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# EFFECTS OF SEXUALLY TRANSMITTED DISEASES ON STUDENTS' ACHIEVEMENT SCORES IN KOGI STATE

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## **Abstract**

This study was undertaken to find out the effects of sexually transmitted diseases on students' achievement scores in Ibaji Local Government Area of Kogi State. The study adopts Qua-experimenter using non-randomized "Pre-test Post-test Control Group Research Design" while employing random and purposive sampling techniques to select subjects who were assigned to experimental and control groups. A structured closed-ended instrument named Sexually Transmitted Diseases Questionnaire (STDQ) was used to elicit opinion responses while a test re-test was used to establish that the instrument is valid and reliable. The student t-test was the statistical technique adopted to analyze the data collected. The analyzed data reveal a significant effect of STD on students' achievement scores for hypotheses one and two. The third hypothesis showed no significant effect of the use of condoms based on the outcome of the study. Some conclusions were drawn and useful recommendations were put forward.

## **Introduction**

Nwajei (1999) says that gonorrhoea is possibly one of the oldest sexually transmitted diseases (STD) known to man, which has been described in various writing for about five thousand years running. According to him, it was named by Galen who was a Greek physician in about 200 A.D. Ademu-Awuja (2005) observes that HIV/AIDS scourge affects human lives culturally, and spiritually, economically, politically, socially and psychologically.

Achalu (1993) and Aral (1992) contend that a person's chances of acquiring or developing sexually transmitted diseases which include HIV/AIDS depend largely on the following:

1. The number of sexual partners that one has the greater the chances or possibility of infections.
2. The manner in which a person selects his or her sexual partners. Persons who select sexual mates indiscriminately run at a greater risk of getting infected.
3. The frequency of intercourse. As the number of intercourse increases, so does the chance of one's exposure to infection if one of the partners is already infected (for example, picking up mates along the street or picking prostitutes from hotels).
4. Specific sexual practices such as anal intercourse (homosexuality) are associated with a high risk of Human Immune Deficiency Virus (HIV) infections (the virus that causes (AIDS)



5. Over-indulgence in sexual intercourse can affect the likelihood of infections especially during menstruation.

Gunn (2003) asserts that adolescents are confronted with many health, social, physical and emotional problems peculiar to their ages due to parental demands, school, and society in general. Some of these problems can be sexual immorality, courtship, psychological identity, career choice, and academic aspirations. Reagan and Brookins (1997) argue that emotional adjustment problems in school among adolescents come in different forms ranging from alcoholism, aggressiveness, unprotected sexual promiscuity, depression, loneliness, careless use of automobiles, poor body image, and low self-esteem.

Ademu-Awuja, (2005) believes that moral decadence among school children has resulted in producing low academic achievement, especially among those with a low moral standard in a great population in the school system. Iyama (2000) states that an effective sex education program requires accurate information concerning human sexuality, reproductive system, anatomy, psychology, physiology, early pregnancy, child-birth, sex, abstinence, contraception, abortion, and sexually transmitted diseases. Sex education enhances the development of positive sexual attitudes towards relationships among secondary school students.

Mordi (2004) argues that the adolescent is conscious of the need to engage in premarital sex in school which is fuelled by very strong advertisement, pornographic materials on the internet, and "sexy" musical themes by popular musicians. Ije, Omumu, and Oriafio (2002) recommend effective comprehensive sexual health education programmes targeted at adolescents which will go along way to controlling the incidence of prostitution and how to venereal disease. Osuji (2005) says that "the pill has turned out to be a potent venereal disease (V.D.). The pill and condom give the feeling of safety thereby encouraging intercourse indiscriminately. This is particularly worrisome because of the great number of youths who become victims of sexually transmitted diseases. It is becoming widespread as genital herpes, syphilis, gonorrhoea; HIV/AIDS, chlamydia, etc. are on the increase.

Ajayi (1992) in the study of two hundred male secondary school students aged 14-18 years of age discovers that 80% were sexually active and more than half of the number have been reported to have had indiscriminate multiple (intercourse) partners. Only 8% of these were said to have used a condom during sexual intercourse while 59% of adolescents use contraceptives or traditional methods of withdrawal. The survey points out that only one per cent of the youths employ oral contraceptives, condoms, and foaming tablets.

Condom is a family planning method commonly adopted among adolescents and young adults in the prevention of pregnancy and sexually transmitted diseases (Nwajei, 1999). The rate of sexual activity among adolescents is on the increase as a result of the use of condoms (Santelli, Paxman, and Zuclerman, 1997). Condom seems to be one of the primary methods of

preventing sexually transmitted diseases but not very reliable all the time according to Combs (1980). Dauda (2000) postulates that one cannot divorce the secular education system from the moral teaching of religion to prevent sexually transmitted diseases. Leonie (1985) advises the teenage girls to protect their fertility to avoid venereal diseases and pregnancy by keeping a strict rule never to undress with any man and never to lie down with him. Haruna (2004) claims that sex education provides adequate knowledge about sexually transmitted diseases and refines sexual attitudes among youths in the Nigerian school system.

Nwajei (1999) warns against illicit sexual intercourse in the school as it affects academic performance.

### **Statement of the Problem**

The problem of this study emanates from moral decadence among school children that have resulted in producing low academic achievement especially among those with low moral standards currently great population in school system. Hence it seeks to find out the effect of STDs on students' achievement scores.

### **Hypothesis**

**Ho<sub>1</sub>:** There is no significant effect of teaching STD on students' post achievement scores.

**Ho<sub>2</sub>:** There is no significant effect of trained teachers teaching STD on students' post achievement scores

**Ho<sub>3</sub>:** There is no significant effect of using a condom as instructional material to teach STD on students' post achievement scores.

### **Purpose of Study**

- a. To find out the effects of STDs on students' academic achievement scores in Kogi State.
- b. To create awareness of the dangers of STDs among students on their achievement scores
- c. To help students overcome moral decadence which has resulted in producing low achievement scores mainly among those with low moral standard in schools.

### **Significance of the Study**

The results of this study would be useful to Ministries of Education (State and federal) Board of Education, School Authorities, Parent Teachers' Association (PTA), Counsellors, Lecturers in Tertiary Institutions in Nigeria, Classroom Teachers, Religious Bodies, Media Houses, General Public, and Future Researchers. The findings from this study would help students avoid indiscriminate sexual intercourse that can cause venereal diseases.

## Method

This study adopts Quasi-experimental designs which usually include a combination of some elements in experimental designs. Generally speaking, the quasi-experimental study lacks possibilities for manipulation and randomization but can be used where true-experimental designs are not feasible (Olaitan and Nwoke, 1988). Included in Quasi-experimental designs are non-randomized control group of the pretest-posttest group that this study adopts. Three weeks after the due process of the experimental treatment (i.e. teaching STD) the pretest-post-test scores were compared by using a student t-test to analyze the data collected to ascertain the effect of knowledge of STDs on students' achievement scores. Egbule (2004) and Whawo (2000) assert that the effect of the comparison of pre-test scores with the post-test scores may be attributable to the experimental treatment.

*Sampling Technique:* To attain the maximum result, the researcher adopts balloting sampling approach to randomly select schools, and ten subjects from Government Secondary School, Idah. One of the greatest benefits of "Pre-test Post-test Control Research Design" is the randomization of the samples before they were split into experimental and control groups. Kerlinger (1973) argues that a randomly selected sample of 60 to 100 subjects can adequately give a note accurate portion of the characteristics of a community while Roscob (1975) recommends a minimum of ten per cent sampled from the entire population.

*Instrument:* The data for this study have been collected using an instrument named "Sexually Transmitted Diseases Questionnaire (STD Q) personally designed by the researcher which was divided into two main parts. The first part seeks to elicit information on demographic variables of the respondents such as: Name of the current school; Class; Sex and Local Government Area where the school is located. While the second part of STD Q consists of twenty items subdivided into four subscale statements on the effects of sexually transmitted diseases on students' achievement scores.

The respondents were thoroughly guided to go through the statements and to give their opinion responses while using the modified 4 points Likert subscale. The arrangement of responses of each statement was in descending order: strongly agree (SA) = 4 points; Agree (A) = 3 points; Disagree (D) = 2 points; strongly disagree (SD) = 1 point.

This instrument was validated by three experts in Health and medical sciences after due consultations and suggestions were put forward as to how best to modify the questionnaire to be appropriate for this study. Their comments, corrections, suggestions, modifications, amendments, and recommendations assisted in establishing a reasonable face and content validity of the STDQ.

The researcher gave a pre-test of 100 questionnaires to the respondents in two randomly selected secondary schools located outside the designated area of study. After a period of three weeks of the initial administration of the

instruments, the same set of instruments was re-administered to the same group of respondents. The data collected was analyzed using test-realest reliability by adopting the Pearson Product Moment correlation coefficient. The correlation between the two test administrations was .57. This index was considered high enough to show that the (STDQ) instrument was reliable and valid.

The researcher personally visited the selected schools earlier to administered to the instrument. The completed questionnaires were instantly completed from each of the two schools after administration by hand. The preliminary analysis of the retrieved instruments presented a 100% return and was found usable on the data entered by the respondents.

*Data Analysis:* The researcher adopts the student t-test technique to analyze data collected from both Pre-test and Post-test scores of the same individual. Egbule (2003) and Ukwuije (1989) state that student t-test for related or correlated means was used for the sole purpose of determining the significance between two correlate scores. The recorded Pre-test and Post-test scores for the same individual are continuous (interval scale). Whawo (2000) says that correlated t-test can be used to analyze the mean scores of two equal but independent and dependent variables.

## Results

**Hypothesis I:** This hypothesis states that there is no significant effect of teaching STD on students' achievement scores. In testing this hypothesis, the difference between the Pre-lest Post-test using student t-test at a .05 level of significance is presented below:

**Table 1: T-test Analysis of Significant Effect of Teaching STD on Students' Achievement, Scores**

Group	N	X	SD	df	t. Calculated	t. Critical	P	Remark
Experimental	5	6.2	1.72	8	1.81	2.31	.05	Not Significant
Control	5	4.8	1.69					

Table 1 presents a correlated t-test analysis of "Pre-test Post-test Control Group Design" of the effect of teaching STD on students' achievement scores in Ibaji Local Government Area of Kogi State.

The calculated t-value of 1.81 is less than the critical value of 2.31 at .05 level of significance. Thus, the hypothesis is not rejected. This implies that there is no significant effect of introducing STD on students' achievement scores.

**Hypothesis II:** Declares that there is no significant effect of trained teachers teaching STD on students' post-achievement scores. It was tested using the same student t-test of significance at a 0.05 level.



**Table II: Summary Table of t-test showing the Effect of Trained Teachers' Teaching STD on Students' Achievement Scores**

Group	N	X	SD	df	t. Calculated	t. Critical	P	Remark
Experimental	5	6	2.90	8	1.12	2.31	.05	Not Significant
Control	5	7	2.10					

The analysis presented in table II above reveals that the computed t-test of 1.12 is less than the critical value of 2.31 at a .05 level of significance. The null hypothesis II is therefore not rejected because there is no significant effect of sexually transmitted diseases on students' achievement scores after post-tested.

**Hypothesis III:** States that there is no significant effect of using a condom as instructional material to teach STD on student achievement scores. To test this hypothesis, the student t-test of significance was adopted. The test was performed at a 0.05 level is significant. The result is hereby presented in table III.

**Table III: Summary Table of t-test Analysis Presenting the Effect of Using Condom as Instructional Media to Teach STD on Students' Achievement Scores**

Group	N	$\bar{X}$	SD	df	t. Calculated	t. Critical	P	Remark
Experimental	5	5.4	2.32	8	5.21	2.31	.05	Not Significant
Control	5	6.2	2.49					

From the above table analysis, the calculated t-value of 5.21 is far greater than the t-critical of 2.31 at a .05 level of significance. The null hypothesis is not accepted because there is a significant effect when a condom is used as an instructional material to teach STD on students' achievement scores after post tested.

Based on the results presented in tables I, II and III above, one can summarize the major research findings as follows:

1. There is no significant effect of teaching sexually transmitted diseases on students' achievement scores.
2. There is no significant effect of trained teachers teaching STD on students' achievement scores
3. There is a significant effect of using a condom as instructional material to teach sexually transmitted diseases on students' achievement scores in school system.

## Discussion

Hypothesis one states that there is no significance effect of teaching sexually transmitted diseases on students' achievement scores which was statistically tested using student t-test and the result from table one shows that the calculated t-value of 1.81 to be less than critical value of 2.31 at .05 level of significance. It follows that hypothesis one is accepted. This implies that there is no significant effect of teaching STD on students' achievement scores. This finding is consistent with the finding of Nwajei (1999) and Ajayi (1992) who discovered that 80% out of 200 students aged 14-18 (males) were sexually active. Osowole and Olubela (2002) recommend effective comprehensive sexuality education to reduce incidence of venereal diseases and prostitution in the school system. Iyama (2000) says that effective sex education teaching requires accurate information concerning human sexuality but that can equally led students to get wild in sexual activities.

Hypothesis two states that there is no significant effect of trained teacher teaching sexually transmitted diseases on students' achievements scores. The computed student t-test of 1.12 is less than the critical value of 2.31 at .05 level of confidence and the null hypothesis II was not rejected. Thus, it is not significant to this study. Ademu-Awuja (2005) asserts that moral decadence among school children has produced low academic achievement among secondary school students with low moral standard in great proportion. Leonie (1985) tells teenagers to keep one sex partner to protect their fertility and avoid STD. Dauda (2000) postulates that one cannot divorce secular education system from moral teaching of religion to prevent sexually transmitted diseases. Gunn (2003) states that students need to be properly taught about some health problems such as sexual immorality, psychological identity, career choice and academic aspirations by trained teachers. While Reagan and Brookins-Fisher (1997) say that emotional adjustment problems among students come in different forms which need teachers' assistance, parental guides, school counselor, etc.

Hypothesis three which states that there is no significant effect of using condom as instructional material to teach sexually transmitted diseases on students' achievement scores was subjected to testing and the result obtained in table three reveals that the calculated t-value of 5.21 is greater than t-critical of 2.31 at .05 level of significance. Hence hypothesis III is rejected. This means that the use of condom as instructional material is significant. Alakija (2000) describes condom as a family planning method commonly used for the prevention of pregnancy and sexually transmitted infections (STI). Santelli, Paxman and Zucherman (1997) and Combs (1980) feel that condom as one of the primary techniques of preventing sexually transmitted diseases is not very effective tool because of leakages which occur occasionally. McDaniel (1999) notes that latex condom prevents pregnancies and sexually transmitted diseases with failure rates between .05% and 7% but with user failure rate between 12% and 17%. It follows that the use of condom increases the risk factor of Sexually Transmitted Diseases among students.

## **Recommendations and Conclusion**

This study indicates the need for trained teachers to teach S.T.D. at Junior Secondary School student year three who experiment with numerous things including sex which eventually affect their academic achievement. The study shows that sampled groups were sexually active and quite comfortable to use condom but sexually transmitted diseases (STD) seem to be rampant at this level due to indiscriminate sexual partners. This calls for public campaign over the radio & television on the need to protect themselves from S.T.D. by utilization of condom as well as other measures to effectively educate our youths.

1. There is a need for further research on sexually transmitted infections in many more states of the federation.
2. Parent Teachers Association (PTA) in this area of study as it affects students' academic achievement to guide their children and ward both at home and in the school.
3. The use of media houses is required to properly address the issue of S.T.D. including HIV/AIDS scourge.

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