

## Acceptance and Uptake of Voluntary HIV Testing and Counselling among Nurses in Lautech Teaching Hospital Osogbo, Osun State, Nigeria

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### Abstract

*Nurses are at the front line of HIV/AIDS management, thus they have the danger of being occupationally exposed to blood borne pathogenic microbes through needle stick harm, body liquid sprinkles and so on over the span of their daily work.*

*Numerous studies have examined acceptance and uptake of HIV screening among health workers, yet few studies are specifically on nurses' acceptance and uptake of HIV testing and counselling. This study is aimed at examining nurses' level of acceptance and uptake of HIV testing and counselling in LAUTECH Teaching Hospital, Osogbo, Osun state, Nigeria.*

*The study is a descriptive design which was used to examine the acceptance and uptake of voluntary HIV testing and counselling among nurses in the institution. The target population were nurses at different areas of practice in the institution. One hundred copies of a structured questionnaire were administered to participants from the target group through accidental sampling technique, they were completed, collected, processed, analysed and interpreted.*

*Result shows that majority of the nurses in the institution had high level of knowledge about HIV/AIDS. 95% of the respondents were aware of HIV testing and counselling facilities around them and majority (94%) accepted and made themselves available for the test. 51%, a little above half of the 94%, have routine HIV test. Academic qualification was found to be a significant factor in the uptake of the test*

**Keywords:** Acceptance, Uptake, Voluntary HIV testing, Counselling, Nurses, Confidential

### Introduction

The HIV/AIDS pandemic is a standout amongst the most genuine world wellbeing emergencies.(3) As indicated by WHO and UNAID 2007, AIDS and AIDS-related diseases had murdered more than 25 million individuals and an expected 39.5 million individuals were living with HIV before the end of 2006.(2) Sub-Saharan Africa has kept on being incredibly influenced by the weight of the HIV/AIDS pandemic, with around 63% of the aggregate number of individuals living with HIV, 65% of the 4.3 million of aggregate new contaminations and 72% of the 2.9 million passings in 2006.(3) The Joint United Nations Program on HIV/AIDS (UNAIDS) gauges that in Nigeria, around 3.1% of grown-ups between ages 15-49 were living with HIV/AIDS before the end of 2007. (2)

HIV screening is deliberate and secret, it helps clients to settle on informed choice identified with HIV status and danger decrease. HIV screening is presently distinguished as a genuine and key access point to HIV/AIDS counteractive action, treatment, care and bolster mediations.(1)

Nurses assume a significant part in the administration of HIV/AIDS, as indicated by universal Nurses' Forum, 2006 nurses are said to be at the front line of HIV/AIDS (4) thus they have the danger of being occupationally exposed to blood borne pathogenic microbes through needle stick harm, body liquid sprinkles and so on over the span of their every day work. Numerous studies have been done universally on HIV/AIDS, acknowledgment of HIV testing by wellbeing specialists yet few studies have been completed on nurses' acknowledgment and uptake of HIV testing and counselling. This study is aimed at

examining nurses' level of acceptance and uptake of HIV testing and counselling in Lautech Teaching Hospital, Osogbo, Nigeria. Specifically, the study was designed to answer the following questions: (a) What do Lautech nurses know about HIV in terms of meaning, its cause and mode of transmission in relation to their profession? (b) Awareness of the nurses about HIV testing and counselling services available for their use. (c) Do they make themselves available for the test? (d) What are the possible hindrances to utilizing the screening and counselling services?

### **Research hypothesis**

Four null hypotheses were set to be analysed and they are;

There is no significant relationship between the nurses' knowledge about HIV/AIDS and their acceptance and uptake of HIV counselling testing.

There is no significant relationship between nurses' year of experience and their uptake of HIV counselling and testing.

There is no significant relationship between accidental exposure to blood-borne pathogens and HIV counselling and testing.

There is no significant relationship between nurses' academic qualification and their uptake of HIV counselling and testing

Limitation of the Study

The study was limited to LAUTECH Teaching Hospital nurses as a result of financial constraint and limited time with which the study was carried out. As a result the study may not be generalizable to nurses in the entire nation considering the relatively small sample used in the study. Moreover, the data must be interpreted with the limitations that they are collected through non-probability convenience sampling method.

## **Methods**

### **Research setting**

The study was carried out in Osogbo, Osun state among nurses working in Lautech Teaching Hospital.

Osogbo is a city in south west Nigeria, the capital of Osun State and comprises two Local Government Areas. The Local Government Areas have an area of 47 km<sup>2</sup> and a population of 156,694 at the 2006 census; the postal code of the area is 230. Osogbo is believed to have been founded around four hundred years ago. It is part of the wider Yoruba community.

Ladoke Akintola University of Technology Teaching Hospital currently has a total of 320 beds with total of 300 nurses from different specialties. As of the present, the Hospital has an Out-patient Department (O.P.D) comprising of the general clinics and all special clinics. The Surgery Outpatient Department serves all the specialities of surgery i.e. General surgery, Orthopaedic surgery, Plastic, Urology, Paediatric Surgery and Neurosurgery. The hospital has a theatre complex and four main theatre suits, a recovery room and an intensive care unit. It also has an Accident and Emergency theatre which takes care of emergency cases. There is also another theatre for labour room. The Accident and Emergency Unit has been recently expanded to include two consulting rooms, one room for Records, four couches to admit and resuscitate patients and Nurses station There is a ward for male surgical patients which admits in General Surgery, Plastics, Urology and Neurosurgery, a female surgical ward for admission of patients from all surgical specialities, a male Orthopaedic ward for Orthopaedic and trauma male patients as well as a Paediatrics Surgical ward and a Burn unit. There are also wards for male medical patients and for female medical patients.

### **Research design**

A non-experimental, descriptive design was adopted for this study, nurses in the teaching hospital were used. The sample comprised of one hundred questionnaires, same was administered through accidental or convenience sampling technique to nurses on duty in various clinics and wards at the period of data collection until the number was completed.

## **Instruments**

A twenty- six item self designed questionnaire was used. The questionnaire was structured in English and consisted of closed ended questions. The self designed questionnaire comprises of two sections namely: section A, which consisted of personal data, while section B dealt with the evaluation of nurses acceptance and uptake of HIV testing and counselling.

Reliability is the ability of the instrument to give the same or similar result with repeated use. To ensure the reliability of the questionnaire, the instrument was administered to ten respondents (nurses) as a pilot study at Osun state hospital, Asubiaro, Osogbo (outside the research setting), same was analysed and the correlation coefficient was determined to be 0.88. Two weeks after this, the questionnaires were administered to nurses at LAUTECH Teaching Hospital Osogbo - the research setting. To determine the acceptance and uptake of voluntary HIV testing and counselling among nurses in LAUTECH teaching hospital Oshogbo, Osun State. This design was used because it would allow for responses and would help in describing and interpreting the condition that exist in the study in systematic order. The data obtained from the study was analysed using SPSS version 17 with statistical techniques such as frequency tables and percentage. Hypotheses were tested using chi square method of analysis at 0.05 level of significance.

## **Ethical consideration**

In carrying out the study, ethical principles of autonomy, non maleficence, beneficence, justice and fidelity were the guiding principles. Informed consent was obtained in the process of administering the questionnaires. Nurses had the right to participate in the study or decline. Anonymity was maintained throughout the study; no intrusion on individual privacy, information from the study was kept confidential and used solely for the purpose of the study.

## **Result**

### **Description of study sample**

One hundred questionnaires were distributed to participants and the same was returned. Table one showed the demographic data of respondents. The following are the results: 19% of the respondents were between ages 20-29 years, 41% were between ages 30-39, 32% were between ages 40-49 and 8% were ages 50-59. 12% of the respondents were male while 88% were female. 75% of the respondents were married, 10% were single, 9% were divorced and 6% were widowers. 15% of the respondents were Muslims, 84% were Christians while 1% was traditional worshiper. Moreover, 70% of respondents had diploma nursing and midwifery as their highest educational qualification, 25% were degree holder while 3% of the respondents were master holder. In addition, 16% of the respondents had between 0-5 years of experience, 28% had between 6-10 years of experience, 29% had between 11-15 years of experience 22% had 16- 20years of experience and 5% had 20 and above year of experience. Also from the table, 21% of the respondents were nursing officers 1, 18% were nursing officers 11, 25% were senior nursing officers, 8% were principal nursing officers while 25% of the respondents were chief nursing officers.

### **Nurses' knowledge about HIV/AIDS**

From figure 1, 5% of the respondent believed HIV means human infection virus, 89% believed it was human immune deficiency disease, while the remaining 6% believed it was human infectious virus. Also from table 2, 92% of the respondents knew AIDS to be Acquired immune deficiency syndrome while the remaining 8% perceived it to be Acute immune deficiency syndrome. Moreover in figure 2, 4% of the respondents believed that unprotected sex was the mode of transmission that poses an occupational hazard to health workers, 3% believed it was mother to child transmission, 1% believed it was transfusion of unscreened blood, 23% opined that it was sharing of sharp object while the remaining 69% of the respondents opined that needle prick injury poses an occupational hazard to health workers.

Awareness of nurses about HIV testing and counselling services available for their use

From table 3, 19% of respondents defined HIV testing and counselling as the process in which an individual is counselled not to get tested for HIV, 3% defined it as a forceful and mandatory process of testing people for HIV while 78% of respondents defined it as a process in which an individual is counselled in order to make an informed choice about been tested for HIV/AIDS. Also in figure 3, 94% of respondents agreed to it that as a nurse they need to go for HIV testing and counselling, 5% responded 'no', while 1% of the respondents were not sure. From table 4, 95% of the respondents knew at least one HIV testing and counselling centre while 5% did not know any. Figure 4 showed that 6% of the respondents were of the opinion that service(s) rendered at HTC centres was counselling only, 48% responded that it was counselling and testing, while 46% of the respondents were of the opinion that it was all of the above.

Utilisation of HTC services by nurses

From table 6, 94% of the nurses have ever tested for HIV, while 6% have never been tested for HIV. Moreover, table 6 showed the respondents' reasons for their HIV test: 12% of the respondents got tested after a needle prick injury, 31% did it as part of antenatal test, 51% did the test just to know their HIV status, while 6% did the test for other reasons not included.

Possible hindrances to utilizing HIV testing and counselling services

Figure 5 showed that 3% of the respondents did not do the test for fear of result, 3% did not do the test for fear of stigma, while 5% of the respondents were of the opinion that they did not need the test.

## Hypotheses

Table 7 showed testing of hypothesis 1 which states that there is no significant relationship between the nurses' knowledge about HIV/AIDS and their acceptance and uptake of HIV counselling and testing. The correlation coefficient is negative (-0.008) at 0.05 level of significant

Table 8 showed testing of hypothesis 2 which states that there is no significant relationship between the nurses' years of experience and their uptake of HIV counselling and testing. The correlation coefficient is negative (-0.053) at 0.05 level of significant

Table 9 showed testing of hypothesis 3 which states that there is no significant relationship between accidental exposure to blood borne pathogen and HIV counselling and testing. The correlation coefficient is positive (0.202) at 0.05 level of significance

Table 10 showed testing of hypothesis 4 which states that there is no significant relationship between accidental exposure to blood borne pathogen and HIV counselling and testing. The correlation coefficient is positive (0.151) at 0.05 level of significance

## Discussion

In answering research question 1 from the result, 89% of the respondents knew the correct meaning of HIV, 92% of them knew the meaning of AIDS and 69% of them knew the mode of transmission that poses occupational hazard to health workers. This shows that Lautech nurses have a good knowledge about HIV in relation to them and their profession

Furthermore, from the data analysed 95% of nurses in Lautech teaching hospital knew at least one HIV testing and counselling centre and could even name it. Majority of the respondents also knew the services rendered at HTC centres, this implies that nurse are aware of the HTC centres around them and it answers the second research question. The corroborates the work of Zungu & BA Sanni (2011) on acceptance and uptake of voluntary HIV testing among health workers in South Africa which showed high levels of acceptance (87.0%) and uptake (90.7%) of HIV counselling and testing among healthcare workers in the designated public hospital. (5)

Moreover, 94% of the respondents have had HIV testing and counselling at one time or the other and routine testing was found to be the highest reason for the test. This shows that nurses utilize HTC services available for their use and it answers the third research question

and it is also in accordance with Zungu & BA Sanni (2011).(5) Furthermore, among the few that have never been tested for HIV, the common reasons were fear of result and fear of stigma. This also answers the fourth research question

In testing hypothesis one, on relationship between the nurses' knowledge about HIV/AIDS and their acceptance and uptake of HIV counselling and testing. The correlation coefficient is negative (-0.008) at 0.05 level of significant, it implies that the null hypothesis is not significant and hence it is accepted This is contradictory to Federal Ministry of Health (FMH) 2006 declaration that some studies had linked HIV counselling and testing with people's knowledge of HIV transmission and prevention. (6) On relationship between the nurses' years of experience and their uptake of HIV counselling and testing.(hypothesis 2) the correlation coefficient is negative (-0.053) at 0.05 level of significance, it implies that There is no significant relationship between the nurses' years of experience and their uptake of HIV counselling and testing. Therefore the null hypothesis is not significant and hence accepted. This was in contrast to a previous study carried out in Enugu on "Voluntary Counselling and Willingness to Screen among Long Distance Drivers" in which the educational status was a significant determinant in willingness to undergo screening. (7)

Concerning the relationship between accidental exposure to blood borne pathogen and HIV counselling and testing (hypothesis 3), the correlation coefficient is positive (0.202) at 0.05 level of significant, it implies that There is significant relationship between accidental exposure to blood borne pathogen and HIV counseling and testing. Therefore the null hypothesis is significant and hence hypothesis 3 is rejected.

The fourth hypothesis is on relationship between nurses' academic qualification and their uptake of HIV testing and counseling. The correlation coefficient is positive (0.151) at 0.05 level of significant, it implies that there is significant relationship between nurses' academic qualification and their uptake of HIV testing and counselling. Therefore the null hypothesis is significant and hence rejected. This corroborated Muoghalu, (2013) in whose work it was documented that there was a significant relationship between educational status of respondents and their knowledge about HIV/AIDS (8).

## **Recommendations**

Since the project was done on a relatively smaller population of LAUTECH Teaching Hospital nurses, the idea should be expanded to encompass other nurses and other health professional in other institutions in the state. There is also a need for continuous education on the current dynamics on HIV and AIDS for nurses and other health professionals and there should be follow-ups and refresher courses on the people educated to equip them with the latest knowledge.

Research is also needed to explore additional barriers to HTC uptake which include the possible stigmatization associated with post-HTC period in the event that a health professional has been tested HIV positive. In addition, some ground has to be covered to ensure that people have confidence in the counsellors.

## **Conclusion**

The result of the study reveals that majority of the nurses in LAUTECH Teaching Hospital had high level of knowledge about HIV/AIDS as expected by the virtue of their profession. They are aware of HIV testing and counselling facilities around them and majority of the respondents (94%) accepted and made themselves available for the test. Out of those who have ever been tested for HIV, more than half of them did the test just to know their HIV status (routine test). This does not have any relationship with year of experience but academic qualification with exposure to blood borne pathogen were found to be significant factors in the uptake of the test.

**Figures and tables**

**Table 1.** showing the demographic data of the respondents

Variable	Frequency	Percentage %
<b>Age range</b>		
20-29	19	19.0
30-39	41	41.0
40-49	32	32.0
50-59	8	8.0
Total	100	100.0
<b>Sex</b>		
Male	12	12.0
Female	88	88.0
Total	100	100.0
<b>Marital Status</b>		
Married	75	75.0
Single	10	10.0
Divorced	9	9.0
Widower	6	6.0
Total	100	100.0
<b>Religion</b>		
Christianity	84	84.0
Islam	15	15.0
Traditional religion	1	1.0
Total	100	100.0
<b>Educational Status</b>		
RN,RM/Others	70	70.0
Degree	25	25.0
Masters	3	3.0
Others specify	2	2.0
Total	100	100.0
<b>Years of experience</b>		
0-5years	16	16.0
6-10years	28	28.0
11-15years	29	29.0
16-20years	22	22.0
20years and above	5	5.0
Total	100	100.0
<b>Rank</b>		
NO I	21	21.0
NO II	18	18.0
SNO	25	25.0
PNO	8	8.0
CNO	24	24.0
ADNS and above	4	4.0
Total	100	100.0

**Table 2.** showing the respondents' opinion on meaning of AIDS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Acquired immune Deficiency syndrome	92	92.0	92.0	92.0
	Acute immune Deficiency syndrome	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

**Table 3.** what is HIV testing and counselling?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A process in which an individual is counselled not to get tested for HIV/AIDS	19	19.0	19.0	19.0
	Mandatory and forceful process of testing people for HIV/AIDS	3	3.0	3.0	22.0
	A process in which an individual is counselled for him to make an informed choice about being tested for HIV/AIDS	78	78.0	78.0	100.0
	Total	100	100.0	100.0	

**Table 4.** Do you know any centre for HIV testing and counselling?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	95	95.0	95.0	95.0
	No	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

**Table 5.** Have you ever tested for HIV/AIDS?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	94	94.0	94.0	94.0
	No	6	6.0	6.0	100.0
	Total	100	100.0	100.0	

**Table 6.** What was your reason for the test?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid After a needle prick injury	12	12.0	12.0	12.0
As part of antenatal test	31	31.0	31.0	43.0
I just want to know my HIV status	51	51.0	51.0	94.0
Other reasons not included	6	6.0	6.0	100.0
Total	100	100.0	100.0	

**Table 7.** Hypothesis 1 Testing Showing relationship between the nurses' knowledge about HIV/AIDS and their acceptance and uptake of HIV counselling and testing

Correlations			
		What is the full meaning of HIV?	Have you ever tested for HIV/AIDS?
Spearman's rho	What is the full meaning of HIV?	Correlation Coefficient	1.000
		Sig. (2-tailed)	-.008
		N	.937
	Have you ever tested for HIV/AIDS?	Correlation Coefficient	1.000
		Sig. (2-tailed)	-.008
		N	.937
			100

**Table 8.** Hypothesis 2 Testing Showing relationship between the nurses' years of experience and their uptake of HIV counselling and testing

Correlations			
		Year of experience	As a nurse there is need for me to go for HIV counselling and testing
Spearman's rho	Year of experience	Correlation Coefficient	1.000
		Sig. (2-tailed)	-.053
		N	.599
	As a nurse there is need for me to go for HIV counselling and testing	Correlation Coefficient	1.000
		Sig. (2-tailed)	-.053
		N	.599
			100



**Table 9.** Hypothesis 3 Testing Showing relationship between accidental exposure to blood borne pathogen and HIV counseling and testing

Correlations

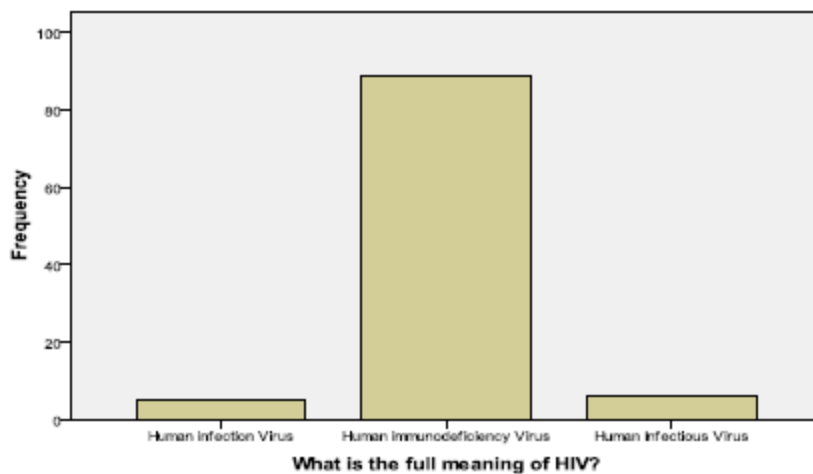
			Have you ever had accidental exposure to blood borne pathogen?	What are the types of services given at HTC centre?
Spearman's rho	Have you ever had accidental exposure to blood borne pathogen?	Correlation Coefficient	1.000	.202*
		Sig. (2-tailed)	.	.044
		N	100	100
Spearman's rho	What are the types of services given at HTC centre?	Correlation Coefficient	.202*	1.000
		Sig. (2-tailed)	.044	.
		N	100	100

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 10.** Hypothesis 4 Testing Showing relationship between nurses' academic qualification and their uptake of HIV testing and counselling

Correlations

			Educational status	If yes, when last did you have the test?
Spearman's rho	Educational status	Correlation Coefficient	1.000	.151
		Sig. (2-tailed)	.	.133
		N	100	100
Spearman's rho	If yes, when last did you have the test?	Correlation Coefficient	.151	1.000
		Sig. (2-tailed)	.133	.
		N	100	100



**Figure 1**

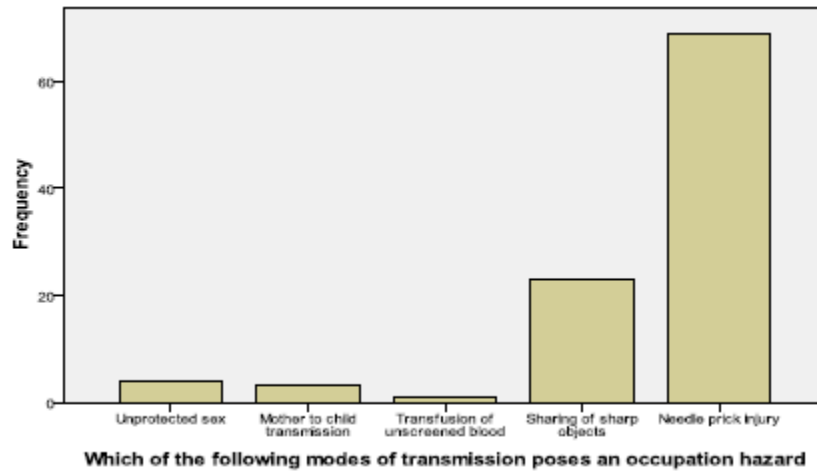


Figure 2

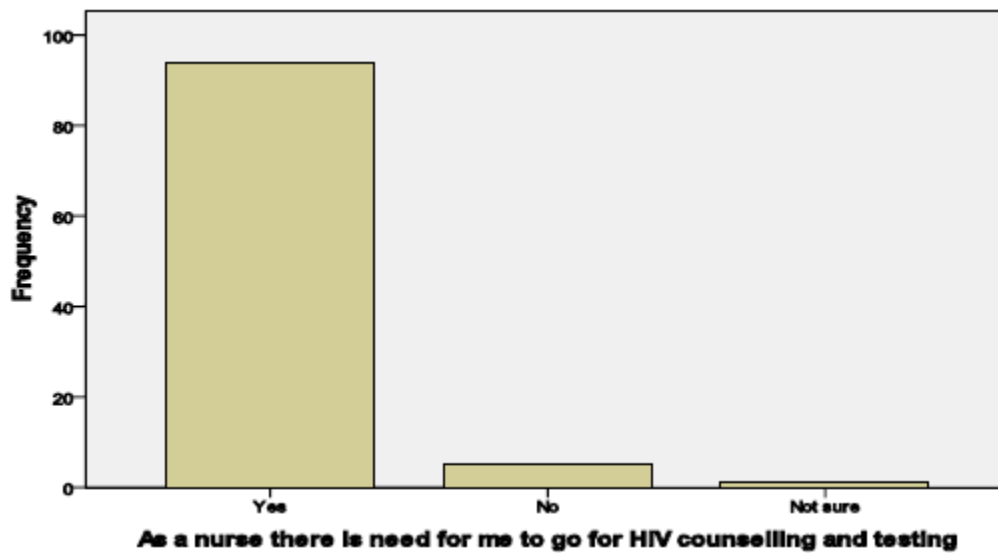


Figure 3

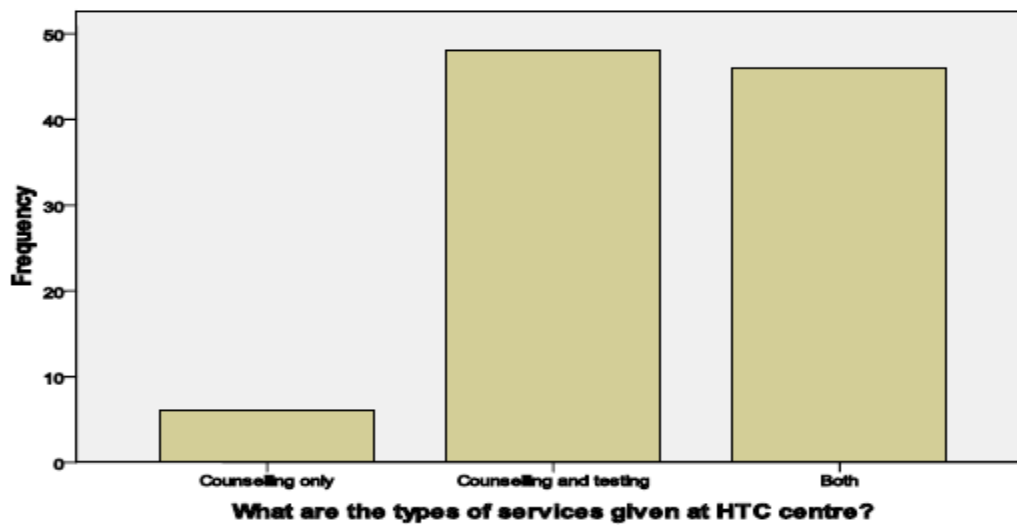


Figure 4

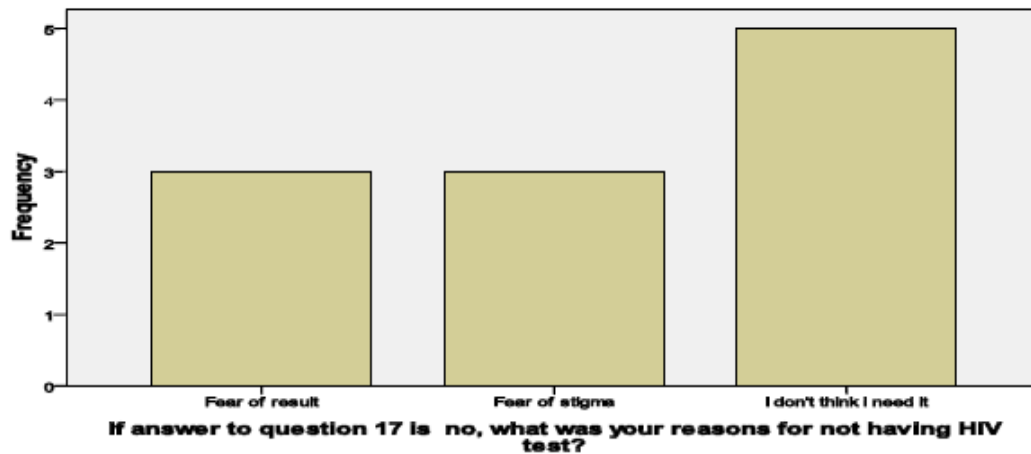


Figure 5

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