

Knowledge and Risk- Perception of Substance Abuse among Public Secondary School Students in Ibadan North Local Government Area, Oyo State, Nigeria

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Abstract

Substance abuse is a public health concern worldwide and has adversely affected the educational system. Students who use substances display behaviours that are negatively affected the quality of teaching and learning. Many studies have been done on substance abuse among secondary school students but there is dearth of studies on knowledge and risk-perception of substance abuse among public secondary school students. The study assessed the knowledge, risk-perception and factors influencing substance abuse among selected public secondary school students in Ibadan North Local Government Area of Oyo State. A descriptive survey research method was used for the study while a multi-stage sampling technique involving three stages and a validated structured questionnaire with a reliability score of 0.85 was used to collect quantitative data from the selected 439 students from the selected public secondary schools in Ibadan North Local Government Area of Oyo State. Pearson Product Moment Correlation (PPMC) and multiple regression analysis were used to test the mean, standard deviation and correlation among the variables in the study. Findings revealed that there was significant relationship between knowledge and factors influencing substance abuse ($r = .577$, $n = 439$, $p < .05$), risk-perception and factors influencing substance abuse ($r = .621$, $n = 439$, $p < .05$) and that the joint relationship of independent variables (knowledge, risk-perception) substance abuse was significant ($F(2,436) = 362.158$; $R = .575$, $R^2 = .330$, $Adj R^2 = .323$; $p < .05$), the study concluded that knowledge and risk-perception were significant determinant of substance abuse among selected public secondary school students. It was recommended that government at all levels should develop and implement targeted interventions that will focus on enhancing students' risk perception and promoting positive behaviour.

Keyword: *Public secondary school students; knowledge; risk-perception; substance abuse*

Introduction

Substance abuse is a public health concern worldwide and has adversely affected the educational system. Students who use substances display behaviours that are negatively affected the quality of teaching and learning. According to United Nations Office on Drugs and Crime (UNODC, 2021) report which revealed that lower perception of substance use risks had been linked with higher rates of substance use and has drawn the attention of the government and key stakeholders on the need to close the gap between perception and reality, educate young people and safeguard public

health It is almost a norm to see students in secondary school ignorantly depending on one form of substance or the other for their various social activities. Students might be influenced toward positive behaviour by their peers or companions through supervised and structured social activities such as participating in charity work, starting a study club, encouraging a friend to work harder on their studies to get better grades, and attempting novel activities that will promote an all-around healthy lifestyle. “It has positive effects when adolescents are pressured by their peers toward positive behavior, such as volunteering for charity or excelling in academics” (Okorie, 2021).

Unhealthy lifestyle of substance use among secondary school students could be detrimental to their mental health (mental disorder), education (poor academic performance) and social life (anti-social behavior). It promotes lawlessness among students, rape among the group, teenage pregnancy, internet frauds, social miscreants, armed robbery among others. It also leads to being disobedient to teachers, parents and elders in the society as well as their seniors both at school and at home. For mental disorder, it may manifest in form of difficulty in concentration and being unable to process information, leading to poor academic performance, failure in examination and dropping out from school. Furthermore, substance use on students could lead to truancy, increased expenses, increased risky sexual behaviour, violence, and cultist activities (Okechukwu, 2021). It may aid crime rate, bringing unrest to communities, shame to their families, friends and loved ones. Using alcohol and tobacco at a young age increases the risk of using other substances later.

Research shows that adolescent substance users are significantly more likely to skip classes and to earn lower grades compared to their non-using peers; they also report reduced academic self-efficacy and emotional engagement in school. Students who abstain from substance use demonstrate stronger academic performance and greater attachment to school communities, suggesting that substance use prevention may support both educational and health outcomes (Kolawole, Ogunyemi & Lucas 2025). Risk perception refers to an individual’s awareness, understanding, and personal judgment about the potential dangers or harmful consequences associated with engaging in certain behaviours in this case, the use of psychoactive substances. It involves how people evaluate the likelihood and severity of harm that might result from substance abuse and how such evaluations influence their decisions and attitudes toward substance use (Alex-Hart, Opara & Okagua). In the context of substance abuse among secondary school students, risk perception plays a critical role in shaping behaviour.

Risk-perception is the subjective judgment individuals make about the likelihood and potential severity of a risk. It's not just about the objective facts of a situation, but also how people feel, think, and believe about those facts. Risk perception is highly personal and varies from person to person. What one person considers a high-risk situation, another might not. Factors like familiarity, trust in information sources, and perceived control can also influence how risk is perceived (Adeniyi 2020). Substance use among secondary school students may be caused by a variety of elements, including availability and type, parental neglect of their children, laws and policies limiting access to substances, peer pressure, and peer group interaction. At this transformative point, secondary school students are the most vulnerable and are susceptible to danger associated with a lack of knowledge of substance use (Eze & Alex-Hart 2022; Makanjuola, Oluwole, Dada & Obadeji 2022).

Prevalence of substance use can be reduced through targeted health educational interventions among this target population (Tice, Arrira, Calderia, Vincent, Bugbee & O’Grady 2022). Peer

influence, experimental or curiosity, personality problems, family influence, lack of parental supervision are the factors that leads to substance use. However, it is known that certain religious views, good parental communication, and family socialization are some of the characteristics that have a protective effect against substance use. On statistics released by Nigeria's National Drug Law Enforcement Agency which showed that over 14 million people use substance, including children and teenagers (Purdie, 2021). The agency noted that it is a pandemic problem that is spreading at an alarming rate in Nigeria.

A worrying tendency is that some Nigerians are involved in trafficking these illegal narcotics across borders, tarnishing the country's reputation on the international stage.

A study in Oyo State also indicated that the population had a high burden of psychoactive misuse, with students having a much greater prevalence. Furthermore, a strong correlation has been seen between a growing economy and a changing demographic, as well as adolescent substance usage (United Nations Office on Drugs and Crime and Reuters 2024). The increase in trend in substance abuse are traceable to limited knowledge, as many secondary school students lack accurate knowledge about the risks and consequences of substance abuse, which can increase their vulnerability to substance abuse. Students might be influenced toward positive behaviour by their peers or companions through supervised and structured social activities such as participating in charity work, starting a study club, encouraging a friend to work harder on their studies to get better grades, and attempting novel activities that will promote an all-around healthy lifestyle.

This always has positive effects when students are pressurised by their peers towards positive behaviour, such as charity volunteering or doing well in academics (Ochieng 2022). On the contrary, through unstructured and unsupervised social activities, students could be persuaded or lured into risky activities and anti-social Behaviours such as substance use that will result in criminal behaviour, juvenile delinquency and an overall unhealthy lifestyle (Ochieng 2022). Secondary school students remain one of the most vulnerable groups when it comes to substance abuse, as their developmental stage often exposes them to peer pressure, experimentation, and social influence. In many communities across the globe, the use and misuse of substances have become a significant social and public health challenge, affecting not only individual well-being but also family and community structures. Today, a large part of social interaction among adolescents often involves the ceremonial use of alcohol or, in some cases, the recreational use of other substances, making it easier for these habits to become normalized and harder to resist (Kolawole, Ogunyemi, & Lucas).

Over time, this has presented adolescents/students with a lot of social contexts where substances are abused, or used with a higher degree of social acceptance (World Psychoactive Substance Report; United Nations Publication, 2022). Students in secondary schools have been using drugs more frequently during social events in recent years. According to a joint study by the National Bureau of Statistics (NBS) and the Centre for Research and Information on Substance Abuse (CRISA), 14.3 million Nigerians aged 15 to 64 used drugs in the previous 12 months, indicating that the country's drug use prevalence was increasing (Khoza & Shilubane 2021). Substance can be abused including medically prescribed drugs. The sequence of usage ranges from tobacco and alcohol, marijuana and other substances. Albeit, substance use among secondary school students do not always exist in isolation (Nguyen, &Newhill, 2021).

Social activities provide an opportunity for students to socialize through group activities within or outside their school environment. Knowledge about substance use is having a good understanding, awareness, and familiarity with facts, and information. It encompasses both the theoretical understanding and the practical application. Knowledge is considered a foundational element in substance abuse because it enables individuals to think critically about the harm in substance use. Knowledge of substance abuse involves recognising also the types of substance abuse and their harmful effects, as well as understanding that addiction is characterized by compulsive seeking behaviour despite adverse consequences (Schinke, Schwinn, Hopkins & Wahlstrom 2021). Substance abuse is a complex challenge which affect millions of people worldwide. In the World Drug Report, it was reported that there are about 300 million abusers globally representing 20 per cent increase over a period of ten years.

This spans from substance abuse by individuals to communities affected by this drug trafficking and organized crime. Similarly, abuse in America is a significant public health and social problem, with consequences ranging from individual health issues to broader societal impacts. High rates of use, particularly among young people, and a high number of overdose deaths highlight the severity of the issue. In countries in Europe, the European Drug Report in 2021, stated that psych-substance abuse has been on the increase (Ogochukwu 2022). The report shows that illicit substances have a significant negative impact on European health. In Asia, drug abuse has been present for a long time but the past two decades have witnessed an alarming increase. For example, in the year 2020, it was reported that more than 1 billion illicit substances were confiscated from East and Southeast Asia (Macleod et al 2021). This was compared with previous generations, where the proportion of young people using illicit substances was on the increase.

Similarly, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) reported that substance abuse particularly among the youth has been on the rise in the last decade (Umukoro et al.2021). In the Middle East, this problem is currently a prolific illegal trade that has spread in Iraq, Syria, Jordan, Kuwait, Yemen, and Saudi Arabia. Despite religious as well as legal prohibitions against the possession or consumption of psychoactive substance². Reports in Sub-Saharan countries revealed that substance abuse among younger people has become a critical public health concern, significantly contributing to the burden of disease (United Nations Office on Drugs and Crime and Reuters 2024), On statistics released by Nigeria's National Drug Law Enforcement Agency which showed that over 14 million people use substance, including children and teenagers (Layla, Naseeba, Hisham, Ahmed, Shamil &Amna, 2020). The agency noted that it is a pandemic problem that is spreading at an alarming rate in Nigeria (Idoko, Chidolue, Eze, and Ucheya 2023). A worrying tendency is that some Nigerians are involved in trafficking these illegal narcotics across borders, tarnishing the country's reputation on the international stage.

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secondary school students is a pressing concern globally, with far-reaching consequences for their health, well-being, and future prospects (Idoko, Chidolue, Eze, Ucheya 2023).

Several studies have been carried out concerning the awareness of substance abuse among youths 6 -10 studies across different Nigerian states, but there are dearth of studies particularly knowledge, risk-perception and factors influencing substance abuse among students. This study will fill this gap and proffer solution with particular reference to students in secondary schools in Ibadan North Local Government Area of Oyo State.

The specific objectives are to:

- i. examine the relationship between knowledge and substance abuse among selected public secondary school students in Ibadan North Local Government Area.
- ii. examine the relationship between risk-perception and substance abuse among selected public secondary school students in Ibadan North Local Government Area.
- iii. determine the joint relationship between knowledge, and risk-perception influencing substance abuse among selected public secondary school students in Ibadan North Local Government Area.

Hypotheses

The following research null hypotheses were tested in this study.

H₀₁: There is no significant relationship between knowledge and substance abuse among selected public secondary school students in Ibadan North Local Government Area.

H₀₂: There is no significant relationship between risk-perception and substance abuse among selected public secondary school students in Ibadan North Local Government Area.

H₀₃: There is no significant joint relationship between knowledge and risk-perception on substance abuse among selected public secondary school in Ibadan North Local Government Area.

Methods

A descriptive cross-sectional survey research design was adopted for the study which involves the use of questionnaire to collect relevant data. The study population consisted of all secondary school students of selected public secondary schools in Ibadan North Local Government Area. Multi-stage sampling procedure involving three stages (Stage 1 Generation of clusters, Stage 2: Simple random sampling and Stage 3: Proportionate stratified sampling) was used to select 439 students from selected public secondary schools in Ibadan North Local Government Area of Oyo State. This sampling method is appropriate for collecting information from a section of a study population and also allows the use of a selected sample to describe or represents a large population at a given point in time. A validated questionnaire tagged “Knowledge, Risk-Perception and Substance Abuse” (KRPSQ) was the main instrument used for the study. It consisted of three research instruments in addition to the demographic characteristics of the respondents.

The instruments are described below.

The Knowledge of Substance Abuse scale was measured with ten (10) questions items of Knowledge of Substance Abuse adapted Questionnaire, modified to fit the context of the study. It was made up of items from which the respondents responded to on a Yes or No point scale: with a scoring values of Yes = 2. No = 1. The scale was measured with eleven (11) question items of Risk-Perception on Substance Abuse adapted Questionnaire, modified to fit the context of the study. It was made up of 11 question items, the respondents responded on a 4-point scale: With a scoring values of Strongly Disagree = 1 Disagree =2 Agree= 3. Strongly Agree= 4. The scale was measured with ten (10) question items of Substance Abuse adapted Questionnaire, modified to fit

the context of the study. It was made up of 11 question items, the respondents responded on a 4-point scale: With a scoring values of Strongly Disagree = 1 Disagree = 2 Agree = 3. Strongly Agree = 4. The reliability co-efficient of the questionnaire was 0.85 which is an indication that the instrument is reliable. Face and content validity were carried out on the questionnaire. Pearson Product Moment Correlation (PPMC) and multiple linear regression analysis were used to test the set hypotheses among the variables in the study.

Findings and Discussion

Null Hypothesis One

There is no significant relationship between knowledge and substance abuse among selected public secondary school students in Ibadan North Local Government Area.

Table 1: Pearson correlation showing significant relationship between knowledge and substance abuse among public secondary school students in Ibadan North Local Government Area.

Variable	Mean	Std. Dev.	n	r	p	Remark
Knowledge	18.30	2.64				
Substance abuse	33.11	6.21	439	.577	.000	Sig.

In the table above, there was significant influence between knowledge and substance abuse among public secondary school students. Hence the null hypothesis one was rejected

Null Hypothesis Two

There is no significant relationship between risk-perception and substance abuse among selected public secondary school students in Ibadan North Local Government Area.

Table 2: Pearson correlation showing significant relationship between risk-perception and substance abuse among public secondary school students in Ibadan North Local Government Area.

Variable	Mean	Std. Dev.	n	r	p	Remark
Risk-perception	39.50	3.14				
Substance abuse	33.11	6.21	439	.621	.000	Sig.

In the table 2 above, there was significant relationship between risk-perception and substance abuse among public secondary school students. Hence the null hypothesis two was rejected

Null Hypothesis Three

There is no significant joint relationship between knowledge, and risk-perception on substance abuse among selected public secondary school students in Ibadan North Local Government Area.

Table 3: Summary of Regression Analysis among Independent variables (knowledge, risk-perception and factors influencing) on the dependent variable (substance abuse) among selected public secondary school students in Ibadan North Local Government Area.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	849.622	2	424.811	362.158	.000

Residual	511.301	436	1.173
Total	1360.923	438	

R=.575, R² = .330, Adj R² =.323, Estimate error=2.665

It was shown in the table 3 above that the joint relationship of independent variables (knowledge, and risk-perception) on Substance abuse was significant (F (3.435) = 362.158; R=.575, R² = .330, Adj R² =.323; p < .05). About 33% of the variation was accounted for by the independent variables. Thus, the two variables (knowledge, and risk-perception) are good predictors of substance abuse among selected public secondary school students. Hence the null hypothesis three was rejected

Discussion of findings

The analysis of the relationship between knowledge and substance abuse among selected public secondary school students in Table 1 indicated that there was a positive and significant correlation among the variables. This implies that knowledge positively enhanced substance abuse among selected public secondary school students. This finding is in line with a number of authors. For example, Prakash. Anushka, Kumar, Kumari & Sinha (2021) found out in their study that having knowledge about substance use is very importance. Parents that do not have knowledge of the effects of substance use on them and their children, may see the use of psychoactive substance as a normal thing and as such, will not fight against substance use, this may lead to unsupervised activities of students by parents. Substance abuse is a universal and widespread public health problem globally especially among the young population. Although majority of respondents studied were aware of substance abuse, more than nine-tenth of the respondents had good knowledge of substance abuse encompassing awareness, knowledge of different substances of abuse, predisposing factors and consequences of substance abuse.

The analysis of the relationship between risk-perception and factors influencing substance abuse among selected public secondary school students in Table 2 indicated that there was a positive and significant correlation among the variables. This implies that risk-perception positively enhanced factors influencing substance abuse among selected public secondary school students. This finding is in line with Eze et al.(2022) who found out that alcohol and hot drinks were mostly abused substance by the students as they were used indiscriminately in every gathering. Students smoke tobacco at any time as they always create opportunity to do so. Students smoke Indian hemp on a regular basis. They were also involved in the consumption of marijuana so as to be able to engage in nefarious activities. The study also revealed that students have learnt how to abuse substance right from their home and environment. So to such students, psychoactive substance abuse is not a new practice in school.

Students abuse substance as a result of curiosity to test and experience the effect of substance on their body system. They use substance so as to avoid rejection, isolation, and loneliness from their friends who are into substance. For students to use substance in order to be accepted by peers shows that social activities may lead young ones to involve in deviant behaviours that could be detriment to their health, their family and the society as a whole. Also in tandem with Tice et al. (2022) in a study conducted on perceived influence on psychoactive substance abuse among secondary school adolescents in Government secondary schools, which revealed that psychoactive substance abuse can result to poor academic performance, expulsion from school, risk taking behaviours, poor assimilation as well as loss of memory.

There is no significant joint influence between knowledge, risk-perception and factors influencing substance abuse among selected public secondary school students in Ibadan North Local Government Area. The result obtained from the multiple regression analysis of Table 3 indicated that knowledge, risk-perception and factors influencing made a significant contribution to the prediction of substance abuse. Also, the magnitude of the contributions on substance abuse is also reflected in the value of coefficient of multiple regressions $R (.747)$ and adjusted $R^2 (.551)$.

This finding is supported by an analytical cross-sectional study conducted by Ochieng (2020) among undergraduate students, which revealed that majority of the respondents had good knowledge of substance abuse. The life time prevalence of substance use was below average while recent prevalence of substance use was higher. Faculty of students, religion, family type, monthly allowance and knowledge of substance use were identified as significant predictors of substance use. The study also concluded that despite good knowledge of substance abuse and health implications a little less than half of the respondents used substances. There is need to reduce the prevalence of substance use through targeted health educational interventions among this target population.

Conclusion and Recommendations

Considering the findings of this study, it is concluded that knowledge, risk-perception and factors influencing were significant determinant of substance abuse among selected public secondary school students. This suggests that the two independent variables (knowledge and risk-perception) are critical variables influencing substance abuse among selected public secondary school students. The study therefore recommended as follows:

- Government should develop and implement targeted interventions that will focus on enhancing students' knowledge, risk perception of substance abuse and promoting positive behaviour.
- There should be parental Involvement in substance abuse prevention efforts through education and guidance.
- There should be school-based programs to implement evidence-based substance abuse prevention programs in schools to reduce prevalence rates.
- There should be Community-Based Initiatives to foster community partnerships to address socio-economic challenges and provide alternative opportunities for students.
- Government should develop and implement targeted interventions that will focus on enhancing students' risk perception and promoting positive behaviour.
- There should be parental Involvement in substance abuse prevention efforts through education and guidance.
- There should be school-based programs to implement evidence-based substance abuse prevention programs in schools to reduce prevalence rates.
- There should be Community-Based Initiatives to foster community partnerships to address socio-economic challenges and provide alternative opportunities for students.

References

- (Nawi A.M., Ismail R, Ibrahim F., Hassan M.R, Manaf M.R.A., Amit N., Ibrahim N., Shafurdin N.S. (2021). Risk and protective factors of psychoactive substance abuse among adolescents: a systematic review *BMC Public Health*, 21:2088
- Abazie N.R, N.Ajagu, K.O.Okolo, N.N. Okpalanma, A.I. Okeke, H.N. Maduekwe, et al.(2022) Knowledge and perception of university students on psychoactive substance abuse in Delta state, South-South, Nigeria. *Open J Clin Med Images: 2(1):1049*.
- Adeniyi A. O. (2020), Effect of psychoactive substance abuse on the academic performance of secondary school students in Nigeria, *European Journal of Biology and Medical Science Research*, 10(3), 72-79.
- Afuwai E. 2023. Psychoactive substance Abuse on Socio-Emotional Behaviour among Secondary School Students in Kaduna State, Nigeria. Unpublished M.ED. Thesis. Zaria: Ahmadu Bello University
- Agwogie M. 2021, An Investigation into the Nature and Predisposing Factors Related to Psychoactive substance Abuse in Kano and Lagos State. Unpublished M.ED. Thesis. Zaria: Ahmadu Bello University.
- Alex-Hart B.A., Opara P.I.Okagua J. (2021). *Prevalence of Alcohol Consumption among Secondary school students in Port Harcourt, Southern Nigeria*. *Niger J Paed.*; 42(1):, 39-45. PubMed
- American Psychiatric Association 2021: Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Fifth Edition. Arlington, VA, American Psychiatric Association,.
- W.N., Chinyere R.N., Chikere I.C.E., Sally N.O.I., Gregory N., Christian Chukwudi CN. (2020). Factors Influencing Substance Abuse among Senior Secondary Students Attending Public Schools, Owerri, Imo State. *J Community Prev Med*; 3(2):1-8.
- De Visser J.A.Smith J.A. (2021) Alcohol consumption and masculine identity among young men. *Psychol Health*; 22: 2021, 595-614.
- Durowade K.A., Elegbede O.E, Pius-Imue, G.B. Omeiza A., Bello M., Mark-Uchendu C., et al (2021). Substance use: Prevalence, pattern and risk factors among undergraduate students in a tertiary institution in Southwest Nigeria. *Journal of Community Medicine and Primary Health Care*. 33(2), 83-99
- Eze J.N. & Alex-Hart B.A. (2022) Knowledge, Attitude, and Practice of Substance Use in Nigeria among Secondary School Students. *CHRISMED Journal of Health and Research*, 9(1), 23-30.
- George N. A. (2021) Prevalence of substance abuse among students in public senior secondary schools in Mainland local government, Lagos. *Glob J Med Public Health*; 3: 2021, 2277-9604.

- Holly A.S., Nicholas A.C., James H.F.2021. Parental influence on substance use in adolescent social networks. *Arch Pediatr. Adolesc Med J*; 166: 2021, 1132-9.
- Idoko C.A., Chidolue, I.C. Eze C.K., Ucheya E.2023 Substance abuse among medical students of a Nigerian University: Prevalence, factors influencing use, and effects on academic performance. *Int. J Med Health Dev.*; 28: 156-160
- Jatau A.I., Sha'aban A., Gulma K.A., Shitu Z., Khalid M., Isa A., et al. 2021 *The burden of psychoactive substance abuse in Nigeria: A scoping review of epidemiological studies and psychoactive substance laws*. *Public Health Rev.*; 42: 1603960. doi:10.3389/phrs. 1603960
- Khoza N. and Shilubane H. 2021 *Substance Use and Associated Factors Among in-school Adolescents in South Africa* *The Open Public Health Journal*;, 435-440
- Kolawole T O, Ogunyemi A. O., & Lucas A.R (2025), "Prevalence of Substance Use and Knowledge of Its Effects among Secondary School Students in Lagos, Nigeria," **South African Journal of Psychiatry** 31 (2025): Article a2370.
- Layla S, Naseeba A, Hisham, E. Ahmed, Shamil W, Amna, A et al.2020. Adolescents' perception of substance use and factors influencing its use: A qualitative study in Abu Dhabi. *J R Soc.Med Open* 2020; 6:2054270414567167.
- Macleod J., Oakes R., Copello. A., Crome P.I., Egger P.M., Hickman M., et al. 2022 *Psychological and social sequelae of cannabis and other illicit psychoactive substance use by young people: a systematic review of longitudinal, general population studies*. *Lancet*; 363(9421): 1579–88.
- Mahfuz M.(2020) Prevalence and Pattern of Psychoactive Substance Use among Senior Secondary School Students in Dala Local Government Area, Kano State, Nigeria. Enugu: University of Nigeria;
- Makanjuola A. B, et al. (2022). Psychoactive substance Abuse among Nigerian High-School Adolescents. *International Journal of Mental Health*, 27(3), 11-20.
- Makanjuola A. B, Oluwole L.O., Dada M.U.& Obadeji A.. (2022). Pattern of substance use among secondary school students in Rivers State. *Niger J Med*; 13: 36-9.13.
- National Institutes on Psychoactive substance Abuse (NIDA); (2021). *What are risk factors and protective factors? National Institute on Psychoactive substance Abuse*.
- Nguyen N.N., Newhill C.E (2021). The role of religiosity as a protective factor against marijuana use among African American, White, Asian, and Hispanic adolescents. *J Subst Abus.*;21(5): 2021, 547–52.

- Ochieng C., 2020. Prevalence, Predictors of Psychoactive substance and Substance Use, Their Effects on Students' Academic Performance in North-Eastern Nigeria. *Open Journal of Social Sciences*, 10(12), 1-15.
- Ogochukwu O.M (2022). *Knowledge, attitude, and practice of substance use among secondary school students in Nigeria. CHRISMED Journal of Health and Research | Volume 9 | Issue 1 | January-March 2022*
- Onigbogi O. Ojo O. & Babalola O. (2023). Prevalence of Substance Abuse among Secondary School Students in Lagos State of Nigeria. *European Scientific Journal, ESJ, 19 (15), 67.*<https://doi.org/10.19044/esj.2023.v19n15,,p67>
- Prakash P., Anushka A., Kumar S., Kumari S, Sinha P. 2021. Knowledge and Perception of Psychoactive substances Use and Abuse among Secondary School Students in India. *International Journal of Research and Review Vol.8; Issue: 3; March 2021*
- Tice P, (2022) Substance Use, *Academic Performance, and Academic Engagement among High School Seniors. Journal of Adolescent Health, 70(2), 234-240*
- Umukoro E.K, Eduviere A.T., Ahama E.E., Moke E.G.; Edje K.E, Omorodion L.I., Ovigie C.(2021) Awareness and Attitude among Secondary School Students in Sapele, Nigeria. *Appl. Sci Environ. Manage. Vol 25 (2)367351*
- United Nations Office on Psychoactive Substances and Crime (UNODC, 2022). *World Psychoactive Substance Report ;United Nations Publication*
- United Nations Office on Psychoactive substances and Crime (UNODC2022). *World Psychoactive substance Report (United Nations Publication,*
- Tice P., Arria AM,. Caldeira K.M,. Vincent K.B, Bugbee B.A. & O'Grady K.M.E (2022) Substance Use, *Academic Performance, and Academic Engagement among High School Seniors. Journal of Adolescent Health, 70(2), 234-240*
- United Nations Office on Substance and Crime, World Psychoactive substance United Nations Office on Crime World report; 2020. Available from [http://www.unodc.org/documents/dataandanalysis/World_Psychoactive substance_Report_.pdf](http://www.unodc.org/documents/dataandanalysis/World_Psychoactive_substance_Report_.pdf)
- World Health Organization Available from:http://www.who.int/topics/substance_abuse 2021.
- United Nations Office on Drugs and Crime and Reuters (2024), “ ‘Kush’, ‘Khadafi’ and ‘Monkey Tail’ Drugs Pose Health Risks in Africa,”
- Purdie Susan S. (2021), “The Burden of Drug Abuse in Nigeria: A Scoping Review of Epidemiological Studies and Drug Laws,” *Public Health Reviews* 42 (2021).