KNOWLEDGE AND UTILIZATION OF HIV COUNSELLING AND TESTING (HCT) AMONG ADOLESCENTS IN ONDO STATE, NIGERIA

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ABSTRACT

Adolescents form a large proportion of any country's population and economic strength. In Nigeria, it has been discovered that half of new HIV infections are largely contributed by adolescents in their late teens (15-19) through to age 25. This study assessed the knowledge and utilization of HIV counselling and testing (HCT) among adolescents in Ondo State, Nigeria. Cross-sectional designed was adopted for this study and the total population of 710 was used. The instrument used for this study is semi-structured standardized questionnaire adopted from WHO on HCT services with a reliability score of 0.78 and only 649 questionnaires was retrieved and analysed using the Statistical Package for Social Sciences (SPSS) version 21. Results were presented using descriptive statistics such as frequencies, percentages and charts. Hypotheses tested with Chi square at 5% level of significance. Findings show that the *knowledge and utilization of HIV counselling and testing (HCT) among participants is very poor. The factors influencing utilization are stigmatization, fear and ignorance. The result of the hypotheses tested reports that the place of residence is the only socio-demographic characteristic that has a significant association with the use of HCT service among adolescents, and there are significant association between participants of who have ever had sex, who have ever has blood transfusion, who has the initiative and use of HCT services respectively. In conclusion, there is the need for a better integration of HCT services into educational programs.*

Keywords: HCT knowledge: adolescents: HCT service utilization: Nigeria.

INTRODUCTION

Human Immunodeficiency Virus (HIV) has remained the longest human pandemic. Since the discovery of the disease, there has been a gradual global spread of the infection with the greater burden of the disease being found in Sub-Sahara Africa (Osazuwa et al., 2012). The World Health Organization (WHO) global prevalence report among adults in 2014 and 2011 remain the same with increase in the actual figure revealing an increase in infected individuals with Africa contributing to this change. In the year 2014 and 2011, 35 million and 34 million people were living with HIV/AIDS globally. Of these numbers 3.2 million (2014) and 3.1-3.8 million (2011) are less than 15 years (Osazuwa et al., 2012; Institute of Human Virology [IHVN], 2011; AVERT, 2014; World Health Organization [WHO], 2014).

Nigeria has been ranked second, after South Africa, to carry the burden of HIV/AIDS in the world. Nigeria's statistics in the year 2007 on HIV/AIDS revealed 2.6 million people living with the disease, 170,000 died of AIDS and 1.2 million became orphans. HIV sero prevalence in Ondo State has moved from 2.9% in 1999, 6.7% in 2001, 2.2% in 2002 to 3.2% in 2005 (National Population Commission (NPC), 2014). “With an estimated population of over 3 million people, this scenario holds enormous implications for the socio-economic and political well-being of the State. It is a huge burden on the already over stretched health system and is a leading cause of death among youths in the State” (Ondo State Agency for the Control of AIDS [ODSACA], 2012). The State

lost 40,800 people to this dreaded disease aged 15-49 years with prevalence rate of 2.3% in 2010 (Osazuwa et al., 2012; IHVN, 2011; ODSACA, 2014; Yahaya, Jimoh & Balogun, 2010; ODSACA 2010; Arogundade & Faloore, 2012; Akhigbe & Bamidele, 2013). In order to reduce the prevalence of HIV/AIDS in Ondo State, ODSACA extended its' service to the adolescents using 38 secondary schools as pilot study (ODSACA, 2013).

Adolescents account for 20% of the world population. In Nigeria, as in other parts of the world, adolescents constitute a significant proportion of the population. Estimates from the 2006 census indicate that adolescents (10-19 years) account for approximately 22.1% of the Nigerian population (NPC, 2012). Studies has shown that over 90% of adolescents and young adults become sexually active by the age of 20 years in Nigeria, with a large proportion of these occurring with casual and non-conjugal relationships, thereby increasing their vulnerability to several sexual and reproductive problems (Edith & Ovaioza, 2013). STIs including HIV/AIDS have been reported to be disproportionately high among young people in Nigeria. Report reveals that about 50% of new HIV infections in Nigeria occur in people between 15-25 years of age peaking at 29 years and main mode of transmission is heterosexual intercourse (Iyaniwura & Oloyede, 2006).

"The United Nation Fund for Population Activities Report stresses the fact that discussing sex is taboo in many countries, thus denying a large number of people especially the 15-24 age group the necessary information to negotiate safe sex" (International Barrier Protection Digest [IBPD], 2004). "Voluntary Counselling and Testing (VCT) is a measure put in place to encourage people to know their HIV status with essential counselling support to help them cope with a positive or a negative test result. Client-initiated VCT has helped millions of people know their HIV status nevertheless; global coverage of VCT programs remains low" (Akhigbe & Bamidele, 2013). Presently in Nigeria, HIV voluntary counselling and testing is one of the major policy initiatives of government aimed at reducing HIV burden even among adolescents (ODSACA, 2013; NPC, 2012).

Sexual experimentation is common within this age group and is often carried out without caution (safe sex) and at other times sexual intercourse may be under the influence of alcohol or drug or in the presence of violence, where many times there may be no option to negotiate safe sex (YouthHCT, 2010). The practice of casual sex among adolescents increases their risk of getting infected with HIV resulting in a significant proportion of the country's man power being at the risk of getting infected every day. Among several reasons that has been discovered to hinder adolescents from utilizing HCT services is parents' fear of their children experiencing stigma and of unmasking their own HIV status should the child test positive[18]. Factors such as stigmatization, fear and ignorance have been found to prevent youth from seeking available health services.

The United Nations Agency for International Development (UNAID) states that living in the ignorance of an infection can be more terrible as such individuals are liable to infect other people or themselves having a re-infection possibly with a different strain, making the situation worse (UNAID, 2015). Hence the needs for adolescents to uptake HCT services and know their HIV status so as to prevent associated morbidity and mortality. Ibrahim, Ipadeola, Adebayo and Fatusi (2013), give the report following the review of several secondary data on HIV/AIDS and HCT among young people that there is a 90% acceptance rate for routine counselling and testing in several countries of Africa with similar HIV

epidemic as that of Nigeria. However, there was a contrary observation in Nigeria where only 43% of persons who had heard of AIDS and has never been tested for HIV expresses the desire to be tested. However, in the year 2007 there is an increase in the willingness to have an HIV test done as stated by National AIDS and Reproductive Health Survey (NARHS) which reports a prevalence of 79% (Federal Ministry of Health [FMoH] (2008). Report from NARHS (2012) reveals 62% of males and 61% of females have the knowledge of where to get an HIV test and almost four-fifths (77%) of the respondents desired to be tested. Almost equal proportion of males and females express the desire to take the test, however, only about a quarter of the respondents report that they have actually tested (FMOH, 2013).

In a cross-sectional study conducted among 324 undergraduate students on HIV knowledge and uptake of HCT it is discovered that 95% of the participants know where to access HCT but more than half have not tested (Oppong Asante, 2013). It is also discovered that unmarried singles aged 17-20 are more likely to test for HIV with males being more likely to test in the future than females. HIV/AIDS information of the participants is majorly from electronic and print sources, with a small number indicating that they have received information from their parents (Oppong Asante, 2013). In a similar study conducted in Nigeria among 1,250 undergraduates it is discovered that 95% of the respondents know where to access HCT, 72.2% are willing to test while, 30.4% have tested within the last six months preceding the study. There is no significant difference in demographic variables and testing for HIV. However, there is a significant association between willingness to test for HIV and participant's age, sex, marital status and knowledge of HIV. There is significant difference in knowledge by gender (male having better knowledge than females). Those aged 21years and above have good knowledge and are more willing to test; females more willing than males and their major source of knowledge is the mass media (Abiodun, Sotunsa, Ani & Jaiyesimi, 2014).

RESEARCH QUESTIONS

1. What is the level of knowledge about HIV/AIDs among secondary school students?
2. What is the level of knowledge of HCT among secondary school students?
3. What is the proportion of secondary school students who had undertaken HCT?
4. What are the factors responsible for HCT among secondary school students?

HYPOTHESES

1. There is no significant association between socio-demographic characteristics of respondents with the use of HCT services
2. There is no significant association between other respondents' characteristics and the use of HCT services

METHODOLOGY

In this research, a cross sectional design using quantitative approach was used. Akure is a state capital located in South-west, Nigeria. It is located on latitude 7.25° North and longitude 5.19° East. It is 396 metres above sea level; inhabits over 400,000 people who are mostly of Yoruba ethnicity. It is the capital of Ondo State and an agrarian society. Akure town consists of two Local Government Areas (LGA); Akure South and Akure North. Majority of the educational institutions including secondary and tertiary are located in the Akure South LGA (28 public schools and a federal university, the Federal University of Technology Akure],

Schools of Nursing, Midwifery and Health Technology as well as privately owned colleges among others).

Participants were adolescents (10-19 years) from five secondary schools (three public and two private All consenting students aged 10-19 years in the selected secondary schools from junior secondary school II to senior secondary school III are eligible to participate. Students in junior secondary school I (JSS 1) were excluded from the research because the schools are in a new academic session and such students being new, may not have been in a position to provide adequate information about taking into consideration the scope of the study. The target population are secondary school students in Akure South Local Government Area, Ondo State. Multi-stage sampling was used to select total no of respondents used for the study as stated below: A list of all the schools in Akure South Local Government Area was gotten from the Ministry of Education.

1nd stage: schools were selected using random sampling from each group of private and public schools.

2rd stage: a class was selected from each arm using simple random sampling.

3th stage: every tenth students in the selected arm participated in the study.

TABLE 1
Proportional Allocation of Respondents

Selected schools	Number of students	Numbers of students to be selected	Sampling interval per arm	Number of students selected
Fiwasaye Girls' Grammar School, Akure	2500	2500/6850 x 710 = 257	2500/257 = 9.7	257
Aquinas College, Akure	2000	2000/6850 x 710 = 205	2000/207 = 9.7	205
Ijomimo High School, Akure	1800	1800/6850 x 710 = 185	9.7	185
Complete Child College, Akure	250	250/6850 x 710 = 26	9.6	27
Salas international	345	345/6850 x 710 = 36	9.6	36
Total	6895	709 =		710

NB: every 9th student was recruited in order to meet up with the sample size

The instrument used for this study is a semi-structured standardized questionnaire adopted from WHO on HCT services was administered to the students. A pre-test was carried out at Eji-Oba High School, Oba-ile, Akure. The school is located in Akure North LGA of the State: a setting similar in characteristic with the research setting. Validity of the instrument was done by experts and questions modified the pre-test was done using test retest method and the coefficient score yielded was 0.78. Two female research assistants were trained to assist in data collection. Data collected were checked for completeness and correctness; complied, coded, entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 21.

Results were presented using descriptive statistics such as frequencies, percentages and

charts. Chi square test was used to test the association between categorical variables and HCT patronage at 5% level of significance. The variables were scored and mean score was 11.05 (±2.53). The lowest score was 3 and highest score was 19. Scores from 7 through lowest were tagged "poor knowledge", scores from 7 through 11 were tagged "fair knowledge" and scores from 12 through highest were tagged "good knowledge". Ethical approval was obtained from the ethical committee of the Ondo State Ministry of Health and permission was obtained from the Ministry of Education. Permission was also taken from the school authorities before the administration of questionnaires and assent from the students themselves. Participants were assured of confidentiality.

RESULTS

A total of 710 students are recruited out of which 649 questionnaires are retrieved and found suitable for analysis giving a response rate of 91.0%. As presented in Table 1, 56.1% of the respondents are within the age of 15-19 while 43.9% are within the age of 10-14. The mean age is 14 (± 3.58) years; female to male ratio is 1.2:1. 51.5% of the respondents are females while 48.5% of the respondents are males. Majority of the respondents (88.8%) of the respondents are Yorubas, 7.8% are Igbos, 0.8% are Hausas and 2.6% are from other tribes. Also, most of the respondents (94.5%) are Christians, 4.8% are Muslims while 0.8% have other religions. 55.8% of the respondent's fathers have skilled jobs while 44.2% have unskilled jobs. 39.3% of the respondent's mothers have skilled jobs while 60.7% have unskilled jobs.

Most of the respondents (68.6%) live in urban area, 31.3% live in urban fringes while 0.2% live in rural area. The result of this study shows that 62.9% of the respondents live in a flat, 17.1% live in shared apartment, 15.4% live in a duplex while 4.6% have no response. Majority (89.1%) of the respondents' parents are married, 6.3% are separated, 1.7% are divorced while 2.9% are widowed. 84% of the respondents live with their both parents, 8.3% live with a single parent, 1.4% live with their siblings, 4% live with extended family members while 2.3% live with their guardian. Most of the respondents (94.1%) beliefs in the existence of HIV, 0.9% of the respondents do not belief in the existence of HIV while 4.9% have no response. This study implies that Mean age of respondents is 14 (± 3.58) years and majority are within 15-19 years; Majority of the respondents are females, Yorubas, Christians and belief in the existence of HIV/AIDS. Result also shows that majority of respondents live with both parents more than half of respondents' fathers and mothers have attained tertiary education respectively.

TABLE 2

Distribution of respondents by socio-demographic characteristics (N=649)

Socio-demographic variables		Frequency	%
Age (years)	10-14	285	43.9
	15-19	364	56.1
	Mean age: 14 (± 3.58)		
	Total	649	100
Sex	Male	315	48.5
	Female	34	51.5
	Total	649	100
Ethnicity	Yoruba	576	88.8
	Igbo	51	7.8
	Hausa	5	0.8
	Others	17	2.6
	Total	649	100
Religion	Christianity	613	94.5
	Islam	31	4.8
	Others	5	0.8
	Total	649	100
Father's occupation	Skilled job	362	55.8
	Unskilled job	287	44.2
	Total	649	100
Mother's occupation	Skilled job	255	39.3
	Unskilled job	394	60.7
	Total	649	100
Place of residence	Urban	445	68.6
	Urban fringes	203	31.3
	Rural	1	0.2
Type of apartment	Shared apartment	111	17.1
	A flat	408	62.9
	Duplex	100	15.4
	No response	30	4.6
Parents' marital status	Married	578	89.1
	Separated	41	6.3
	Divorced	11	1.7
	Widowed	19	2.9
Living with Guardian	Both parents	545	84.0
	Single parent	54	8.3
	Siblings	9	1.4
	Extended family	26	4.0
	members	15	2.3
Belief in HIV existence	Yes	611	94.1
	No	6	0.9
	No response	32	4.9

Research question one

What is the level of knowledge about HIV/AIDs among secondary school students?

From table 3, the result of this study shows that 61.3% of the respondents agree that sharps are a mode of transmission of HIV while 38.7% disagree. 61.8% of the respondents agree that blood transfusion is a mode of mode of transmission of HIV while 38.2% disagree. 18% of the respondents agree that sharing of cutlery is a mode of transmission of HIV while 82% disagree. 5.4% of the respondents agree that playing/hugging infected persons is a mode of transmission of HIV while 94.6% disagree. 60.2% agree that having sexual intercourse is a way of transmitting HIV while 39.8% disagree. Also, 13.1% of the respondents agree that kissing is a way of transmitting HIV while 86.9% disagree. 0.89% of the respondent agrees that mother to child transmission is a mode of transmitting HIV while 99.2% disagree.

This study also reveals that 8% of the respondents agree that knowing your HIV status is a context of HCT services while 92% disagree. 26% of the respondents agree that information about HIV virus, outcome, mode of prevention, coping mechanism if positive and avoidance of stigma as a content of HCT services while 74% disagree. 14% of the respondents agree that knowing your status and mode of prevention as a content of HCT services while 86% disagree. 46% of the respondents agree that knowing the full meaning of HIV, causes and prevention should be a content of HCT services while 54% disagree. 28% of the respondents agree that sex education and HIV prevention is a content of HCT services while 73% disagree. 74% of the respondents said they do not know the content of HCT services while 26% disagree. This study reveals that the level of knowledge of respondents is very poor (32%).

TABLE 3
Knowledge of Respondents about HIV transmission and content of HCT

	Mode of HIV transmission	Yes	No
1	Sharps	398 (61.3%)	251 (38.7%)
2	Blood transfusion	401 (61.8%)	248 (38.2%)
3	Sharing of cutlery	117 (18.0%)	532 (82.0%)
4	Playing/hugging infected persons	35 (5.4%)	614 (94.6%)
5	Sexual intercourse	391 (60.2%)	258 (39.8%)
6	Kissing	85 (13.1%)	564 (86.9%)
7	Mother to child transmission	5 (0.89%)	644 (99.2%)
	The content of HCT services		
8	Knowing your HIV status.	52 (8%)	597 (92%)
9	Information about HIV virus, symptoms, outcome, mode of prevention, coping mechanism if positive and avoidance of stigma.	169(26%)	480 (74%)
10	Knowing your status and mode of prevention.	91 (14%)	558 (86%)
11	Knowing the full meaning of HIV, causes and prevention.	299 (46%)	350 (54%)
12	Sex education and HIV prevention.	182 (28%)	467 (72%)
13	Don't know	480 (74%)	169 (26%)
		32.05%	67.54

Research question two

What is the proportion of secondary school students who have undertaken HCT?

Table 4 shows that 31.4% of the respondents have ever thought of having HIV test, while 54.4% had never, 3.4% don't know and no response for 10.6%. This study shows that 6.2% of respondents have ever used HCT service, 76.7% deny ever used while 17.1% of respondents did not respond. Further findings show that 13.1% of respondents have ever had HIV test done and 70.4% have never had HIV test done, while 0.5% don't know if they have HIV test done and 16% did not respond. This study reveals that the level of utilization is very poor (17%).

TABLE 4
Level of utilization of HCT services

Use of HCT	Frequency	%
Ever thought of having HIV test		
Yes	204	31.4
No	355	54.7
Don't know	22	3.4
No response	68	10.5
Ever used HCT service		
Yes	40	6.2
No	498	76.7
No response	111	17.1
Ever been tested for HIV		
Yes	85	13.1
No	457	70.4
Don't know	3	0.5
No response	104	16.0

Research question three

What are the factors responsible for HCT among secondary school students?

From table 5 below, this study shows that 20.8% of the respondents picks stigmatization as a factor influencing the use of HCT cervices by adolescents, 10.8% picks knowing HIV status and treatment before worsening, 20.5% picks fear, 7.6% picks adolescents too can be infected with HIV, 22.3% picks ignorance, 9.7% picks HCT is for all age group, 8.6% picks HCT is needless for adolescents while 9.2% picks adolescent vulnerability and need to protect self. From the result, the main factors influencing use of HCT services by adolescents are stigmatization, fear and ignorance.

TABLE 5

Factors influencing use of HCT services by adolescents

Factors influencing use of HCT services by adolescents	Frequency	%
Stigmatization	135	20.8*
Knowing HIV status & treatment before worsen	70	10.8
Fear	133	20.5 *
Adolescents too can be infected with HIV	49	7.6
Ignorance	145	22.3*
HCT is for all age group	63	9.7%
HCT is needless for adolescents	56	8.6%
Adolescent vulnerability and need to protect self	60	9.2
Total	649	100

Hypothesis one

There is no significant association between socio-demographic characteristics of respondents with the use of HCT services.

As shown in Table 6, the result of this study shows the association between socio-demographic characteristics and use of HCT. The p-value for each sociodemographic characteristic are; age (0.228), gender (0.278), religion (0.538), fathers' job (0.718), mothers' job (0.724), place of residence (0.001), marital status (0.416), belief in HIV existence (0.618) and ethnicity (0.603). The result revealed that the place of residence was the only socio-demographic characteristic that had a significant association with the use of HCT service among adolescents, p<0.001.

TABLE 6
Association of socio-demographics and use of HCT (N=649)

Socio- demographic characteristics	Ever used HCT services Yes N-(%)	No N-(%)	X^2	p-value
Age (years)				
10-14	15 (6.0)	236 (94.0)	1.455	0.228
15-19	25 (8.7)	262 (91.3)		
Gender				
Male	23 (8.7)	242 (91.3)	1.175	0.278
Female	17 (6.2)	256 (93.8)		
Religion				
Christianity	37 (7.3)	473 (92.7)	1.240	0.538
Islam	3 (12.5)	21 (87.5)		
Others	0 (0)	4 (100)		
Fathers' job				
Skilled	22 (7.2)	282 (92.8)	0.131	0.718
Unskilled	17 (8.1)	193 (91.9)		
Mothers' job				
Skilled	18 (8.3)	199 (91.7)	0.647	0.724
Unskilled	20 (6.2)	286 (93.8)		
Place of residence				
Urban				
Urban fringes	25 (6.6)	352 (93.4)	13.206	0.001*
Rural	14 (8.8)	146 (91.2)		
	1 (100)	0 (0)		
Marital status				
Married	37 (7.7)	445 (92.3)	2.849	0.416
Separated	0 (0)	22 (100)		
Divorced	0 (0)	7 (100)		
Widowed	2 (11.8)	15 (88.2)		
Belief in HIV/AIDS existence				
Yes	39 (7.6)	471 (92.4)	0.248	
No	0 (0)	3 (100)		0.618
Ethnicity				
Yoruba	38 (7.9)	441 (92.1)	1.854	0.603
Igbo	2 (4.3)	44 (95.7)		
Hausa	0 (0)	3 (100)		
Others	0 (0)	10 (100)		

*Significant at 5% level of significance.

Hypothesis two

There is no significant association between other respondents' characteristics and use of HCT services.

Table 7 shows other respondents' characteristics like importance of knowing one's HIV status and engagement in sexual intercourse are also further included to see if they are associated with use of HCT on bivariate analysis. Significantly, higher proportion of respondents who have had sexual intercourse (19.4%) have used HCT services compared to 5.9% who have never had sexual intercourse ($p<0.001$). There is also significant association between participants who have had blood transfusion and use of HCT such that higher proportion (28.6%) of those who have ever had blood transfusion had used HCT services compared to 7.2% of those who have never had blood transfusion ($p=0.032$). Significantly higher proportion (48.1%) of the respondents who have the initiative to test have used HCT compared to those who did not (5.3%) ($p<0.001$). This study reports that there are significant association between participants of who have had sexual intercourse, who have had blood transfusion, who have the initiative to test and use of HCT services.

TABLE 7
Association between other respondents' characteristics and use of HCT service

	Ever used HCT			
Variables	Yes n (%)	No n (%)	X^2	p-value
Ever had sexual intercourse				
Yes	13 (19.4)	54 (80.6)	15.271	P<0.001*
No	27 (5.9)	433 (94.1)		
Importance of knowing your HIV status				
Yes	35 (7.8)	416 (92.2)	2.772	0.096
No	1 (1.8)	56 (98.2)		
Proposed use of HCT by adolescents				
Yes	30 (6.8)	411 (93.2)	1.421	0.233
No	10 (10.3)	87 (89.7)		
Ever had blood transfusion				
Yes	2(28.6)	5 (71.4)	4.604	0.032*
No	38 (7.2)	493 (92.8)		
Tested of own initiative				
Yes	13 (48.1)	14 (51.9)	68.465	0.001*
No	27 (5.3)	484 (94.7)		

*Significant at 5% level of significance

DISCUSSION

This study assesses the knowledge and utilization of HIV counselling and testing (HCT) among adolescents in Ondo State, Nigeria. The Socio-demographic characteristics of respondents observe that the mean age is 14 (± 3.58) years with 56.1% within 15-19 years; female to male ratio is 1.2:1; majority were Yoruba (88.8%), Christians (94.5%), belief in the existence of HIV/AIDS (94.1%) and live with both parents (84.0%). More than half (63.5%, 57.0%) of respondents' fathers and mothers have attained tertiary education respectively.

The findings of this study reveal that the respondents have very poor knowledge of HIV/AIDS and HCT (32.05%). This does not correlate with the findings of ODSACA (2014); FMOH (2013) and Abiodun et al (2014) whose studies reveal that the knowledge of HIV/AIDS was high among respondents. This study is in not in agreement with Obiako et al. (2011) whose findings report that almost all of respondents know what AIDS is about half have knowledge of HIV; and all knew the route of transmission and preventive measures Interestingly, Adeniyi, Oyewumi & Fakolade (2010) also report high level of knowledge about HIV/AIDS but poor knowledge on mode of transmission and prevention. Some other studies conducted in Addis Abba, Malawi and Gulu, Northern Uganda are also in contrast with the findings from this study where majority (all most all, 75.7% and 93% respectively) of the respondents have adequate knowledge of VCT/HCT (Mwenyango, 2010; Gatta, 2011; David, Charles & Christopher, 2012; Munthali, Mvula and Maluwa-Banda, 2013). In support to the findings of this study is the report of NDHS (2013) where only more than a quarter of men (37%) and women (26%) have comprehensive knowledge of HIV/AIDS (NPC, 2014).

The result of this study reveals that the respondents have very poor use of HCT. This finding correlates with the report of Abiodun et al., (2014) where majority of respondents have the desire to be tested but only about a quarter are reported to have taken the test. Several studies also reveal low uptake of HCT (Ibrahim et al., 2013; Munthali, Mvula & Maluwa-Banda 2013; Oppong Asante 2013). In tandem with this result, David et. al. (2012) reveal that only 36.1% respondents tested in Gulu, Uganda. This study is also supported by a similar study conducted by Mwenyango, (2010) in Rukungi district in Uganda where only a quarter of the youth have tested. Another study in Malawi also correlates with this result, only one-third of the respondents use HCT Munthali et al. (2013). Report from NARHS reveals 62% of males and 61% of females have the knowledge of where to get an HIV test and almost four-fifths (77%) of the respondents desire to have a HIV test. Almost equal proportion of males and females express the desire to take the test however only about a quarter of the respondents report that they had actually tested (FMOH, 2013). Grippingly, Gatta (2011), is in contrast with this study reports high uptake (62.2%) of HCT service.

We observe that the main factor influencing use of HCT services by adolescents are stigmatization, fear and ignorance. This study is consistent with Bandason et al., (2013) who report that factors such as stigmatization, fear and ignorance have been found to prevent youth from seeking available health services. This does not correspond with the report of Youth HCT (2010) which states that "reasons for not seeking an HIV test may include underestimating the risk of getting infected with HIV as well as a general feeling of invulnerability and 'it can't happen to me'-attitude typical for adolescents. Similarly, Musheke et al. (2013) observe that factors such as perceived low risk of infection, perceived health workers' inability to maintain

confidentiality, perceived psychological health burden of living with HIV and fear of HIV-related stigma among others hindered the use of HCT. Ibrahim et al (2013) is not in support of this study as majority of the respondents who tested for HIV did so to know their status while others tested because it was required felt they are not at risk.

This study is also at variance with FMOH (2008) and NARHS (2012) who indicate that 83% of the respondents desired to take the test because they wanted to know their status, 11% took it to allay fear and anxiety over HIV status while 3% have it as a marriage requirement. The writers explained that poor knowledge of HCT among adolescents may suggest the factors responsible for low uptake in Akure South LGA, Ondo State.

The result of the first hypothesis tested reveals that the place of residence is the only socio-demographic characteristic that has a significant association with the use of HCT service among adolescents. This study does not correlate with Abiodun et al., (2014) who report that there is no significant difference between socio demographic variables and testing for HIV.

The findings of the second hypothesis show that there are significant association between participants of who have had sexual intercourse, who have had blood transfusion, who have the initiative to test and use of HCT services.

CONCLUSION

The findings from this study reveals that Nigerian adolescents especially secondary school students have poor knowledge about HCT service and its' utilization compared to other African countries such as Ethiopia, Malawi and Uganda. However, there is future for adolescent HCT in the country in general and Ondo state in particular if they are informed about HIV/AIDS; taught the important role of HCT/VCT in HIV prevention, and treatment and the actual practice of VCT. Hence, there is need to increase education-based programme on HCT among adolescents generally and intensify the good work of ODSACA among secondary schools in the State.

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