ASSESSMENT OF RELATIONSHIP OF GENDER, AGE GROUPS AND TYPE OF SCHOOLS IN HIV/AIDS AWARENESS (A CASE STUDY OF SECONDARY SCHOOL STUDENTS IN JALINGO, TARABA STATE)

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ABSTRACT: The study is to assess the rate of knowledge/awareness of HIV/AIDS among secondary school students in related to their Gender, Age-groups and Type of Schools in Jalingo, Taraba State, Nigeria. A 29 item, English-language questionnaire was administered to a sample of 660 students across 8 selected secondary schools in Jalingo. The result revealed that that 49.85% and 50.15% of the respondents were male and female respectively, it also shows that 88.33% know what HIV/AIDS is, and 86.82% believes that the disease is preventable, while 35.46% have misconception that the disease is curable. The data was subjected to cross tabulation using Chi-Square (χ^2) statistic which revealed that the knowledge on the mode of transmitting the disease is independent of Age-group and Gender of the respondents but there is relationship between the knowledge on the Mode of transmitting and the type of school the respondents attend. Furthermore, the study also revealed that knowledge on existence and preventability of HIV/AIDS is independent of School types and Age category of the respondents except for the response on curability of the disease which is dependent of Age-group and school type. However, the knowledge of curability and preventability of the disease is independent of the gender of the respondents, but the knowledge of the respondents on existence of the disease depends on the gender of the respondents.

KEYWORDS: Chi-square, HIV/Aids, Age-group.

1. INTRODUCTION

Since it was first reported among homosexuals in the United States in 1981, Acquire Immune Deficiency Virus (AIDS) has had its most profound effect on the people of sub Saharan Africa. The HIV/AIDS pandemic has not only been the worst tragedy in contemporary history, but has also posed serious demographic, humanitarian, economic health and developmental crisis ([Ogu04]).

In Nigeria, ever since the first case of AIDS was registered in 1982, the epidemic has become a topical issue and it has been on an increase rate.. For instance, in 1999 an estimated 5.4% of the population were infected with HIV/AIDS ([P+02]), by 2006, 6.1 million of 140 million population were living with HIV/AIDS and the situation became worrisome as the number of people with the disease grew significantly by the end of 2010 ([***19]). Despite the pandemic nature of HIV/AIDS, it was not until 2000 that the Nigerian government recognized HIV/AIDS as a major health problem ([***00]). Unfortunately, this was not immediately matched with intensified campaign on HIV/AIDS by governments at all level. Several researches show that an average secondary schools students are sexually active with many having multiple sexual partners ([BM08], [OE05]). Due to the long incubation period of HIV, it is likely that many older adolescents and young adults living with HIV/AIDS were infected as teenagers. It is thus evident that effective strategies have to be put in place to educate Nigerian youths on sexuality matters. Bamise *et al* ([BBA11]) also reveal that there is high misconception on the mode of transmission of the disease among students. While Olaitan ([Ola07]) and Ruma ([Rum09]) concludes that respondents had better knowledge of the meaning of HIV/AIDS but recommended that, more and adequate information knowledge about HIV/AIDS should be made available to all adolescents students and the entire populace regardless of age, sex, marital status, religious group, occupation, etc. also, Health Education as a subject should be intensified in our primary and secondary schools in Nigeria. However, the recent happening indicates government sudden interest in fighting the scourge. Government mounted aggressive campaign in the media and posted billboards in cities and highways, sensitizing on the dangers of the disease, and how it's transmit and various ways of its prevention. There have also been responses from nongovernmental organizations in this campaign. Despite these concerted efforts by government and non- governmental organizations to address the problem, it is disheartening to note that the rate of infection is still very high. Hence, there is

for further research to ascertain the level of attentiveness given by the Secondary School Student to the disease.

2. METHODOLOGY

2.1. Research Method

Descriptive survey design was employed for this study. William ([Wil06]) defined a descriptive survey research as the study of existing conditions by collecting and analyzing data, and arriving at some conclusions and recommendations. This research was specifically designed to seek information on related knowledge on HIV/AIDS among student of secondary school in Jalingo, Taraba state.

2.2. Population of the Study

A cross-sectional questionnaire survey was administered to some students of Junior Secondary School to Senior Secondary School in some selected educational institutions in Jalingo, Taraba State. The Principal of the sampled institutions was duly informed and their consent was sought before approaching the respondents. From the selected sampled schools, students were accessed using self-administered questionnaire.

2.3. Sample and Sampling Techniques

A standard set of questionnaire was distributed among the students. Before administering the questionnaire, the nature of the study was explained to the students and they were assured of the anonymity of the survey and secrecy of his/her personal answers. The survey was carried out during the regular school hours. Students were made to sit apart and asked not to communicate with each other during the administration of the questionnaire so as to encourage honest responses.
The Stratified sampling technique was used to determine the sample size. The secondary schools in Jalingo metropolis were divided into three (3) strata namely: Rural, Urban and Private secondary schools.

2.4. The Survey Instrument

A 29-items questionnaire were structured with aimed of measuring respondent's knowledge and awareness regarding HIV/AIDS.

2.5. Method of Data Analysis

The method of analysis used in this project is the Chi-Square (χ^2) statistic and simple percentage.
The test statistic χ^2 is given by:

$$\chi^2 = \sum_i \sum_j \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Where:
O_{ij} represent the observed counts
E_{ij} represent the expected counts
The statistic will reject the null hypothesis (H_o) when

$$\chi^2 > \chi^2_{(\alpha,df)}$$

Where:
$\chi^2_{(\alpha,df)}$ is the upper tail (100α)% point of χ^2_{df} distribution with $df = (r-1)(c-1)$ degree of freedom.

3. RESULT AND DISCUSSION

3.1. Profile of the Respondents

Table 1 revealed the profile of the respondents. The table shows that 49.85% and 50.15% of the respondents were female and male respectively. On age characteristic of the respondents only 45.61% of the respondents are of 10 – 15 years old and 54.39% are of age 16 – 21 years old.

Table 1: Profile of the Respondent

Variables	Frequency	Percentage (%)
Gender		
Male	329	49.85
Female	331	50.15
Age Group		
10 – 15	301	45.61
16 – 21	359	54.39
Class in School		
JSS I	90	13.64
JSS II	90	13.64
JSS III	90	13.64
SSS I	100	15.15
SSS II	140	21.21
SSS III	150	22.73

3.2. Response on Knowledge of HIV/AIDS

Table 2 shows the response of the respondent of the HIV/Aids knowledge. From the Table, 88.33% of the respondents are aware of HIV/AIDS exist while 35.46% of them believe that there is cure for the disease, and 86.82% believes that the diseases is preventable.

3.3. Tabulation of School Name and Knowledge on HIV/AIDS

From the Table 3, except for the response on knowledge on the curability of HIV/AIDS that is dependent since it has a higher relationship coefficient than the other, the responses on both knowledge of existence and preventability of the disease is independent of school attend by the respondents.

3.4. Cross Tabulation of Age Category and Knowledge on HIV/AIDS

The results in Table 4 revealed that knowledge on existence is significance; hence the knowledge is dependent of gender while curability and preventability of HIV/AIDS is independent of Age category of the respondents and this supported by the contingency coefficient which shows that there is a relationship between the response on knowledge and gender than other variables and gender.

3.5. Cross Tabulation of Gender of the Respondents and Knowledge on HIV/AIDS.

The Table 6 revealed that knowledge on existence, curability and preventability of HIV/AIDS is independent of Age category of the respondents except for the response on curability of the disease which is significance at 5% of level of significance which shows a slight higher relationship than others.

3.6. Cross Tabulation of School Name and Mode of Transmitting

The Table 6 shows that the responses on knowledge on mode of transmitting of the disease is significance, therefore H_{06} is rejected and concludes that the level of awareness on mode of transmitting does depend on type of school the respondents attend except on the effect of unscreened blood with low relationship coefficient, hence, is independent of the schools.

3.7. Cross Tabulation of Age Category and Mode of Transmitting

The Table 7 shows that the responses on knowledge on mode of transmitting of the disease is not significance, therefore H_{02} is accepted and concludes it does not depend on age categories of the respondents except on the effect of unscreened blood which dependent of the age categories which have a higher relationship coefficient with age-category than the other variables.

3.8. Cross Tabulation of Gender of the Respondents and Mode of Transmitting

The Table 8 revealed that the responses on knowledge on mode of transmitting of the disease is not significance, therefore H_{08} is accepted and concludes it does not depend on gender of the respondents this is supported by the contingency coefficient which indicate that the relationship is weak between the variables.

Table 2: Summary distribution of respondents on knowledge of HIV/AIDS

S/No	Questions	Private Schools		Public Sch. (Urban)		Public Sch. (Rural)		Total	
		Yes	No	Yes	No	Yes	No	Yes (%)	No
1	Existence of HIV/AIDS	109	11	320	40	154	26	583 (88.33)	77
2	Does HIV/AIDS have cure	20	100	128	232	86	94	234 (35.46)	426
3	Is HIV/AIDS preventable	109	11	314	46	150	30	573 (86.82)	87

Table 3: Crosstab of school with knowledge on HIV/AIDS

Questions		Name of School				
		Public Rural	Public Urban	Private	Chi-Square	P-value
Do you know of the existence of HIV/AIDS?	Yes	154	320	109	2.183	0.336
	No	26	40	11		
Does HIV/AIDS have cure?	Yes	86	128	20	30.456	.000
	No	94	232	100		
Is HIV/AIDS preventable?	Yes	150	314	109	3.652	0.161
	No	30	46	11		

Table 4: Crosstab of age categories with knowledge on HIV/AIDS

Questions		Age Category			
		10 – 15	16 -21	Chi-Square	P-value
Do you know of the existence of HIV/AIDS?	Yes	266	317	.001	.0977
	No	35	42		
Does HIV/AIDS have cure?	Yes	93	141	5.023	.025
	No	208	218		
Is HIV/AIDS preventable?	Yes	264	309	.383	.536
	No	37	50		

Table 5: Crosstab of gender with knowledge on HIV/AIDS

Questions		Gender			
		Male	Female	Chi-Square	P-value
Do you know of the existence of HIV/AIDS?	Yes	279	304	7.936	.005
	No	50	27		
Does HIV/AIDS have cure?	Yes	111	123	.844	.358
	No	218	426		
Is HIV/AIDS preventable?	Yes	293	280	2.875	.090
	No	36	51		

Table 6: Crosstab of school with mode of transmitting

Questions		Name of School				
		Public Rural	Public Urban	Private	Chi-Square	P–value
Can people get HIV/AIDS from mosquito bites, kissing or hugging?	Yes	56	119	17	16.056	.000
	No	124	241	103		
Can people get HIV/AIDS by eating?	Yes	36	36	15	10.545	.005
	No	144	324	105		
Can people get HIV/AIDS from unscreened blood?	Yes	164	318	112	2.840	.242
	No	16	42	8		

Table 7: Crosstab of age category with mode of transmitting

Questions		Age Category			
		10 – 15	16 – 21	Chi-Square	P – value
Can people get HIV/AIDS from mosquito bites, kissing or hugging?	Yes	91	101	.350	0.554
	No	210	258		
Can people get HIV/AIDS by eating?	Yes	41	46	.093	.760
	No	260	331		
Can people get HIV/AIDS from unscreened blood?	Yes	263	318	4.235	.040
	No	38	28		

Table 8: Crosstab of gender with mode of transmitting

Questions		Gender			
		Male	Female	Chi-Square	P - value
Can people get HIV/AIDS from mosquito bites, kissing or hugging?	Yes	90	102	.958	.328
	No	239	229		
Can people get HIV/AIDS by eating?	Yes	48	39	1.136	.286
	No	281	292		
Can people get HIV/AIDS from unscreened blood?	Yes	303	291	3.206	.073
	No	26	40		

CONCLUSION

This study reveals that the level of awareness among Secondary School Students in Jalingo, Taraba state on HIV/Aids, are significant and some basic knowledge especially on the existence of the disease and mode of transmitting of the disease are independent of the students Gender, Age-group and types of School.

REFERENCES

[BM08] **Bankole O. M., Mabekoje O. O.** – *Awareness and Opinions about HIV/AIDS among secondary school teachers in Ogun State, Nigeria.* Scientific Research and Essay Vol.3 (6), pp.245-253, June 2008.

[BBA11] **Bamise O. F., Bamise C. T., Adedigba M. A.** – *Knowledge of HIV/AIDS among secondary school adolescents in Osun state, Nigeria.* Niger. J. Clin. Pract. (serial online) 2011, 14:338-4, cited 2015 March 7.

[Ogu04] **Ogunbodede E. O.** – *HIV/AIDS Situation in Africa*. Int. Dent. J. 54(6):352-360, 2004.

[Ola07] **Olaitan O. L.** – *Students' knowledge about the Meaning of HIV/AIDS among student of tertiary institutions in Kwara State*, Nigeria. Journal of Physical Education and Research (JOPER) Vol. XIII, no. 1, pp 1762-1767, August, 2007.

[OE05] **Orji E. O., Esima U. A.** – *Sexual behaviour and contraceptive use among secondary school students in Ilesha, south West Nigeria. A technical report.* J. Obstet. Gynaecol. 25(3): 269-272, 2005.

[P+02] **Penchard C., Woog V., Singh S., Darroch J. E., Bankole A.** – *Issues in Measuring HIV Prevalence: The Case of Nigeria*. African Journal of Reproductive Health, 6(3): 1, 2002.

[Rum09] **Ruma M. M.** – *Knowledge and awareness of HIV/AIDS among some senior secondary school students in Katsina*, Nigeria. Bayero Journal of Pure and Applied Sciences, 2(2): 121-126, 2009.

[Wil06] **William M. K.** – *Descriptive statistic, research method knowledge base*, 2006, Retrieved 14 march 2011.

[***00] **Federal Republic Nigeria** – *National Policy on HIV/AIDS/STICS Control.* Abuja: Federal Ministry of Health, 2000.

[***19] *** – *National Action Committee on AIDS (2019) Report.*