

## Challenges to use Volunteer Counseling and Testing for HIV/AIDS among Jimma University College of Public Health and Medical Sciences Graduating Class Students Jimma, South West Ethiopia, Cross Sectional Study

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### Abstract

**Background:** HIV/AIDS is a major public health problem, whether by its impact at national, community, and individual level, since the first cases of AIDS report. Volunteer Counselling and Testing (VCT) is the most effective strategy in bringing positive behavioural change on HIV/AIDS and play an important role in helping people to change their sexual behaviour, reduce HIV transmission. The aim of this study was to assess challenges to use VCT among Jimma University College of Public Health and Medical Sciences Graduating Class Students.

**Methods:** Cross sectional study with quantitative methods of data collection was employed from April 1st to 15/2012 using pre tested self-administering questionnaire was used for data collection.

**Result:** Data was extracted from 219 respondents that makes response rate 92.02%. Out of the 219 respondents 182 (83.1%) were males, 118(53.9%) were within age group between 21-24 years, majority of respondents 215 (98.2%) were single, 134(61.2%) were Christian by their religion, majority 51(23.3%) of the respondents were from Health officer department, 147(67.1%) had get pocket money  $\geq$  to 344 birr and 103 (47.0%) had history of residence change. 68(31.1%) were being tested and 215(98.2%) knowledgeable 137(62.6 %) had positive attitude, 140(92.7%) had willingness to be tested .

**Conclusions and recommendations:** This study showed low utilization of VCT service VCT service even though majority of respondents had knowledge and positive attitude. The significant predictors' for its use were: fear of outcome result, community attitude, social stigma, rejection. Willingness to use it has significant association with some of socio demographic characteristics, knowledge and attitude of the respondents. Further prospective studies with both qualitative and quantitative method of data collection is recommended.

**Keywords:** Challenges; VCT; HIV/AIDS

### Abbreviations

AIDS - Acquired Immune Deficiency Syndrome; ART - Anti-Retroviral Therapy; BCC - Behavioural Change Communication; BSc - Bachelor of Science; BSS - Behavioural Surveillance Survey; CBOs - Community-Based Organizations; CC - Community Conversation; CDC - Centre for Disease and Control; FDRE - Federal Democratic Republic of Ethiopia; FMOH - Federal Ministry of Health; HAPCO - HIV/AIDS Prevention and Control; HIV - Human Immunodeficiency Virus; IEC - Information, Education and Communication; MDs - Medical Doctors; MOH - Ministry Of Health; MPH - Master of Public Health; MSc - Master of Science; NAC - National AIDS Council; NGOs - Non-Governmental Organizations; OIs - Opportunistic Infections; PICT - Provider Initiative Counselling and Testing; PLWHA - People Living with HIV/AIDS; PMTCT - Prevention Mother-to-Child Transmission; SSM - Systematic sampling method; STIs - Sexually Transmitted Infections; TB - Tuberculosis; VCT - Voluntary Counselling and Testing; WHO - World Health Organization .

### Introduction

HIV/AIDS is a major public health problem, whether by it has an impact at national, community, and individual level since the first cases of AIDS report in 1981. And sub-Saharan Africa continues to bear a global burden of HIV infections and 38% of AIDS deaths [1].

Approximately 10% of the world population lives in sub-Saharan Africa, and yet, the region is a home to 64% of the world's people living with HIV [2]. In Ethiopia the 2005 national surveillance estimated that there are approximately 1,320,000 infected with HIV, the estimated national adult prevalence rate in 2005 to be 3.5% [3] and 2.1% in 2008 and the number of new adult infections is estimated to be 125,147 [2].

HIV voluntary counselling and testing has been shown to have a role in both prevention and promotion for people with HIV infection and also it provides people an opportunity to learn and accept their HIV sero- status in confidential environment with counselling and referral for an on going emotional support and medical care [4]. It is also an entry point to care and support and used as a preventive strategy for reducing HIV transmission, this has been evidenced in cohort study conducted in Nairobi Kenya, Tanzania and Trinidad and

Tobago, unprotected sexual intercourse declined by 35% and 39% among men and women VCT recipients, respectively [5].

The 2006 report AIDS in Ethiopia people between 15 -24years had the highest prevalence of HIV, 5.6% [3] and youths, college students and informal female sexual workers are at higher risk of contracting HIV/AIDS [6].

The study in Bahar-dar University, Butajira high school students indicated as the main challenges to use VCT are embarrassment, feeling guilty about sexual activity, fearful of needle stick injury, mistrust of the test, feeling unable to cope with the result, worrying about stigma/discrimination from peers, preference of professionals counsellors, anonymous way of testing; age, education; previous sexual experience, monthly incomes and in compliance to VCT national guideline [3,7,8].

The 2011 EDHS report on knowledge about HIV/AIDS, awareness of MOT and behaviours that prevent the spread of it showed as 97% of women and 99 % of men have heard of AIDS [9].

The study done in Butajira on 616 higher school students reported as about 97% of them had heard about VCT services but less than one fifth of them had undergone VCT, 82% of them were willing to undergo VCT and it shown as willingness to VCT was significantly associated with perceived susceptibility, perceived barrier and perceived benefit; and the main source of information was radio (97%) ,television (65%) friends (25%) and school (20%) and regarding their attitude and practice towards VCT, 118 (18.5%) had used VCT service and 82.5% of them were willing to undergo it, the reason for not being willing to undergo it were fear of anxiety ,possible positive result 50 (45.5%) , fear of stigma and discrimination 22 (19.6%) [10].

The study in Butajira revealed that participants have high level of knowledge and favourable attitude but low VCT practice. Overall, 52.8% of the study subjects have sufficient knowledge score and 81.2% have favourable attitude and 44% have good VCT practice [11].

The study in Uganda on college students showed as there is association between VCT service use and age, educational level, awareness about VCT, history of sexual exposure (12) and the study in Addis Ababa on higher school students indicated as VCT utilization was 15.8% [7].

The studies at Arbaminch, Addis Ababa, Butajira, Bahar-dar university, Dire Dawa, Oromia regional states indicated as the challenges to use VCT were either knowledge deficiency about VCT and HIV/AIDS or attitude /don't considering themselves at high risk for HIV/AIDS or lack of awareness about the service (practice) which are in turn affected by age ,sex ,educational level, monthly income, VCT service providers, location of VCT [4,9,10,13,14].

Access to VCT is key for successfully implementing anti-retroviral treatment and avoiding re-infection and transmission through behavioural changes [3,6].

## Methods and Subjects

Facility based cross-sectional study design with quantitative methods of data was conducted from April 1st to 15/ 2012 at Jimma University which is public higher educational institution established in December 1999 by the amalgamation of Jimma college of Agriculture

and Jimma institute of health sciences (established in 1983) on an area of 167hectares. College of Public Health and Medical Sciences was established in 1983 having 9 schools and 32 departments and trains professionals with BSc, MD, Clinical Specialty, MPH and MSc in various disciplines in line with the national development objectives as regular, extension summary and distance education for more than 32000 students from different part of the country [15].

The source population for this study were all regular under graduate students of Jimma University College of public health and Medical Sciences graduating class of academic year 2012 and the study population were all sampled regular under and those were graduate in June and September 2012 academic year and available during the study period selected using systematic random sampling technique using their attendance list as sampling frame.

Data was collected through self-administrated questionnaire using pre-tested structured questionnaire which has both close and open ended questions.

The quality of the data was assured by using validated pre-tested questionnaires. Prior to the actual data collection, pre-testing was done on 5% of the total study subjects .Data collectors were trained for half day intensively on the study instrument and data collection procedure that includes the relevance of the study, objective of the study, about confidentiality of the information and informed consent.

Data analysis was conducted using SPSS version 16.0. In addition to descriptive statistics, the chi-square test was employed to assess for associations between dependent and independent variables of the study to determine degree of association. P-value of < 0.05 considered significant and the results presented using tables, graphs, and charts.

Ethical approval letter for the study was granted from Jimma University College of public Health and Medical sciences department of Nursing. Informed consent will be received from all the participants after explaining the purpose of the study before distributing the questionnaire and it ensured during each activity of data collection. The respondents also were reassured on confidentiality of their responses during and after the study.

## Result

Of the total 238 study population the data was extracted from 219 those available during the study period and that makes the response rate 92.02%. The results are presented under subheadings as follows.

### Socio- Demographic Characteristics

As shown in table 1 majority 118(53.9%) of the respondents were in age group between 21-24 years and 182(83.1%) were males. As to the marital status, religion and ethnicity of respondents, 215 (98.2%) were single, 134(61.2%) were Christian by religion, majority 86(39.3%) were Oromo by ethnicity followed by Amahara 59(26.9%). Regarding to the departments, pocket money and history of change of residence of the respondents, 51(23.3%) of them were from Health officer department followed by Medical doctors 49(22.4%), 147(67.1%) had get pocket money greater than or equals to 344 birr per month and 103 (47.0%) had history of change of residence (Table 1).

Socio-demographic characteristics		Frequency	
		N(n=219)	%
Age	16-20 years	46	21
	21-25 years	118	53.9
	26-30 years	55	25.1
Sex	Male	182	83.1
	Female	37	16.9
	Total	219	100
Marital status	Single	215	98.2
	Married	4	1.8
Religion	Christian	134	61.2
	Muslim	72	32.9
	Other	13	5.9
Ethnicity	Oromo	86	39.3
	Ahamara	59	26.9
	Tigre	33	15.1
	SNNP*	41	18.7
Department	Medicine	49	22.4
	Pharmacy	31	14.2
	Anesthesia	12	5.5
	M.lab	28	12.8
	Densitery	13	5.9
	Nursing	35	16
Pocket Moneys/he get per month	>=344	147	67.1
	<344	72	32.9
Hx of residence change	Yes	103	47
	No	116	53

**Table 1:** Distribution of study population by their socio-demographic characteristics, JU, May 2012, SNNP\*=Kefa, Dewaro, Yem, Gurage

### Knowledge about VCT Service and Source of Information about VCT

Out of the total 219 interviewed respondents all of them had ever heard about VCT service and know what VCT means. In line with the source of information about VCT, majority 88(40.2%) were from radio followed by TV 62 (28.3%), 204(93.2%) of the participants were knew importance of HIV test, all of them knew where to get VCT service and 212(96.8%) knew as VCT utilization decrease risky sexual behaviour and HIV transmission.

Concerning the preferred health facility for VCT 196(89.5%) of the respondents were preferred NGO clinics. As to time when to use VCT

service and who have to use VCT services, 97(44.3%) were reported before marriage and 86 (39.3%) were indicated commercial sex workers respectively. From the total score of knowledge; knowledgeable and none knowledgeable level classified based on number of correct answers attained out of the six knowledge questions by converting in to percentage. Accordingly 215(98.2%) of respondents were knowledgeable (Table 2).

Variable		N(n=219)	%
Had ever heard about VCT service and know what it means	Yes	219	100
	No	0	0
Source of information about VCT	Radio	88	40.2
	TV	62	28.3
	Magazine	10	4.6
	School	32	14.6
	Health personal	20	9.1
Knowing oneself HIV status is important	Yes	204	93.2
	No	15	6.8
Know where to get VCT services	Yes	219	100
	No	0	0
Preferred health facility for VCT	Hospital	2	0.9
	HC	13	5.9
	NGO clinics	196	89.5
	Student clinic	8	3.7
When to have HIV test	At any time	43	19.6
	Before marriage	97	44.3
	When feel sick	8	3.7
	Before become pregnant	57	26
	For job/Visa	14	6.4
VCT utilization decrease risky sexual behavior and HIV transmission	Yes	212	96.8
	No	7	3.2
Who to use VCT	Every one	5	2.3
	Commercial Sex workers	86	39.3
	Youth	46	21
	Those had un protected sexual intercourse	73	33.3
	Couples before marriage	9	4.1
Knowledge about VCT	Knowledgeable	215	98.2

	Not Knowledgeable	4	1.8
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**Table 2:** Distribution of study population by their knowledge about VCT service and source of information, JU, May 2012, NB: Knowledge level was calculated from the six knowledge questions. Knowledgeable  $\geq 5/6$  and none knowledgeable  $< 5/6$

### Attitudes towards Utilization of VCT, Taste out Comes and Measured to be taken

The question with more than one possible response were asked regarding attitudes of respondents towards utilization of VCT, taste out comes/results and measured to be taken if result of the test become positive or negative.

Accordingly 144(65.8%) of the respondents were agree on abstain from sex, 157(71.7%) were agree on avoidance of marriage, 137(62.6%) were agree on avoidance of pregnancy, 214(97.7%) were agree on utilization of condom on any moment of sexual inter course.

As to the measurements to be taken if result of the test of partner become positive 172 (78.5%) of the respondents were agree to avoid having sex with her/him, 208(95.0%) were agree get start to use condom, 165(75.3%) were get married to limit their self, 213(97.3%) start to use condom on any moment of sexual intercourse, 211(96.3%) avoid pregnancy, 151(68.9%) avoid marriage From the total score of attitude; positive and negative attitude levels were classified. Accordingly 137(62.6 %) of respondents had positive attitude (Table 3).

Measured to be taken if result of the test become positive		N(n=129)	%
Abstain from sex	Agree	144	65.8
	Disagree	71	32.4
	Neutral	4	1.8
Avoid marriage	Agree	157	71.7
	Disagree	59	26.9
	Neutral	3	1.4
Avoid pregnancy	Agree	137	62.6
	Disagree	69	31.5
	Neutral	13	5.9
Use condom during inter course	Agree	214	97.7
	Disagree	2	0.9
	Neutral	3	1.4
Measured to be taken if result of the test of partner become Negative			
Avoid risky sexual behaviors	Agree	172	78.5
	Disagree	2	0.9
	Neutral	45	20.5
Start to use condom	Agree	208	95
	Disagree	1	0.5

	Neutral	10	4.6
Get married to limit my self	Agree	165	75.3
	Disagree	37	16.9
	Neutral	17	7.8
Measured to be taken if result of the test of partner become positive			
Start to use condom on any moment of sexual intercourse	Agree	213	97.3
	Disagree	1	0.5
	Neutral	5	2.3
Avoid pregnancy to prevent chance having infected child	Agree	211	96.3
	Disagree	0	0
	Neutral	8	3.7
Avoid marriage to decrease HIV rate	Agree	151	68.9
	Disagree	59	26.9
	Neutral	9	4.1
Respondents attitude	Positive	137	62.6
	Negative	82	37.4

**Table 3:** Distribution of study population by their attitudes towards utilization of VCT services, taste outcomes and measured to be taken, JU, May 2012

### Practice of VCT, view to disclose their Taste Results

Only 68(31.1%) of respondents were being tested, among those not being tested 140(92.7%) had willingness to be tested if it made available and those had willingness to use for themselves also had will to allow their partners to use it.

As to the readiness of the respondents to tell others about VCT services 171(78.1%) were ready to tell and 48(21.9%) were ready to disclose their test results (Table 4)

Variable	Frequency		
	N(n=219)	%	
Had ever tested	Yes	68	31.1
	No	151	68.9
Will to use VCT if made available	Yes	140	92.7
	No	11	7.3
	Total	151	100
Willingness to allow their partners to use VCT service if made available	Yes	140	92.7
	No	11	7.3
	Total	151	100
Readiness to tell others about VCT services	Ready	171	78.1
	Not ready	48	21.9

Ready to tell to other result of HIV test	Ready	48	21.9
	Not ready	171	78.1

**Table 4:** Distribution of study population by their practice of VCT services, JU, May 2012

**Challenges to use VCT**

This study also further identified the factors that influence VCT utilization. Accordingly the leading suggested factors that hinders it's was fear of the outcome of the result 114 (52.1%) followed by fear of the community attitude on those voluntary to use VCT 86(39.3%). The most suggested community attitude on those voluntary to use VCT service was bad attitude on the individuals 33(38.4%) followed by considering as the individual had HIV/AIDS 21(24.4%)

Also the most dominant factor affect its use in the respondents setting were fear of social stigma ,fear of the outcome, fear of rejection from( family, friends, partner) and others respectively (Table 5).

Variable		N(n=219)	%
Suggested factors that hinder VCT utilization	Afraid the out come	114	52.1
	Fear of the community attitude for those voluntary to use VCT	86	39.3
	In availability of VCT unit	4	1.8
	KAP	2	0.9
	I don't know the reason	13	5.9
The community attitude for those voluntary to use VCT	They think the individual has HIV/AIDS	21	24.4
	Develop bad attitude for the individual	33	38.4
	Point finger on her or him	20	23.3

	Consider as s/he has no confidence on her /him self	12	14
	Total	86	100
Factor affecting VCT use at the study setting	Fear of social stigma	116	53
	Fear of rejection from: Family, Friends, Partner	46	21
	Fear of the out come	53	24.2
	Others specify	4	1.8
	Total	219	100

**Table 5:** Distribution of challenging factors for VCT utilization among the study subjects, JU, May 2012

**Association between Dependent and Independent Variables**

Dependent and independent variables were cross tabulated with each socio demographic characteristics related factors and willingness to use VCT. There were statistically significant associations observed between age ( $\chi^2=6.797$ ,  $p=0.009$ ), Region ( $\chi^2=103.166$   $p=0.000$ ), pocket money s/he gets per month ( $\chi^2=52.294$ ,  $p=0.000$ ), history of residence change ( $\chi^2=39.322$ ,  $p=0.000$ ), attitude of the respondents ( $\chi^2=14.100$ ,  $p=0.000$ ),

On contrast there were no significant associations observed between sex, marital status, and ethnicity with willingness to use VCT service (Table 6).

Variables		Willingness to use VCT service						X2	P
		Will		Not will		Total			
Age group	18-20 years	0	0%	0	0%	0	0%	6.797	0.009
	21-25 years	85	88.50%	11	11.50%	96	100.00%		
	26-30 years	55	100%	0	0%	55	100.00%		
	>30 years	0	0%	0	0%	0	0%		
	<b>Total</b>	<b>140</b>	<b>92.70%</b>	<b>11</b>	<b>7.30%</b>	<b>151</b>	<b>100.00%</b>		
Religion	Christian	134	100.00%	0	0%	134	100.00%	1.0322	0
	Muslim	0	0%	4	100.00%	4	100.00%		
	Other specify	6	42.60%	7	53.80%	13	100.00%		
	<b>Total</b>	<b>140</b>	<b>92.70%</b>	<b>11</b>	<b>7.3%</b>	<b>151</b>	<b>100.00%</b>		
Pocket Money/s/he get per month	>=344	140	95.20%	7	4.80%	147	100%	52.294	0
	<344	0	0%	4	100%	4	100%		
	<b>Total</b>	<b>140</b>	<b>92.70%</b>	<b>11</b>	<b>7.3%</b>	<b>151</b>	<b>100.00%</b>		

History of residence change	Yes	24	68.60%	11	31.40%	35	100.00%	39,322	0
	No	116	100%	0	0%	116	100.00%		
	<b>Total</b>	<b>140</b>	<b>92.70%</b>	<b>11</b>	<b>7.3%</b>	<b>151</b>	<b>100.00%</b>		

**Table 6:** Association between age group, religion, pocket moneys/he get per month and history of residence change with willingness to use VCT service among the study subjects .JU, May 2012

## Discussion

Voluntary counselling and testing (VCT) for HIV is one of the strategies for HIV/AIDS prevention and yet, there is little information on what influences the services in Ethiopia (20).

From this study utilization of VCT service was low as only 68(31.1%) of the respondents were being tested even though 137(62.6 %) had positive attitude.

This finding was by half higher than what has been observed in the study conducted in Addis Ababa on higher school students in which VCT utilization was 15.8% and the study at Bahar-dar University in which 118 (18.5%) had used VCT service.

The likely expiations for this dissimilarity might be due to difference in study period, level of education of the study subjects involved, operationalisation of utilization and policy concern on the study area .

As to the knowledge, attitude and practice of respondents majority of them had knowledge, positive attitude and ready to practice if it was made available which was evidenced by 215(98.2%) had knowledgeable 137(62.6 %) had positive attitude, 140(92.7%) had willingness to be tested if it made available but the suggested factors as challenges to its low utilization were : fear of the outcome of the result, fear of the community attitude, fear of social stigma , fear of rejection from( family, friends, partner) .

This finding was higher than what has been observed at Bahar-dar University in which 118 (18.5%) had used VCT service and 82.5% of them were willing to undergo VCT and the suggested reasons for not being willing to undergo VCT was fear of anxiety ,possible positive result, fear of stigma and discrimination by the society, the study done in Butajira on six hundred sixteen higher school students in which about one fifth of them had undergone VCT 82% of the students were willing to undergo VCT and they have high level of knowledge and also favorable attitude but low VCT practice. Overall, 52.8% of the study subjects have sufficient knowledge score and 81.2% have favourable attitude but only 44% have good VCT practice and the study in Arbaminch in which the factors influence it were fear of the possible positive result, stigma and discrimination attached with HIV in the public and the study in Uganda in which the impact of stigma on current efforts, with consideration of confounding factors such as denial, fear and secrecy, which are major barriers to VCT service utilization in most settings.

The likely expiations for this dissimilarity might be due to difference in study period, level of education of the study subjects involved, operationalisation of utilization and policy concern on the study area .

This study further revealed the association between socio demographic characteristics and willingness to use VCT service and indicated as there were significant associations between age group,

religion, and pocket moneys/he get per month and history of residence change with willingness to use VCT service.

This finding was not different from what has been observed at Bahar-dar university in which the students have interest to VCT but their practice is low and as sex, age are statistical significant on use of it and what has been observed identified at Addis Ababa as there was significant association between age group, religion, and in come with willingness to use VCT service those age group between 15-24 years are particularly vulnerable to HIV because of strong influence of peer pressure and the development of their sexual and social identities and the study done in Butajira in which willingness to VCT was significantly associated with perceived susceptibility, perceived barrier and perceived benefit.

## Conclusion and Recommendations

This study showed utilization of VCT service was poor even though majority of respondents had knowledge, positive attitude. The significant predictors its utilization were: socio demographic characteristics and knowledge and attitude of the respondents. Further prospective studies with both qualitative and quantitative method of data collection are recommended.

## Competing Interests

There no financial and non-financial competing interests and the study was funded by the Jimma University. There have been no reimbursements, fees, funding, nor salary from any organization that depends on or influence the results of this study. The authors do not hold any stocks or shares in an organization that may in any way might be affected by this publication.

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