Addis Ababa University
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Knowledge and attitude towards VCT services; among adolescent high school students in Addis Ababa, Ethiopia

By

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Abstract

A cross sectional descriptive study was conducted in February – March 2005, in senior secondary high schools found in Addis Ababa town. High school students (grade 9-12) were included in the study to determine their perception and attitude towards voluntary counseling and testing (VCT) services.

A multi stage sampling method was used, and 819 students were included for the analysis (97% response rate), to fill out a structured and pre tested questionnaire. A qualitative study with focus group discussion (FGD) was also conducted with two groups (male and female) students selected from anti AIDS club members to supplement some findings from the quantitative data.

Among the respondents 436 (53.2%) were males and 383 (46.8%) were females; 161 (19.7%) of the respondents have sexual experience, or ever had sex intercourse, i.e. 22.5% of the males and 16.4% of the total females. The majority, 92.1% of them know (have heard) about VCT services from different sources but only 129 (15.8%) of the students had used the services & 41.4% said it is expensive for them; 59.5% and 52.5% of the students suggested for the VCT services to be located in schools and youth clubs respectively, for a better access to adolescents.

During the focus group discussion, the students said they have shortage of reference materials about HIV/AIDS at school and that there is lack of support to anti AIDS clubs in and out of the school.

In conclusion, it could be worth considering to involve schools, teachers and anti AIDS clubs to extend VCT services and reach adolescents in an effective way.

1. Introduction

Ethiopia, with just one percent of the world's population, contributes nine percent of worldwide cases of HIV/AIDS (1). National sentinel surveillance (NSS) data estimates the national adult HIV prevalence in 2003 to be 4.4%, of which 12.6% is urban & 2.6% rural (2).

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 at an alarming rate; more and more new infections occur everyday, not to mention the many who don't even know they have the virus (3)

According to ministry of health (MOH), HIV prevalence was more pronounced in the younger age groups (15-30 years); crude 2003 site data suggests that 8.6% of ANC attendants were HIV positive (unadjusted for urban/rural population sizes) in the 15-24 years old age group (2).

The 2003 HIV prevalence is higher among women (5.0%) than men (3.8%) and is higher in the urban (12.6%) than in the rural population (2.6%); the trend of the epidemic suggests an urban epidemic that has peaked and plateau at high prevalence levels (2).

Even though different efforts are being carried out in Ethiopia, for almost 2 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 causes for the fast progression of the epidemic in the country are unprotected sex and high frequency of casual partners (1). There are also several underlying factors that promote the direct causes in the Ethiopian context; these 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 and displacement, big mobile military population in the country (1).

Information is one of the important tools to protect oneself from contracting the deadly virus and also in breaking the barriers of stigma and discrimination. Voluntary Counseling and Testing (VCT) for HIV is now acknowledged within the international arena as an efficacious and pivotal strategy for both HIV/AIDS prevention and care (4).

HIV 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, and as there is no cure for HIV/AIDS, voluntary counseling and testing remains a key strategy to control the spread of HIV and tp provide support to those who are positive (5).

According to the 2000 EDHS, only 2.2% of Ethiopian men have been tested for HIV, 64.8% of all men who have not been tested for HIV want to be tested -the 2000 EDHS did not ask these questions to women.

2. Literature review

2.1 VCT for HIV

Voluntary counseling and testing (VCT) is recognized as one of the few potentially effective and affordable methods for reducing the transmission of HIV in developing countries (4).

VCT programs have been identified as an entry point for HIV prevention and care and support services (5). Different interventions showed that HIV counseling and testing based on knowledge of their antibody status; enables individuals to make informed choices; helps them to change behaviors that may put themselves or others at risk for HIV infection, take action to prevent peri-natal transmission once persons learn they are infected, and also to seek early medical care if they are HIV-positive (6, 7).

VCT may also reduce reported risk behavior and prevent new infections-notably among those testing positive and discordant couples (8). The cost per disability-adjusted-life-year saved is similar to benefits from immunizations and improved management of sexually transmitted disease (8).

Acceptance of VCT is said to be influenced by knowledge of HIV-transmission and prevention, positive attitude towards HIV-testing and high risk sexual practice. And in our setup, cultural norms and attitudes towards

VCT are shown to have significant impact on acceptance of VCT; and major reasons identified for not having intention of VCT were fear of positive result & stigma attached to AIDS in the public and lack of knowledge about HIV testing (9).

Uptake of VCT services varies greatly between settings and countries, several societal and delivery associated factors like, stigma, community mobilization, confidentiality, availability of treatment simple rapid testing (same day testing) and poor quality of services (10).

Similarly, HIV test-seeking behavior and test-receiving outcomes are also said to be influenced by the organization of a testing system described as the process one goes through to acquire testing services, the type of diagnostic test used, the process required to receive test results as well as the place where the test is offered (6).

Testing is more likely to be accepted when clients perceive their own risk and acknowledge behaviors placing them at increased risk, it is voluntarily and routinely offered, confidential and anonymous testing is available, alternative testing technologies are available and when providers & clients perceive VCT as HIV prevention means (11).

Some of the barriers to VCT in developing world are wide spread fear of taking an HIV test, potential for increased violence, loss of security, discrimination and isolation, following sharing information about HIV sero-

positivity and lack of access to drug therapies, psychosocial and clinical care (12).

In most regions of Africa there is a wide spread perception that HIV testing offers little to the individual who tests positive (13).

From an individual's perspective, the medical and psychosocial support that can be offered to the majority of people who test positive in developing countries remains largely inadequate. However, from the public health perspective, evidence is accumulating that VCT does enable individuals, whether they test positive or negative, to change their behavior in ways that should reduce rates of HIV transmission (4,14).

In all countries, prevention is impeded if universal accesses to treatment, as well as impact and vulnerability-reduction measures, are not clearly parts of the response (10).

2.2. Significance of VCT.

The rationales for VCT can be summarized in four points:

1. It is a vital point of entry for HIV/AIDS services including prevention of transmission and management of HIV positive people.
2. Demand of people to know their HIV sero-status.
3. VCT provides benefits for those who tested positive as well as those tested negative.

4. VCT offers a holistic approach that can address HIV in the broader context of peoples' lives (15).

So generally VCT is said to be a public health intervention where governments and donors need to subsume some of the associated costs to ensure the widest possible access (4).

2.3. Adolescents and HIV

The HIV pandemic is a major threat to young people; UNAIDS estimates that 11.8 million people aged 15-24 years are living with HIV/AIDS. Half of all new infections- almost 6000 daily- now occur in young people, and in some populations up to a third of those entering adolescence are expected to die of AIDS (16).

Young people between the age of 15 and 24 are both the most threatened-globally accounting for half of all new cases of HIV-and the greatest hope for turning the tide against AIDS. The future of the epidemic will be shaped by their actions (16).

In high prevalence, sub-Saharan Africa, the main mode of transmission is heterosexual intercourse. This region contains almost two thirds of all young people living with HIV-approximately 6.2 million people, 75% of whom are female (10).

In Ethiopia, the highest HIV prevalence still occurs in the age group 15-24 years; AIDS accounts for an estimated 30% of all young adult deaths and is expected to bring about a significant reduction in life expectancy (2).

A variety of factors place young people at the center of HIV vulnerability. These include lack of HIV information, education and service; the gambles many must take in order to survive; and the risk that accompany adolescent experimentation and curiosity (16).

A study conducted in Jimma on high school adolescents, based on the classic health behavior model, concluded that high school students are at risk of HIV infection because of the high-risk behaviors they have (17).

Young people are a critical focus for behavior-change programs, since people 15-24 years old make up an estimated one half of all new infections. However, young people in different parts of the world face different kinds of risks, and prevention programming must be designed accordingly (16).

A study done on VCT in Gurage zone, SNNRP, reported that 14.8% of the study subjects had not have heard of VCT in general, and the main reasons for non-use among those who know about VCT include partner and self-trust (23.1%), no information about it (17.8%), and lack of nearby services (13.0%); and the majority of the study cases were in the age groups of 15-19 and 20-29 years (18).

In another study in Gondar town, only 4.1% of the urban study population and 36.1% of the rural gave the reason for thinking that VCT is necessary is to protect oneself from infection. And 42.2% of urban and 26.3% of rural population said that adolescents are one of the people who need HIV test if the service is made available (19).

In Ethiopia, there are 80 institutions involved in HIV testing or counseling or both and 32 centers are found in Addis Ababa (20).

Blood donor screening and anti HIV therapy to reduce mother to child transmission are highly effective interventions achieved in terms of developing, evaluating and implementing effective risk reduction interventions against HIV infection in young people. Reducing sexual transmission through changing behavior is a more challenging, though equally pressing priority (21).

3. Objectives

3.1 General objective

To assess adolescents perception and attitudes towards VCT services.

3.2 Specific objectives

1. To determine adolescents' knowledge of counseling and testing for HIV
2. To find out adolescents' attitude towards testing for HIV
3. To assess factors that discourage adolescents to test for HIV
4. To identify the ways they protect themselves from HIV infection
5. To determine their source of information about counseling and testing services

4. Methods and materials

4.1 Study area and period

The study was conducted in Addis Ababa, the capital city of Ethiopia, which comprises 10 sub cities. There are 70 schools in the city that have secondary level (grade 9-12), and the total number of students in secondary level, in 2003/2004 academic years is 96,561(22).

The study period is from November 2004 - June 2005.

Table 1. Secondary schools in each sub city, in Addis Ababa, by grade level in 2003/2004.

Sub city Code	Sub city	Grade 9-12	Grade 9-10	Grade 11-12	Grade 1-12	Total
01	Addis Ketema	1	1	0	3	5
02	Akaki Kaliti	1	0	0	2	3
03	Arada	1	2	0	9	13
04	Bole	3	2	0	3	8
05	Gullelie	2	2	0	6	10
06	Kirkos	1	1	0	8	10
07	Kolfe-Keranio	0	2	0	3	5
08	Lideta	1	0	1	0	1
09	Nefas silk-lafto	1	1	0	6	8
10	Yeka	1	3	0	3	7
	Total	12	14	1	43	70

School level: - S = Senior Secondary (grade 9-12)

C1 = Secondary Cycle 1 (grade 9-10)
C2 = Secondary Cycle 2 (grade 11-12)
A = All grade levels (grade 1-10(12))

4.2 Study design

Descriptive, cross sectional study design was used

4.3 Study population

Source population – all high school students in Addis Ababa, enrolled in grade 9-12 for the academic year of 2003/2004.

Study population – students in senior secondary high schools (grade 9-12) within the age group 15-19 years (late adolescence) in the selected senior secondary schools.

There are 12 senior secondary high schools in Addis Ababa, and the total number of students found in these schools is 46,441 (22).

Inclusion criteria

- Day time high school students attending senior secondary high schools (grade 9-12)
- Age 15- 19 years (late adolescents)

Table 2. Senior secondary schools (grade 9-12), in Addis Ababa, by zone and ownership in 2003/2004

Sub city	Ownership (type)			Total
	Government	Private	Foreign community	
01	1	-	-	1

02	1	-	-	1
03	1	-	-	1
04	1	2	-	3
05	2	-	-	2
06	1	-	-	2
07	-	-	-	-
08	1	-	-	1
09	1	-	-	1
10	1	-	-	1
Total	10	2	0	12

4.4 Sample size and sampling

4.4.1. Sample size

The following formula to estimate a single population proportion was used to estimate the minimum number of students required for the study.

$$n = \frac{Z\alpha/2^2 \, P\,(1-p)}{(d)^2}$$

Where: -

- n = the required minimum sample size
- Level of confidence 95%, which gives the percentile of the normal distribution, $Z\alpha/2 = 1.96$
- d = Margin of error, assumed to be 5%
- p = Prevalence of perception taken as 50%
- Estimated non-response rate in school youth = 10%
- Design effect = 2

Based on the above assumptions a total of 844 students were required for the study.

4.4.2 Sampling procedures

Multi stage sampling technique was used. The procedure on selection of schools and students is described as follows.

1. Out of 70 schools 12 senior secondary high schools were found and included in the study.

2. The total numbers of students found in each school were taken and proportional sample size calculated for each so as to give the total sample size. ($n / N = nj / Nj$) ⟶ $nj = Nj * n / N$ (see table 3)
3. The same procedure is used to make proportional sampling of male and female students in each school. ($nj = Nj * 0.018$)
4. The total number of students for each school was divided equally for the four classes (grade 9-12)
5. One section was chosen by convenient sampling (a section not on a plasma session at the time of data collection) to be included in the study.
6. Students from the selected section were chosen randomly, assembled in a room and made to fill out the questionnaire in the presence of the data collectors.

Table 3. Calculated sample sizes for each school using proportional sampling, according to the population size of each school, Addis Ababa, 2005.

Sub city	Name of high school	Population size			Sample size		
		Male	Female	Total	Male	Female	Total
01	Addis ketema	2824	2439	5263	51	44	95
02	Derartu Tulu	2187	1934	4121	40	35	75
03	Dagmawi Menilik	2961	2816	5777	54	51	105
04	Lucy academy	91	82	173	2	2	4

04	Bole secondary	2774	2701	5475	50	49	99
04	School of tomorrow	114	148	262	2	3	5
05	Yekatit 12	2657	2278	4935	48	41	89
05	Medhanialem	3977	3613	7590	73	65	138
06	Abyot kirse	2791	2744	5535	50	50	100
08	Kefetegna 4	440	204	644	8	4	12
09	Kefetegna 23	1573	1602	3175	28	29	57
10	Wondirad secondary	1711	1780	3491	32	33	65
	Total	24,100	22,341	46,441	438	406	844

4.5 Data collection tools and procedure

A structured self-administered questionnaire developed, to be filled by the students. The questionnaire was pre tested in the same setup and with similar group as the target group.

Six data collectors and 3 supervisors were trained and facilitated the data collection. The investigator and the supervisors insured the data quality, with close supervision of the data collection process.

All information filled was anonymous; there was no personal identification of the participants to insure confidentiality and reliability of data filled.

Qualitative data was collected using semi-structured questions, for focus group discussions, to complement findings of the quantitative data by in depth discussion with some adolescents. Two groups were used for the focus group discussions, because of limited time and a reasonable saturation was expected with the two groups.

The qualitative study (focus group discussions) were conducted on April 7th, 2005 with male and female groups of high school students who are also members of the anti AIDS club in their school. A total of 9 students comprise

of each group. The discussions were conducted by the researcher for the girls group and by a male counselor for the male group. Discussions were guided with a semi-structured questionnaire, and participants were selected randomly from the target group. A favorable place for the discussion was arranged and the discussions tape-recorded.

4.5.1 Measurement variables

Variables which were included in the questionnaire are, socio demographic, sexual behavior and personal risk perception, knowledge and use of VCT, reasons for using the service, attitudes and opinions about VCT including misconceptions, stigma and discrimination associated with being tested, exposure to VCT services.

4.5.2 Data entry and analysis.

Collected data was manually checked for completeness and for respondents' age to be included in the analysis. The data was coded, entered and processed using SPSS for windows version 11.01. And finally the results were presented using the findings, frequency tables and figures.

4.6. Ethical consideration

Ethical clearance was sought from AAU, department of community health, and consent gained from the school administration and participant students.
All information gained during the data collection was confidential.

And after the completion of data collection, a briefing on VCT services and any other questions were entertained. Results will be communicated to the relevant bodies after the completion of the paper.

5. Results

A total number of 819 responses (97% response rate) from the students were found valid and included in the analysis. Among the respondents 436 (53.2%) were males and 383 (46.8%) were females. The mean age (±SD) of respondents was 16.98 (±1.2) years (median 17). The majority, 688 (84%) and 766 (93.5%) were Christians and single, respectively. Socio demographic characteristics of the students are given in Table 4.

Three hundred and thirty five (40.9%) of the students said that they know three modes of HIV transmission, 112 (13.7%) said they know two ways and 164 (20.0%) of them claim to know four ways of HIV transmission. With regard to identifying prevention methods, 87.8 % of the students said yes for abstinences, 71.1% for faithfulness, 64.6%for condom use, and 55.6% for avoiding unhygienic sharp instruments.

The major source of information about HIV/AIDS, identified by the students was the media (radio/TV) by 691 (84.4%) and 407 (49.7%) of them said from school. On the other hand 274 (33.5%) said that they do not discuss about HIV/AIDS at home with their family members.

Choosing the most relevant mode of HIV infection prevention for adolescents, 579 (70.7%) said abstinence, 144 (17.6) said faithfulness and 58 (7.1%) said using condoms are preferable the rest choose multiple ways and some didn't respond at all.

One hundred sixty one (19.7%) of the respondents have sexual experience, or ever had sexual intercourse; out of which 98 (60.9%) are males and the rest 63 (39.1%) are females; or in other words 22.5% of the total males and 16.4% of the total females had ever had sexual intercourse. Age at first sexual contact ranges from 10-19 years of age and the majority of them being 15-18 years of age at their first experience.

With regard to protecting oneself from HIV infection, 658 (80.3%) of the students claim that they are abstaining from sex, 88 (10.8%) of them are being faithful to partners and 52(6.4%) of them are using condoms for protection, and the rest did not give any response to the question. Out of those who claim to use condoms as protection, 41 (78.8%) of them are males and only 11(21.2%) are females. Out of those who reported of having sexual experience, only 32.3% reported of ever using condoms. Sexual history profile is given in Table 5.

Regarding personal risk perception, 54.2% of the students said that they think their risk for HIV infection is very low, while 23.7% said their risk is low. And 84.7% of those who think have very low risk are abstaining from any sexual

contact, while 82.2% of those who think to have low risk also claim to be using abstinence as a prevention method.

Out of those who chose faithfulness as a prevention method for HIV (88 students), 39.8% of them think that their risk of HIV infection is very low, while of those using condoms (52 students), 42% of them think their risk for HIV is very low.

Table 4. Socio demographic characteristics of the students, in Addis Ababa, February-March 2005.

Characteristics		Male n (%)	Female n (%)	Total, n (%)
Age	15	48 (11.0)	55 (14.4)	103 (12.6)
	16	87 (20.0)	104 (27.2)	191 (23.3)
	17	118 (27.1)	117 (30.5)	235 (28.7)
	18	117 (26.8)	80 (20.9)	197 (24.1)
	19	66 (15.1)	27 (7.0)	93 (11.4)
Grade				
	9	91 (20.9)	92 (24.0)	183 (22.3)
	10	132 (30.3)	117 (30.5)	249 (30.4)
	11	122 (28.0)	108 (28.2)	230 (28.1)
	12	91 (20.9)	66 (17.2)	157 (19.2)
Religion				
	Christian	359 (82.3)	329 (85.9)	688 (84.0)
	Muslim	60 (13.8)	46 (12.0)	106 (12.9)
	Others	17 (3.9)	8 (2.1)	25 (3.1)
Marital status				
	Single	400 (91.7)	366 (95.6)	766 (93.5)
	Married	30 (6.9)	12 (3.1)	42 (5.1)
	Divorced	6 (1.4)	5 (1.3)	11 (1.3)
Total		**436 (53.2)**	**383 (46.8)**	**819 (100.0)**

Table 5. Sexual history profile of the students, in Addis Ababa, February-March 2005.

Characteristics	Male n (%)	Female n (%)	Total n (%)
Have you ever had any sexual experience?			
Yes	98 (22.5)	63 (16.4)	161 (19.7)

No	338 (77.5)	320 (83.6)	658 (80.3)
Do you have sexual partner currently?			
Yes	42 (9.6)	24 (6.3)	66 (8.1)
No	341 (78.2)	310 (80.9)	651(79.5)
No response	53 (12.2)	49 (12.8)	102 (12.4)
How do you protect yourself from HIV?			
Abstinence	338 (77.5)	320 (83.6)	658 (80.3)
Faithfulness	46 (10.6)	42 (11.0)	88 (10.8)
Using condoms	41 (9.4)	11 (2.9)	52 (6.4)
No response	11 (2.9)	10 (2.6)	21 (2.6)
Total	**436 (53.2)**	**383 (46.8)**	**819 (100)**

Coming to the students' information regarding VCT services, 92.1% of them know about or have heard of VCT services from different sources; 32.5% from media (radio/TV), 22.1% from friends and the majority others, gave multiple sources of information about VCT. Seven hundred seventy four (94.5%) of the students have said that VCT is an important service for prevention of HIV transmission and 96.9% of the students have agreed that counseling is important for HIV testing.

The majority, 77.2% of them have agreed that VCT is important to change behavior and prevent HIV infection, 67.9% said it is also used to protect others from getting infected, and only 59.7% of them said it is important to get psychological support.

Six hundred eighty eight (84.0%) of the students said that they know where to get VCT service but 32.6% of them can't access the service easily, major reasons given include, 'it is expensive' by 41.4% of them and 'the location is far' by 25.1% of these students. And 92.8% of the students suggested for the service to be free for adolescents.

Six hundred and fifteen (75.1%) of them identified health facilities being the location of the VCT service they know. Yet, choosing for a better location of the service for adolescents, 59.5% said that it should be located at schools, and 52.6% of them agreed that youth clubs are also good sites to make the service more accessible for their consumption. The students' knowledge and attitude towards VCT is given in Table 6.

Table 6. Knowledge and attitude of the students towards VCT services, in Addis Ababa, 2005

Characteristics	Frequency (n=819)	Percent (%)
Have you ever heard about VCT services?		
Yes	754	92.1
No	62	7.6
Is VCT important for prevention of HIV transmission?		
Yes	774	94.5
No	32	3.9
Is counseling important for HIV testing?		
Yes	794	96.9
No	24	2.9
What are the uses of VCT services? *		
To know HIV status	549	67
To change behavior and prevent HIV infection	632	77.2
To protect others from being infected	556	67.9
To get psychological support	489	59.7
To get information about HIV/AIDS	453	55.3
To get treatment if there is infection	396	48.4
No use to test if there is no treatment (ART)	46	5.6
Who do you think should have an HIV test? *		
High risk groups	280	34.2
Those to be married	636	77.7
Anyone engaged in sexual relationship	528	64.5
Only those suspected by a health personnel	84	10.3
When do you think is a good time to have the test? *		
Anytime	503	61.6
Before marriage	411	50.3
Before initiating sexual relationship	431	52.8
Before pregnancy	274	33.5
After getting pregnant	88	10.8
When one feels at risk of being infected	182	22.3
Do you know where to get a VCT service?		
Yes	688	84.0
No	131	16.0

Do you say you have an easy access to VCT services?		
Yes	552	67.4
No	267	32.6
Where would VCT be best located for adolescents? *		
In health facilities	244	29.8
At schools	487	59.5
At youth clubs/ association	430	52.5
In a free standing service center	210	25.6
Do you think the VCT service should be free?		
Yes	757	92.8
No	52	6.4

* Percentages do not add up to 100, because the questions are with possible multiple answers.

Preferring for a counselor, 539 (65.8%) choose for trained health personnel and 503 (61.4%) chose for youth (peer group) counselors over religious leaders (31.1%), traditional healers (7.7%) and any trained counselor (39.1%).

Regarding their attitude and practice towards testing for HIV, 129 (15.8%) of the students had used VCT services, 55 (42.6%) of them are males and 74 (57.4%) of them are females, i.e. 12.6% of the total males and 19.3% of the total females have tested for HIV (Figure 1).

Out of those who had not used VCT so far, 146 (21.2%) of the students said that they have no plan of using VCT services for various reasons, 61 (41.7%) of them said it is because they have no risk of infection, 21 (14.4%) said it is because they trust themselves and their partners, and 17 (11.6%) said they don't trust the quality of the test available.

The majority of students (77.7%) said that testing is important for people who are getting married, 64.5% agreed that anyone who is sexually active need to test for HIV, while 34.3 % of students think that high risk groups are the ones who need to

be tested and 10.3% of them think that testing is important for only those medically suspected (Figure 2).

With regard to the timing for HIV test, 61.6% thinks anytime is good to have the test, and only 52.8% and 33.5% think it is good to have the test before starting sexual relationship and before pregnancy respectively (Table 6)

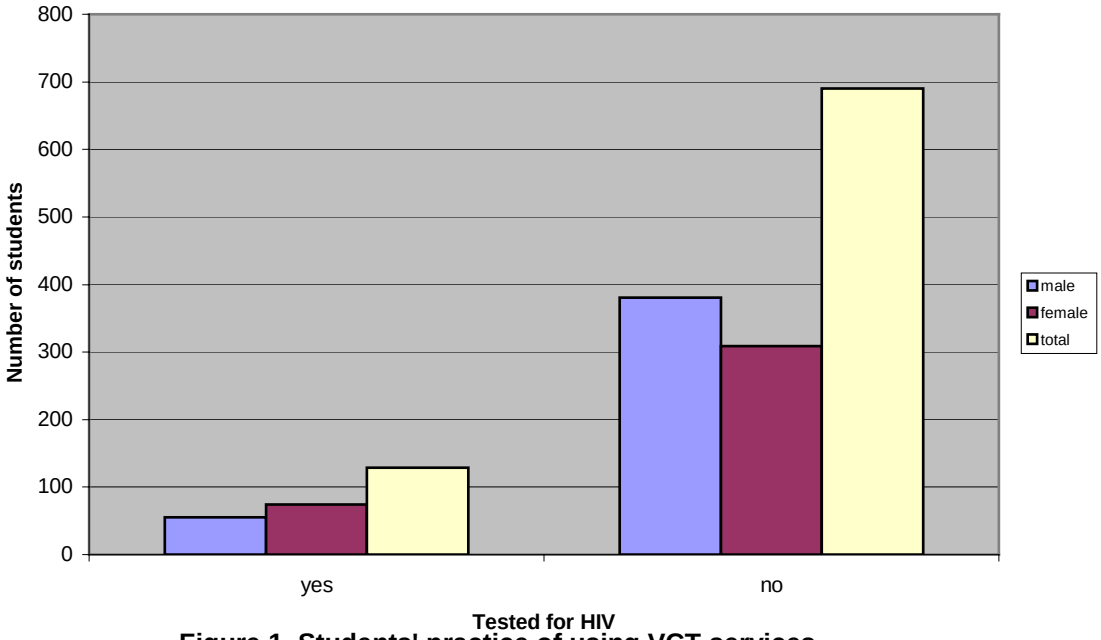

Figure 1. Students' practice of using VCT services

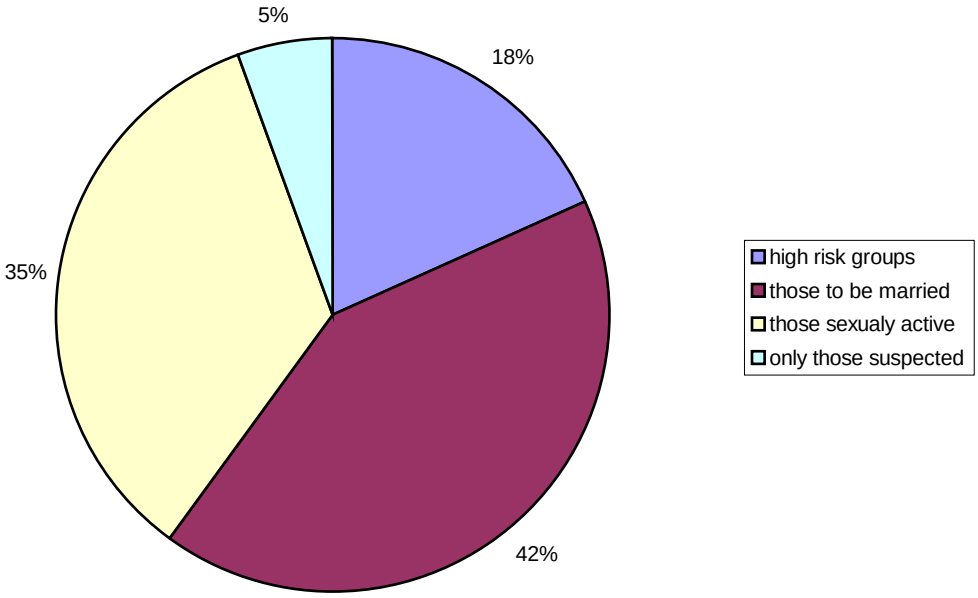

Figure 2. Groups who need to be tested for HIV according to the students.

The knowledge and attitude of the students towards people living with HIV/AIDS was also assessed, and only 62.9% and 54.9% have seen an HIV positive person and AIDS patient respectively.

Two hundred twenty eight (27.8 %) of the students think that it is not safe to live with an HIV positive person in the household. Some of the precautions chosen by the students were, better to keep the HIV positives in a health institution by 126 (15.4%), and avoiding external body contact suggested by 264 (32.2%). Table 7 gives the details of the responses.

Four hundred twenty five (51.9%) of them said that they would not disclose a positive HIV result of a family member to anyone, most giving ’fear of stigma’ for a reason; and 218 (26.6%) of the students said they would tell no one if they test positive for HIV. Table 7 shows the attitudes of the students towards a positive result and people living with HIV/AIDS.

Table 7. Knowledge and attitude of the students towards people living with HIV/AIDS, in Addis Ababa, February-March 2005.

Characteristics	**Frequency (n=819)**	Percent **(%)**
Have you ever seen and HIV positive or AIDS patient?		
HIV positive person	515	62.9
AIDS patient	450	54.9
Is it safe to live with an HIV positive person in a household?		
Yes	571	69.7
No	228	27.8
No response	20	1.5
What precautions are needed to live with HIV positives? *		
Separate beds	114	13.9
Separate eating utensils	91	11.1
Separate rooms	45	5.5
Separate toilet	36	4.4
Avoid external body contact	264	32.2
Use gloves to clean staffs he/she used	406	49.6
Avoid contact with body fluids	621	75.8
Keep the person in a health institution if possible	126	15.4
Would you disclose a result of HIV positive family member to anyone?		
Yes	366	44.7
No	425	51.9
No response	28	3.4
For whom would you disclose your result if you were HIV positive? *		
No one	218	26.6
For your family	431	52.6
For your partner	249	30.4
For your friends	201	24.5

* Percentages do not add up to 100 because of questions with possible multiple answers.

Qualitative data result

Most of the students agreed on the different uses of VCT services, but some of the students were against the idea of adolescents being tested for HIV, considering the lack of awareness of the adolescents, their parents and the society at large about HIV/AIDS, resulting in more despair to most if the result is positive. They said it is rather better to concentrate on the wide spread of awareness creation among adolescents regarding how to protect themselves and live safely, and if this effect a change in at least some of the adolescents then others will follow as a peer group effect works among adolescents.

Commenting on the available VCT services, they all agreed that the price is high in some institutions and in some, where it is given free the quality of the service is usually poor. Most of them were describing their experience with such service, and said the counseling they got was rather disappointing and the counselors were not friendly and not competent. And some suggested if it is possible to make the price of testing reasonable and make it free for some special groups like street adolescents and other high risk groups, and if the government can see to the quality and uniformity of the services being given in the country.

Most of them said that adolescents at large do not have enough information about HIV/AIDS, and they said one has to consider those adolescents who are out of school and street adolescents as well. They have agreed that even those with better information are not yet putting the advices in practice and are still taking risks. And they said there are generally not enough, and updated references about

HIV/AIDS at their disposal, not even at school; and if they need some information they need to go look for it elsewhere. They also said their other option for information are their teachers but that is not satisfactory as most are not usually able to answer their questions, they themselves have no easy access for it. So they were commenting that the information should better be supplied to the schools rather than every student going out looking for reading materials. Along with this they said that they themselves as members of anti AIDS clubs are not being encouraged to work properly and rather being ridiculed by their teachers, directors and even at home by their parents who sometimes consider their activities in the club as inappropriate.

The groups also discussed on discouraging factors for adolescents to use VCT, and said some scary messages about HIV makes adolescents to fear ever being tested; there are no post test clubs which would have motivated adolescents, giving them some recognitions after the test, which adolescents would like to do. They also said that the price asked at some services is too much for adolescents; and the information about HIV/AIDS in general is not enough and interesting enough for the adolescents to decide on using the VCT services, and since HIV is kept as secret in our society there is a tendency not to discuss about it or take some actions like testing. Parents were also mentioned as one discouraging factors for adolescents to be tested for HIV, because they are not usually willing to accept the fact that their children are sexually active and discourage even the discussion about HIV at home.

Finally they all said that they want to get a proper service from VCT services and have plans to have the test in the future; they especially stressed on the need for improvement of the quality of counseling and agreed on the need to make the service more available with enough and motivated man power. And some said that VCT service are even better located at schools to reach more students, and information and support to anti AIDS clubs will be very helpful to reach the student population at large.

6. Discussion

This study tried to gather different information about VCT services from adolescents on the hope that it will help to show their point of view on the existing services and how to make it more accessible so as to serve these target group better.

In this study, 22.5% of males and 16.4% of the females were found to have experience of sexual intercourse; these figures are higher than the figures recorded by the HIV/AIDS behavioral surveillance survey (BSS), indicators for in school youth in Addis Ababa, which were 11.2% and 2.0% for males and females respectively (23).

But with regard to age at first sexual contact the students in this study were older (majority 15-18years) than the one showed on the BSS where more than 25% of the in school youth had had sex by the time they were 15 years old already. This could indicate that students are possibly postponing initiation of sexual

relationship, which is considered as one indicator of a safer practice with regard to HIV transmission, and this study examined schools only in Addis Ababa where the awareness is assumed to be better.

But as a point of concern in the findings of this study, only 32.3% of those who are sexually active reported condom use, and out of those reporting condom use only 21.2% of them are females, showing that the males, even in this study subjects dominate the ability or choice of condom use.

The students personal risk perception was found to be lower with around 40% of those using faithfulness as a prevention method claim to have very low risk for HIV infection and also during the FGD, the students said that faithfulness and trust is enough to protect oneself from HIV; and seem to overlook the fact that open discussion between partners about sexuality is necessary for the faithfulness strategy to work. Similarly on the BSS, amongst in school youth (ISY) in Addis, around 6% had been engaged in risky sex in the previous 12 months. The most common reasons all youth gave for engaging in risky sex was that they trusted their partner. And of the ISY who had risky sex in the last year (6% of the total) only 21% felt at moderate or higher risk of HIV/AIDS (23).

In this study 81.7% of males and 86.7% of females know where to get VCT services, which is way to high when compared with the study on BSS, where only 31.5% of males and 29.1% of females in school youth knew that the service (HIV

testing) was available in their communities. This could partly be because of the expanding services of VCT especially in Addis Ababa.

The students preferred the services to be located at school or youth clubs rather than in health facilities, and when the issue of confidentiality was discussed during the FGD, the students were not so much concerned about the confidentiality of the service but rather said it will be good for some students to set example for the majority others by taking the HIV test in these setup. This is contrary to other findings where confidentiality of the VCT process is seen as an essential part of VCT, as a study by Fahmid Mohammed, on the urban community of Ethiopia where confidentiality of VCT services was preferred by the study subjects and confidential methods have been reported as a good entry point towards attaining behavioral changes (12).

Among the students in this study, 12.6% of the males and 19.3% of the females had used VCT services; both figures are higher than the results on BSS in 2002 of similar setup, which were 5.6% of male and 4.3% of female in school youth in Addis Ababa, again showing an increase on the service provision in the city and also an increase in the acceptance rate for testing. Yet, majority of the students said that testing is important for those to be married, and only half of them agreed that testing for HIV before starting a sexual relationship is important; and only 33.5% of them identified the importance of getting a test before pregnancy. So we can see that there is some knowledge gap among the students to some extent.

The students attitude towards people living with HIV/AIDS, (PLWHA) also showed their gap of knowledge, with 27.8% of them still thinking that living together with PLWHA in the household being unsafe; again with some misunderstanding on the precautions that need to be taken to avoid HIV transmission.

7. Strength and limitations of the study

Some of the strengths of this study were:

- A high response rate of 97% gained from the participants of the study.
- Qualitative data, the focus group discussions, gave important supplements to elaborate some findings from the quantitative data.

Limitations of the study include:

- It was not possible to get all the students from a school to fill the questionnaire at the same time because of the new plasma teaching; the data collection therefore took longer time than planned, which might result in data contamination.
- Some questions in the amharic translation, give ambiguous meaning which were tried to be elaborated during data collection, this may introduce bias.
- Some discrepancies on the responses of some students, to the questions regarding personal sexual history noted, may introduce inconsistency.

8. Conclusion and recommendations

Some conclusions that can be made from this study are

- Awareness regarding HIV and VCT among the students is increasing even though there are some gaps and confusion on some issues.
- Students are willing and interested in using VCT services, except for some discouraging factors they mentioned.
- The VCT service provision can be considered at schools and with peer group counselors, which makes it possible to reach the students at large and relieve some burden from the overloaded health institutions.
- The FGD indicated that students are interested to participate in activities regarding HIV/AIDS, but need proper information and support from concerned bodies.
- Adolescents seem to be less concerned about the confidentiality of the VCT service, rather stressed on the easy accessibility.

Recommendations:

1. Considering price discrimination mechanism for some groups to use VCT service could increase number of users.
2. It could be important to consider using schools and youth clubs to extend the VCT service to more adolescents; and organizing posttest clubs for those tested.

3. Raising quality of counseling through proper training of counselors and making the service more adolescent friendly, could motivate them use the service.
4. Including teachers and parents in awareness raising regarding HIV/AIDS and VCT could be helpful, since adolescents are mostly dependent in making decisions like, anti AIDS club activities and testing for HIV.
5. Making education on HIV/AIDS part of the school curriculum, which will update the knowledge of the teachers and the adolescents as well.

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10. Appendices

Work plan

Activity	Time (months) 2004								Responsibility
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	
Discussion with advisor									Researcher & advisor
Proposal preparation									Researcher
Training of data collectors									Researcher & data collectors
Data collection									Data collectors
Focus group discussion									Researcher
Data entry and analysis									Researcher
Draft report write up									Researcher
Submission of draft paper									Researcher & advisor
Final paper submissions									Researcher

DEPARTMENT OF COMMUNITY HEALTH
FACULTY OF MEDICINE

QUESTIONNAIR

This is a research designed to identify the perception of adolescents about VCT and HIV prevention, and you are kindly requested to fill all the questions below. And I would like to remind you that your genuine answer is of paramount importance to the out come of the research and that all the answers and your identity are kept anonymous.
Thank you in advance.

I. Socio demographic data

1. Age ----------
2. Sex ----------
3. Grade ----------
4. Religion: Christian ---------- Muslim ----------others ----------
5. Marital status: married ---------- single ---------- Divorced ----------

II. Knowledge about HIV/AIDS (transmission, prevention)

1. How many modes of HIV transmission do you know? ----------
2. Where do you get your information about HIV/AIDS?
   School ----------
   Friends --------
   Radio -------- TV ----------.
   Others (specify) ----------
3. Which way of transmission is the most important cause of infection in our country----------
4. Which prevention methods do you know? Can you list them? ----------
   ----

6. Which prevention method(s) do you think is most relevant for young people? ----------

III: sexual history?

1. Do you have any sexual experience? Yes ---------- no ----------
2. If yes what was your age at the first contact? ----------.
3. Do you have sexual partner at the moment? Yes ---------- no ----------
4. If yes, do you have a single or multiple sexual partners? ----------
5. How do you protect yourself from HIV?
   Be faithful ----------
   Abstinence ----------
   Condom use ----------
   Others, specify ----------
6. If condom use, do you use it
   Always---------- most of the time ---------- Seldom----------

7. If you stay completely faithful to your partner, is that a guarantee for you to prevent HIV infection? Yes ---------- no ----------
8. If no, how so? ----------

IV: VCT service (knowledge, attitude and practice)

1. Do you know that one can test for HIV and know his/her status?
   Yes -------- No ------
2. Have you ever heard about VCT? Yes ---------- no ----------
3. How did you come to know about VCT
   From friends ----------
   From family members ----------
   From literature ----------
   From adverts/ posters ----------
   From radio/ TV ----------
   Others specify ----------
4. What do you think is the use of VCT services?
   To know HIV status ----------
   To change behavior and prevent HIV infection ----------
   To protect others from being infected ----------
   To have psychological support ----------
   To get information about HIV ----------
   For getting treatment if there is infection ----------
   It has no use for our set up ---------- if so why ----------
   No use to test without treatment ----------
   Others (specify) ----------
5. Is VCT important for prevention of HIV transmission? Yes ------- no -----
6. When do you think is appropriate to have VCT?
   Any time, regularly ----------
   Before marriage ----------
   Before initiation of sexual contact ----------
   Before pregnancy ----------
   After pregnancy ----------
   Any time a person feels at risk ----------
   Others, specify ----------
7. Who do you think benefits from being tested?
   HIV positive ones ---------- HIV negative ones ----------
8. Do you think counseling is important for HIV testing?
   Yes ---------- no ----------
9. Why? ----------
10. Who do you think needs to be tested?
    High-risk groups ----------
    Those to be married ----------
    Everybody who is sexually active ---------

Only those suspected by medical personnel ----------
Others, specify ----------

11. Do you know where you can get the service?
    Yes --------- no ---------
12. Is the service near your area or far?
    Near ----------
    Far ----------
    Very far ---------
13. Where is the service located?
    In a health facility ----------
    In youth club or association ----------
    It is a stand-alone service (giving only VCT) ----------
    Others (specify) ----------
14. Do you know how much it costs to be tested for HIV?
    Yes ---------- no ----------
15. Do you think it is accessible for you to get the service?
    Cost wise? Yes ---------- No ----------
    Distance wise? Yes ----------No ----------
    Is the location convenient? Yes --------- No ----------
16. Do you think the test should be free?
    Yes ---------- no ----------
17. Where do you think should a VCT center be located for easy access for adolescents?
    In a health facility ----------
    In schools ----------
    In youth clubs ----------
    In a separate service center for VCT alone ----------
    Others (specify) ----------
18. Who do you think should counsel adolescents?
    Trained health personnel ----------
    Trained Non-medical personnel ----------
    Trained youth (peer group) counselors ----------
    Religious leaders ----------
    Traditional healers ----------
    Anybody who is a trained counselor ----------
19. Have you ever been using VCT service?
    Yes ---------- No ---------- if no go to question no. 28
20. If yes, how did you find the service?
    Very good--------- good --------bad----------very bad ----------
21. Can you describe your answer for the above question?
    ---
22. How do you rate the confidentiality of the counseling and testing process?
    Very good ---------
    Good ----------

Poor ----------
Very poor ----------

23. How long did it take before the result of the test? ----------
24. When do you think should a test result be given?
    Immediately after the test ----------
    Few hours after the test ----------
    Few days after the test ----------
    It doesn't matter when ----------
    Others, specify ----------
25. What was your reason for being tested?
    Just to know your status (no particular reason) --------
    Had unprotected sex ----------
    Multiple sexual partners ----------
    Thinking that your partner could have risk factor ----------
    You had other risk factor for the infection ----------
    Others (specify) ----------
26. Did your partner know about you being tested?
    Yes ---------- no ----------
27. If yes, did you partner take the test as well?
    Yes ---------- no ----------
28. If no, have you ever think of testing for HIV?
    Yes---------- no----------
29. If no, why not? ----------
    a. You have no risk ----------
    b. Trust oneself and partner ----------
    c. You don't see the importance of being tested ----------
    d. You don't trust the quality of the test available ----------
    e. You don't trust the quality of counseling available ----------
30. If you want, can you get VCT service easily? Yes ---------- no ----------
31. If no, why not?
    It is expensive for you ----------
    The location if far ----------
    You don't trust the confidentiality ----------
    The result takes a long time ----------
    You don't want to know your status at all ----------

V. Perception of personal risk

32. How do you rate your personal risk of being infected with HIV at the moment?
    Very high ----------
    High ----------
    Moderate ----------
    Low ----------
    Very low ----------

33. Can you explain the reason for the above answer ----------
---

34. How do you rate your sexual partner (s) risk of having HIV infection?
    Very high ----------
    High ----------
    Moderate ----------
    Low----------
    Very low----------
35. Do you intend to have VCT for HIV in the future? Yes ---------- No -----
36. Do you think it is important for you to have your partner tested for HIV?
    Yes ----------
    No ----------
37. Do you have any intention of asking your sexual partner to seek for VCT?
    Yes ----------
    No ---------- why not ----------

VI. Stigma and discrimination

1. Have you ever seen a person with HIV? Yes ---------- no ----------
2. Have you ever seen a patient with AIDS? Yes ---------- no ----------
3. Do you think it is safe to live with a person with HIV in the household?
   Yes---------- no ----------
4. What precautions do we need to take to live with a person living with HIV/AIDS?
   Separate beds ----------
   Separate eating utensils ----------
   Avoid external body contact ----------
   Use gloves to clean his/her materials ----------
   Avoid contact with body fluids ----------
   Separate toilet ----------
   Better to keep the person in a separate room ----------
   Better to keep the person in a health facility ----------
   Others specify ----------
5. If one of your family members were a person living with HIV/ AIDS, would you tell anyone?
   Yes ---------- no ----------
   If yes, to whom ----------
   If no, why not ----------
6. Do you discuss about HIV/AIDS at home?
   Yes ----------, with whom ----------
   No ----------
7. Who would you tell your HIV test result if you test positive?
   Your family ----------
   Your partner(s) ----------
   Your friends ----------
   No one ----------
   Others, specify ----------

Declaration

I, the under signed, declare that this thesis is my original work, has not been presented for a degree in this or any other university and all source materials used for the thesis have been duly acknowledged.

Name of the student ----------

Signiture ----------

Place ----------

Date of submission ----------

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

Dr. Alemayehu Worku ---------- Advisor