

Willingness To Seek Human Immunodeficiency Virus (HIV) Voluntary Counselling And Testing (VCT) Among Urban Residents in Osogbo, South-West Nigeria.

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ABSTRACT

Background/Objective

Sub-Saharan Africa is home to two-thirds of all people living with HIV/AIDS. Nigeria has the third highest population of People Living with HIV/AIDS (PLWHAs). Voluntary counselling and testing (VCT) is rapidly becoming an important component of HIV/AIDS prevention and care strategy. The objective of this study was to assess the knowledge and perception of HIV/AIDS and the factors that may affect willingness to seek VCT among residents of an urban community in Nigeria.

Methodology

A cross-sectional descriptive study was conducted in Osogbo, Nigeria. Structured questionnaires were used to gather information from 332 residents. A multistage sampling technique was used for the selection of respondents. A total of 350 houses were selected from the 26 wards.

Results

A high proportion (97.6%) of the respondents confirmed that they have heard of HIV/AIDS, 91.1% believed that AIDS is real. Knowledge of HIV/AIDS by the respondents was related to their level of educational attainment and their professions. Only 28.4% of the respondents are aware of VCT, but (66.9%) were willing to seek VCT services if the services are available; 66.7% confirmed that they would go ahead even if a fee is attached. However, 47.2% of those that think otherwise are scare of confidentiality, stigmatization and lack of fund. Willingness was also related to level of educational attainment, professionalism and age group.

Conclusion

Programme managers should ensure that councillors have good knowledge on how to alleviate the fear of clients. Counselling should be the first step and if necessary test should follow.

INTRODUCTION

Sub-Saharan Africa remains the most affected region with the people living with HIV/AIDS (PLWHAs); it was estimated that about 22.5 million [20.9 million-24.3 million] were the total number of PLWHAs compared to other region of the world. This regions, account for more than two-thirds (68%) of all people

infected with HIV/AIDS in the world¹.

In 1988, the National AIDS Control Program was established in Nigeria. The programme was expanded in 1991 to include sexually transmitted infections (STIs), and renamed the National AIDS and STD Control Program (NASCP). NASCP began to focus primarily on the health sector responses to HIV and

other STIs. It developed guidelines on key interventions, which included symptomatic management of STIs, VCT, prevention of mother-to-child transmission of HIV (PMTCT), management of HIV/AIDS which include treatment of opportunistic infections, administration of antiretroviral (ARVs) and home-based care. It also supported monitoring and surveillance of the epidemic². In Nigeria, HIV prevalence increased from 0.9% in 1986-1989, to 1.8% in 1991, to 4.5% in 1996. By 1999, 5.4% of people aged 15 to 49 years were infected². By the end of 2003, an estimated 100,000 AIDS cases had been officially reported in Nigeria³. Since then, all states have reported cases. The number of AIDS cases, however, represents only the clinically visible portion of the epidemic, as many more people are HIV infected than have received a clinical AIDS diagnosis. In addition, official reporting of HIV/AIDS is thought to represent only a fraction of actual cases, with estimates for 2003 of 1.5 million⁴. Osun state ranks among the states with the lowest prevalence rates of (2%)⁵. Because of the long incubation period of HIV infection, it is generally believed that the number of AIDS cases represents less than half of all those infected with HIV. United Nations Program on AIDS (UNAIDS) has predicted that the number of Nigerians infected will continue to rise through 2010⁵. Under the lower-prevalence scenario, the number would rise steadily, reaching a plateau of 5.5 million in 2010. In the higher-prevalence scenario, the number of infected people would continue to climb, reaching 8.4 million by 2015⁶.

VCT is the process whereby an individual or couple undergoes counselling to enable him/her/them to make an informed choice about being tested for HIV⁷. VCT is much more than drawing and testing blood and offering a few counselling sessions. It is a vital point of entry to other HIV/AIDS services, including prevention and clinical management of HIV-related illnesses,

Tuberculosis (TB) control, psychosocial and legal support, and prevention of mother-to-child transmission of HIV. VCT offers a holistic approach that can address HIV in the broader context of peoples' lives, including the context of poverty and its relationship to risk practice. VCT offers benefits to those who test positive *or* negative. VCT mitigates anxiety, increases clients' perception of their vulnerability to HIV, promotes behavioural change, facilitates early referral for care and support including access to ARV therapy and assists in reducing stigma in the community. An increasing number of countries are rapidly addressing the quality and quantity of care-related programs. Care-related activities include increased access to ARV therapy. VCT services must be made more widely available given this dynamic context and that access to care (including ARVs) requires people to know their HIV status⁷.

A study conducted in Uganda showed that interest in VCT is often "social", with clients showing interest in knowing their HIV status before getting married, embarking on a new relationship, or making plans for the future. Premarital testing has increased over time and no doubt explains the increasing parentage of couples who come together. "Medical" reasons for VCT, such as feeling ill or having symptoms of AIDS, are cited less frequently⁸. Another study from Zambia examined the readiness to utilize the VCT services offered to 4812 participants from rural and urban centers; 37% initially expressed willingness to use VCT service but only 3.6% actually came for VCT⁹. In another study conducted in Bahir Dar town, North western Ethiopia, about (83%) of the respondents know about whether one can check his/her HIV status or not, and an almost similar proportion knew where the VCT services were available. More than (94%) of the respondents felt that VCT service was necessary. Desire to know their HIV status and avoiding risk behavior are the two common reasons cited by the majority of

those who knew about the service¹⁰.

Several studies have assessed HIV/AIDS knowledge; attitude, practice and willingness to seek VCT services for HIV in different parts of Nigeria, most were conducted in rural areas or in health facilities to assess the role of VCT in the prevention of mother-to-child transmission of HIV^{11, 12}. There is a dearth of information regarding residents of the urban centers. The available data shows that Osun state has one of the lowest prevalence of HIV/AIDS in Nigeria. As at the time of this study Osogbo town have only two centers accredited for HIV test services located in the two government hospitals. Therefore, the main objective of this study was to assess the knowledge of HIV/AIDS and the factors that may affect the willingness to seek VCT among residents of Osogbo town in southwest Nigeria. The findings may help programme managers in understanding the limiting, as well as positive factors influencing a successful uptake of VCT services so that the current low level of prevalence can be maintained in the state.

MATERIALS AND METHODS

Study Design and Population:

Approval for the study was obtained from the institutional ethic and review committee of the Ladoke Akintola University of Technology, College of Health Sciences and Teaching Hospital, Osogbo, Nigeria.

The study was carried out among the residents in Osogbo metropolis of Osun state south west of Nigeria. Osogbo is divided into three local government areas (Osogbo local government with 14 wards, Olorunda local government with 11wards and Egbedore local government with only one ward within Osogbo). Osogbo is the state capital and the commercial nerve center of Osun state of Nigeria. Osogbo is situated 55km north-east of Ibadan, 100km south of Ilorin and 115km north west of Akure in Nigeria. It is situated on Latitude 7.7°N and on Longitude 4.5°E of Greenwich Meridian. Based on the 1991 census, Osogbo has a population of 191,494

which was calculated using 3% compound growth rate from 1991 census figure of 120,000. The town has one state teaching hospital which serves as referral center for the state, one general hospital and some primary health centers scattered around the town. Apart from the government owned centers, there are several private hospitals/clinics, traditional birth attendants, traditional healers and spiritualists. There was no designated VCT services center within the community at the time of this study. Referrals from all health centers are sent to the teaching and the general hospital where HIV testing services are available with fees attached. The survey was descriptive and cross-sectional in design. Inclusion criteria are adult males and females age of 18 years and above, and must be residing within Osogbo metropolis. An interviewer-administered questionnaire was used to collect data for the study using trained interviewers which included health workers especially medical students. Majority of the questions were close-ended, while a few questions were open-ended so as to allow respondents to provide further details on some of the issues.

Sample Size Determination:

Minimum sample size was calculated using Fisher's formula¹³ for cross-sectional study; where minimum size (N) = $\frac{Z^2 pq}{d^2}$, where p is the estimated proportion of respondents willing to seek VCT, an expected willingness to seek VCT level of 72.3% from the previous study¹⁴ and $q = 1-p$. At 95% level of confidence, $Z = 1.96$ and $d =$ error margin of 5%, a minimum sample size of 308 was obtained. We increased the sample size to 350 in anticipation of non-response to certain questions and the fact that we expected at least 10% of the total sample size in any cell generated in contingency tables.

Sampling Procedures:

A multistage sampling technique was used for the selection of respondents. After house

numbering, a total of 350 houses were selected from the twenty-six wards.

The houses sampled from the twenty-six wards were proportional to the number of houses in each ward. Therefore, 13, 12, 14, 15, 13, 13, 15, 13, 14, 13, 14, 13, 14, 13, 12, 15, 13, 15, 12, 13, 14, 13, 15, 12, 13 and 14 houses were selected from each ward using the systematic sampling technique with the starting point obtained using a random number table. Where = 1 household was found in a house, one was selected by a single one-time ballot. Finally, eligible adults in the sampled household were approached to participate in the study if they met the inclusion criteria. If = 1 eligible respondent was found in a selected household, one respondent was selected through balloting.

Instrument of study

A pretested, structured, interviewer administered questionnaire containing both open- and closed-ended questions was used. The questionnaire was adapted from the survey tools used in the Ndola HIV/AIDS demonstration project in Zambia¹⁵ and modified by Nigeria Institute of Medical Research for HIV/AIDS project in Nigeria. It was divided into three parts. The first section inquired about personal data, including age, occupation, ethnicity, religion and educational level. The second part elicited information about knowledge and perception

of the disease, modes of transmission and signs/symptoms of person living with HIV/AIDS. The third part inquired about willingness to seek HIV counseling and testing, as well as awareness of the existence of VCT.

Data collection and Strategies

The questionnaire was pretested and revalidated at Alekuwodo, Osogbo (an area in the town with similar characteristics to the study area, it is both business and residential). A few of the questions were removed and rephrased for clarity based on what we observed during the pretest. Households and individuals were enrolled into the study after obtaining their prior consent. Information was provided to all on the objectives of the study. Literate respondents indicated acceptance by signing the consent form, while illiterate participants used a thumbprint. Efforts were made to maintain privacy during interview and confidentiality of information was assured by omitting names of the study subjects from the questionnaire. Stationeries such as pencils, ball pens, rubber cleaners, glues and paper folders were given as an incentive for few respondents for their children if they indicate their interest.

Data Analysis

The *Epi-Info* software¹⁶ was used for data analysis. Frequency distributions were generated for all categorical variables. Chi

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency	Percentage (%)
Sex	N= 332	
Female	172	(51.8)
Male	160	(48.2)
Age Groups in (Years)		
< 20	14	(4.2)
20 - 29	154	(46.4)
30 - 39	88	(26.5)
40 - 49	47	(14.2)
50 - 59	25	(7.5)
60+	4	(1.2)
Religion		
Christianity	229	(68.9)
Islam	93	(28.1)
Indigenous	5	(1.5)
Other	5	(1.5)
Education		
Tertiary	163	(49.1)
Secondary	120	(36.2)
Primary	17	(5.1)
None	19	(5.7)
Others	7	(2.1)
Quoranic	6	(1.8)
Marital status		
Married	157	(47.3)
Never Married	155	(46.7)
Separated	9	(2.7)
Widowed	6	(1.8)
Divorced	5	(1.5)
Occupation		
Student	102	(30.8)
Professional	66	(19.8)
Petty-trader	58	(17.5)
Artisan	31	(9.3)
Unemployed	30	(9.0)

(b). Knowledge and perception about HIV/AIDS

Most of the respondents (97.6%) confirmed that they have heard of HIV/AIDS, and only 2.4% claimed otherwise. Concerning sources of information about HIV/AIDS, more than half (62.0%) and (34.3%) of the respondents identified electronic medias (television and radio respectively) as their major sources of information; 57.7% claimed health workers as their source of information. About the universal controversy whether HIV/AIDS is real or a myth?, majority of the respondents (91.1%) believed that HIV/AIDS

was real. Regarding the mode of transmission of HIV, 72.6% of the entire respondents believed that unprotected sex is the main source of transmission. While (31.1%) and (22.7%) also thought that blood contact/blood products and sharing of sharp skin-piercing objects respectively were the mode of transmission. More than half of the respondents (58.0%) claimed that they could not recognize someone with HIV/AIDS. However, 39.3% confirmed that they could identify someone with HIV/AIDS popularly known as 'slimming disease' (AIDS patients). Among the (39.3%) of the respondents who could recognize someone with HIV/AIDS, 68.5% believe that rapid loss of weight,

persistent cough (43.1%), and prolong diarrhoea (31.1%) were the signs of HIV/AIDS infection.

Overall, only (30.5%) of the respondents considered that they are at risk of HIV infection, while majority of the respondents (69.5%) thought otherwise. With respect to protective measures against HIV infection, 66.0% of the

respondents believed in avoidance of casual sex, while other cited use of condom (32.8%); avoidance of using unscreened blood/blood products (28.9%) and avoidance of sharing of sharp objects (15.8%). Regarding misconceptions

Table 2: Knowledge and perception about HIV/AIDS among respondents

Characteristics value	Frequency	Percentage(%)	p
Know and heard of HIV/AIDS	N= 332		
Yes	324	(97.6)	0.5931
No	8	(2.4)	
Source of regular information about HIV/AIDS	N= 324?		
Television	201		(6 2 . 0)
0.3517			
Health Workers	187	(57.7)	
Radio	111	(34.3)	
Relatives	106	(32.7)	
Newspaper	105	(32.4)	
Pamphlet/brochure	73	(22.5)	
Friends/neighbours	89	(27.5)	
Poster	49	(15.2)	
Other	25	(7.7)	
Feel that HIV/AIDS is real	N= 327		
Yes	298	(91.1)	0.1021
No	9	(2.8)	
Don't know	20	(6.1)	
Mode of transmission of HIV	N= 318?		
Unprotected sex	231	(72.6)	0.0153*
Blood Contact/blood products	99	(31.1)	
Sharp skin-piercing objects	71	(22.7)	
Pregnant mother to child	36	(11.3)	
Don't know	3	(0.9)	
Other	6	(1.9)	
HIV/AIDS person can be easily reorganized	N= 331		
Yes	130	(39.3)	0.5276
No	192	(58.0)	
Others	9	(2.7)	
State signs/symptoms indicate someone has HIV/AIDS	N= 130?		
Rapid loss of weight	89	(68.5)	0.7754
Persistent cough	56	(43.1)	
Prolonged diarrhoea	43	(33.1)	
Persistent fever	22	(16.9)	
Body rashes	8	(6.2)	
Thrush in the mouth/throat	6	(4.6)	
Itchy skin disease	3	(2.3)	
Others	5	(3.9)	
Feel at risk of HIV infection	N= 331		
Yes	101	(30.5)	0.0667
No	230	(69.5)	
Types of behavioural change made to avoid risk of HIV infection	N= 329?		
Abstain from casual sex	217	(66.0)	0.5318
Use condom	108	(32.8)	
Avoid the use of unscreened blood/blood products	95	(28.9)	
Avoid sharing sharp objects	52	(15.8)	
Avoid sex with prostitutes	43	(13.1)	

Multiple answers; Significant level $p = < 0.05^$.*

(c). Willingness to seek HIV Counselling and Testing

More than half (66.8%) of the respondents affirmed that they have not heard of VCT, and 28.4% were aware of the existent of VCT programme. It is not surprising that (35.5%) of the respondents thought of knowing their HIV status while a higher proportion (56.3 %) of the respondents did not think of knowing their HIV status. Majority of the respondents who did not think of knowing their status blame it on non availability of HIV/AIDS test services (72.3%), afraid of the outcome of test (69.6%), not sure of social acceptance if tested positive (57.1%), and 62.0% claimed they did not have the time. More than half (66.9%) of the respondents were willing to seek

HIV test if services are provided in their community, and 61.7% of these group would be willing to go ahead for HIV test even if fee is attached.

Small fraction of the respondents (10.9%) decline to seek HIV therapy if they tested positive even though anti-retroviral drugs is made available. The reasons given by the majority of these respondents for refusing to seek HIV therapy are fear of stigmatization or rejection (47.2%), no money to seek treatment (55.6%), fear of meeting a known person in the clinic (36.1%) and lack of privacy and confidentiality in clinics/hospitals (25.0%). Majority of the respondent would prefer the location of VCT service centers in private

Table 3. Willingness to seek HIV counselling and testing among respondents

Characteristics	N=	Frequency	Percentage(%)	p value
Known or heard of VCT for HIV	N= 331			
Yes	94	(28.4)		0.4167
No	221	(66.8)		
Others	16	(4.8)		
Thought of knowing your HIV status	N= 327			
Yes	116	(35.5)		0.7345
No	184	(56.3)		
Don't know/undecided	27	(8.3)		
If No, reasons	N= 184?			
HIV/AIDS test services not available around	133	(72.3)		0.0793
Afraid of outcome of test	128	(69.6)		
No time	114		(62.0)	
Unsure of social acceptance if HIV-positive	105	(57.1)		
No money	38	(20.7)		
Religious restraint	10	(5.4)		
Don't know	4	(2.2)		
Others	3		(1.6)	
Suppose HIV testing service is provided in your community, would you be willing to request for it?	N= 332			
Yes	222	(66.9)		0.0280*
No	90	(27.1)		
Don't know/undecided	20	(6.0)		
If yes, suppose cost is attached, would you still be Willing to request for it?	N= 222			
Yes	137	(61.7)		0.0176*
No	42	(18.9)		
Don't know/undecided	43	(19.4)		
Suppose you tested positive to HIV, would you be Willing to seek HIV therapy if available at the nearest medical; center?	N= 330			
Yes	252	(76.4)		0.3399
No	36	(10.9)		
Don't know/undecided	42	(12.7)		
If No, reasons	N= 36?			
No money to seek treatment	20	(55.6)		0.1372
Fear of social stigmatization or rejection	17	(47.2)		
Fear of meeting a known person at the clinic	13	(36.1)		
Lack of privacy and confidentiality in hospitals	9	(25.0)		
Attitude of health workers	2	(5.6)		
Others	7		(19.4)	
Preferred location for VCT services	N= 329?			
Private clinic	207	(62.9)		0.0324
Hospital	198	(60.2)		
Health center	63	(19.2)		

Multiple answers; Significant level $p = < 0.05^$*

(d). Predictors of willingness to seek VCT for HIV/AIDS

Significant predictors of willingness to seek VCT for HIV/AIDS include: age group, formal education and occupation (Table 4). Age group (20–29 years) have significant relationship with willingness to seek VCT (OR [95%CI] = 2.7[0.9–4.6]; p=0.041).

Respondents with tertiary level of education were more willing to seek VCT (OR [95%CI] = 4.3[1.9–6.8]; p=0.015) compared to other levels of formal education. With regard to occupation of the respondents, professional were more willing to seek VCT (OR [95%CI] = 3.1[1.7–5.6]; p=0.024), follow by students (OR [95%CI] = 2.3[1.5–3.3]; p= 0.029)

Table 4. Predictors of willingness to seek VCT for HIV/AIDS among 332 respondents

Predictor	Crude OR	Adjusted OR 95% CI)	p Value
Sex			
Male	1.0	Referent	-
Female	1.9	1.3(0.9–3.5)	0.137
Age			
< 20	1.0	Referent	-
20–29	3.4	2.7(0.9–4.6)	0.041*
30–39	2.1	1.9(0.8–3.7)	0.173
40–49	2.4	1.8(0.5–2.9)	0.181
50–59	1.8	1.2(0.7–2.2)	0.104
60+	1.2	1.0(0.5–1.9)	0.153
Education			
Quoranic	1.0	Referent	-
Primary	1.7	1.9(1.6–3.9)	0.103
Secondary	4.3	2.8(1.5–5.7)	0.021*
Tertiary	5.7	4.3(1.9–6.8)	0.015*
Occupation			
Farmer	1.0	Referent	-
Student	3.1	2.3(1.5–3.3)	0.029*
Trader	1.9	0.5(0.2–1.5)	0.351
Professional	4.3	3.1(1.7–5.6)	0.024*

Significant level p= < 0.05*

DISCUSSION

It is encouraging to note that in our study (97.6%) of the respondents have heard about HIV/AIDS. In addition, a high proportion of the respondents (91.1%) believed that HIV/AIDS was real. Our finding is higher than that of the National HIV/AIDS and Reproductive Health Survey¹⁷, this can be

attributed to the location of our study which is urban center where people have access to information. However, our finding of the knowledge of HIV/AIDS is similar to the study carried out in Lagos Nigeria¹⁸ and a similar study conducted in Bahir Dar town, Amhara National Regional State in Ethiopia¹⁰.

The high percentage of the awareness of HIV/AIDS by the respondents can be attributed to the health information disseminated through various avenues, 62.0% knew about HIV/AIDS through television, 37.7% through health workers, and 34.3% through radio. This finding is similar to study conducted in Ethiopia¹⁰. A high proportion of our respondents were familiar with HIV transmission through unprotected sex (72.6%), blood contact /blood products (31.1%), and sharing of sharp objects (22.7%). Our findings were in agreement with the results obtained by NARHS survey¹⁷; similarly, our figures were close to those reported in a study conducted in Lagos Nigeria¹⁸. It is quite obvious when majority of the respondents mentioned abstinence from casual sex, the use of condoms and avoidance of unscreened blood /blood products as an effective means of preventing the transmission of HIV/AIDS. However, the misconception about mosquitoes' bites and sharing of clothes and utensils with HIV patients as mode of transmission by a fraction of the respondents was also reported elsewhere¹⁹.

It is disturbing that more than half of the respondents (66.8%) in this community have not heard of VCT programme. Similarly, 56.3% of the respondents did not think of knowing their *HIV status*. When further probing question, why they disregard knowing their status, 72.3% of these group blame it on non availability of HIV/AIDS test services around, 69.6% were afraid of the outcome of test, 62.0% blame it on lack of time and 57.1% are unsure of social acceptance if tested positive.

More than half (66.9%) of the respondents were willing to seek VCT if the services are provided in their community. In a similar study conducted in Lagos¹², 96.1% of the respondents signify their willingness to undergo VCT; the high percentage obtained in Lagos study, can be attributed to the fact that the study was

conducted on a segment of the population, pregnant women attending antenatal clinics. However, the respondents willingness to seek VCT services in this study is higher than the results obtained in a similar study in Tanzania where only (33%) of the respondents were willing to seek VCT²⁰. It must be emphasised that the present study was based on intent to undergo testing rather than actual practice. A significant difference between intent and practice has already been established in studies in Zimbabwe²¹. However, only a study on actual HIV test rate, rather than willingness to undergo HIV testing, will provide a true basis for comparison. In the present study, one of the major predicting factors for the willingness to seek VCT was related to the level of educational attainment, other factors are occupation (students and professionals) and age group (20-29years). It is encouraging that (61.7%) of the respondents willing to seek VCT services would still go ahead for the services if cost is attached. In a pilot study conducted on young couples in rural areas of Western Kenya, 95% of participants would accept a free HIV test. However, when asked a small payment for the service (\$4 fee about Naira 560), the potential demand for the test reduces significantly down to 31-40%²². The high percentage of willingness to seek VCT with cost attached in our study could be due to the level of education of the respondents. In order to attain a higher participation, government/NGO should endeavor on their part to subsidize or make it a free service.

Our finding is similar to a high level of willingness to utilize the service as well as readiness to pay for service as reported in a survey that was conducted to assess barriers and concerns related to VCT and its utilization in Dire Dawa¹⁰.

Majority of the respondents (76.4%) in this study indicate their willingness to seek antiretroviral therapy if available at the nearest medical center if tested positive, 47.2% of those that declined attribute it to fear of

social stigmatization or rejection, 55.6% lack of fund, 36.1% fear of meeting familiar face in the clinic and 25% lack of privacy and confidentiality in the clinics/hospitals. The issues of stigmatization and confidentiality become obvious when (62.9%) and (60.2%) of the respondents prefer VCT services to be sited in private clinics and hospitals respectively rather than health centers, local government area and neighbourhood.

Some of the most serious barriers preventing more people from seeking VCT are fear of HIV/AIDS-related stigma, confidentiality, poverty and lack of awareness of VCT couple with insufficient VCT services in many countries, including Nigeria. Many people are concerned that they will become victims of discrimination and social marginalization if others find out they have undergone VCT, whether or not the results are positive. In order to ensuring privacy and confidentiality, VCT services providers may weigh the option of dropping the current practice of registering clients full names in favour of nicknames or other forms of anonymous testing that are used elsewhere in Africa and other parts of the world. It will ease the fears of stigmatization and thus increasing VCT service utilization. Government and NGO should at least make VCT services free and heavily subsidise the treatment aspect. Another way to overcome clients' fears is to promote the counselling aspects of VCT first, after reassurance if necessary move to the HIV test aspect which will helps relieve some of the anxiety clients may associate with the test.

Conclusions and Recommendations:

The study found that more than half of the respondents in the community had adequate knowledge of HIV/AIDS and majority were willing to seek VCT services if provided. As at the time of this study only two accredited HIV test centers with fees attached are available in the community. The high literacy

level of the respondents in the community strongly related to their willingness to seek VCT. Early awareness will alleviate fear of HIV/AIDS-related stigma, confidentiality and opening a window for a successful VCT services. Government/NGO should endeavor to open more VCT services centers in hospitals and empower private clinics to conduct VCT service by reimbursing them for services provided. In addition government/NGO should control the capacity building of the programme coordinators and counselors because of the sensitive nature of the VCT programme. Antiretroviral drugs should be heavily subsidized. Another way to overcome clients' fears is for counselors to promote the counseling aspects of VCT first rather than the HIV test, which will helps to relieve the anxiety that potential clients may associate with testing. Finally, the development of password-protected databases of information so that information on HIV-testing and results can be maintained confidentially and separated from main health records of clients.

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REFERENCES

1. United Nations Program on AIDS/World Health Organisation (UNAIDS/WHO). AIDS epidemic update: December 2005. http://unaids.org/worldaidsday/2005/press/update2005_en.doc. Accessed. July/09.
2. Nasidi A., Harry TO. The epidemiology of HIV/AIDS in Nigeria.

- Federal Ministry of Health, Abuja, Nigeria. FMOH. 2004.
3. United Nations Program on AIDS (UNAIDS). *Report on the Global AIDS Epidemic*. Geneva: UNAIDS. 2004. <http://www.unaids.org>. Accessed. 10/10/09
 4. United Nations Program on AIDS/World Health Organisation (UNAIDS/WHO). *Epidemiological Fact Sheet Nigeria, Update 2004*. Geneva: UNAIDS. 2004. <http://www.unaids.org>. Accessed. 10/10/09.
 5. Federal Ministry of Health [FMOH]. *National HIV Seroprevalence Sentinel Survey*. Abuja: Federal Ministry of Health. 2005.
 6. United Nations Program on AIDS (UNAIDS). *AIDS in Africa: Three Scenarios to 2025*. Geneva: UNAIDS. 2005. <http://www.unaids.org>. Accessed. 09/12/09
 7. Family Health International. *Evaluating HIV counseling and testing in evaluating programs for HIV/AIDS prevention and care in developing countries: A handbook for program managers and decision-makers*. Arlington, VA: Family Health International, 2002.
 8. United Nations Program on AIDS (UNAIDS). Knowledge is power: voluntary HIV counselling and testing in Uganda, A Case study. 1999. <http://www.unaids.org>.
 9. Rosenvard K. Readiness for HIV counseling and testing in a country with extremely high HIV prevalence rate. Presented at XXI International Conference on HIV/AIDS, Geneva, Switzerland: Abstract 33261. 1998.
 10. Michael Dejene.. Study on factors affecting accessibility and acceptability of voluntary counseling and testing services for HIV/AIDS in Bahir Dar town, north western Ethiopia. 2001.
 11. Igwegbe AO., Ilika AL. Knowledge and perceptions of HIV/AIDS and mother to child transmission among antenatal mothers at Nnamdi Azikiwe University Teaching hospital, Nnewi. *Nig J Clin Pract*. 2005.; 8:97-101
 12. Ekanem EE., Gbadegesin A. Voluntary counseling and testing for human immunodeficiency virus: a study on acceptability by Nigerian women attending antenatal clinics. *Afr J Rep. Health*. 2004; 8:91-100.
 13. Lwanga S., Lemesho, S. Sample size determination in health studies: a practical manual, Geneva, WHO. 1991; 3: 78-80.
 14. Iliyasu Z., Abubakar IS., Kabir M., Aliyu MH. Knowledge of HIV/AIDS and attitude towards voluntary counseling and testing among adults. *J. Nat., Med., Assoc*. 2006; 98(12):1917-1922.
 15. Population Council. Ndola HIV/AIDS demonstration project in Zambia. www.popcouncil.org/horizons/index/html. Accessed 06/13/05.
 16. Dean AG., Burton AH., Dicker RC. Epi Info Version 6. A word processing, data base and statistics program for epidemiology on