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Influence of Gender and Age on HIV and AIDS Preventive Practices among Adolescents in Edo State

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Abstract
This study focused on influence of gender and age on HIV and AIDS preventive practices among senior secondary school students in Edo State. The survey design employing the descriptive survey design was used to determine the relationship between gender, age and HIV preventive practices among adolescents in Edo State. The population of the study consisted of 91,192 senior secondary school students in Edo State. The multi – stage sampling technique was used to get the sample size of 1,768. The instrument was a questionnaire developed by the researchers. Three research questions and two hypotheses were formulated. The data were analyzed with the Chi-square. The findings showed that there was a significant relationship between gender, age and HIV preventive practices among senior secondary school students representing the adolescents in Edo State in hypotheses one and two respectively. Based on the findings, the following recommendations were made. Health education in secondary schools should be intensified and parents, teachers, religious leaders and traditional rulers should inculcate good morals into adolescents by showing good examples. Women should also be empowered educationally and financially so as to improve their ability to resist HIV risky practices especially in relation to risky sexual advances.
Keywords: HIV and AIDS preventive practices, Influence and Relationship.

Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) were formally reported in Nigeria in 1986 when the first case was discovered. HIV syndrome is a condition characterized by the development of life threatening multiple opportunistic infections and/or uncommon forms of malignant neoplasm in patients. It is also characterized by severe depression of the T-cell mediated immune system caused by HIV which has been firmly implicated as the cause of AIDS. HIV destroys body defense mechanism or immune system against infections. Although there is presently no known cure for HIV infection, there are medications that can significantly alter the course of the disease and extend life.

There are many risk factors that contribute to the spread of HIV. They include prostitution, high prevalence of Sexually Transmitted Infections (STIs), clandestine high risk homosexual practices, international trafficking of women and irregular blood screening (World Health Organization (WHO, 2006). WHO, (2006) also pointed out that HIV and AIDS are usually linked with sexual activities. Sex traditionally is a very private subject in Nigeria for cultural and religious reasons. The discussion of sex with teenagers especially girls is seen as indecent. There is little or no sexual health education for young people and this has been a major barrier to reducing rates of HIV and other STIs.

WHO defined 'adolescent' as a person between the ages of 10 – 19 years and 'young people' as those between 10 – 24 years. They make up one – third of the population in Nigeria (Federal Ministry of Health (FMOH), 2007). Adolescence is the period in human growth and development that occurs after childhood and before adulthood. These years maybe roughly divided into three stages: early adolescence (11 – 14 years; middle adolescence (15 – 17 years); and late adolescence (18 – 21) years. This adventuring group is vulnerable to juvenile delinquency, sexually transmitted diseases and single parenting (WHO, 2016).

On gender, females are more vulnerable to HIV and AIDS infection than males based on their biological make-up, economic situations, lifestyles or sexual behavior. Females are commonly disadvantaged, especially in African society. They lack socio economic power. They suffer reduced access to education, employment, health care and inheritance. Relationships with men, both casual and formal, may provide financial and social security (UNAIDS & WHO, 2004). The study by Ambasa-Shisanga (2006) revealed that it was easier for girls to adopt HIV prevention when single than boys; however the situation changes upon marriage. Another study by Johanna, Colleen, William and Tammy (2004) also confirmed this. It reported that significant gender differences were found when HIV prevention goals of students were compared.

HIV/AIDS has emerged as a major health and development concern worldwide. Today, more than half of all new infections strike people under the age of 25 years (Grebremedhin, Grebremedhin, Desse, Alemayehu, Abreha, Berhare and Fisseha, 2016). Wand and Ramjee (2012), stated that highest seroconversion rate was observed among women who had reported to have had sex 15 years or younger. According to United Nation

Development Programme (UNDP) (2002), the highest prevalence rates of HIV infection correspond to the most sexually active groups, usually from age 15-19 years old. Center for Disease Control and Prevention (CDC&P), (2010) reported that research has shown that well designed, well implemented school based HIV and STIs prevention programme can significantly reduce sexual risk behavior among students. This emphasized the need to focus on sex education among school adolescents.

The HIV preventive practices everyone has to hold on to include abstaining from sex, avoid needle or any sharp object sharing, use of condom, use of screened blood products and prevention of mother to child transmission. However, abstinence is not a realistic option for everyone (UNAIDS, 2008).

Due to the seriousness of HIV and AIDS pandemic in the country, the Federal Government of Nigeria started some prevention programmes. Despite Nigeria's effort in fighting the epidemic, death due to HIV and AIDS continue to escalate. The majority of the people feared to be at risk are the adolescents and young adults. In Nigeria, Federal Ministry of Health (FMOH, 2008) alleged that the adolescent population which is made up of senior secondary school students is more prone to HIV and AIDS. FMOH and WHO, (2004) also alleged that because HIV and AIDS may not be detected early, fingers are pointed at the adult population as the major risk group. As a result, due attention is not usually focused on the adolescent population and hence the increase in the spread of HIV and AIDS.

Examining the influence of gender and age on HIV and AIDS preventive practices among senior secondary school adolescents can present a most viable option to tackle the problem of increases in the prevalence rate of HIV and AIDS. A lot of campaign has been done, but not much work has been done in the area in Nigeria. Such information is also currently not available for Edo State of Nigeria. This study attempts to examine this area to bring the information that might help reduce the prevalence rate of HIV and AIDS.

This study covers senior secondary school students in Edo State. This is because senior secondary school students were considered more matured than those in the junior secondary schools. Using senior secondary school students gave the researcher the opportunity to capture matured adolescents in the State that one can comfortably discuss this type of issue with. The influencing characteristics focused on are gender and age of senior secondary school students. The HIV preventive practices that were covered include abstinence, faithfulness, condom use, avoidance of sharp instrument sharing, avoidance of use of unscreened blood and for voluntary counseling and testing for early detection.

Purpose of the Study

The main purpose of the study is to determine the influence of gender and age on HIV and AIDS preventive practices among senior secondary school students in Edo State. The specific purposes are to determine the HIV preventive measures practiced among senior secondary school students in Edo State.

Research Questions

To guide this study, the following relevant research questions were raised.

1. What are the HIV and AIDS preventive practices adopted by the senior secondary school students in Edo State?
2. What is the relationship between gender and HIV preventive practices adopted by the senior secondary school students in Edo State?
3. What is the relationship between age and HIV preventive practices adopted by the senior secondary school students in Edo State?

Hypotheses of the Study

1. There is no significant relationship between gender (male and female) and HIV preventive practices among senior secondary school students in Edo State.
2. There is no significant relationship between age and HIV preventive practices among senior secondary school students in Edo State.

Design of the Study

This study is a survey design employing the descriptive survey design. The descriptive survey is preferred for this study because data are collected at one point in time from a sample selected to describe some larger population at that time. Such survey can be used not only for purposes of description but also for the determination of relationships between variables at the time of study (Babbie, 1998). This study determines the relationship between students' gender, age and HIV and AIDS preventive practices.

Population for the Study

The population for the study consisted of 91,192 senior secondary school students in Edo State. The total number of public and private (registered) senior secondary schools in Edo State is 807 (Ministry of Education, Department of Examinations, Planning and Statistics, Benin City).

Sample and Sampling Techniques

The sample size for the study was 1,768. The multistage sampling technique was used. Edo State is divided into three (3) senatorial districts (Edo South, Edo Central and Edo North) with a total of 18 Local Government Areas. Half of these Local Government Areas which is 9 was randomly selected for the study. This was done by selecting 3 Local Government Areas from each senatorial district through the process of balloting. The population of senior secondary schools in the nine (9) selected Local Government Areas was 58,919. To get a fair representative of population of the senior secondary school students in the state, three percent (3%) of the figure was used. 3% of 58,915, is 1,768.

Research Instrument

The instrument is a questionnaire constructed by the researchers titled 'Influence of Gender and Age on HIV and AIDS Preventive Practices Questionnaire' (IGAHAPPQ) was used as the instrument for the study. It was 60 items structured instrument divided into three sections, A, B and C. Section 'A' elicited respondents' demographic information – it was 4 item questions. Section 'B' was 47 item questions which elicited information on influence on HIV and AIDS and section 'C' was 19 item questions which elicited information on HIV and AIDS preventive practices.

Validity and Reliability of Instrument.

The instrument was content validated by three experts in Health Education with a Ph.D. The reliability of the instrument was determined by the test-retest method. The questionnaire was administered to selected students from a mixed school not originally among the schools for the study. After an interval of two weeks, the exercise was repeated with the same subjects. The resulting data were treated with the Pearson's Moment Product Correlation Coefficient. A reliability coefficient of 0.78 was obtained. The instrument was therefore adjudged to be reliable.

Method of Data Analysis

Out of the 1,768 questionnaires administered, 1,297 were properly completed and returned representing 73 percent. In answering the research questions stated, question one was answered using frequencies and percentages because it was not hypothesized. Hypothesis one and two indeed were formulated from the research questions and was tested using the Chi-square. The alpha level was set at 0.05. Tables and bar charts were also used in the data analysis.

Presentation of Data Analysis and Discussion of Results.

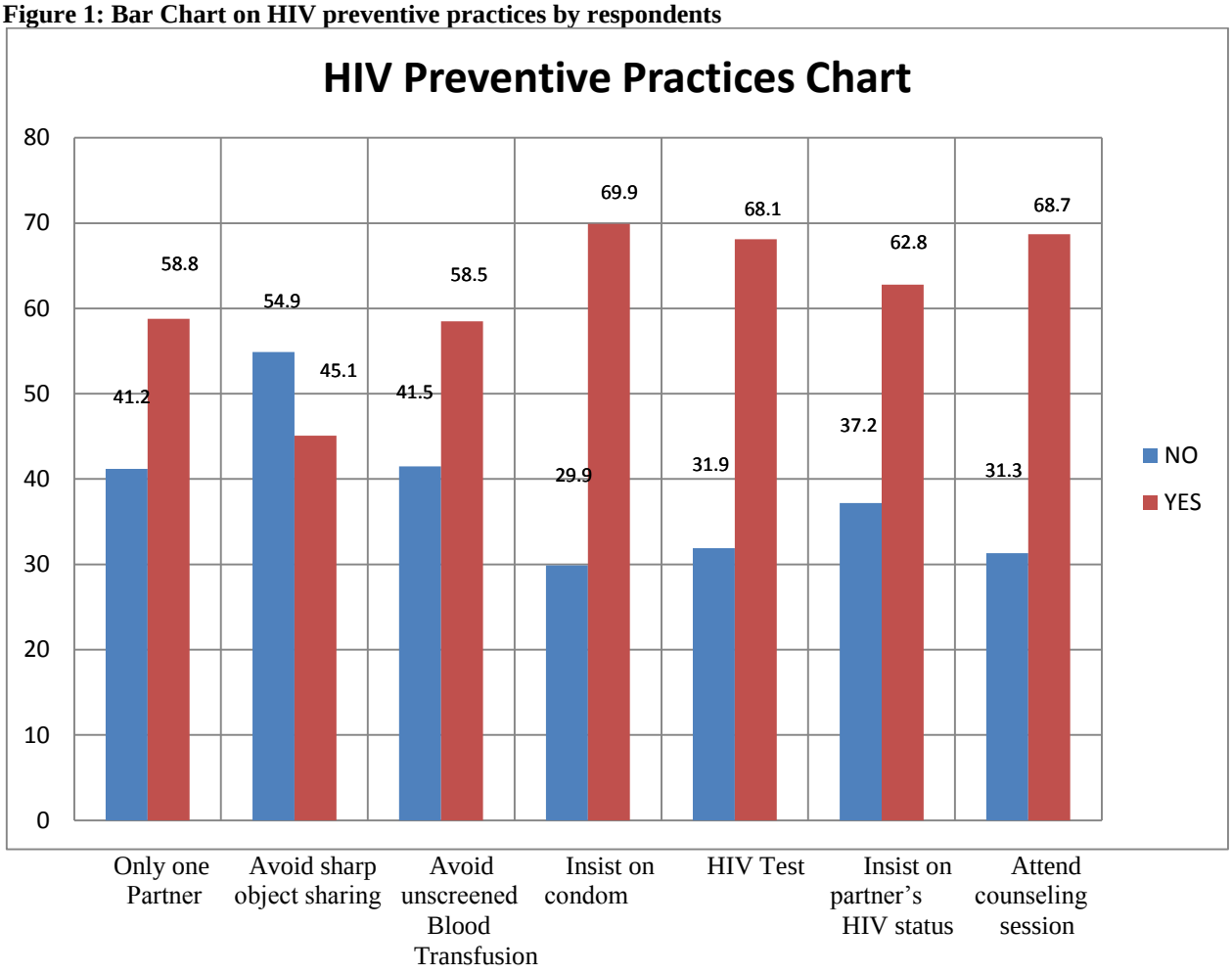
Research question one: What are the HIV preventive practices adopted by the senior secondary school students in Edo State?

Table 1: Frequencies and Percentages of Respondent Adopting Different HIV Preventive Practices.

HIV preventive practices	f	%
Only one partner	461	35.5
Avoid sharp object sharing	1241	95.7
Avoid unscreened blood transfusion	1242	95.8
Insist on condom	1226	94.5
HIV Test	1197	92.3
Insist on partners status	1184	91.3
Attend voluntary counseling sessions	1174	90.5

The above is presented and expanded in graph form below.

Figure 1: Bar Chart on HIV preventive practices by respondents



The number of respondents who declined to answer item on only one partner was high because many did not want to discuss issues about sex. Also probably many have not started any sexual relationship with the opposite sex. Looking at the graph, although the number of respondents that answered the other items was high, there were low negative responses to some of the items. These same reasons mentioned above probably were also responsible for the low /negative response to item on condom use which is 29 9%, HIV test which is 31.9% and attend counseling sessions which is 31.3%.

Hypothesis 1: There is no significant relationship between gender and HIV preventive practices.

Table 2: Chi – Square test on the relationship between gender and HIV preventive practices.

Crosstab

		Categories of HIV preventive practices			
		Unhealthy Practices	Below average healthy practices	Above average healthy practices	Total
Sex	Male count	208	199	37	534
	% within sex	55.8%	37.3%	6.9%	100.0%
	Female count	402	216	94	712
	% within sex	56.5%	30.3%	13.2%	100.0%
Total	Count	700	415	131	1246
	% within sex	56.2%	33.3%	10.5%	100.0%

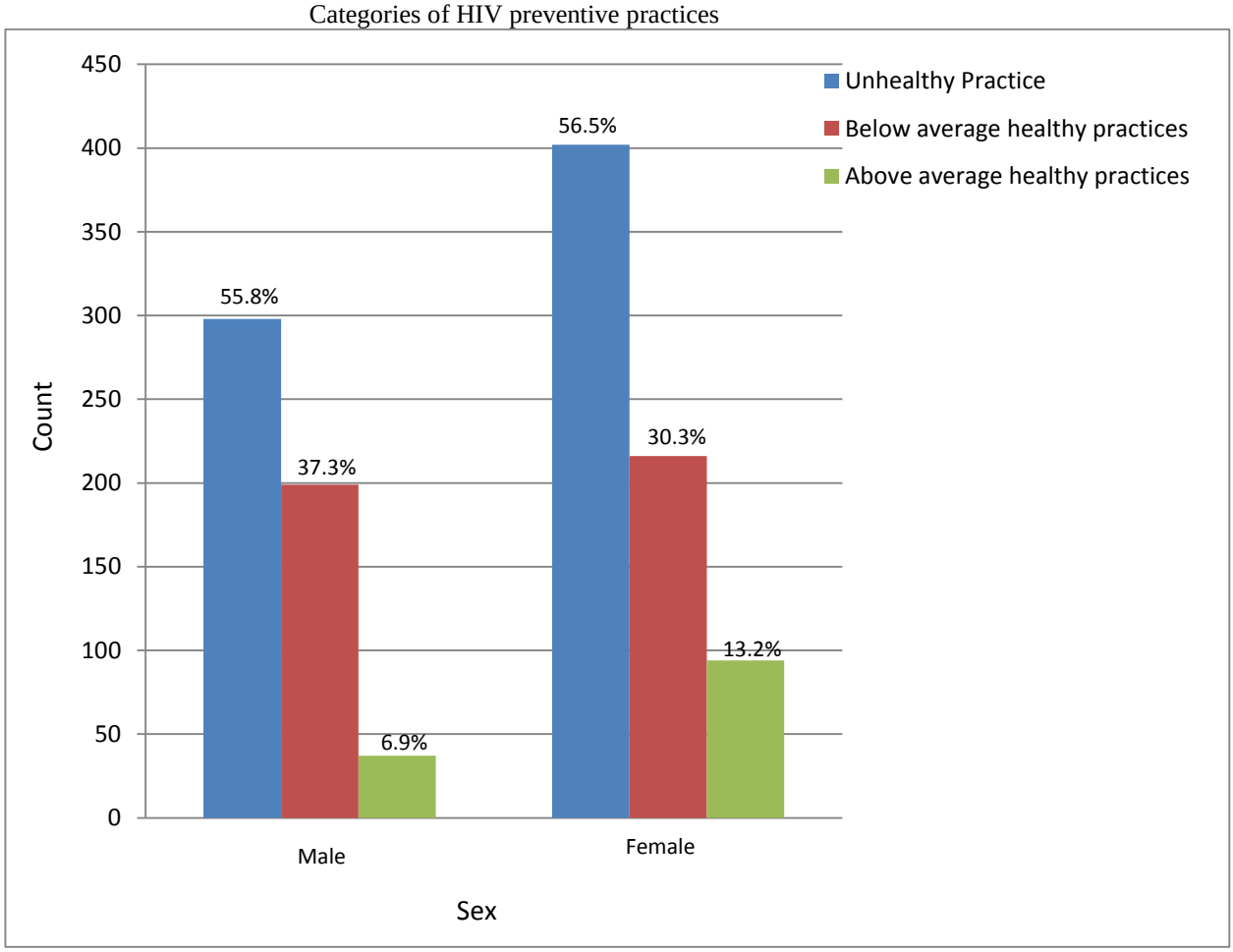
Table 3: Chi – Square Tests

	Value	df	Asymp.sig .(2 – tailed)
Pearson Chi – Square	15844a	2	.000

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 56.14.

Chi – Square was used to determine the relationship between gender and HIV preventive practices. Calculated Chi - Square value of 15.84 was found. This is significant at .000 alpha level (P<0.05). The hypothesis that says there is no significant relationship between gender and HIV preventive practices was therefore rejected. To support this finding, see the graph below showing the relationship between gender and HIV preventive practices.

Figure 2: Bar Chart showing the relationship between gender and HIV preventive practices.



Looking at the graph, 55.8 percent of males adopted unhealthy practices while 56.5 percent of females adopted same. 37.3 percent of males adopted below average healthy practices while 30.3 percent of females adopted same. 6.9 percent of males adopted above average healthy practices while 13.2 percent of females adopted same. This implies that gender is related to HIV preventive practices. For example, females adopted above average healthy preventive practices than males.

Hypothesis 2: There is no significant relationship between age and HIV preventive practices among Senior Secondary School Students in Edo State.

Table 4: Chi – Square test for the relationship between age and HIV preventive practices.

Crosstab

		Categories of HIV preventive practices			
		Unhealthy Practices	Below average healthy practices	Above average healthy practices	Total
	0 Count	4	0	0	4
	% within sex	100.0%	0%	0%	100.0%
	Early Adolescent count	90	30	4	124
Present	% within age	72.6%	24.2%	3.2%	100.0%
Age	Mid Adolescent count	468	324	108	900
	% within age	52.0%	36.0%	12.0%	100.0%
	Late Adolescent count	118	52	19	13
	% within age	62.4%	27.5%	10.1%	100.0%
	Young Ault count	4	9	0	13
	% within age	30.8%	69.2%	0%	100.0%
Total	Count	684	415	131	1230
	% within age	55.6%	33.7%	10.7%	100.0%

Table 5: Chi – Square Tests

	Value	df	Asymp. Sig .(2 – tailed)
Pearson Chi – square	35.89a	8	.000

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is 4.3.

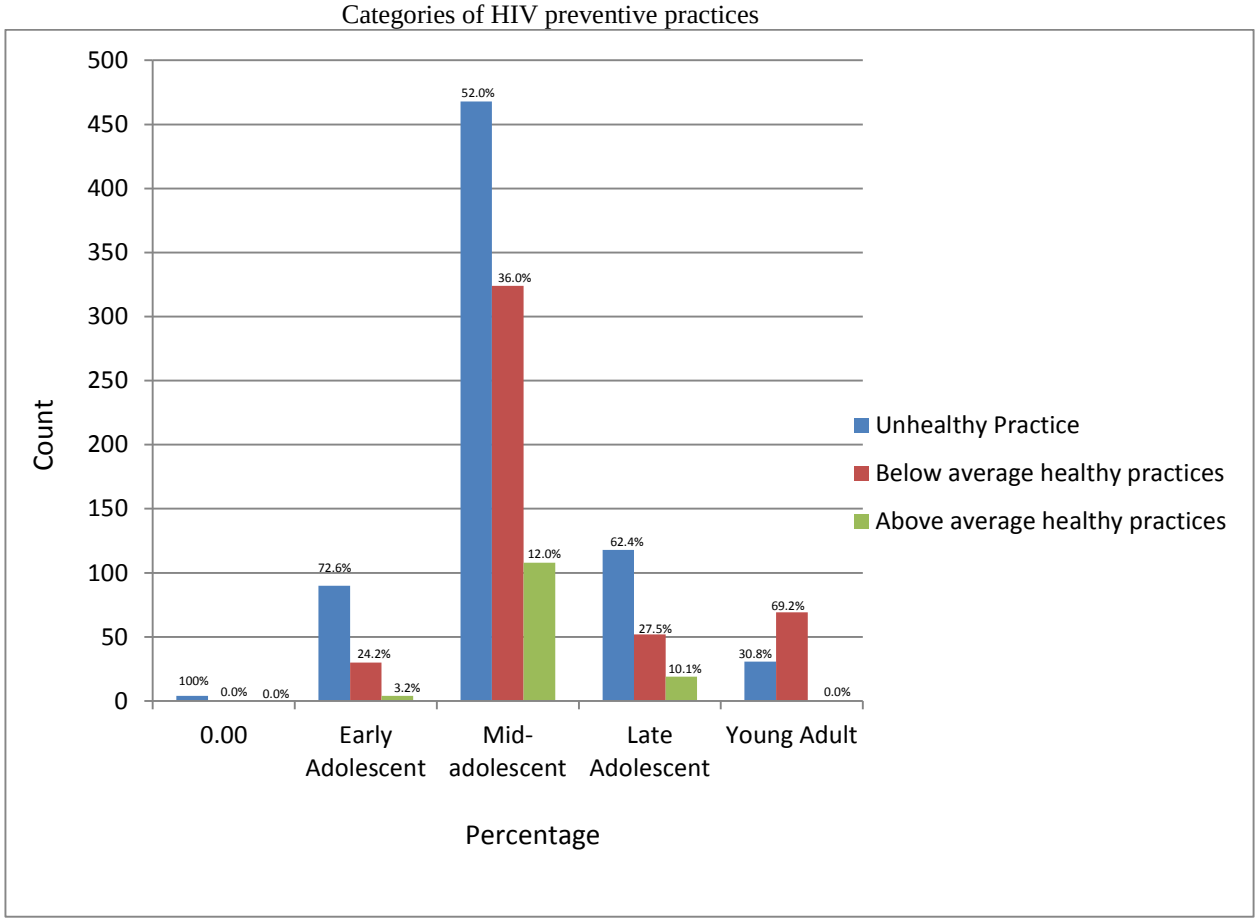
Categories of adolescents

Early adolescent	12-14 years
Mid adolescent	15-17 years
Late adolescent	18-20 years
Young adult	21-25 years

Chi – Square was used to determine the relationship between age and HIV preventive practices. Calculated Chi - Square value of 38.89 was found. This is significant at the .000 alpha level ($P < 0.05$). There is a significant relationship between age and HIV preventive practices. The hypothesis which says there is no significant relationship between age and HIV preventive practices was rejected. To further support this finding, see the graph below.

Looking at the graph, 72.6% of early adolescent, 50% of mid adolescent, 62.4% of late adolescent and 30.8% of young adults adopted unhealthy practices. Under below average healthy practices, early adolescent was 24.2%, mid adolescent was 36.0%, late adolescent was 27.5% and young adult was 69.2%. Under above average healthy practices, early adolescent was 3.2%, mid adolescent was 12.0%, late adolescent was 10.1% and young adult was 0%. It implies that age is related to HIV preventive practices. Age can determine the level of HIV preventive practices adopted by Senior Secondary Students in Edo State. For example, 12.0% of mid adolescent adopted above average healthy practices while 0% of young adults adopted same.

Figure 3: Bar Chart showing the relationship between age and HIV preventive practices



Discussion

The findings of this study were based on the hypotheses that were addressed, analyzed in tables and charts. The two variables tested with the hypotheses were gender and age. They are discussed below.

Gender and HIV preventive practices.

Hypothesis one was rejected. The study found out that both male and female students adopted HIV preventive practices differently. This signifies that gender is related to HIV preventive practices. The females seemed to have higher tendency to adopting HIV preventive practices than males (see figure 2). This is in agreement with Ambasa-Shisanga (2006)'s findings in a study carried out in Kenya on five HIV and AIDS preventive measures currently being promoted. The study revealed that it was easier for girls to adopt HIV prevention when still single than boys; however, the situation changes upon marriage. Another study by Johanna, Colleen, William and Tammy (2004) also confirmed this. It reported that significant gender differences were found when HIV prevention goals dimension of students were compared.

Age and HIV preventive practices.

Hypothesis two was also rejected. This meant that there was a relationship between present age and HIV preventive practices. The mid adolescent seem to exhibit highest unhealthy HIV preventive practices (see figure 3).This is in agreement with UNDP (2002) which pointed out that the highest prevalence rates of HIV infection correspond to the most active sex groups 15-19 years old at 4.0 and 20-24 years old at 5.6 percent. The prevalence rate decreases with age 30-49 years, having a 3.2 percent rate. This was also in agreement with WHO (2006) which said that youths now tend to begin sex at a very young age, often without protection. This early sexual debut has grave consequences for present and future sex life of these youths. CDC&P (2010) reported that research has shown that well designed, well-implemented school based HIV and STD prevention programmes can significantly reduce sexual risk behaviours among students.

Summary

This study examined the influence of gender and age on HIV and AIDS preventive practices among senior secondary school students in Edo State. Three research questions and two hypotheses were raised to guide the study. The descriptive survey design was used to get the sample size for the study .The instrument for the study was a questionnaire which was validated and the reliability was established by the use of the test - retest method. The resulting data was treated with the Pearson's moment correlation coefficient. The hypotheses were tested at 0.05 alpha level of significance. The findings of this study showed that:

The HIV preventive pattern showed high tendency for condom use followed by counseling sessions and HIV testing. Secondly, the study revealed that there was a relationship between gender, age and HIV preventive practices.

Conclusion

Based on the findings, the following conclusions were drawn:

- Senior secondary school students in Edo State have fairly good pattern of HIV preventive practices.
- There was also significant relationship between male and female respondents in the adoption of HIV preventive practices.
- It revealed also that there was a relationship between present age and HIV preventive practices

Recommendations

The following recommendations were made based on the findings.

1. Health education should be intensified in secondary schools to teach risky sexual behaviors that can expose adolescents to HIV infections. This will possibly make the students adopt healthy behaviors that will absolutely prevent HIV infections; such as delay in first sexual intercourse, decrease in sexual partners and increase in condom use.
2. Parents, religious leaders, teachers and traditional rulers should try and inculcate good morals into the children especially at the adolescent stage by showing good examples. This stage of life is known to be a molding and delicate stage as they tend to copy the adult behaviors during this period of life.
3. Women should be empowered educationally and financially so as to improve their ability to resist HIV risky practices especially in relation to risky sexual advances.

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