera Belachew (2004) Edwards (1992).

Those who have relatives, friends or colleagues responded as they have not and are not sure. These having relatives, friends and others with HIV helps people to have more knowledge, favorable attitude and able to take care of themselves and to give help for others with HIV. Studies show similar (Phiri, 1994).

Personal risk of having HIV at the moment the tested rate themselves high risk (17.3%), very high risk (19.3%) while the non-tested rate themselves high risk (21%) very high (21%). This shows even though they had high knowledge both groups are found under risk which is similar to the findings of other studies Norman R. et al (2005), Peltzer K.(2004). Also rating of their sexual partners' risk of having HIV/AIDS is high (15.3%) very high (18.7%) of the tested and high (15%), very high (19%) of the non-tested. This shows us that their sexual partners are under risk, so the respondents are under risk through their sexual partners. Studies support this Thomas A (1995) Lindan et al (2001).

Regarding drinking alcohol and having sex after drinking alcohol 51 (34%) of the tested and 32(37%) of the non-tested groups drink alcohol, and from those drinking alcohol as seen on (Table14), 9(20.5%) of the tested 24(75%) of the non-tested had sex with prostitute, 12 (27.3%) of the tested 7(22%) of the non-tested had sex with casual partners. This shows that those respondents are at risk of getting HIV. According to Granich and Mermin (2001) using drugs or alcohol can increase a persons' risk of getting HIV. Drugs and alcohol affect a persons' judgment. Some people may risk unsafe sex when they are under the influence of one or both. According to Faley and

Flaming (1997) no decision about sexual activity should be made under the influence of alcohol and drug. The use of drugs or alcohol impairs judgment leading to unprotected sex or sharing dirty needless. Comparing the tested with the non-tested, on having sex with prostitute after drinking alcohol, there is statistically significant difference between the tested and the non-tested that is more of the non-tested had sex with prostitute after drinking alcohol.

On knowledge about VCT, 81% of the tested and 67.05% of the non-tested had good knowledge about VCT (figure3) and also respondents had high knowledge about VCT, when the tested and the non-tested are compared on knowledge chi-squire test (X^2 =23.99) show significant different between the two group (Table17) means the tested aremore knowledgeable than the non-tested concerning VCT.

Respondents were asked if they would tell their result to others,18% of overall respondents, 15.3% of the tested and 23.4% of the non-tested are not willing to tell their result, not to affect their family relationship , 18.3% of overall respondents, 17.7% of the tested and 19.5% of the non-tested are not willing to be tested not to think about being tested positive. 24.6% of over all, 12% of the tested and 36.2% of the non-tested are not willing to be tested not to lose their job if tested positive, 25.4% o the tested 16% of the non-tested 44% of the non-tested are not willing to be tested not to be alienated from society (Peltzer, 2004).

Respondents are not willing to be tested, not willing to tell test results if tested negative, because of afraid of stigmatization from society and family members. Studies and writings done on this area support the finding Normal et al (2005), Stine (1999),Peltzer (2004)

Concerning the practice of respondents about VCT, 86.7% of the tested and 79% of the non-tested, are willing to be tested if the services is available. Here, the tested are more willing to be tested than the non-tested and also

72% of the tested and 59.4% of the non-tested will ask partners to be tested, here also the tested are more of asking their partners to be tested than the non-tested 74.7% of the tested and 59.4% of the non-tested will allow ones child to marry without premarital VCT service, When compared Chi-squire test result(X^2=5.3) shows that there is statically significant difference between the tested and the tested in allowing ones child to marry with out pre marital HIV testing. That is more of the non tested are willing to allow ones child to marry with out pre marital HIV testing.

The reason of being tested for those who identify their HIV status was that as it was mandatory to fulfill academic criteria (48%, just to know their status 38% because of having multiple partners5.3%, thinking that their partners could have risk factors6.7%.Here majority of them are tested by the mandatory testing and by their decision just to know their status the rest are tested because of their and their partners' risk behavior. Studies support this (Granch and Manin), Peltzer K. et al (2004), Norman R. et al (2005).

Respondents were asked what their previous HIV safe behavior that contribute to their negative result, 20.7% said as they became negative by chance. This shows that some respondents became negative by chance other than their risk safe behavior.

The measure they took after the test result were to be abstain from sex, use condom persistently, be faithful to one faithful partner. When asked what helps them to decide the above measures, their being negative, the pre-tested and post-test counseling the education in the media and the education in the college. Majority of them respond that the media as their main source .Study supports this too. Sero (1999).

When asked if they had been retested after they know their negative status 52% are retested while 42% are not tested of those who are retested, their reason was having casual partners (4%) having sexual intercourse with prostitute (4%) having multiple sexual partners 1.3%, and the reason of

those who are not retested were afraid to be tested 5.3%. The result shows that the above mentioned students are found under risk condition after being HIV negative. Means the respondents had no behavioral change after the test. Studies support the above mentioned result as follows. Norman (2005) mentio0ned on his study that, "when persons in the present study who reported previous HIV tested were specifically asked what behavioral changes, if any, they made after testing, the majority reported no behavior change. This may be reflective of an attitude that if an optimal test result were obtained, it is not necessary to change or adopt protective behavior. However ever a significant proportion of tested persons reported engaging in behaviors associated with increased risk of HIV transmission, including inconsistent condom use and having multiple sex partners. It is critical that persons understand that a negative test result does not equate to an absence of HIV risk".

Respondents were asked if there is follow up in the colleges for the tested individuals not to be infected by HIV 64% says as there is no follow up.
Regarding the presence of Anti-HIV/AIDS clubs and HIV/AIDS education in the colleges, 85% respond as there is no Anti-HIV/AIDS club, 76.7% respond as there is no HIV/AIDS education in the colleges.
At last the respondents had given their suggestions as mentioned above in the last part of the result section.

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CHAPTER SIX

Summary, Conclusion and Recommendations

6.1 Summary of the Major Findings

The aim in undertaking this study was to compare the knowledge, attitude and practice of DUC students who identified their HIV negative status and these who do not.

The investigator reviewed relevant literature and prepared a questionnaire on the basic of reviewed literature to collect data from the subjects of colleges and institute of DUC. The questionnaire was piloted, after correction and modifications were administered. The subjects of the study were 150 of the HIV tested and 86 of non-testes total 236 students.

The data were cleaned before entering into a computer and then analyzed using SPPS windows version 12.0. Statistical test for significance were carried wherever appropriate.

The study findings are summarized as follows:

1. Respondents had high knowledge about HIV/AIDS, but when comparing the tested with the non-tested on knowledge about HIV/AIDS Chi-square test result shows as there is no statistically significant difference between the tested and the non-tested on knowledge about HIV/AIDS.

2. Concerning the attitude of respondents on HIV/AIDS the result shows that the respondents had favorable attitude about HIV/AIDS. When the tested and the non-tested are compared on their attitude about HIV/AIDS Chi-squire test shows there is no statically significant

difference between the tested and the non-tested on their attitude about HIV/AIDS

3. On the practice of the respondents about HIV/AIDS12.7%of the tested 25.6% of the non-tested respondents had STDs during the last one or two years. There is statically significant difference between the tested and the non-tested on STDs. And also certain respondents had unsafe injection during the last one or two years.
4. About their knowledge about VCT, respondents had high knowledge about VCT. Chi-square test shows as there is significant difference between the tested and the non-tested on knowledge about VCT.
5. Their attitude on VCT shows the respondents had favorable attitude about VCT. When the tested and the non-tested are compared on attitude about VCT Chi-square test shows as there is no statistically significant difference between the tested and the non-tested on attitude about VCT. But on the willingness to be tested and telling test result if tested positive respondents are not willing to be tested in order not to affect their family relationship negatively if tested positive, not to think about being tested positive, not to loose their job if tested positive, not to be alienated from society if tested positive and people know that they are HIV positive.
6. Regarding their practice about VCT there are respondents who are not willing to be tested if the service is available and who are willing to allow ones child to marry without pre marital HIV testing. Compared the tested with the tested on allowing ones child to marry with out pre marital HIV testing, there is statistically significant difference between the tested and the non-tested in allowing ones child to marry without pre marital HIV testing, that is, more of the non-tested allow ones child to marry with out pre marital HIV testing.

6.2 Conclusion

Based on the study findings the following conclusions are drawn. The finding of this study shows that respondents had high knowledge and favorable attitude about HIV AIDS. When the tested and the non-tested are compared there is no statistically significant difference between the tested and the non-tested on their Knowledge and attitude about HIV/AIDS. Concerning their practice respondents had unsafe injection and STDs during the last one or two years. When the tested and the non-tested are compared on their STDs there is statistically significant difference between the tested and the non-tested. Means more of the tested had STDS than the non-tested and also some respondents have sex with prostitute and casual partners after drinking alcohol. When the tested and the non-tested are compared on having sex with prostitute after dinging alcohol, there is significant difference between them on having sex with prostitute after drinking alcohol. Means more of the non-tested had sex with prostitute after drinking alcohol than the non-tested. The finding shows the respondents themselves and their partner had risk of having HIV AIDS.

On the other hand respondents had high knowledge about VCT. When compared the tested with the non-tested, on their knowledge about VCT, there is statistically significant difference between the tested and the non-tested respondents on their knowledge about VCT. This shows that, the tested are more knowledgeable about VCT than the non-tested. And also respondents had favorable attitude about VCT. But there is no statistically significant difference between the tested and the non-tested on attitude about VCT. But on the willingness to be tested and telling test result, if tested positive to others, respondents are not willing to be tested and telling result to others if tested positive, by the reasons, that not to affect their family relationship negatively, not to think about being tested positive, not to loose their job, and to be alienated from society if tested positive, pertaining their practice about VCT some respondents are not willing to be tested and

are willing to on allowing ones child to marry with out premarital HIV testing when the tested and the non-tested are compared on their willing ness to be tested if the service is available and allowing ones child to marry with out premarital HIV testing there is statistically significant difference between the tested and the non-tested, that is more of the non-tested than the tested are not willing allow ones child to marry with out premarital HIV testing.

6.3 Recommendations

1. It is recommended to the colleges and institute to have Anti-HIV club in the colleges and institute, to have HIV/AIDS education with credit hour course.

2. The study shows that respondents had sexual intercourse with prostitute and casual partners after drinking alcohol, STDs and un safe infections during the last one or two years. Then strong Behavioral charge and communication (BCC) is needed to bring positive behavior change to avoid unsafe sexual practice and injection.

3. There are respondents who are not willing to be HIV tested if the service is available, so it is recommended that DUC and the colleges under had to have organized Ant. HIV/AIDS campaign to have students know about the use of VCT and being tested regularly.

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Appendix

Appendix I- Questionnaire

This Questionnaire is designed to know the knowledge, attitude and practice of Defense University College students about HIV/AIDS and voluntary Counseling and Testing (VCT). You are kindly requested to sacrifice some of your time to fill the Questionnaire. Your genuine answer is of paramount importance to the out come of the research and that all answers and your identify are kept confidential.

In Questions which request your preference check (✓) in the boxes or spaces according to your preference and fill in blanks where provided.

Thank you in advance:

1. Socio -Demographic Characteristics

1.1) Sex: a) Male ☐ b) female ☐

1.2) Age ----------

1.3) Marital Status: - a) Single ☐ b) Married ☐

c) Divorced/Separated ☐ d) Widowed ☐

1.4) Ethnic Group _____

1.5) Religion _____

1.6) Academic status

1.6.1 a) degree program ☐ B) Diploma program ☐

1.6.2. Year in college a) 1st Year ☐ b) 2nd Year ☐

c) 3rd year ☐ d) 4th year ☐ e) 5th Year ☐

1.6.3. Collage/ Institute _____

Department _____field of specialization _____

2. HIV/AIDS Status

2.1) What was your HIV status?

b) I have been tested and identified my HIV negative status ☐

c) I have not being tested and not identified my status ☐

3. Questions on *HIV/AIDS*

3.1 Knowledge Questions On HIV/AIDS

No	Knowledge statements on HIV /AIDS	Response	
		Yes	No
3.1.1	Know disease that can be transmitted by sexual intercourse:		
3.1.2	Know the symptoms of sexually transmitted disease (STD)		
3.1.3	HIV infected person may not show sign of the disease for many years.		
3.1.4	HIV can be transmitted by sexual intercourse with HIV infected person		
3.1.5	HIV can be transmitted by blood transfusion from a person who has HIV.		
3.1.6	HIV can be transmitted by injection and cutting with HIV infected needles and cutting instruments which are not sterilized after each use.		
3.1.7	HIV can be transmitted from mother to child during pregnancy, delivery and by breast feeding if the mother has HIV		
3.1.8	People can protect themselves from HIV by abstain from sexual intercourse		
3.1.9	People can protect themselves from HIV by being faithful to their partner and having un infected faithful sexual partner		
3.1.10	People can protect the transmission of HIV from mother to the fetus and new born child		
3.1.11	People can prevent the transmission of HIV by blood transfusion by to taking HIV screened blood.		
3.1.12	A person who looks healthy and carrying HIV virus can transmit to other people		
3.1.13	Using condom consistently prevent to both STD and HIV		
3.1.14	Having many sexual partners increases the risk of being infected with HIV		

3.2. Attitude questions on HIV/AIDS

No	Attitude statements on HIV/AIDS	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3.2.1	I believe that HIV/AIDS is not as a big problem as the media suggests					
3.2.2	IT is believed that a person with STD has high risk of acquiring or transmitting HIV					
3.2.3	In my belief except HIV, being infected with STD is not as such a heath problem					
3.2.4	People can protect themselves from getting infected with HIV by being abstain from sex					
3.2.5	People can protect themselves from getting infected with the HIV virus by having one un infected sex partner, who also has no other partners.					
3.2.6	I would rather be faithful to my partner than using condom.					
3.2.7	Person with HIV had led immoral lives					
3.2.8	People with HIV should be isolated to stop the further spread of the disease					
3.2.9	People with HIV deserves to suffer					
3.2.10	Person with HIV should be given the same opportunities as every one else in life					

3.3. Practice Questions On HIV/AIDS

No	**Practice Statements on HIV/AIDS**	**Response**	
		Yes	**No**

3.3.1.	Ever had sexual intercourse during the last one or two years.		
3.3.2.	Had multiple sexual partners the last one or two years.		
3.3.3.	Use condom persistently during sex with multiple partner.		
3.3.4.	Had sexual contact with prostitute during the last one or two years.		
3.3.5.	Used condom persistently during sex with prostitute.		
3.3.6.	Had sex with casual (not permanent) partner the last one or two years.		
3.3.7	Used condom during sex with casual partner the last one or two tears.		
3.3.8	Had sexually transmitted disease (STD) during the last one or two years.		
3.3.9.	Sought treatment for STD.		
3.3.10.	Had un safe injection		

3.4. Perception of Personal risk questions on VCT

3.4.1. Has any relative, friend or collogue of yours who had HIV/AIDS?

A. Yes ☐ B. No ☐ C. Not Sure ☐

3.4.2. How do you rate your personal risk or being infected with HIV at the moment (now)?

A. Very law ☐ B. Law ☐ C. Moderate ☐

D. High ☐ E. Very high ☐

3.4.3. If you have sexual partner, how do you rate your sexual partner(s) risk of having HIV?

A. Very law ☐ B. Law ☐ C. Moderate ☐

A. High ☐ E. Very high ☐

3.4.4. Do you drink alcohol?

☐ ☐

A. Yes B. No

3.4.5. If your answer is Yes do you have sex with prostitute after drinking

A. Yes ☐ B. No ☐

3.4.6. Do you have sex with casual partner after drink alcohol

A. Yes ☐ B. No ☐

4. *VCT Questions*

4.1. Knowledge Questions on VCT

No	**Knowledge Statement on VCT**	**Response**	
		Yes	**No**
4.1.1	Ever hared about VCT (HIV testing)		
4.1.2	Know the use of VCT service		
4.1.3	Know where can get VCT service		
4.1.4	Know that one can you test for HIV and know his/her status		
4.1.5	Know that HIV positive individual benefits from being tested		
4.1.6	Know what measures to take after knowing his/her test result		
4.1.7	Know that HIV negative individuals benefits from being test		
4.1.8	I had enough information about VCT		
4.1.9	I need more Information about VCT		
4.1.10	The information I had about VCT is ambiguous		

4.2 . Attitude Questions on VCT

No	Attitude Statements on VCT	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

4.2.1	It is believed that knowing one's status of HIV through VCT is more preferable to not knowing					
4.2.2	In my belief people who prepare for marriage should be HIV tested before marriage					
4.2.3	I fell every body in the society must be HIV tested and their status					
4.2.4	VCT reduces risk behavior					
4.2.5	VCT leads to earlier access to treatment (therapy)					
4.2.6	I will not be tested in order not to affect my family relationship negatively if tested positive					
4.2.7	I will not be tested not to think about being tested positive					
4.2.8	I will not be tested not to loose my job if tested positive					
4.2.9	I will not be tested not to be elinated from society if tested positive and people know that I am HIV positive.					

4.3. Practice Questions on VCT

No	**Practice Statements on VCT**	**Responses**	
		Yes	**No**

4.3.1	Will use VCT service if available now		
4.3.2	Will ask partner to seek VCT service		
4.3.3	Will allow ones child to marry without premarital VCT (test) for HIV		
4.3.4	Willing to pay for VCT services if asked to pay.		
4.3.5	Will not tell test result to any body if tested positive		
4.3.6	I will not worry if tested positive, I will take electro viral drug		

4.3.7. Have you been HIV tested and known your status?

A. Yes ☐ B. No ☐

If your answer is yes for question No 4.3.7 Answer questions 4.3.8-4.3.18 if your answer is no go to questions 4.3.19. and 4.3.20 to answer.

4.3.8. What was your reason to be tested?

F. It was mandatory to fulfill academic criteria ☐

G. Just to know my status ☐

H. Because of having multiple partner ☐

I. Thinking that my partner could have risk factor ☐

J. Other (specify) _____

4.3.9. What was your previous HIV safe behavior that contribute to your negative result?

F. At that time I have no sexual experience at all ☐

G. At that time I give attention only to my study ☐

H. At that time I have no money to charge for sex ☐

I. I became negative by chance ☐

J. Others (Specific)

4.3.10. What measures are you taking now after identifying your negative status? ☐

F. Be abstain from sex

G. Use condom persistently ☐

H. Be faithful and have one faithful partner ☐

I. Other (specific) _____

4.3.11 What helps you to take the above mentioned measure

A. My being HIV negative status ☐

B. The pre test and post test counseling that I got during the test ☐

C. The education in the media ☐

D. The education in the college ☐

E. Others (specify) _____

4.3.12 Have you retested again after you know negative status?

A. Yes ☐ B. No ☐

4.3.13 If you are re-tested what was your reason?

G. It is my decision to be retested always, to know my present statu ☐

H. Because of having casual (not permanent) partner ☐

I. Because of having sexual intercourse with prostitute ☐

J. Because of having multiple sexual partners ☐

K. To marriage ☐

L. Others (specify) _____

4.3.14. If you are not retested what was your reason?

F. I have no risk factor after the test ☐

G. I do not see the importance to be tested ☐

H. I afraid to be tested positive ☐

I. The service is for to be retested ☐

J. Other (Specify) _____

4.3.15. Do you want to be re-tested now, if the service is available?

A. Yes ☐ B. No ☐

4.3.16. If you have partner or wife is he being HIV tested and known her status

A. Yes ☐ B. No ☐

A. Yes B. No

4.3.18. Is there follow-up in the college for students who have been HIV tasted and being negative

A. Yes ☐ B. No ☐

4.3.19. If your answer is no for question 4.3.7.not tested at all, do you want to be tested now if the service is available?

A. Yes ☐ B. No ☐

4.3.20. If your answer is no, why not?

H. I have no risk factor ☐

I. I trust my self and my partner ☐

J. I do not see the importance to be tested ☐

K. I afraid of being tested positive ☐

L. I do not want to know my status at all ☐

M. Others (Specific) _____

4.3.21. How did you have to know about VCT ?

A. From Friends ☐

B. From literature ☐

C. From Postures ☐

D. From Radio/TV ☐

E. Others (Specify) _____

4.3.22. Is there Anti HIV/Aids club in the college?

A. Yes ☐ B. No ☐

4.3.23. Is there HIV education in the college?

A. Yes ☐ B. No ☐

4.3.24. What has to be done to the DUC students not to be infected with HIV _____

_____

_____

Declaration

This thesis is my original work and has not been presented for a degree in any university and that all sources of materials used for thesis has been dully acknowledged.

Ibrahim Yimer