SOCIO-DEMOGRAPHIC DETERMINANTS OF ATTITUDE TOWARDS VOLUNTARY COUNSELLING AND TESTING (VCT) IN DELTA STATE, NIGERIA

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Abstract

There is no doubt whatsoever that the Human immunodeficiency virus infection is a pandemic infectious disease whose impact on societies is without precedent. Hence, people's attitude towards HIV counselling and testing may significantly influence their willingness to participate and benefit from the services. Therefore, the study investigated Socio-demographic determinants of attitude towards voluntary counselling and testing in Delta State, Nigeria. The study adopted the cross-sectional descriptive survey design with a total sample size of two hundred (200) participants, selected simple random sampling. Instrument for data collection was a structured questionnaire titled Socio-demographic Determinants of Attitude towards Voluntary Counselling and Testing Questionnaire (SDAVCTQ). Univariate analysis was used to analyze quantitative variables using mean, and standard deviation and Bivariate analysis was used to analyze the relationship between the socio demographic variables and attitude of the respondents. Results of the study revealed that majority of the respondents have positive attitude towards VCT. It was also found that majority of the respondents were willing to recommend VCT to others while 83.5% believed VCT is very necessary. Finally the findings showed a high significant positive relationship between respondents' attitude and their socio-demographic characteristics such as annual income and tribe, while there is no significant relationship between respondents' age, gender, marital status, educational level, occupation, religion and their attitude towards VCT. The study therefore concluded that there is a positive correlation between annual income, tribe and attitude of persons assessing voluntary counselling and testing of HIV. The study recommended among

others that health workers and helping professionals such as medical doctors, nurses, counsellors, clinical psychologists and social welfare officers should be empowered with trainings to be abreast in recent scientific approaches in counselling and VCT centers should be decentralized to enable more people to benefit from the programme.

Keywords: Socio-demographic determinants, attitude, voluntary counselling and testing

Introduction

The Sub-Sahara Africa remains the region most affected by Human immunodeficiency virus/Acquired immune deficiency virus. Since the discovery of the condition in 1980s, More than 70 million people have been infected and about 35.4 million people have died of the menace (WHO, 2018). The epidemic has had a serious, and in many places devastating effect on human development therefore undermining progress towards the human development goals in some parts of the world, particularly those related to poverty reduction, reducing child mortality and improving the health of mothers (Boutayeb, 2009).

Nigeria been the most populous country in Africa, not surprisingly, has more people living with the HIV epidemic in the world (NACA 2017) with a total population of 3.1 million people infected with the disease in 2018 (Joint United Nation Programme on Acquired Immune Deficiency Syndrome, 2018). Moreover, it is estimated that around two-thirds of new infections in West and Central Africa in 2017 occurred in Nigeria and approximately 150, 000 of them died that same year from the disease

The latest national HIV survey in South Africa found decrease in condom use, earlier sexual activity in boys, increased HIV infection in women, and increase in HIV prevalence (HRSC, 2012). HIV prevalence varied from 15.2% in Western Cape Province to 39.1% in Kwa-Zulu Natal Province (HRSC, 2012) and on average, about 19% of adult between ages of 15- 49 years that live in South Africa are infected (UNAIDS, 2014). HIV prevention requires protecting oneself, protecting partners, and children through condom use, accessing treatment early, prevention of mother to child transmission, and most importantly, voluntary counseling and testing(VCT) for all concerned (UNAIDS, 2015). HIV risk taking behaviours are significant predictors of HIV infection (Peltzer, 2012) and

VCT can mark the beginning of risk-reduction. On the other hand, risk-reduction by prevention of new infection is an important tool in HIV prevention (Newcombe, 2010). Risk-reduction that could be associated with VCT uptake includes couples testing, protecting each other from infection, re-infection, utilization of safer sex methods, and Prevention of Mother to Child Transmission HIV (PMTCT). It also informs the utilization of PEP (Post-exposure Prophylaxis) and encourages people requiring treatment to avail themselves the opportunity.

According to Oguzie, Oguzie, Nnadi, Mokwelu and Obi (2019), counselling is a helping process rendered to clients by a professionally trained counsellor which is designed to increase the clients' understanding of their 'self' and the 'environment' so as to adjust properly and be productive members of the society. It is a professional help rendered to an individual to induce those qualities and potentials in them that conform to the acceptable standards of the society while discouraging those behaviours in them that do not agree with the norms of the society (Oguzie, Obi & Nnadi, 2019). Obi and Oguzie (2019) noted that one of the main goals of counselling is to enable clients gain proper insight into their own thoughts, behaviours and problems, in order to think in the right direction, make rational and informed decisions and choices so as to be able to proffer solutions problems and thrive properly in the society. Human personality development is a continuous process, thus the need for effective professional counselling in aiding human beings to explore and actively participate in their own development and wellbeing cannot be overemphasized.

VCT is the process by which an individual undergoes counselling thus enabling him or her to make an informed choice about being tested for HIV(Zelalem, Aregawi & Belayenesh, 2013). Zelalem and his group further stressed that this decision must be entirely the choice of the individual and they must be assured that the process will be confidential. VCT is an effective strategy for facilitating behavioral change around both preventing HIV as well as getting early access to care and support. More so, this is also instrumental in bringing about behavioral change, reducing unprotected sex and helping reduce the incidence of HIV and other STIs. VCT is internationally recognized as an effective and important strategy for both prevention and care of HIV (Uzochukwu, 2011). Available literature indicated that attitude of tertiary school students towards VCT is low

and its uptake is minimal (Charles, 2009). The low uptake was found to be associated with ignorance, fear of being positive, cost of VCT, inadequate number of VCT centers and stigmatization constituted major hindrances to acceptances of VCT for HIV(Yahaya, 2010).

Zelalem, Aregawi and Belayenesh (2013) in their study observed that participant's attitude towards VCT were positive and appreciable, which is very important and needed in the prevention and control of HIV. Zelalem, Aregawi and Belayenesh also noted that majority of his respondents believed that VCT is necessary for different reasons including knowing self status and caring for the future, to prevent partners and others from HIV and to choose partners for the future. The level of educational and previous residence of students was socio-demographic variables that showed a significant association with attitude of students towards VCT. Observation bystander from rural areas lack good level of information about VCT and may be associated with decreased level of attitude, though not statistically significant. The association of level of education may rise from the increase in knowledge of students and hence increased attitude as the stay in the university is elongated. The findings in this case go in line with a study from Addis Ababa University (Regassa, 2011).

Djan (2018) in a cross-sectional study on factors affecting the attitude of young people towards HIV testing uptake in rural areas in Ghaha reported low prevalence of utilization of HCT service by 8.0% of participants. However, this finding is higher when compared to the national prevalence of 0.36% among people aged 15 to 24 years leading to late diagnosis, treatment and prevention of on-going HIV transmission. The results of Djan's study imply that poor attitude towards HCT services by the young people may contribute to low testing prevalence among the age group. Likely predictors of HCT included socio-demographic factors such as study level, location of residence and other factors such as desire for testing, knowledge of places of testing, visit to HCT centers and people who had experienced sexual intercourse. Unlike other studies, poverty, stigma, illiteracy and negative attitude towards PLWH did not influence uptake. Tested participants were more likely to be residents in the urban areas than the rural residents. These results may contribute to high rate of HIV and low rate of testing in the developing countries where higher percentage of the population are likely to live in the

rural communities; In conclusion; participants SHS 2 or less was more likely to be tested. This study showed that the prevalence of testing and attitude among young people was lower than the targeted universal testing rate of 8.0%, though higher than that recorded by GDHS in 2008.

Socio-demographic determinants are probably the most significant factors that impact HIV propagation and strategies at a public health and community levels are needed to reduce the

impact and spread of the disease in Africa (Woke, 2016). Woke further emphasized that VCT is a useful, inexpensive and priceless tool that can improve contextualized HIV control considering that the prevalence of HIV in Africa is not showing satisfactory improvement. The use of VCT as a focus in HIV prevention is informed by its low cost and usefulness (Nnadi, Oguzie & Uzoekwe, 2019). This implies that socio-demographic variables may have influence on peoples' attitude towards voluntary counselling and testing uptake. Laying credence to this assertion, Fonner, Denison, Kennedy, O'Reilly and Sweat (2012) in their study observed that peoples' socio-demographic factors influenced their attitude towards VCT uptake.

In contrary, some studies have shown that socio-demographic determinants do not have a uniform impact on attitude towards VCT uptake. For instance, Venkatesh et al. (2011) in a community randomized prevention trial in a predominantly black South African township found that socio-demographic factors do not impact on participants' attitude towards VCT uptake. The above study shows discrepancy in experts' views on the socio-demographic determinants of peoples' attitude towards VCT uptake and the need for further studies to clarify this mystification in this particular area. Since the inculcation and maintenance of desirable behaviours and adjusted wellbeing among individuals are the utmost goal of counselling and the achievement of this noble objective is entrusted upon the shoulders of therapists (Okafor, Obi & Oguzie, 2018: Oguzie & Nwokolo, 2019), the need therefore to explore the socio-demographic determinants of peoples' attitude towards VCT by the present researchers became inevitable.

Research Questions

1. What are the socio-demographic determinants of people's attitude towards VCT in Delta State?

2. What are peoples' attitudes towards VCT in Delta State?
3. What is the relationship between people's socio-demographic determinants and their attitude towards VCT in Delta State?

Method

The study adopted the cross-sectional descriptive survey design. The design is called cross-sectional descriptive survey because it was interested in describing certain variables in relation to the population. Kendra (2019) described cross-sectional descriptive survey as a type of survey that aims at collecting data on, and describing in a systematic manner the characteristics, features or facts about a given population. The population of the study was 335 patients receiving voluntary counselling and testing service in Federal Medical Centre Asaba who are within the age of 20years and above. A total sample size of two hundred (200) participants drawn through systemic sampling was used in the study.

The sample was obtained from a total of 335 client recorded, who visited the VCT center in FMC in the last one month. The sample was derived using Taro Yamane's formula for sample size determination.

$$\frac{N}{1+N(e^2)}$$

Where e = level of precision = 0.05
N = population size = 335
n= sample size

$$\frac{N}{1+N(e^2)}$$

$$= \frac{335}{1+335(0.0025)}$$

$$= \frac{335}{1 + 0.8375}$$

$= \frac{335}{1.8375}$ =182.31~ 182+10%=200.

The instrument used for data collection in this study was a structured questionnaire titled Socio-demographic Determinants of Attitude towards Voluntary Counselling and Testing Questionnaire (SDAVCTQ). The structured questionnaire was

divided into two sections. Section A contained questions that elicit information on socio-demographic variables of the people such as age, occupation, marital status, highest levels of education and religion, while section B contained questions on Attitude and belief of patients on VCT. The instrument was validated by three experts of which two are from Federal Medical Centre Asaba and one was from Nnamdi Azikiwe University, Awka. All ambiguous questions were reframed to ensure clarity of the data collection tool. A pilot study was conducted among group of (30) adults at another hospital in a different location that has similar geographical characteristics, using the test-retest method within an interval of two weeks. The instrument yielded a Cronbach Alpha 0.67 which was considered reliable enough to be used for the study.

The Socio-demographic Determinants of Attitude towards Voluntary Counselling and Testing Questionnaire (SDAVCTQ) was administered to the respondents by the researchers using face to face method. Permission letter was given to the researchers by the Hospital Ethics Committee, and the due process in carrying out research in the hospital was maintained. The researchers took proper cognizance of the ethical issues when gathering data from participants. In cases where the participants could not read the items in the questionnaires, the researchers read the statements and interpreted same to the respondents and answers provided were documented and also confidentiality was ensured. The entire questionnaire were retrieved from the respondents and subjected to data analysis. Data will be screened for completeness, entered and analyzed using Statistical Package for Social Sciences (SPSS). Univariate analysis was used to analyze quantitative variables using mean, and standard deviation and Bivariate analysis was used to analyze the relationship between the socio demographic variables and attitude of the respondents.

Results

Table 1: Socio-demographic determinants of respondents' attitude towards VCT

VARIABLE	FREQUENCY (N=200)	PERCENTAGE %
TOTAL	**200**	**100**
Gender		
Male	76	38.0
Female	124	62.0

Age(in Years)		
20-29	56	28.0
30-39	75	37.5
40-49	41	20.5
>50	28	14.0
Marital Status		
Single	84	42.0
Cohabitation	4	2.0
Married	95	47.5
Separated	6	0.3
Divorced	3	1.5
Widow	8	0.4
Number of Children		
None	94	47.0
One	20	10.0
Two	25	12.5
Three	30	15.0
Four	10	0.5
Five & above	21	10.5
Educational Level		
None	8	0.4
Primary	3	1.5
Junior High	5	2.5
Senior high	48	24.0
Diploma	28	14.0
Degree	80	40.0
Postgraduate	28	14.0
Occupation		
Unemployed	27	13.5
National Service	10	0.5
Self-employed	81	40.5
Government employed	29	14.5
Private Worker	50	25.0
Retiree	3	1.5
Annual Income Level		
No salary	14	7.0
Below #500,000	126	63.0
#500,000-#1000,000	42	21.0
#1,500,000-#2,000,000	10	5.0
#2,500,000-#3,000,000	4	2.0
#3,500,000 & above	4	2.0
Religion		
Christianity	191	95.5
Muslim	6	3.0
New Age	3	1.5

Chrislam	0	0.0
Tribe		
Hausa-Fulani	6	3.0
Igbo	135	67.0
Yoruba	13	6.5
Bini	9	4.5
Urhobo	27	13.5
Ijaw	6	3.0
Isoko	2	1.0
Others	2	1.0

Data in table 1 above shows the socio-demographic information of respondents such as their age (years), gender, marital status, number of children, educational level, occupation, annual income, religion and tribe. This is to find out how socio-demographic characteristic of respondents affect their attitude towards VCT uptake.

In respect to the gender of the respondents, 76(38%) were male while 124(62%) were females.

For age, 56(28%) were between 20-29years, 75(37.5%) were in the age range of 30-39years, 41(20.5%) in the 40-49 range while 28(14%) were between the age of 50 years and above.

Data pertaining respondents marital status reveals that 84(42%) of the respondent are singles, 4(2%) were cohabiting, 95(47.5) were married, 6(3%) were separated, 3(1.5%) were divorced while the remaining 8 (4%) were widow.

On number of children, those without children were 94, while those with one child were 20(10%), two children 25(12.5%), three children 30(15%), while those with four children totaled 10 and lastly those with five and above were 21(10.5%).

Data in table 1 also shows that the respondents' religious inclination were Christianity 197(95.5%), Muslim religion 6(3%), new age recorded 3(1.5%).

With respect to tribe, Hausa-Fulani were 6 (3%), Igbo were 135(67), Yoruba 13(6.5%), Bini 9(4.5%), Urobo 27(13.5%), Ijaw 6(3%), Isoko 2(1%), and Others 2(1%).

Educational level recorded 8(5%) for those with no education, while 3(1.5%) was for primary education alone, Junior high was 5(2.5%), senior high represents 48(24%),

those that had Diploma were 28(14%), then First degree and Post-graduate holders were 80(40%) and 28(14%) respectively.

In occupation, those who were not engaged was 27(13.5%), those on national service were 10(5%), about 81(40.5%) were self-employed, 29(14.5%) were government employee, we observed that about 50(25%) were with private establishment and lastly 3(1.5%) were retirees.

Data on annual income showed that those with no income were 14(7%), while those who earned below 500,000 were 126(63%), those who earned between 500,000-1000000m were 42(21%), then those whose income were1500000m-2000000 were 10(5%), also those who earn 2500000m-3000000m were 4(2%), and those whose income were 3500000 and above were 4(2%).

Table 2: Respondents' attitude towards voluntary counselling and testing

	variable	**frequency**	**Percentage**	**M**	**sd**
VCT is for those getting ready to marry				**1.90**	**1.08**
	Sure	95	47.5		
	Not sure	64	32		
	Maybe	8	4		
	I don't know	33	16.5		
	Total	**200**	**100**		
Is it shameful to go for VCT				**1.14**	**0.91**
	Sure	64	32		
	Not sure	76	38		
	Maybe	30	15		
	I don't know	30	15		
	Total	**200**	**100**		
Do you recommend VCT to others				**1.82,**	**1.24**
	Sure	164	82		
	Not sure	7	3.5		
	Maybe	14	7		
	I don't know	15	7.5		
	Total	**200**	**100**		
Do you know any VCT center				**1.36,**	**0.87**
	Sure	131	65.5		
	Not sure	20	10		
	Maybe	4	2		
	I don't know	45	22.5		
	Total	**200**	**100**		
Do you think VCT				**2.13,**	**1.03**

is necessary					
	Sure	167	83.5		
	Not sure	9	4.5		
	Maybe	10	5		
	I don't know	14	7		
	Total	**200**	**100**		
Privacy & confidentiality is sometimes not maintained by health workers				**1.89,**	**1.02**
	Sure	96	48		
	Not sure	49	24.5		
	Maybe	36	18		
	I don't know	19	9.5		
	Total	**200**	**100**		
To increase uptake of VCT, people should encouraged to come for testing				**1.32,**	**0.77**
	Sure	165	82.5		
	Not sure	14	7		
	Maybe	13	6.5		
	I don't know	8	4		
	Total	**200**	**100**		
Does VCT site affect your intake of VCT				**1.90,**	**1.06**
	Sure	96	48		
	Not sure	53	26.5		
	Maybe	25	12.5		
	I don't know	26	13		
	Total	**200**	**100**		
Do you have any preference of individual in VCT site to take the test				**2.27,**	**1.17**
	Sure	69	34.5		
	Not sure	56	28		
	Maybe	27	13.5		
	I don't know	48	24		
	Total	**200**	**100**		
Are you interested in taken VCT, whether you have taken it before				**1.81,**	**1.08**
	Sure	111	55.5		
	Not sure	45	22.5		
	Maybe	16	8		
	I don't know	28	14		
	Total	**200**	**100**		

Table 2 above presents the attitude of the respondents towards VCT. Out of 200 respondents 95(47.5) were sure that VCT is for those getting ready for marriage, 64(32%) were not sure, maybe 8(4%) and I don't know 3(15.5%).

164(82%) of the respondents said they will recommend VCT to others, 7(3.5%) is not sure they will, maybe 14(7%) I don't know 15(7.5%). Only 131(65 .5%) out of 200 knew VCT centers, 20(10%) were not sure of their locations, while those that ticked maybe were 4(2%), 45(22.5%) say they don't know while 67(83.5 %) out of 200 believed VCT was necessary, 9(4.5%) was not sure, about 10(5%) represented may be, 14(7%) did not know.

About 64(32%) were sure that it was shameful to do VCT, 76(38%) were not sure, maybe 30(15%) while the remaining 30(15%) did not know 96(48%) of respondents 13(6.5%) were sure that people should be encouraged to increase uptake, 14(7%) were not sure, maybe 13(6.5%), and 8(4%) didn't know.

Out of 200 respondents 98(48%) were sure that VCT site affected uptake, 53(26.5%) were not sure, may be represented by 25(12.5%) and those that were not aware about 26(13%). In preference of individuals in VCT site to take the service, about 69(34.5%) were sure, 56 (28%) were not sure, maybe represented by 27(13.5) and 48(24%) did not know. On if interested in taken VCT whether or not they have taken it recently or not, 111 (55.5%) were sure, 45(22.5%) were not sure, maybe 16(8%), and the remaining 24(12%) did not know.

Table 3: Cross tabulation and qui-square on socio-demographic determinants and Attitude of respondents towards VCT.

Demographic	**aggregate percentage**							
Variables	**Poor%**	**Good%**	**Excellent%**	**Total**	**X^2**	**df**	**P value**	**Remark**
Gender					**0.34**	**2**	**0.85**	**NS**
Male	62(81.6)	10(12.2)	4(5.2)	100				
Female	104(83.9)	13(10.5)	7(5.6)	100				
Age(yrs)					**11.53**	**6**	**0.73**	**NS**
20-29	46(82.1)	8(14.3)	2(3.6)	100				
30-39	65(86.6)	8(10.7)	2(2.7)	100				
40-49	36(87.8)	3(7.3)	2(4.9)	100				
50 & Above	19(67.9)	4(14.3)	5(17.8)	100				

Marital Status					**4.45**	**10**	**0.93**	**NS**
Single	70(83.3)	10(11.9)	4(4.8)	100				
Cohabitation	4(100)	0(0)	0(0)	100				
Married	76(80)	12(12.6)	7(7.4)	100				
Separated	5(83.3)	1(16.7)	0(0)	100				
Divorced	3(100)	0(0)	0(0)	100				
Widowed	8(100)	0(0)	0(0)	100				
Number of Children					**7.22**	**10**	**0.70**	**NS**
None	77(81.9)	13(13.8)	4(4.3)	100				
One	15(75)	2(15)	2(10)	100				
Two	20(80)	2(8)	3(12)	100				
Three	28(93.4)	1(3.3)	1(3.3)	100				
Four	9(90)	1(10)	0(0)	100				
Five & Above	17(81)	3(14.3)	1(4.7)	100				
Educational Level					**9.20**	**12**	**0.69**	**NS**
None	7(87.5)	1(12.5)	0(0)	100				
Primary	3(100)	0(0)	0(0)	100				
Junior High	5(100)	0(0)	0(0)	100				
Senior High	38(79.2)	7(14.6)	3(6.2)	100				
Diploma	22(78.6)	5(17.8)	1(3.6)	100				
Degree	70(87.4)	7(8.8)	3(3.8)	100				
Post graduate	21(75)	3(10.7)	4(14.3)	100				
Occupation					**12.34**	**10**	**0.26**	**NS**
Unemployed	17(63)	7(25.9)	3(11.1)	100				
National Service	8(80)	2(20)	0(0)	100				
Self-employed	70(86.4)	8(9.9)	3(3.7)	100				
Government-employed	26(89.7)	1(3.4)	2(6.9)	100				
Private Worker	42(84)	5(10)	3(6)	100				
Retiree	3(100)	0(0)	0(0)	100				
Annual income					**24.08**	**10**	**0.01**	**S**
No salary	10 (71.4)	3(21.4)	1(7.2)	100				
Below #500,000	104(82.5)	17(13.5)	5(4)	100				
#500,000-#1000,000	40(95.2)	1(2.4)	1(2.4)	100				
#1,500,000-#2,000,000	7(70)	0(0)	3(30)	100				
#2,500,000-#3,000,000	3(75)	1(25)	0(0)	100				
#3,500,000 & above	2(50)	1(25)	1(25)	100				
Religion					**1.11**	**4**	**0.89**	**NS**
Christianity	158(82.7)	22(11.5)	11(5.8)	100				
Muslim	5(83.3)	1(16.7)	0(0)	100				
New Age	3(100)	0(0)	0(0)	100				
Tribe					**43.89**	**14**	**0.001**	**S**
Hausa-fulani	4(66.7)	2(33.3)	0(0)	100				
Igbo	112(83)	16(11.8)	7(5.2)	100				
Yoruba	11(84.6)	1(7.7)	1(7.7)	100				
Bini	9(100)	0(0)	0(0)	100				
Urobo	23(85.2)	3(11.1)	1(3.7)	100				

Ijaw	6(100)	0(0)	0(0)	100
Isoko	0(0)	0(0)	2(100)	100
Others	1(50)	1(50)	0(0)	100

NS = Not Significant; df = degree of freedom, X^2 = Chi-square value

Table 3 above shows a cross tabulation and a chi-square on the relationship between the respondents' socio-demographic characteristics and their attitude towards VCT. With respect to gender, 81.6% of males had poor attitude, 12.2 % had good attitude and the remaining 5.2 had excellent attitude of VCT, in females 83.9 % had poor attitude of VCT, 10.5 % had good attitude and the remaining 5.6% had excellent attitude. The chi-square statistic was 0.34 degree of freedom was 2. The significant value was 0.85, which is greater than the Alpha value (0.05). This proves there is no significances association between gender and the knowledge of VCT.

Data regarding respondents' age revealed that 20-29 age group 82.1 % had poor attitude, 12.2% had good attitude, while the remaining 3.6% had excellent attitude, among the 30-39 age group 86.6 % had poor attitude , 10.7 % had good attitude and the remaining 2.7% had excellent attitude, in the 40-49 age group, 87.8% had poor attiude,7.3% had good attitude ,and the remaining 4.9% had excellent attitude of VCT, in the 50-59 age group 67.9% had poor attitude,14.3% had good attitude and the remaining 17.8% had excellent attitude. The chi-square statistic is 11.53 and the degree of freedom is 6 and the p value is 0.73 which proves that there is no significant relation with age and knowledge of VCT.

Data on marital status shows that among singles 83 .3% had good attiude,11.9%, the remaining had 4.8% in the co-habiting group all of them had poor attitude (100%) of VCT, While in the married group 80% of them had poor attitude towards VCT, 12.0% had good attitude, while the remaining 7.4% had excellent attitude towards VCT. Those who were separated had 83% attitude, 16.7%, had good attitude, in the divorced group all of them had poor attitude (100%) and lastly in the widowed group all (100%) had poor attitude. The chi-square was 4.45, degree of freedom was 10, p value 0.93 which is lower than the Alpha value therefore not significant.

Data pertaining to number of children indicated that respondents without children 81.9% had poor attitude, 13.8% had good attitude and the remaining 4.3% had excellent

attitude. Those with one child 75% had poor attitude, 15% had good attitude and the remaining 10% had excellent attitude. In those with two 80% had poor attitude, 8% had good attitude and the remaining 12% had excellent attitude, in those with three 93.4% had poor attitude, 3.3% had good attitude and the remaining 3.3% had excellent attitude. In those with four 90% had poor attitude while the remaining 10% had good attitude The chi-square statistic is 7.22,degree of freedom is10 and p value is 0.70 which shows no significant relation between number of children and attitude of VCT.

Data on the respondents' educational level revealed that those with no qualification had 87.5% had poor attitude towards VCT, while the rest 12.5% had good attitude, those with primary certificate all (100%) had poor attitude towards VCT while in those with junior high all (100%) had poor attitude towards VCT. In the senior school categories 79.2% had poor attitude, 14.6% had good attitude while the remaining 6.2% had excellent attitude, in those with diploma 78.6% had poor attitude, 17.9% had good attitude and the remaining 3.6% had excellent attitude, those with first degree for 87.5% had poor attitude, 8.8% had good attitude while the remaining 3.8 had had excellent attitude. In the post-graduate 75% had poor attitude, 10.7% had good attitude and the remaining while 14 .3 % had excellent attitude. The chi-square is 9.20, df is 12, p value 0.69 which showed no relationship with the level of education and attitude of VCT.

With regards to the respondents' occupation, it was revealed that 63.0% of the unemployed had poor attitude towards VCT, 25.9 % had good attitude, while the remaining 11.1% had excellent attitude, in those on national service, 80.0% had poor attitude while 20.0% had good attitude, in those who are self-employed 86.4 had poor attitude, 9.9% had good attitude, the remaining 3.7% had excellent attitude, in those with government 89.7.0% had poor attitude, 3.4% had good attitude and the rest 6.9% had excellent attitude in those who are employed by private 84.0% had poor attitude, 10% had good attitude and the remaining 6.0% had excellent attitude. In retirees, all had a poor attitude that is 100%. The chi-square statistic is 12.34, degree of freedom was 10 and the p value was 0.69 which shows no relationship occupation and knowledge of VCT.

Data pertaining to the respondents' annual income revealed that in those earning below 500,000 (82.5%) had poor attitude towards VCT, 13.5% had good attitude and the rest 4.0% had excellent attitude, in 500,000-1,000,000 – 95.2% had poor attitude, 2.4% had good attitude and the rest 2.4% had excellent attitude. In the group of 1,500,000-2m 70% had poor attitude, and the remaining 30% had excellent attitude .In the group of 2,500,000-3000000 75% had poor attitude and the remaining 25% had good attitude ,3m.500,000 and above, 50% had poor attitude, 25% had good attitude, the remaining 25% had excellent attitude. The chi-square 24.08, df 10, p value is 0.01, Which shows that there is an association between annual income and attitude of VCT

With respect to religion, it was found that among the Christians, 82.7% had poor attitude towards VCT, 11.5% had good attitude, 5.8% had excellent attitude, among Muslims 83.3% had poor attitude, 16.7% had good attitude, while among new age religion all (100%) had poor attitude towards VCT. The chi-square statistic is 1.11, degree of freedom is 4, pvalue is 0.89 showing no significance between religion and attitude of VCT.

Finally, Data on the respondents' tribe revealed that in Hausa-fulani 66.7% had poor attitude and the rest 33.3% had good attitude towards VCT , Igbos- 83.0% had poor attitude ,11.9 had good attitude while the remaining 5.2% had excellent attitude knowledge, In the Yorubas – 84.6% had poor attitude, 7.7% had good attitude and the rest 7.7 had excellent attitude, in the Bini all had poor attitude (100%), in the Urhobos 85.2 % had poor attitude ,11.1% had good attitude and the remaining 3.7% had excellent attitude ,in the Ijaw group there was poor attitude (100%) lastly in the Isoko group they all had excellent attitude (100%) The chi-square statistics here was 43.89, degree of freedom is 14, the pvalue is 0.001, which showed that there is relationship between Tribe and attitude of VCT.

Discussion

The study determined socio-demographic characteristics as determinants of attitude towards voluntary counselling and testing (VCT) among patients in a tertiary hospital in Delta State, Nigeria. The findings of the study indicated that there were varying attitude among the respondents. However, the findings revealed generally that

majority (82%) of the respondents have positive attitude towards VCT in Delta state and would recommend VCT to others while 15% would not. This finding of the study implies that no matter the amount of stigma and discrimination against people suffering from HIV and AIDS in Delta state and Nigeria in general, many people would like to benefit from VCT services. This finding is in consonance with the findings by previous researchers Jeremy, et al (2008) and that of Zelalem, Aregawi and Belayenesh (2013), who reported that majority of the respondents have positive attitude towards VCT and would readily recommend to a friend to get HIV test in emergency department. The finding also agrees with the findings of a study by Otasowie (2010) who concluded that majority of participants indicated desire to recommend VCT to loved ones, which indicates positive attitude towards the programme. One possible reason for the positive attitude of the respondents towards VCT may be as the result of the sustained massive enlightenment campaigns by various stakeholders such as governmental and non-governmental organizations on the importance of voluntary counselling and testing in reducing the spread of HIV/AIDS in Nigeria. Perhaps through such campaigns, the masses have gained better understanding of the need for VCT.

Another finding of this study showed that there is a significant positive relationship between patients' socio-demographic factors such as tribe and annual income, and their attitude towards VCT, while there is no significant relationship between respondents' age, gender, marital status, educational level, occupation, religion and their attitude towards VCT. This particular finding of the study signifies that people's attitude towards VCT is greatly determined by their tribe and income. This finding is in-line with the reports of previous researchers (Fonner, Denison, Kennedy, O'Reilly & Sweat, 2012), who found that participants' socio-demographic factors such as tribe and annual income influenced their attitude towards VCT uptake. Possibly, this is why Woke (2016) identified Voluntary Counseling and Testing (VCT) as a useful, inexpensive and priceless tool that can improve contextualized HIV preventive efforts. However, this particular finding of this study contradicts previous report by Venkatesh et al. (2011) who in their study concluded that socio-demographic factors do not correlate with people's attitude towards VCT. The possible reason for the discrepancy between the finding of this study and that of Venkatesh and his group may be as a result of methodological

differences, researchers' level of competence or difference in population and location. Since the findings of this study supports that of Woke and contradicts that of Venkatesh, it may be possible that Venkatesh and his group may have committed either the "type-I" or "type-II" errors at the curse of their analysis.

Conclusion

Based on the findings of this study, the researchers concluded that some of the socio-demographic determinants of peoples' attitude towards voluntary counselling and testing (VCT) are their age, gender, marital status, educational level, occupation, religion, tribe and annual income. It was equally concluded that patients coming to federal medical center generally have good attitude towards VCT services. The study also concluded that there is a significant positive relationship between patients' tribe, annual income and their attitude towards VCT.

Recommendation

1. People should be encouraged to know their status so that prompt treatment can be instituted immediately. Early detection calls for early intervention.
2. Health workers and helping professionals such as medical doctors, nurses, counsellors, clinical psychologists and social welfare officers should be empowered with trainings to be abreast in recent scientific approaches in counselling and VCT centers should be decentralized to enable more people to benefit from the programme.
3. Structures where these counselling services are carried out should be client friendly to prom-privacy and confidentiality and evaluation structure should be put in place to evaluate counselling services.
4. Continuous awareness on the knowledge and utilization of Voluntary HIV counselling and testing services through mass media, health education and promotion should be continuously maintained to ensure a free HIV Nation.
5. Government, Non-Governmental Organizations (NGOS), Influential good spirited individual provide funds for grass-root mobilization, voluntarily counselling outreaches to the community on VCT for easy access.

6. Further researches should be conducted on factors mitigating perception of patient on VCT, predictors of patient' perceptions on VCT and other perception studies.

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