

Effect of Health Education on Knowledge of Illicit Drug Use among Secondary School Students in Diobu, Rivers State

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Abstract

This study investigated the effect of health education on knowledge of illicit drug use among secondary school students in Diobu, Rivers State. Two (2) objectives, two (2) research questions, and one (1) hypothesis guided the study. Quasi-experimental design was adopted. The researcher purposefully selects the sample size of 148 students in their intact class from the population of 532 senior secondary school students from the selected senior secondary school in Diobu, Rivers State. A structured and validated instrument titled “Effect of Health Education on Knowledge of Illicit Drug Use Questionnaire” (KIDUQ) with a reliability coefficient of 0.82 was used to collect data. Descriptive statistics of frequency, percentage, mean, and standard deviation were used to answer the research questions while inferential statistics of chi-square and ANCOVA were used to test the hypotheses at a 0.05 level of significance. It was found that most of the respondent performed better in the post-test stage as their knowledge about illicit drug use increased. This implies that intervention has a significant effect on the secondary school students. Subsequently, the finding showed that age, does not significantly affect the effect of health education on knowledge towards illicit drug use among secondary school students in Diobu, Rivers State. Based on the findings, the study concluded that health education had a positive effect on secondary school students’ knowledge towards illicit drug use. Finally, the study recommended, among others, that schools in Diobu should conduct regular assessments on the effectiveness of health education interventions on students to ensure sustained knowledge impact. Schools in Diobu and across Rivers State should incorporate comprehensive drug education programs into their curriculum to improve students’ knowledge towards illicit drug use, and the National Drug Law Enforcement Agency. (NDLEA) should enhance its control of the manufacturing, distribution, and accessibility of illicit drugs in Rivers State.

Keywords: health, education, drugs, abuse, medication.

Introduction

Abused medications and chemicals all have harmful negative impacts on the body. The use of illicit drugs among young age groups has been a serious public health problem globally. Over the last few decades, the use of illegal substances or drugs has become widespread around the world at an unheard-of rate, despite the grievous health consequences associated with it. Recently, studies have shown that illicit drug use has become increasingly prevalent, especially among secondary school students around the world. A drug is any chemical that, when ingested, alters the body's typical biological and psychological processes, particularly those involving the central nervous system. In a broad sense, all compounds that affect brain functioning and induce dependence are referred to as "drugs." (Njoku, 2021),

According to Ubom and Okorodudu in Raimi et al. (2019), illicit drug use is practiced by all regardless of their social class. This has become a major concern to parents, schools, government authorities, religious bodies, and society at large. Drugs such as rophynol (refnol), tramadol, crystal methamphetamine (ice), marijuana, cocaine, stunk, just to mention a few are also not left out. These chemicals are frequently referred to as restricted substances, illicit drugs, or illegal drugs. The term also refers to a variety of psychoactive drugs that can change one's mood, perception, and awareness, potentially harming both individuals and society as a whole. The terrifying degree to which these drugs have become a part of everyday life for thousands of adolescents and youths is alarming. However, the legal status of these substances varies from country to country, and they are often classified into different schedules or categories based on their potential for abuse, misuse, and medical value.

Health education, according to the WHO health promotion glossary, includes not only the communication of health-related information but also the development of the motivation, abilities, and self-belief (self-efficacy) required to take action to improve health. It also includes the dissemination of knowledge about the underlying social, economic, and environmental factors that have an impact on health, as well as personal risk factors and risk behaviors, and use of the healthcare system.

Knowledge is the successful alignment of belief with reality through reliable cognitive mechanisms" (Bernecker & Pritchard, 2019). This perspective underscores the role of cognitive reliability and epistemic virtues in forming knowledge. The knowledge of illicit drug use among public secondary school students has become a significant public health issue, raising concerns regarding its impact on students' physical and mental health, academic performance, and social well-being. The prevalence of drug abuse among adolescents is a subject of growing

interest in academic research, as it represents a critical challenge to educational institutions, communities, and healthcare providers (Olaewaju et al, 2023). Understanding the knowledge, attitudes, and behaviors of secondary school students regarding illicit drug use is crucial for developing effective interventions and prevention strategies (Ezeruigbo, 2023). The level of knowledge that secondary school students have regarding illicit drug use plays a crucial role in shaping their behaviors toward drugs.

Numerous factors have been identified as the cause of students' illicit drug usage. They include unchangeable risk factors like heredity, behavioral problems like peer pressure, curiosity, and the drive to try new things, and socioeconomic variables like neighbourhood environment, drug availability, gang affiliation, and other pressures. The easy availability of drugs in the neighborhood has been linked to the rising drug usage among young people (Azi & Maduka, 2021). Sources include street sellers and even the local store that sells patent medications (Stevanovic et al., 2015). The prevalence of illicit drug use among young people has been attributed to the indiscriminate dispensing of prescription-only medications and the illicit sales of these medicines by patent medicine vendors (Azi & Maduka, 2021).

According to Akanbi, Augustina, Theophilus, Muritala, and Ajiboyee (2015), there are currently 1.5 million teenage student drug users in Nigerian secondary schools and higher education institutions. Adolescent illicit drug use is widely known to be prevalent in Nigeria. National research conducted in Nigeria shows that adolescents and secondary school students in Enugu, South-Eastern Nigeria, have a lifetime prevalence of illicit substance use of 29.5%. While Osun, South-Western Nigeria, has a lifetime prevalence of 26.4%, and Port-Harcourt, South-South Nigeria, has a lifetime prevalence of 27.1% (Settipiani et al), 2018).

Youths' knowledge of hard drugs was evaluated by Bassey et al. (2023) in the Calabar South Local Government Area of Cross River State, Nigeria. The research had two clear objectives: to achieve its purpose and to do so. Two research questions were combined to form a single statement of hypothesis. A review of the literature was done based on the variable that was being studied. It was decided that the best research design for the study was a descriptive survey. The population under investigation was 124,204, as estimated by the National Population Commission for 2022. Taro Yamen's 1975 algorithm was used to choose the 399 respondents who were included in the sample. The study used an incidental sampling technique. A validated 10-item, 4-point modified Likert scale survey was used to collect the data. The face and content validity of the instrument was established by test and measurement professionals. The split-half technique was used to obtain the reliability estimates of 0.82 for

the instruments following the use of spearman-Brown correlation. The study's hypotheses were examined using Pearson's product moment correlation, and the research questions were tested using a descriptive analysis of frequency, percentages, mean, and standard deviation. The hypothesis was examined at a 0.05 significance level. Results: In Calabar South Local Government Area of Cross River State, Nigeria, youths' attitudes toward hard drugs and their knowledge of these substances were significantly correlated, according to the data analysis. The results of the study indicate that in the Calabar South Local Government Area of Cross River State, Nigeria, there is a significant relationship between the attitudes of teenagers toward hard drugs and their knowledge about them. Consequently, it was recommended that legislators create and organize resources for youth and persons with behavioral problems, among other things.

Mahmood, Othman, Al-Tawli, and Al-Hadithi (2018) investigated the impact of educational intervention on high school students to increase their understanding of the effects of substance misuse and inspire them to adopt preventative measures. This study was conducted in Erbil City from January 2017 to June 2017 using a quasi-experimental design (one group; pre- and post-test). In Erbil City, the administrative centre of the Kurdistan Region of Iraq, 280 pupils from four high schools were chosen at random to make up the sample. A systematic teaching program was created for the group to transmit knowledge on various aspects of substance use based on a thorough examination of the literature and professional opinion. The intervention program was made up of four educational modules in succession. These modules were mostly taught by "Rabers" over four weeks (one session each week). The study's findings showed that 270 out of 280 participants in the study completed surveys before and after the intervention. The study concluded that a drug use education program has improved students' awareness of substance use among high school students in Erbil City.

To evaluate secondary school teachers' knowledge, attitudes, and practices around preventing teenage substance use, Ezeruigbo (2023) carried out the research. The goal of this project is to pinpoint the potential barriers to drug abuse prevention programs' success in secondary schools. Three particular secondary schools in the state of Enugu Uwani Secondary School, Maryland Secondary School, and Federal Government College Enugu were the subjects of a descriptive research design. A multi-stage sampling procedure was used to choose ninety-two (92) individuals. A self-administering questionnaire was employed as a data collection instrument. Descriptive statistics were used to evaluate the completed questionnaires that satisfied the analysis requirements, and the results were shown in frequency and percentage after being

programmed into the computer using SPSS software. 88% of the respondents had insufficient knowledge of the characteristics that raise the likelihood of teenage drug use, but their attitudes and practices were reasonable. The condition of Enugu's secondary school teachers' views and actions around teenage drug use prevention are not well understood. Teachers and other staff members in secondary schools should thus possess sufficient information about drug use prevention practices to provide an effective intervention on substance use preventative methods for teenagers.

Adolescents using illegal substances while enrolled in secondary schools in Nigeria have been a source of embarrassment for parents, educators, the government, and the public. For example, illicit drug use among students in Nigerian schools leads to a variety of anti-social ills like rape, mass failure in exams, indiscriminate sexual acts, unintended pregnancies, low self-concept, truancy, lying, stealing, and many other vices. These may disrupt teaching and learning, as well as the tranquil environment in school settings. Teenagers who are still in school are especially vulnerable because this is the time when they are forming their identities, careers, social skills, and educational foundations (Ekpenyong, 2012). Adolescents are a high-risk group for the use of drugs and this problem has risen to epidemic proportions globally, resulting in negative impacts on family, society, health, educational, and professional life (Osman et al., 2016). The early onset of illicit drug use by young people places them at higher risk for psychosocial problems including disruptive behavior patterns, psychiatric disorders, difficult peer relations, poor work adjustment, and negative impacts on leisure and recreational activities.

Statement of the Problem

The use of illicit drugs among secondary school students has continue to be a serious public health challenge in a developing country, Nigeria inclusive and people often affected are the adolescent ones in public secondary schools. Despite the awareness created by National Drug Law Enforcement Agency (NDLEA) and National Agency For Food And Drug Administration Control (NAFDAC) on the use of hard drugs in Nigeria, illicit drug use in Rivers State still a significant health concern due to its detrimental impact on the physical, mental, and social well-being of these individuals. These individuals will become future leaders tomorrow. The researcher observation as a class room teacher towards lack of concentration of some students in the class, low memory retention, overall cognitive functioning. Increase in unhealthy behaviours like unprotected sex, criminal activities, isolation, moody behavior and eagerness to fight school mates has been also associated with the use of illicit drugs. All these attitudes prompt the researcher to embark on this study. This study intends to bridge the gap discovered

in the previous studies focused on the impact of implementing a preventive program in schools on the typical rise in drug use among student bodies by Boussat, Gaillet and Fournier (2023) and the effectiveness of an empowerment education intervention for substance use reduction among inner- city adolescents in Nigeria by Ojonuba, AbdulRahman and Mohd Zulkefli, (2023) which shows substantial decrease in amount of alcohol consumed and less depression as well as higher peer, parental support but did not include the differentiate between drugs that can abused, misuse, illicit drug use and preventive measures to overcome the use of hard substances

Aim and Objectives of the Study

The study aims to examine the effect of health education on knowledge towards illicit drug use among secondary school students in Diobu, Rivers State Specifically, the study intends to:

1. assess the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State
2. find out the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State based on age

Research Questions

The following research questions are formulated to guide the study

1. What is the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State?
2. What is the effect of health education on the knowledge of illicit drugs use among secondary school students in Diobu, Rivers State based on age?

Hypotheses

The following hypotheses are postulated to guide the study.

1. Health education has no significant effect on the knowledge of illicit drugs use among secondary school students in Diobu, Rivers State based on age

Methodology

The quasi-experimental research design was adopted in the study. This research design was chosen because the investigation would compare the outcome variables before and after the intervention. The population of the study consists of 532 senior secondary school students in community secondary schools Nkpolu-Oroworukwo, Diobu. The sample size for the study was a total of 148 students. Simple random sampling technique was employed to randomly selects one arm with 50 students, out of four arms in a class since they are already in their strata (SS1, SS2, and SS3). The instruments for data collection was a researcher-structured instrument

titled: “Knowledge, and Attitude towards Illicit Drug Use Questionnaire (KIDUQ). The KAIDUQ was made up of two sections namely: A and B. Section A is the demographic data of the respondents which include Age, gender, and Class. On the other hand, section B contains 50 items that measure the level of Knowledge and attitude toward illicit drug use among students. The section was further divided into two sub-sections. Sub-section I contains 27 items that measure the level of Knowledge of the students. Sub-section II contains 23 items that measure the attitude of the students. The questionnaire is designed after the yes and no for knowledge questions and the modified 4-point Likert scale of strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) for attitude. They are rated 4, 3, 2, and 1 for positively keyed items and 1, 2, 3, and 4 for negatively keyed items.

With assistance from other health education professionals, the researcher developed a programme and created the lesson plans that were used to mount the developed programme. The lesson plans were created to be used for 40 minutes at a time. The experts in health promotion and other specialists like programme developers, NDLEA etc vouch for the validity of this programme and lesson plan. The instrument was subjected to face and content validity while Cronbach alpha was used to check the internal consistency of the instrument to guarantee the use of the instrument for the study. The reliability coefficients obtained for the instruments was 0.82.

The instrument was administered to the students by the researcher, assisted by two trained research assistants. Copies of the instruments were retrieved after students had given their responses. Data collected were analyzed using frequency, mean, and standard deviation to answer the research questions while the chi-square as well as analysis of Covariance (ANCOVA) were used to test the null hypotheses at 0.05 significance level.

Results and Discussion

Research Question 1: What is the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State?

Table 1: Frequency and percentage scores on the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State

S/ N	Items	Pre-Test			Post Test			% Difference
		Response	Yes F(%)	No F(%)	Response	Yes F(%)	No F(%)	
1	Marijuana, cocaine, and heroin are examples of illicit drugs.	Correct	104(70.3)	44(29.7)	Correct	110(74.3)	38(25.7)	6(4)
2	Cannabis, also known as Igbo or Wee-Wee, is the most commonly used illicit drug in Niger	Correct	89(60.1)	59(39.9)	Correct	113(76.4)	35(23.6)	24(16.3)
3	Tramadol, a painkiller, is often abused for its stamina-enhancing effects during social activities or study sessions.	Correct	101(68.2)	47(31.8)	Correct	125(84.5)	25(15.5)	24(16.3)
4	Codeine, found in some cough syrups, is commonly abused in Nigeria for its sedative effects.	Correct	87(58.8)	61(41.2)	Correct	130(87.8)	18(12.2)	43(29)
5	Monkey Tail, a local drink made from cannabis soaked in alcohol, is used to enhance energy levels.	Incorrect	63(42.6)	85(57.4)	Correct	95(64.2)	53(35.8)	32(21.6)
6	The use of illicit drugs like cocaine, locally known as Coke, can lead to severe psychological dependence and addiction.	Correct	94(63.5)	54(36.5)	Correct	123(83.1)	25(16.9)	29(19.6)
7	Illicit drug use has no impact on physical or mental health.	Correct	93(62.8)	55(37.2)	Correct	109(73.6)	39(26.4)	16(10.8)
8	Illicit drugs can lead to addiction.	Correct	95(64.2)	53(35.8)	Correct	121(81.8)	27(18.2)	26(17.6)
9	There are legal consequences for possessing or using illicit drugs.	Correct	96(64.9)	52(35.1)	Correct	148(100)	-	52(35.1)
10	Illicit drug use can alter brain function.	Correct	125(84.5)	23(15.5)	Correct	136(91.9)	12(8.1)	11(7.4)

11	Loud (a potent form of cannabis) is often used to cope with stress and anxiety.	Incorrect	85(57.4)	63(42.6)	Correct	125(84.5)	23(15.5)	40(27.1)
12	The risk of developing mental health disorders, such as depression or psychosis, is increased with the use of drugs like Loud.	Correct	101(68.2)	47(31.8)	Correct	110(74.3)	38(25.7)	9(6.1)
13	Illicit drugs like SK (Skunk) are known to cause impaired judgment and risky behaviors.	Correct	133(89.9)	15(10.1)	Correct	143(96.6)	5(3.4)	10(6.7)
14	Abusing prescription drugs like Diazepam, known as Valium, without a prescription can lead to respiratory depression and death	Correct	88(59.5)	60(40.5)	Correct	132(89.2)	16(10.8)	44(29.7)
15	Illicit drug use can lead to long-term health issues, including liver damage, cardiovascular diseases, and neurological disorders.	Correct	103(69.6)	45(30.4)	Correct	144(97.3)	4(2.7)	41(27.7)
16	Regular use of illicit drugs may result in symptoms such as red eyes, slurred speech, and erratic behavior.	Incorrect	69(46.6)	79(53.4)	Correct	148(100)	-	79(53.4)
17	Drug use can lead to academic decline, including poor performance and absenteeism.	Correct	93(62.8)	55(37.2)	Correct	148(100)	-	55(37.2)
18	Knowledge of the legal consequences of drug possession and use may deter individuals from engaging in such activities.	Correct	77(52.0)	71(48.0)	Correct	148(100)	-	71(48)
19	Illicit drugs are sometimes laced with dangerous substances that can cause sudden death.	Incorrect	55(37.2)	93(62.8)	Correct	148(100)	-	93(62.8)
20	Frequent use of stimulant drugs like Amphetamine can lead to increased heart rate, paranoia, and hallucinations.	Incorrect	36(24.3)	112(75.7)	Correct	148(100)	-	112(75.7)
21	Awareness of the health risks associated with drug use can reduce the likelihood of experimenting with illicit drugs.	Correct	86(58.1)	62(41.9)	Correct	148(100)	-	62(41.9)
22	Environments where illicit drug use occurs can increase the risk of illicit drug use.	Correct	97(65.5)	51(34.5)	Correct	148(100)	-	51(34.5)

23	Chronic use of illicit drugs does not lead to long-term health issues.	Correct	80(54.1)	68(45.9)	Correct	148(100)	-	68(45.9)
24	Illicit drug use can negatively affect social relationships.	Correct	86(58.1)	62(41.9)	Correct	141(95.3)	7(4.7)	55(37.2)
25	Misusing prescription drugs can be as dangerous as using illicit drugs.	Correct	108(73.0)	40(27.0)	Correct	148(100)	-	40(27)
26	Peer pressure can influence the use of illicit drugs.	Correct	111(75.0)	37(25.0)	Correct	148(100)	-	37(25)
27	Illicit drug use during pregnancy can harm the unborn child.	Correct	108(73.0)	40(27.0)	Correct	133(89.9)	15(10.1)	25(16.9)
Average scores		Correct	91.2 (61.6)	56.8(38.4)	Correct	134.0(90.5)	14.1(9.5)	42.8(28.9)

The result in Table 1 shows the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State. It revealed that respondents' average score at the pretest stage was 91.2 representing 61.6% while their score at the post-test stage was 134 representing 90.5%. The percentage difference between the posttest and pretest score is 42.8 representing 28.9%. This result implies that health education has increased the knowledge of illicit drugs among secondary school students in Diobu, Rivers State by 28.9%.

Research Question 2: What is the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State based on age

Table 2: Frequency and percentage scores on the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State based on age

Age	Pre-test		Post Test	
	Yes	No	Yes	No
	F(%)	F(%)	F(%)	F(%)
12-13yrs	3(50)	3(50)	5(83.3)	1(16.7)
14-15yrs	41(71.9)	16(28)	45(78.9)	12(21.1)
16 Yrs. & Above	54(63.5)	31(36.5)	73(85.9)	12(14.1)

The Table 2 above shows the frequency scores on the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State, based on age. The results show that the frequency and percentage post test scores of the students at all age ranges are higher than their pre test scores. This implies that age not does influence the knowledge of illicit drug among secondary school students

Hypothesis 1: Health education has no significant effect on the knowledge of illicit drugs use among secondary school students in Diobu, Rivers State based on age

Table 3: Summary of χ^2 analysis on effect health education on the knowledge of illicit drugs use among secondary school students in Diobu, Rivers State based on age

VARIABLE	n	Df	$\chi^2_{cal.}$	p-value	Level of Decision Sig.
Age	148	2	1.169	0.557	0.05 Significant

Table 3 revealed that the χ^2_{cal} is 1.169 with $df = 2$ and $p > 0.05$. The obtained p-value of 0.557 is greater than 0.05, therefore, the null hypothesis that health education has no significant effect on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State based on age is accepted. This indicates that health education has no significant effect on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State, based on age.

Summary of Findings

1. Health education increases the knowledge of illicit drug among secondary school students in Diobu, Rivers State
2. Age does not affect the knowledge of illicit drug among secondary school students

Discussion of Findings

The findings of research question one show the effect of health education on the knowledge of illicit drug use among secondary school students in Diobu, Rivers State. It revealed that respondent average scores at the pretest stage is 91.2 representing 61.6% while their score at the post test stage is 134 representing 90.5% this implies that health education has increased the knowledge of illicit drug among secondary school students in Diobu, Rivers State. This finding is in agreement with Mahmood, Othman, Al-Tawli, and Al-Hadithi (2018) investigated the impact of educational intervention on high school students in order to increase their

understanding of the effects of substance misuse and inspire them to adopt preventative measures. The study's findings showed that 270 out of 280 participants in the study completed surveys before and after the intervention. The study came to the conclusion that a drug use education program has improved students' awareness of substance use among high school students in Erbil City. The study also supports that of Ezeruigbo (2023) on Substance use prevention: Knowledge, attitude, and practices among secondary school workers in Enugu State, which revealed that respondents had insufficient knowledge of the characteristics that raise the likelihood of teenage drug use but their attitude and practices were reasonable

The findings to research question three show that the frequency and percentage post test scores of the students in all age ranges is higher than their pre test scores. This implies that age does not influence the knowledge of illicit drugs among secondary school students. When these results were further subjected to hypothesis testing, health education has no significant effect on the knowledge of illicit drugs use among secondary school students in Diobu, Rivers State based on age. This is contrary to the study of Bassey et al. (2023) on the knowledge of hard drugs and attitudinal disposition of youths in curbing hard drugs in Calabar South Local Government Area of Cross River State, Nigeria which revealed whose result proves that there is a significant relationship between the attitudes of teenager towards hard drugs and their knowledge about them

Conclusion

The study revealed that health education significantly improved the knowledge of illicit drug use among secondary school students in Diobu, Rivers State, as evidenced by the increase in post-test scores compared to pre-test scores. But age did not have a significant influence on the effectiveness of the health education program in terms of knowledge toward illicit drug use. These findings align with previous studies that demonstrated the positive impact of educational interventions on knowledge. However, some results contradicted previous studies, particularly concerning other variables not included in this study.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Schools in Diobu and across Rivers State should incorporate comprehensive drug education programs into their curriculum to improve students' knowledge towards illicit drug use.
2. Schools in Diobu should conduct regular assessments on the effectiveness of health education interventions on students to ensure sustained knowledge impact.

3. National drug law enforcement agency (NDLEA should enhance their control on the manufacturing, distribution and accessibility of illicit drug in Rivers State.

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