



Trends in
Medical Research

ISSN 1819-3587



Academic
Journals Inc.

www.academicjournals.com

Awareness and Knowledge of HIV Counselling and Testing among Adults of Reproductive Age in Osun State Nigeria

¹E.O. Amu and ²K.T. Ijadunola

¹Department of Community Medicine, Ekiti State University Teaching Hospital, Ado-Ekiti, Nigeria

²Department of Community Health, Obafemi Awolowo University, Ile-Ife, Nigeria

Corresponding Author: Eyitope O. Amu, Department of Community Medicine, Ekiti State University Teaching Hospital, Ado-Ekiti, Nigeria Tel: +234 806 254 2742

ABSTRACT

This study assessed the level of awareness and knowledge of HIV Counselling and Testing (HCT) among adults of reproductive age in Osun State with the aim of providing a background for a study on HCT uptake. Three Local Government Areas (LGAs), namely Atakumosa West, Olorunda and Ayedaade were randomly selected for the study which employed both quantitative and qualitative methodologies. The quantitative survey employed an analytical cross-sectional design using an interviewer-administered, semi-structured questionnaire to elicit information from 720 male and female respondents of reproductive age group. The qualitative aspect consisted of twelve Focus Group Discussions in all, four conducted in each of the LGAs. The data were analysed using descriptive and inferential statistics and the results of both the qualitative and quantitative methods were triangulated. The results showed that 84.0% of the respondents were aware of HCT. Thirty seven percent had correct understanding, 88.4% knew where it could be accessed while 89.6% knew that HCT was beneficial. The knowledge of HIV status and access to early treatment were the most important benefits reported. Sixty-one percent of the respondents had fair knowledge of HCT. The study concluded that adults of reproductive age in Osun State had fair knowledge of HCT.

Key words: HIV counselling, HIV knowledge, adults of reproductive age

INTRODUCTION

Acquired Immunodeficiency Syndrome (AIDS) has had devastating effects on the world's population, particularly people in sub-Saharan Africa (Nasidi *et al.*, 1986). Even though the prevalence is low in comparison with some South African countries, Nigeria now ranks second among sub-Saharan African nations in the number of Human Immunodeficiency Virus (HIV) infected adults due to its large population (UNAIDS, 2004).

HIV counselling is a confidential process that enables a person to assess his or her relative risk of acquiring or transmitting the virus. HIV counselling and testing is now recognized as a priority in national HIV programmes because it forms the only gateway to HIV/AIDS prevention, treatment, care and support interventions (World Health Organization, 2004). Despite the fact that HCT centres have increased in number and coverage over the last few years in Nigeria, uptake has been consistently poor. Statistics show that HIV has spread extensively in urban and rural areas of Nigeria with a person becoming infected with HIV every minute (FMH, 2003; UNAIDS and WHO, 2004). In Nigeria, a high percentage of people are unaware of their status. In the twelve

months preceding the 2003 Nigerian Demographic and Health Survey (NDHS) only three percent of women and six percent of men of reproductive age had themselves tested and obtained results, in the six geo-political zones of the country (NPC, 2004). The 2005 National HIV/AIDS and Reproductive Health Survey (NARHS) showed that only 11% of females and 12% of males had ever taken the HIV test (FMH, 2006). A study among junior secondary school students in the country showed that 21% of them had ever been tested for HIV (FME, 2006). The 2008 NDHS reported that only seven percent of women and seven percent of men had themselves tested and obtained results, in the six geo-political zones of the country, in the twelve months preceding the survey (NPC, 2009).

Some studies have linked HCT uptake with people's knowledge of HIV/AIDS transmission and prevention (FMH, 2006, 2008). However very few studies have explored the relationship between people's knowledge of HCT itself and HCT uptake. One wonders whether people are knowledgeable about HCT and if their knowledge of HCT could in any way influence their uptake. This study is therefore aimed at assessing the level of awareness and knowledge of HCT among adults of reproductive age in Osun State, Nigeria as a baseline to further studies on HCT uptake in the area.

MATERIALS AND METHODS

The study was conducted in three out of the 30 LGAs in the state. Each of these LGAs was randomly selected from each of the three senatorial districts of the state. These were Atakumosa West LGA from Osun East, Ayedaade LGA from Osun West and Olorunda LGA from Osun Central senatorial districts. The study employed an analytical cross-sectional design using both quantitative and qualitative methods. A minimum sample size of 225 was estimated by employing the sample size formula for estimation of a single proportion as described by Armitage and Berry and cited in Abramson and Gahlinger (1999). However, 240 participants were eventually interviewed from each of the three Local Government Areas making a total of 720 respondents. Multistage sampling technique was used to recruit respondents. The sampling frame consisted of all the three senatorial districts of the state, each consisting of ten LGAs. One of the LGAs was randomly chosen per senatorial district by balloting. From each selected LGA four wards were randomly selected from the lists of constituent wards three for quantitative survey and one for Focus Group Discussion (FGD). From each selected ward, eight streets were randomly selected from the list of constituent streets. From each selected street, 10 houses were randomly selected from the list of constituent streets. From each selected house, one respondent was randomly chosen from the list of all the eligible respondents. A semi-structured questionnaire that was first translated into Yoruba and later into English to ensure content validity was used. They were given to each respondent by research assistants who were recruited and trained. The questionnaire elicited information about respondents' knowledge of HCT. The qualitative aspect consisted of 12 Focus Group Discussion (FGD) sessions conducted with a FGD Guide. Permission to carry out the research was obtained from the Primary Health Care Directors of the LGAs in which the study was conducted. A verbal informed consent was obtained from the respondents prior to data collection. Quantitative data generated were analysed using the Statistical Package for Social Sciences version 15 (SPSS 15, Chicago Illinois). Descriptive statistics were used to present respondents' socio-demographic variables and knowledge of HCT. Respondents who reported HCT to be 'information and counselling given to people before and after asking them to test for HIV' were categorized to have 'correct' knowledge of HCT; those that reported HCT to be 'information given about family planning' and 'information given about sickle cell disease' were categorized to have 'incorrect'

knowledge; while those that had no idea were categorized to have ‘no’ understanding of HCT. To determine the knowledge score of each respondent about HCT, weights (scores) were attached to the responses of certain questions from the questionnaire that would inform the respondent’s knowledge. Maximum score obtainable was 4 points. Respondents that scored 4 points were categorized as having a good knowledge, those that scored 2-3 points were categorized as having fair knowledge, while those that scored 1 point and below were categorized as having poor knowledge of HCT. Focus Group Discussion data were analysed using detailed content analysis. This research was approved and informed consent was obtained.

RESULTS

Figure 1 shows the awareness about HIV/AIDS and HCT among adults of reproductive age in Osun State. Overall, awareness of HIV was 99.0% while awareness of HCT was 84.2%. Awareness of HIV and HCT were lowest in Atakumosa West LGA but highest in Olorunda LGA, respectively. All the FGD participants across the different categories in the three LGAs corroborated the high level of HIV/AIDS awareness and lower level of HCT awareness. Virtually all FGD participants reported thus ‘We have heard that HIV/AIDS is an incurable, bad and serious blood borne disease transmitted through blood contact and commonly through sexual intercourse’. However, between seven and eight out of ten participants in each of the 12 FGD groups ascertained thus ‘We have heard about a test that can be used to know whether one has the virus or not, but whether there is counselling or not, we do not know’. Some said the test was popular and accepted in their communities while others said even though people had heard about the test, it was not popular.

The sources of respondents’ information about HIV/AIDS among adults of reproductive age in Osun State are shown in Table 1. The most popular source of information in the three LGAs was the electronic media (93.5%). This was followed by public enlightenment campaign (23.5%) and health workers (22.5%).

All FGD participants also corroborated the fact that the electronic media was their main source of information about HIV/AIDS followed by public enlightenment campaigns. They all had this to say: ‘Information about HIV/AIDS usually gets to us through the mass media (radio and television) and public enlightenment campaigns. We also hear about it from the hospital and friends. Table 2 shows the sources of information about HCT. The most popular source was equally the electronic media (67.8%) followed by health workers (26.5%) and public enlightenment campaigns

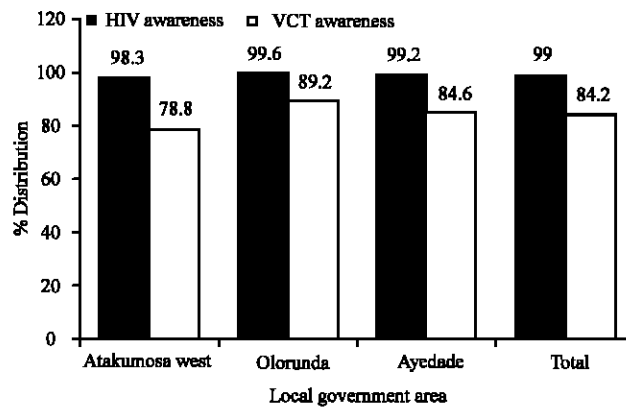


Fig. 1: Awareness of HIV and HCT among adults of reproductive age, Osun State, 2008

Table 1: Sources of information about HIV/AIDS among adults of reproductive age in Osun State, 2008

Source of information	Local government areas			Total (n = 720) freq. (%)*
	Atakumosa west (n = 240) freq. (%)*	Olorunda (n = 240) freq. (%)*	Ayedaade (n = 240) freq. (%)*	
Electronic media	226 (94.2)	222 (92.5)	225 (93.8)	673 (93.5)
Public enlightenment campaign	66 (27.5)	61 (25.4)	42 (17.5)	169 (23.5)
Health workers	59 (24.6)	50 (20.8)	53 (22.1)	162 (22.5)
Friends/Relations	42 (17.5)	46 (19.2)	49 (20.4)	137 (19.0)
Newspaper	30 (12.5)	39 (16.3)	28 (11.7)	97 (13.5)
Others (school, church, mosque)	13 (5.4)	9 (3.8)	22 (9.2)	44 (6.1)

*There were multiple responses

Table 2: Sources of information about HCT among adults of reproductive age in Osun State, 2008

Source of information	Local government areas			Total (n = 720) freq. (%)*
	Atakmosa west (n = 240) freq. (%)*	Olorunda (n = 240) freq. (%)*	Ayedaade (n = 240) freq. (%)*	
Electronic media	154 (64.2)	168 (70.0)	166 (69.2)	488 (67.8)
Health workers	68 (28.3)	72 (30.0)	51 (21.3)	191 (26.5)
Public enlightenment	37 (15.4)	38 (15.8)	36 (15.0)	111 (15.4)
Friends/Relations	10 (4.2)	23 (9.6)	15 (6.3)	48 (6.7)
Newspaper	13 (1.8)	20 (8.3)	14 (5.8)	47 (6.5)
Others (school, church, mosque)	7 (2.9)	17 (7.1)	5 (2.5)	30 (4.2)

*There were multiple responses

Table 3: Understanding of HCT by adults of reproductive age in Osun State, 2008

Respondents' understanding of what HCT is	Local	Government	Areas	Total freq. (%)
	Atakumosa west freq. (%)	Olorunda freq. (%)	Ayedaade freq. (%)	
Correct	89 (37.1)	84 (35.0)	95 (39.6)	268 (37.2)
Incorrect	65 (27.1)	87 (36.3)	72 (30.0)	224 (31.1)
No idea	86 (35.8)	69 (28.8)	73 (30.4)	228 (31.7)
Total	240 (100)	240 (100)	240 (100)	720 (100)

(15.4%). The respondents' understanding of HCT is shown in Table 3. On the whole, only 37.2% of the respondents had correct understanding of HCT. The others either had incorrect or no understanding of HCT as shown in the Table 3. Most respondents that had correct understanding of HCT were from Ayedaade LGA (39.6%) while the least were from Olorunda LGA (35.0%). The FGDs also showed that most of the participants did not have correct understanding of HCT. While almost all of them knew that it was a blood test performed to confirm the presence of HIV virus in a person, they neither knew the counselling aspect nor the fact that it should be voluntary. Table 4 shows the reported places where HCT could be accessed. The most popular place mentioned across all the LGAs was government hospitals (78.8%) while the least mentioned was maternity centres (1.1%). Respondents who had no idea at all about where HCT could be accessed were 14.2%. Respondents from Atakumosa were less likely to know where HCT could be accessed compared with those from the other LGAs.

Table 4: Reported places where HCT could be accessed by adults of reproductive age in Osun State, 2008

Reported places of HCT access	Local government areas			
	Atakumosa west (n = 240) freq. (%)*	Olorunda (n = 240) freq. (%)*	Ayedaade (n = 240) freq. (%)*	Total (n = 720) freq. (%)*
Government hospitals	187(77.9)	187(77.9)	193 (80.4)	567 (78.8)
Private hospitals	27 (11.3)	53 (22.1)	49 (20.4)	129 (17.9)
Private laboratories	11 (4.6)	18 (7.5)	7 (2.9)	36 (5.0)
Other places (school, church)	10 (4.2)	18 (7.5)	6 (2.5)	34 (4.7)
Maternity centres	3 (1.3)	4 (1.7)	1 (0.4)	8 (1.1)
No idea	42 (17.5)	30 (12.5)	30 (12.5)	102 (14.2)

*There were multiple responses

Table 5: Disease that HCT is used to screen for as reported by adults of reproductive age in Osun State, 2008

Disease that HCT is used to screen for	Local government areas			
	Atakumosa west freq. (%)*	Olorunda freq. (%)*	Ayedaade freq. (%)*	Total freq. (%)*
HIV/AIDS	147 (61.3)	173 (72.1)	168 (7.0)	488 (67.8)
Malaria	19 (7.9)	22 (9.2)	23 (9.6)	64 (8.9)
Tuberculosis	7 (2.9)	1 (0.4)	4 (1.7)	12 (1.7)
Sickle cell disease	4 (1.7)	3 (1.3)	2 (0.8)	9 (1.3)
Other diseases	22 (9.2)	28 (11.7)	25 (1.4)	75 (1.4)
No idea	41 (17.1)	13 (5.4)	18 (7.5)	72 (1.0)
Total	240 (100)	240 (100)	240 (100)	720 (100)

Table 6: Opinion of adults of reproductive age in Osun State about whether HCT has benefits or not

LGAs	HCT is beneficial freq. (%)	HCT is not beneficial freq. (%)	No idea freq. (%)	Total freq. (%)
Atakumosa west	214 (89.2)	10 (4.2)	16 (6.6)	240 (100)
Olorunda	218 (90.8)	14 (5.9)	8 (3.3)	240 (100)
Ayedaade	213 (88.8)	18 (7.5)	9 (3.8)	240 (100)
Total	645 (89.6)	42 (5.8)	33 (4.6)	720 (100)

Table 5 shows respondents' knowledge about the disease that HCT is used to screen for. Most of the respondents (67.8%) correctly reported that HCT was used to screen for HIV/AIDS. The highest proportion of respondents who had this correct knowledge was from Olorunda LGA (72.1%) while the least proportion was from Atakumosa West (61.3%). Overall, 10.0% of the respondents had no idea at all about the disease that HCT was used to screen for, the majority of these came from Atakumosa West LGA. Table 6 shows respondents' opinion about whether HCT has benefits or not. Across the LGAs, 89.6% of the respondents were of the opinion that HCT had benefits, while only 4.6% had no idea whether it has benefits or not. Table 7 shows reported benefits of HCT by respondents. The most commonly reported benefit was helping to know one's HIV status (64.4%) while the least reported was reduction of stigmatization (1.7%). Forty six respondents (6.4%) could not mention any benefit of HCT.

Figure 2 shows the level of knowledge of HCT among adults of reproductive age in Osun State. It showed that 23.0, 61.0 and 16.0% of the respondents had good, fair and poor knowledge of HCT, respectively.

Table 7: Reported benefits of HCT by adults of reproductive age in Osun State, 2008

Reported benefits of HCT	Local	Government	Areas	Total freq. (%)
	Atakumosa west freq. (%)	Olorunda freq. (%)	Ayedaade freq. (%)	
Helps to know HIV status	135 (56.3)	158 (65.8)	171 (71.3)	464 (64.4)
Helps to access early treatment	37 (15.4)	40 (16.7)	34 (14.2)	111 (15.4)
Gives complete and accurate information about HIV/AIDS	24 (10.0)	15 (6.3)	5 (2.1)	44 (6.1)
Promotes safer sex	16 (6.7)	13 (5.4)	12 (5.0)	41 (5.6)
Helps to reduce stigmatization	8 (3.3)	0 (0.0)	4 (1.7)	12 (1.7)
No idea	20 (8.3)	13 (5.4)	13 (5.4)	46 (6.4)
Total	240 (100)	240 (100)	240 (100)	720 (100)

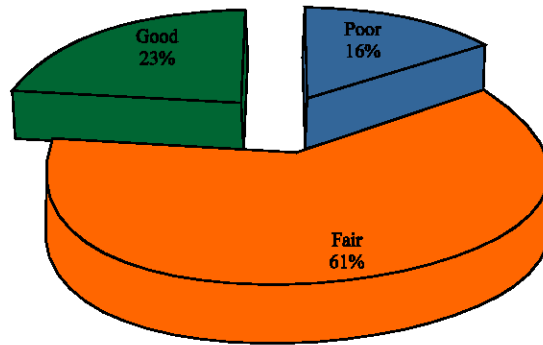


Fig. 2: Level of knowledge of HCT among adults of reproductive age, Osun State, 2008

DISCUSSION

There was a high level of awareness of HIV/AIDS (99.0%) in this study. The first three sources of information about HIV/AIDS in decreasing order of importance were the electronic media, public enlightenment campaigns and health care workers. Previous researches conducted within the country also corroborated this finding. In two national studies, HIV/AIDS awareness was 94 and 91% (nationally) and 97 and 95% (in the South West), respectively (FMH, 2008; NPC, 2009). The fact that people are aware of HIV/AIDS has not translated into correct knowledge of transmission and prevention of the disease because there are still a lot of misconceptions about it and HCT uptake is still poor. Awareness of HCT (84%) was lower than that of HIV/AIDS. The commonest sources of information were the electronic media, health care workers and public enlightenment campaigns.

This was however higher than those of other studies found in peer reviewed literature. The cross-sectional study among 1,280 migrants in Shanxi province of China reported that 56.6% of the respondents were aware of HCT (Zhang *et al.*, 2007). Also, a study among 804 women attending antenatal clinics in Ogun State Nigeria reported a much lower HCT awareness of 30.3% (Adeneye *et al.*, 2006, 2007).

HCT was relatively unpopular until about a few years ago when the Prevention of Mother-to-Child Transmission (PMTCT) programme was commenced in ante-natal clinics of government hospitals. It also received much media publicity after the celebration of the 2006 World AIDS day when everybody was encouraged to know his/her status. Prior to this period, HIV testing was limited to health care settings and doctors only sent patients suspected to be HIV positive for

test. In addition, such tests were mandatory rather than voluntary. The availability of rapid HIV/AIDS test kits has also increased HCT awareness. The use of these kits does not require the availability of laboratory or highly technical staff and test results are obtained within a few minutes of undergoing the test. Owing to the fact that they can be made readily available at seminars and public enlightenment campaigns, more people have become aware of HCT.

Just over a third (37.2%) of the respondents had correct understanding of HCT. Most people were only aware of HIV test but did not know the details of what was involved. They did not know that it was voluntary meant for everybody whether healthy or not and that counselling was involved. They probably felt that it was just like any other test performed when one is ill. Even though a majority of the respondents had either incorrect or no understanding of what HCT was about, most of them knew where the services could be accessed. The most popular places mentioned in decreasing order of importance were government hospitals, private hospitals and private laboratories. This was expected because most people knew that blood tests are performed in hospitals or laboratories. Only about a tenth of the respondents had no idea of where HCT services could be obtained. This was in contrast to the result of Okpala *et al.* (2006) in which only 38.9% of the respondents knew where they could obtain HCT services. Well over a half (67.8%) of the study respondents knew what disease HCT was used to screen for and almost all of them knew that HCT was beneficial. A household survey of residents in an urban town in South Western Nigeria showed that a lower percentage of the respondents (58.4%) knew that HCT was beneficial (Adeneye *et al.*, 2006). Overall, approximately one-fifth of the respondents had good knowledge of HCT, while most of them (61%) had fair knowledge. This result contrasts with that observed by Okpala *et al.* (2006) in his study among women in South East Nigeria in which 47.9% of respondents had good knowledge of HCT and that observed by Abubakar (2008) among youths in Plateau State in which 50.5% of the respondents had good knowledge of HCT.

ACKNOWLEDGMENT

The authors are thankful to the health educators and people of Atakumosa West, Ayedaade and Olorunda local government areas for providing the necessary assistance in carrying out this research.

REFERENCES

- Abramson, J.H. and P.M. Gahlinger, 1999. Computer Programs for Epidemiologists (PEPI) Version 3.01. Brixton Books, Llanidloes, UK.
- Abubakar, M., 2008. Impact of health campaign on knowledge, attitude and practice of VCT among young people in Dengi community, Plateau State. M.Sc. Thesis, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Adeneye, A.K., P.S. Ogunro, T.O. Ogungbamigbe, P.O. Elemile, O.A. Olowu, A.A. Adeneye and M.A. Mafe, 2006. Willingness to seek voluntary HIV counselling and testing (VCT) among urban residents in South-West Nigeria. Proceedings of the 16th International AIDS Conference, August 13-18, 2006, Toronto, Canada.
- Adeneye, A.K., W.R. Brieger, M.A. Mafe, A.A. Adeneye and K.K. Salami *et al.*, 2006-2007. Willingness to seek HIV testing and counselling among pregnant women attending antenatal clinics in Ogun State, Nigeria. *Int. Q. Commun. Health Educ.*, 26: 337-353.
- FMH, 2003. National HIV seroprevalence sentinel survey among the antenatal clinic attendees. Federal Ministry of Health Nigeria, Abuja, Nigeria.

- FMH, 2006. National HIV/AIDS and reproductive health survey, 2005. Federal Ministry of Health Nigeria, Abuja, Nigeria.
- FME, 2006. National survey on HIV/AIDS knowledge, attitudes, practices, skills and school health in Nigeria. Federal Ministry of Education Nigeria, Abuja, Nigeria.
- FMH, 2008. National HIV/AIDS and reproductive health survey, 2007. Federal Ministry of Health Nigeria, Abuja, Nigeria.
- NPC, 2004. Nigerian demographic and health survey, 2003. National Population Commission (NPC) and ORC Macro, Calverton, MD., USA. http://www.measuredhs.com/pubs/pdf/GF5/nigeria_2003_generalfactsheet.pdf
- NPC, 2009. Nigerian demographic and health survey, 2008. National Population Commission (NPC) and ORC Macro, Calverton, MD., USA. <http://www.measuredhs.com/pubs/pdf/OF12/OF12.SW.1.english.pdf>
- Nasidi, A., T.O. Harry and O.O. Ajose-Coker, 1986. Evidence of LAV/HTLV III infection and AIDS-related complex in Lagos, Nigeria. Proceedings of the 2nd International AIDS Conference, June 23-25, 1986, Paris, France.
- Okpala, P.U., U.E. Ebenebe and C.C. Ibeh, 2006. Voluntary counseling and testing among African women. http://www.valleyaids.org/Presentations/VOLUNTARY_COUNSELLING_AND_TESTING_AMONG_AFRICAN_WOMEN.ppt
- UNAIDS and WHO, 2004. Epidemiological fact sheet on HIV/AIDS and sexually transmitted infections. UNAIDS and WHO, Geneva, Switzerland. http://data.unaids.org/Publications/Fact-Sheets01/malawi_en.pdf
- UNAIDS., 2004. Report on the global AIDS epidemic. Geneva, Switzerland.
- World Health Organization, 2004. Rapid HIV Tests: Guidelines for use in HIV Testing and Counselling Services in Resources-Constrained Settings. World Health Organisation, Geneva, Switzerland.
- Zhang, J.L., N. He, X.W. Shen, S.X. Qin, M.Y. Gao, J.G. Wei and Q.W. Jiang, 2007. Correlates of and willingness to participate in HIV voluntary counselling and testing among migrants in a city of Shanxi province. *Zhonghua Liu Xing Bing Xue Za Zhi*, 28: 350-353.