

# Prevalence of Psychological Resistance to Voluntary Counselling and Testing of HIV/AIDS among Students of Tertiary Institutions in Kano State, Nigeria

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**Abstract**—The incessant discomfort for Voluntary Counselling and Testing (VCT) exhibited by students in some tertiary institutions in Kano State, Nigeria is capable of causing Psychological Resistance as well as jeopardizing the purpose of HIV intervention. This study investigated the Prevalence of Psychological Resistance to VCT of HIV/AIDS among students of tertiary institutions in the state. Two null hypotheses were postulated and tested. Cross-Sectional Survey Design was employed in which 1512 sample was selected from a student population of 104,841 following Stratified Random Sampling technique. A self-developed 20-item scale whose reliability coefficient is 0.83 was used for data collection. Data analyzed via Chi-square and t-test reveals a prevalence of 38% with males (Mean=0.34; SD=0.475) constituting 60% and females (Mean=0.45; SD=0.498) 40%. Also, the calculated chi-square and t-test were not significant at 0.05 as such the null hypotheses were upheld. Recommendation offered suggests the use of reinforcement and social support for students who patronize HIV/AIDS counselling.

**Keywords**—HIV/AIDS, Prevalence rate, Psychological Resistance, VCT.

## I. INTRODUCTION

**H**UMAN Immunodeficiency Virus (HIV) is a parasite that destroys human body immune system, rendering it vulnerable to opportunistic infections, a condition known as Acquired Immune Deficiency Syndrome (AIDS) [1]. HIV/AIDS is today a global epidemic because of the devastating effects it has on human race. Current estimate shows that over 33 million people live with HIV worldwide, and Nigeria's prevalence rate and death toll hits 3.6% and 220,000 respectively [2] with Kano State having a record of 250,000 infected individuals (Family Health International, 2000). This figure places the country as the second most hit in the world [3]. Consequent upon this, several coordinated measures have been used by stakeholders in curbing the spread of the epidemic. One of such measures is Voluntary Counselling and Testing (VCT) [4]. Voluntary Counselling and Testing is universally adopted as the entry point for intervention against HIV infections [5]. It is a powerful weapon against the spread of the epidemic and a key starting

point for medical, psychological and social supports [6]. Counselling and testing is no doubt a catalyst for behaviour change, for client who tests negative as well as those who test positive [4].

The ambitious target of the government to prevent the spread of HIV infection requires that more people be aware of the disease and know their HIV status through Voluntary Counselling and Testing services. Providers of VCT have supported the government to scale up such services in both public and private institutions. Kano State is not left behind in this context. In complying with the practice, the State Ministries of Health and Education collaborated with some Non-Governmental Organizations (NGO) such as; Family Health International (FHI) in extending the campaign (VCT) to educational institutions [7]. It is believed that the knowledge of HIV status pushes individuals to reduce their risks of acquiring or transmitting the virus and to access care if they are infected.

Studies conducted elsewhere on Voluntary Counselling and Testing revealed significant results. A study on stigma, social risk, and health policy in California found that, anonymous reporting of HIV results to the government was supported by a margin of approximately 2-to-1, but name-based reporting was opposed 3-to-1. And that, compared to other respondents, supporters of name-based surveillance expressed significantly more negative feelings toward people with AIDS, gay men, lesbians, and injecting drug users. They concluded that more than one third of all respondents reported that concerns about AIDS stigma would affect their own decision to be counselled and tested for HIV in the future [8]. Similarly, a Ghanaian study showed that 76% of the sampled women reported no prior HIV counselling and 78% had never undergone any HIV testing. The study also indicated that the majority of the respondents were not accessing the available VCT services. It was also found that education, prior HIV testing and history of Sexually Transmitted Diseases (STDs) promoted respondents' acceptance of VCT [9].

In some parts of Nigeria, the trend is however not different. For instance, the study on knowledge, risk perception and behaviour on HIV/AIDS among students of tertiary institutions in Lagos state found that perceived risk of infections had significant effect on decision about prevention techniques as well as counselling and testing [10]. A similar negative attitude was noted amongst students of higher

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institutions in Ilorin towards the use of antiretroviral agents [11].

In Kano State, studies conducted on counselling and testing of HIV/AIDS revealed significant findings. An unpublished study on attitude of students of tertiary institutions in Kano metropolis to VCT revealed a gross discomfort (89%) for VCT services [12]. Similarly, a survey on HIV/AIDS knowledge, sexual behaviour and attitudes toward VCT among out-of-school youths in Kano state showed a gross ignorance and misperception (63.5%) of the etiology and causative agent of AIDS. Overall, 32.7%, 54.1% and 13.2% of the respondents had good, fair and poor knowledge of HIV/AIDS respectively. And of relevance to the present study is the fact that majority (83%) of the youths who has not had VCT previously, 15% were willing to be tested, and 26.4% were unwilling, while 58.2% were undecided [13]. This form of behaviour established by the aforementioned studies can lead to psychological resistance; a personal automatic ways of reaction in which clients refuses to reveal hidden aspects of themselves to the therapist or another person by way of boycott and total aloofness [14]. Psychological resistance may likely be due to misperception of the etiology of the epidemic [15], and or fear of discrimination and prejudice [16]. Discrimination and prejudice can distort the purpose of VCT which may result to non-disclose of HIV status [17]. As used in this study, psychological resistance refers to refusal to patronize or access VCT programmes.

Several studies [10][11][12]&[13] have been conducted on attitudes of people toward VCT, and factors hindering the acceptance of VCT in Nigeria, but not much focus have been on Psychological Resistance to Voluntary Counselling and Testing of HIV/AIDS among students of tertiary institutions in Kano state. This study is therefore designed to bridge the gap.

## II. STATEMENT OF THE PROBLEM

The discomfort and unwillingness to access Voluntary Counselling and Testing exhibited by students of some tertiary institutions in Kano State are capable of jeopardizing the purpose of HIV intervention. This problem can lead to non-disclosure of HIV status, increase vulnerability to HIV infections, low self concept and self worth. Refusal to patronize VCT can actually lead to negative perception of risk factors; promote gender stereotyping, gender stigmatization and above all negative peer influence.

This problem has adverse impacts on intervention and management of HIV/AIDS epidemic. The main thrust of this study is to investigate the prevalence of Psychological Resistance to Voluntary Counselling and Testing of HIV/AIDS among students of tertiary institutions in Kano state. This would assist stakeholders to re-strategize and come up with viable counselling approaches that can be used to overcome psychological resistance to VCT in the state.

## III. OBJECTIVES OF THE STUDY

The objectives of the study include the following:

1. To investigate the difference in the prevalence of Psychological Resistance to VCT among students of tertiary institutions in Kano State.
2. To determine Gender difference in the prevalence of Psychological Resistance to VCT among the students.

## IV. RESEARCH HYPOTHESES

The following null hypotheses were postulated for the study:

H<sub>0</sub>1: There is no significant difference in the prevalence of Psychological Resistance to VCT in the various categories of tertiary institutions in Kano State.

H<sub>0</sub>2: There is no significant gender difference in the prevalence of Psychological Resistance to VCT among the students.

## V. RESEARCH METHODOLOGY

### A. Design

Cross-sectional survey design was employed in the study, thus, data was collected from a representative sample or cross-section of the population [18] and studied over a short period of time. To achieve this, the 15 conventional tertiary institutions in the state were categorized into four subsections, i.e Universities, Polytechnics, Colleges of Education (COE) and Monotechnics. The population for each of the subsections was equally determined and samples were selected from the cross – sections. This ensured a comprehensive study of the problem (Psychological Resistance to VCT) within a distinct population (students of tertiary institutions in Kano state), over a short period of time.

### B. Population and Sample Size

The population of the study comprised of 104, 841 students of the 15 tertiary institutions in the state. In line with a conventional procedure [19], a total of 1512 students were proportionally drawn following Simple Stratified Random Sampling technique. This technique was employed in order to ensure representativeness of the samples [20]. The table below shows the breakdown of the population and sample size.

TABLE I  
STUDENTS POPULATION (N) AND SAMPLE SIZE (S) OF TERTIARY INSTITUTIONS IN KANO STATE

SN	Tertiary Institutions	No. of Schools	N	S
1.	Universities	2	36559	380
2	Colleges of Education	3	27817	378
3	Polytechnics	4	19658	377
4	Monotechnics	6	20807	377
	<b>Total</b>	<b>15</b>	<b>104841</b>	<b>1512</b>

Field work 2012

Table I above presents the summary of student's population (N) in the various institutions and their respective sample sizes (S) based on a conventional sampling procedure [19].

### C. Instrumentation

The instrument used for data collection was a self developed 20-item inventory known as Psychological Resistance to Voluntary Counselling and Testing Inventory (PRVCTI). Content-description validation for PRVCTI was demonstrated by examining the consistency of the inventory with research and theoretical literature as well as assessment by team of experts in Guidance and Counselling, Educational Psychology and Test and Measurement. The inventory (PRVCTI) was pilot tested on 100 part-time students of the Federal College of Education, Kano via the test-retest procedure, with a time lapse of four weeks between the two administrations. Using the Pearson Product Moment Correlation Coefficient (PPMCC) procedure, a reliability of 0.83 was obtained for the scale indicating a significant relative stability of PRVCTI.

### D. Methods of Data Collection

The validated instrument (PRVCTI) was distributed to 1512 students selected from among the tertiary institutions in the state. Research Assistants were employed to help in the administration of the instrument and data collection. Respondents were required to read the instructions carefully and respond to the statements by circling the appropriate number that indicates the frequency with which he/she exhibits such behaviour. The Likert – type appears to the right of the items, with rating ranging from 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly Agree) category. The PRVCTI scores were obtained by summing the circled values. The scale is provided with a space for subtotal in which values within the column can be summed (i.e. Strongly Disagree, Disagree, Agree, and Strongly Agree). Thus, the total scores were derived by summing the subtotals in the four columns to give a raw score, and the raw score percentile was calculated in order to determine Psychological Resistance to Voluntary Counselling and Testing of HIV/AIDS.

### E. Methods of Data Analysis

Contingency Chi-Square statistic was employed to analyze  $H_01$  while t-test statistical analysis was used for  $H_02$ . The rationale for these statistics is that; Chi-square procedure tabulates variable(s) into categories and compares the observed and expected frequencies in each category to test that all categories contain the same proportion of values or test that each category contains a user specific proportion of values [21]. The t-test is the equal-variance type and the data was independently and randomly sampled from normal distribution [21]. Since the goal of this study is to describe the prevalence of psychological resistance to VCT and the probability of the study lies between 0 (unlikely) and 1 (likely), the choice of these procedures is therefore considered as appropriate at 0.05 level of confidence.

## VI. DATA PRESENTATION AND HYPOTHESES TESTING

### A. Data Presentation

A summary of data obtained via Psychological Resistance to Voluntary Counselling and Testing Inventory (PRVCTI) is presented in Table II below.

TABLE II  
SUMMARY OF RESPONSES TO PRVCTI (N= 1512)

Institutions	Gender	Unlikely	Likely
Universities	Male	183	93
	Female	70	34
Colleges of Education	Male	167	81
	Female	53	77
Polytechnics	Male	158	88
	Female	62	69
Monotechnics	Male	138	81
	Female	105	53
<b>Total</b>		<b>936</b>	<b>576</b>

Field work 2012

The summary of ratings presented in the table above shows the likelihood and unlikelihood of psychological resistance to voluntary counselling and testing of HIV/AIDS among the students. Out of the 1512 subjects that responded to the instrument from the four categories (cross-sections) of tertiary institutions in Kano state, 38 percent (576) shows likelihood of Psychological Resistance to VCT, with males recording 342 and females 233 cases respectively.

### B. Hypotheses Testing

$H_01$ —There is no significant difference in the prevalence of Psychological Resistance to VCT among students in the various categories of tertiary institutions in Kano state.

This hypothesis was tested using Chi-square and result is presented in Table III below.

TABLE III  
CHI-SQUARE ANALYSIS OF THE PREVALENCE OF PSYCHOLOGICAL RESISTANCE TO VCT AMONG STUDENTS OF TERTIARY INSTITUTIONS IN KANO STATE (N=576)

Contingencies	Observed N	Expected N	Residual	df	Chi-square
Universities	127	144.0	-17.0	3	5.236
C.O.E	134	144.0	-10.0		
Polytechnics	157	144.0	13.0		
Monotechnics	158	144.0	14.0		
<b>Total</b>	<b>576</b>				

Field work 2012

The result in the table above is not significant considering the statistic of the distribution. The chi-square value of 5.236 is less than the critical value of 7.82. As the result the  $H_01$  which states that there is no significant difference in the prevalence of Psychological Resistance to VCT in the various categories of tertiary institutions in Kano State is hereby upheld.

$H_02$ —There is no significant Gender difference in the prevalence of Psychological Resistance to VCT among the students.

TABLE IV

T –TEST ANALYSIS OF GENDER DIFFERENCE IN THE PREVALENCE OF PSYCHOLOGICAL RESISTANCE TO VCT AMONG THE STUDENTS (N=576)

Variable	N	Mean	SD	SEM	df	t-cal	t-crit.
Male	343	0.34	0.475	0.015	1510	-4.183	1.960
Female	232	0.45	0.498	0.022			

Field work 2012

The result in the table above is not significant. It indicates that there is no gender difference in the prevalence of Psychological Resistance to VCT of HIV/AIDS among the students. As it is apparent in the table, the  $t$  – value of **-4.183** is less than the critical value of 1.960, therefore the  $H_02$  is upheld.

## VII. RESULTS AND DISCUSSION

From the analysis of the data collected and hypothesis tested, result showed no difference in the prevalence of Psychological Resistance to Voluntary Counselling and Testing of HIV/AIDS among students of the various tertiary institutions in Kano State. This finding coincides with the finding from an unpublished study [12]. Result from the study [12] showed a gross discomfort for Voluntary Counselling and Testing of HIV/AIDS. In line with this trend, a scholar [22] asserts that wrong and concocted information about HIV/AIDS, negative influence of peers, discrimination, perceived risk of infection and refusal or lack of cooperation during HIV counselling put people at greater risk of infection which eventually may lead to denial of being part of such group (counsee) including refusal to use safer sexual practices that act as markers for HIV. Similarly, an earlier study that examined knowledge, risk perception and behaviour on HIV/AIDS among students of tertiary institutions in Lagos state found that perceived risk of HIV infections affects decision about prevention techniques as well as counselling and testing. Other findings that confirm the present one include [11] who established that ignorance among other factors is responsible for low patronage of students to VCT centers in Kwara state. Also, a finding revealed that out of 83 percent of the youths who never had VCT previously, 15 percent were willing to be tested, and 26.4 percent were unwilling, while 58.2 percent were undecided [13].

Another finding from the study revealed no gender difference in the prevalence of Psychological Resistance to VCT of HIV/AIDS among the students. This finding corroborates [23]. In their study on community attitude to HIV/AIDS in South Africa, they found that 65 percent male and 92 percent female had not disclosed their HIV statuses to anyone. In a related study on acceptability by Nigerian women attending antenatal clinics conducted in south-west Nigeria, result found willingness of women to undergo

Counselling and Testing particularly if result would not be revealed to relatives [24]. While this may be true of women, the expectation that men be sexually experienced does not mean they know how to protect their sexual health [25]. Although, young men are much more likely to report having casual sex and as such are afraid to visit Counselling and Testing centers so that their sexual recklessness would not be revealed [26].

## VIII. CONCLUSION

Based on the findings of the study, the following conclusions are made. The present study establishes that Psychological Resistance to Voluntary Counselling and Testing is a potential impediment to management and intervention of HIV/AIDS pandemic in school settings. The fact that many (38%) of the students were rated with likelihood of Psychological Resistance accounts for the persistence of low patronage of voluntary counselling and refusal to go for HIV testing which is the entry point for treatment and other forms of intervention.

The study also reveals that Psychological Resistance has no gender preference which indicates that it is not particulate in its prevalence. It occurs among males and females. The relevance of these findings in the areas of counselling psychology, health counselling, management and intervention programmes for HIV and AIDS cannot be overemphasized. Therefore, providers of VCT services should prioritize and redirect their intervention, prevention and management programmes that will meet the yearnings of the teaming youngsters who may be at risk of HIV infection.

## IX. RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are offered:

1. HIV/AIDS Counsellors should employ reinforcement, praise and social support for positive attitudes, behaviour change or maintenance of safe behaviour among students who patronize HIV/AIDS counselling irrespective of the category of institution they belong. This would make others to appreciate the values of VCT.
2. HIV/AIDS Counsellors should use effective Psycho-educational intervention for gender stereotyping, HIV risk avoidance and stigma reduction. This would help to overcome negative perception of the etiology of the epidemic and psychological resistance to counselling of HIV/AIDS amongst male and female students.

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