

## Causes of Abuse of Pharmaceutical Opioids among Students of Tertiary Institutions in Oyo Town: Implication for Sustainable Development

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### Abstract

The world is experiencing a drug abuse crisis in which non-medical use of ethical and prescription drugs is becoming a major threat to public health and a concern for drug law enforcement agencies. This study addresses the causes and implications of pharmaceutical opioid abuse among students of tertiary institutions in Oyo town, Oyo State, Nigeria. Adopting survey research method, copies of the questionnaire were administered to different levels of students in four tertiary institutions, comprising 380 users. Descriptive analysis and logistic regression were employed. The findings revealed that drug abuse was significantly rampant in Oyo metropolis due to easy access to drugs, an emerging street culture of gangsters, lack of parental control, economic hardship, environmental influences and breach of ethics by pharmacists. The implications of the situation include increased crime rate, anti-social behavioural patterns that aggravate security threats, high mortality rate, loss of hope to both parents and the nation, economic liability to the nation, and a rise in mental ailments; all of which culminate in the overall shortfall of prevention and treatment of substance abuse in Nigeria. The study recommends that enlightenment on the implications of drug misuse should be included in the school curriculum at all levels. The study also recommends that high tariff be imposed on the importation of ethical drugs. Regulatory bodies should be empowered to control the distribution and sales of drugs, and given the power to prosecute offenders. Campaign and advocacy should be intensified to prevent students from abusing and misusing pharmaceutical opioids.

**Key Words:** Pharmaceutical Opioids, Drug Abuse, Sustainable Development, Psychoactive Drugs

**JEL Classifications:** I12, I18

### Introduction

The world is passing through a phase in drug abuse crisis which both the developed and the developing countries are finding difficult to solve. According to the World Health Organization, about 275 million people worldwide (5.6% of the world's population aged 15–64) have been using prescription drugs at least once a day. Approximately 34 million people with opioids and approximately 27 million people with opioid disorders have been affected. In addition, more than 450,000 people died as a result of drug use in 2015. Of those deaths, approximately 160 thousand were directly related to drug use disorders and approximately 118 thousand to opioid use disorders (WHO, 2018). Drug abuse leads to the disintegration of communities, imposes significant economic and social costs, as a result of its effects on human health and increased crime and mortality in the community, making it a major threat to society. While massive resources are devoted to preventing the spread of drug abuse, it is widespread in the community regardless of age, economic status, educational level, race or ethnicity, and location (Chikezie & Ebuenyi, 2019; Tara et al, 2018, UNODC, 2018, WHO, 2018).

This precarious situation is also prevalent in Nigeria. For example, in 2017, it was stated that one in seven people aged 15-64 years take drugs daily. Substance use was estimated at 14.4 per cent (range 14.0 per cent-14.8 per cent), equivalent to 14.3 million individuals aged 15-64 who used psychoactive substances for non-medical reasons in the past. About 4.7% of the population, accounting for about 4.6 million people, used opioids (such as tramadol, codeine or morphine) for multiple years for non-medical reasons (WHO, 2018, UNODC, 2018).

National development and invariably regional development are prerequisite to sustainable development. However, the role of youth in sustainable development in any country cannot be downplayed, especially in terms of labour supply, human capital development, future revenue generation and future hope of parent as a long run return. Incidentally, government policies towards reducing the menace of drug abuse is not forthcoming as a majority of the youth ignorantly depend on one form of drug or the other for their various daily activities such as social, educational, political and moral activities (Oyewole, Animasahun and Chapman, 2018). In response to the threat of the menace, the international community through the United Nations (UN) in September 2015 adopted the Sustainable Development Goals (SDGs). The SDGs are a set of 17 ambitious and precise goals to be achieved by 2030 for a better world in which both humans and nature are fully developed. Goal 3, Target 5 of the SDGs calls for strengthening the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol. The inclusion of this specific target in the 2030 agenda for SDGs shows that failure to prevent the menace of substance abuse can lead to failure in the attainment of sustainable development at both national and global levels (McArthur and Rasmussen, 2019; UNODC, 2019).

It is disheartening that, despite several policies and techniques put in place to decrease the threat of pharmaceutical opioid abuse, the rate of abuse of psychoactive substance in most of the country's tertiary Institutions is still rising. Misuse of codeine and tramadol among students is of growing interest in a number of nations, especially as it refers to over - the-counter pain and cough relief medication and is also provided as a prescription medicine (Ajibola, Ayodele, Olumide and Ogunlaja, 2018 ; Johnson, Akpanko, Okanna, Adeboye and Udoh, 2017 ; Kimegard, et al, 2017)..

While numerous studies on substance abuse have been carried out in Nigeria, the threat of this social anomaly has stayed unabated, especially among the youth in the higher institutions. Studies have also failed to determine the variables, whether biological, social or psychological, that are the main reasons for the excessive abuse of pharmaceutical opioids by young adults. This is the concern of this study.

### **Objectives of the Study**

The aim of the study was to examine the causes of abuse of pharmaceutical opioids among students of tertiary institutions in Oyo town. The specific objectives were to:

- i. Determine which among the biological, social and psychological factor is the main cause of pharmaceutical opioids abuse among students
- ii. Determine the main cause of pharmaceutical opioid abuse rooted in biological factor, social factor and psychological factor.
- iii. Examine the implication of pharmaceutical opioids abuse on the health of students
- iv. Assess the implication of the pharmaceutical opioids abuse by tertiary institution students on the attainment of sustainable development

### **Literature Review**

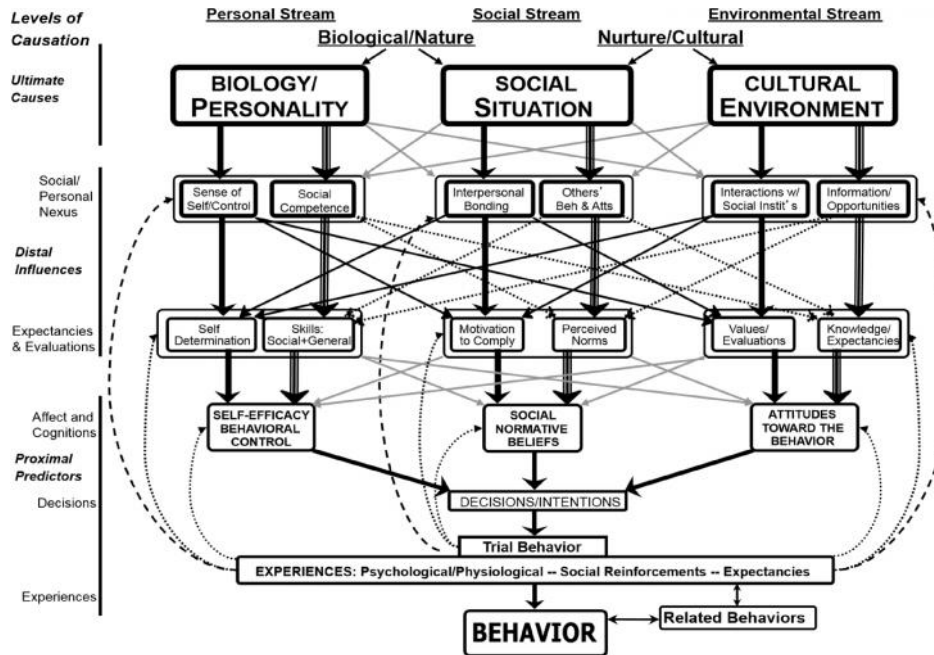
#### **Conceptual Issues**

A drug is a substance (legal or illegal) taken into the body that affects the central nervous system by acting on the brain and spinal cord. The potential is to prevent or cure disease or enhance physical or mental welfare. Opioids are a class of drugs naturally found in the opium poppy plant (National Institute of Drug Abuse, 2019). They are often used as medicine because they contain chemicals that relax the body and can relieve pain. Prescription opioids are used mostly to treat moderate or severe pains, though some opioids can be used to treat cough and diarrhoea. Misuse of prescription drugs implies taking a drug in a way or dose other than prescribed; taking someone else's prescription, even if for a lawful medical complaint such as pain; or taking a drug to feel elevated euphoria ( Gboyega and Benjamin, 2012; Talyama and Alexander, 2012). Sustainable development, however, is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs (Brodhag and Taliere, 2006, Mensah, 2019).

### Theoretical Framework

The theoretical framework followed in this study is Flay, Snyder, and Petraitis's (2009) Theory of Triadic Intervention (TTI). It can be addressed in three sub-headings – the intrapersonal factors, social influences, and cultural influences on the environment. These streams of influence relate to the impact of individual psychological make – up, external influences caused by happenings in one’s surrounding and cultural system of the people. Figure 1 below shows the stream of the theory.

**Figure 1: The Theory of Triadic Influence**



Adapted from Flay, Snyder, and Petraitis (2009).

The first stream of the theory is the intrapersonal stream. It explains the influence of an individual’s biological formation on the disposition of that person to cognitive states like experience, consciousness, extraversion, aggressiveness, agreeableness and neuroticism. The TTI presumes that the expression of these intrapersonal states has direct impact on an individual’s social relations capability and ability to connect through personal nexus variables which have direct bearing on self – esteem and demonstration of competencies. These variables in turn have impact on self – determination and general life skills. Invariably, these influence that have been derived and distilled from the biological predispositions and formulate to social competencies manifest in specific behaviour such as academic behaviour in students, and the determination to succeed or excel in such behaviour. Related to this theory is self – efficacy theory which explains a person’s sense of self – efficacy about a particular behaviour.

The second is the social influence. This stream explains the influence of one’s immediate social environment that is largely beyond the control and manipulation of individuals. For example, school curriculum, teacher personality, personality of parents and the society into which one is born. The influence of the environment further strengthened through social bonding with teachers, parents, role models and the relevant behaviour of those people. The flow of influence continues to include the variables that comprise the motivation to connect and comply with various role models and the knowledge of what each of those role models encourage or accept.

The third influence of TTI is the cultural – environment influence. The variables under this stream include politics, economic, religion, legal, mass media and policy environment. The foundation of this experience is established on the perception of the nature of the interactions people have with social institutions mentioned and the relevant information and the values they derive from the culture of these institution project. The cultural – environmental stream flows through relevant variables to the consequences one expects from a particular behaviour, whether it is good or bad to get involved in a particular behaviour.

### **Empirical Review**

There are several empirical studies on substance abuse among undergraduate students in the developed, developing and emerging economy. Adeyemo, Ohaeri, Pat and Ogodo (2016) examined the prevalence of drug abuse amongst students in Benin City using descriptive design. A total of 800 students were used. Their findings show that 46.6% of the respondents have taken drugs for non – medical purpose at least once, and that coffee and alcohol were the most commonly abused drugs. Also, the main reasons for drug abuse are poor teacher-students relationship, improper parental upbringing, as well as influence of peer pressure. They concluded that there is a significant relationship between university environment and the tendency to abuse drugs.

Cadey (2017) investigated the causes of drug abuse among college students in the Philippines using survey research design, and found that the ten causes of drug abuse among students are peer control, lack of parental attention, serious family issue, lack of parental guidance, poor base on moral values, suffering anger, lack of prevention of drug abuse, means of combating drug abuse. The study, however, did not discuss the magnitude of the effect and also did not group the causes on the ground of psychological factor, social factor and biological factor which would have improved the work.

Idowu, Aremu, Olumide and Ogunlana (2018) examined substance abuse among students in selected public schools in Ogbomosho. A total of 249 students were used in the study. Using Chi square and descriptive analysis, the study concluded that most of the students, with 35.5% of the substance abusers, did so believing it could enhance their academic performance. Also, the proportion of students who were substance abusers was significantly higher among students who had not received any formal lectures on the subject at school, compared to those who had received such lectures; 47.5% as against 29.7%.

Johnson, Akpaneko, Okonna, Adebayo and Udoh (2017) studied the prevalence and factors affecting psychoactive substance use among undergraduate students of University of Uyo. A total of 350 undergraduate students were used in the study. The study employed Chi square and descriptive analysis. The major substances abused were alcohol, codeine, tramadol and cigarette. Findings of the study revealed that the prevalence of psychoactive substance use was more in females (37.7%) than males (18.2%). Peer group influence (94.3%) was the leading cause of psychoactive drug abuse, followed by boosting confidence (92.1%) and reading for examinations (85.4%), then stress (70.5%) and curiosity (58.7%). Also, most of the students did believing it could enhance their academic performance and the proportion of respondents who were substance abusers were significantly higher among student who had not receive any formal lecture in the subject at school, compared to those who had; 47.5% as against 29.7%.

Ogunsola and Fatusi (2016) reported that about two-thirds of in-school adolescents in Osun State, Nigeria had used substances in both rural (65.7%) and urban areas (66.0%). Also, Lawoyin et al (2005) revealed that 69.3% of secondary school students in Igboora, South-west Nigeria were current users of at least one of the illicit drugs Alex-Hart in a study among secondary school students in Port Harcourt, Southern Nigeria also found that 30.6% of the respondents had taken alcoholic drinks before the survey; while Yisa, Lawoyin, Fatiregun and Emelumadu (2009) showed that lifetime use of any substance among students in Ibadan, South West Nigeria was 15.3%.

## **Methodology**

### **Study Design**

This is a descriptive cross-sectional study carried out among undergraduates in Ajayi Crowther University, Ekiti State University (Alayande Campus), Federal College of Education Special (SPED) and Emmanuel Alayande College of Education, all in Oyo town, Oyo State, Nigeria.

### **Study Population**

The study was conducted among undergraduates in Ajayi Crowther University, Ekiti State University (Alayande Campus), Federal College of Special Education (SPED) and Emmanuel Alayande College of Education, all in Oyo town. Only the Faculty of Social Sciences undergraduate students were used. Around 4,000 students in the four universities are in the Faculty of Social Sciences, which constitutes the study population.

### **Sample and Sampling Method**

With the estimated population of 4000, a proportionate sampling of 10% (Smart et al, 1980) was used. A total of 400 students were selected for the study, with their own consent. The convenience sampling technique was used to select the respondents. However, only 380 of the students returned their responses within the scheduled period, giving a 95% response rate. Each respondent received written informed permission before the questionnaire was administered. The participants were assured that their responses were confidential and used solely for study reasons.

### **Model specification**

Association can be evaluated between the status of students' pharmaceutical opioids abuse and each of the biological, social and psychological variables, and the degree of each connection can also be discovered using chi-square testing. However, a number of variables can influence the dependent variable (have you ever used pharmaceutical opioids like codeine, tramadol and morphine without medical prescriptions). Multiple regression analysis can be used to examine such connection between a dependent variable and a set of independent variables. However, in this study, the dependent variable is a dichotomous variable produced from the answer to the question: "Have you ever misused pharmaceutical opioids like codeine, tramadol and morphine without medical prescriptions?" and the independent variables are numerical, categorical and dummy. A major problem associated with the use of multiple regressions is that the predicted values are not necessarily within the range 0 to 1 and cannot, therefore, be interpreted as likelihood (Norusis 1993).

Because of the nature of the dependent variable, Y is of value Y=1 if the respondent has ever misused pharmaceutical opioids such as codeine, tramadol and morphine without medical prescriptions; and is of value Y=0 if the respondent has not abused pharmaceutical opioids such as codeine, tramadol and morphine. Both models, probit and logit, may be applicable. These models provide a forecast of the probability that, without medical prescriptions, the respondent abused pharmaceutical opioids such as codeine, tramadol, and morphine. However, as the logistical model is simpler to comprehend and utilizes a conventional type of evaluation, this study utilized the logistical regression model.

### **Model of logistic regression**

The model can be written in the logistics model with more than one independent variable n it takes the form

Prob. [A person abused pharmaceutical opioid] =

$$P[y = 1] = \frac{e^z}{1+e^z} = \frac{1}{1+e^{-z}} \quad (1)$$

Where Z is a linear function of the explanatory variables; If  $X_1, X_2, \dots, X_k$  represent various characteristics of the respondent, then “Z” equation would be as follows:

$$Z = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_k X_k \tag{2}$$

$$X_i = i^{th} \text{ variable} \quad (i = 1, 2, \dots, k)$$

$$\alpha_i = \text{parameter} \quad (i = 0, 1, 2, \dots, k)$$

Under this model, the probability that a respondent does not abuse pharmaceutical opioids is given by

$$P[y = 0] = 1 - P[y = 1] = \frac{e^{-z}}{1+e^{-z}} = \frac{1}{1+e^{-z}} \tag{3}$$

Equation 3 is estimated using the maximum likelihood (ML) technique that discovers estimates of maximum likelihood parameters by maximizing the likelihood function that represents the likelihood of the observed information as a function of the unknown parameters. Iteratively, the ML method is used to discover the most probable parameter estimates. ML estimator has consistency, asymptotic normality and asymptotic efficiency properties. The probability value is used to calculate the general fit of the model.

The model is presented as

$$\Pr(\text{respondent does not abuse pharmaceutical opioids}) = \frac{1}{1 + e^{-z}} \tag{4}$$

**Satisfaction Index**

For the following components which serve as independent variables in the model described in equation (1)—biological factor, social factor, and psychological factors, the satisfaction index was calculated to aggregate data collected on each of the parameters. The calculation was performed using the following form:

$$SI = (\sum_{i=1}^n y_i) / (\sum_{i=1}^n Y_i) \times 100 \tag{5}$$

Where;

SI = satisfaction index for the biological factors, social factors and psychological factors,

n = number of variables being scaled under component c,

$y_i$  = actual score by a respondent on  $i^{th}$  variable,

and  $Y_i$  = maximum possible score that  $i$  could have on the scale used.

**Results and Discussion**

Demographic details provided by the respondents indicated that out of the 380 participants, 322 (84.7%) were male, while 58 (15.3%) were female; 60 (15.8%) were under 20 years of age, 286(67.9%) were aged 20-30 years and only 34(8.9%) were aged 31 years or older. Regarding the respondents’ religious practice, 113(29.7%) were Christians, 258(67.9%) were Muslims, and 9(2.4%) are traditional worshippers. Also, with roughly 27 percent, the bulk of participants are at 400 level; 9(2.4%) at 100 level, 19(5.0%) at 200 level, 53(13.9%) at 300 level. For NCE1, 9.5% completed the questionnaire with 36 learners, 82(21.6%) were in NCE2 while 78(20.5%) were in NCE3.

**Causes of Pharmaceutical Opioids Abuse**

**Table 1. Logistic Regression Results. Dependent Variable: I have ever used pharmaceutical opioids without medical prescription**

Terms	Odd Ratio	Z	p> z	Lower 95%	Upper 95%
Age	0.663766	-0.49	0.621	0.130992	1.363457
Religion	0.573755	-0.65	0.516	0.107345	2.066703
Sex	1.205268	2.12	0.06	1.024211	1.567891
Level	0.858589	-0.14	0.891	0.978998	2.529902

Biological factor	1.417471	2.45	0.02	1.025753	1.607125
Social factor	1.872972	3.21	0.00	1.214907	2.732187
Psychological factor	1.838653	2.74	0.01	1.171056	1.670135

Source: Author’s computation, 2019.

Table 1 presents the logistic regression results. The coefficients of each of the variables are on their exponential values so as to explain the odd ratio. The dependent variable is based on whether the participant has ever abused pharmaceutical opioids or not. The participant is scored 1 if he or she has ever abused pharmaceutical opioids and 0 if he or she has never abused pharmaceutical opioids. The result shows that the odd of a student abusing pharmaceutical opioids will increase by 41.74% when exposure to biological influence increases by a percentage point and social factor and psychological factor are held constant. The result was significant which shows that biological factor is an important determinant of a student abusing pharmaceutical opioids in tertiary institutions. Holding biological factor and psychological factor constant also, the odd of a student abusing pharmaceutical opioids will increase by 87.29% when exposure to social factors increases by a percentage point in the tertiary institution. The result was also significant at 1percent, with  $p < 0.01$ . Also, holding biological factor and social factor constant, the probability that a student will likely abuse pharmaceutical opioids will increase by 83.86%, when psychological influence increases by 1percentage point.

Religion and age will reduce the likelihood of a participant abusing substance use, while the level of students is not an important determinant for the likelihood of a student not to abuse pharmaceutical opioids.

**Factors associated with the reasons for Pharmaceutical Opioids abuse**

**Figure 1: Biological Factor**

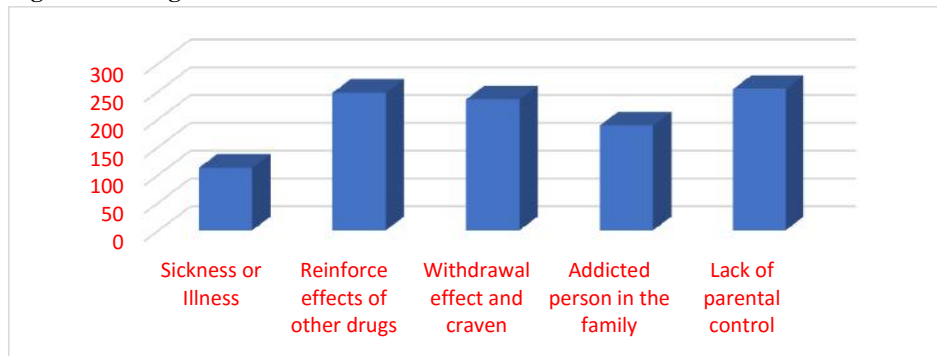


Figure 1: Biological factors causing pharmaceutical opioids abuse among students of tertiary institutions in Oyo

Figure 1 indicates the biological factors that led to the abuse of pharmaceutical opioids among students of tertiary institutions in Oyo town. It is noted that, owing to absence of parental control, reinforcing the impacts of certain drugs and withdrawal effect and craven were the major biological factor that is liable for most students misusing pharmaceutical opioid. It is observed that only a few of the participants who abused opioids did so primarily for the therapy of diseases or diseases that did not conform to medical prescription.

**Figure 2: Social Factor**

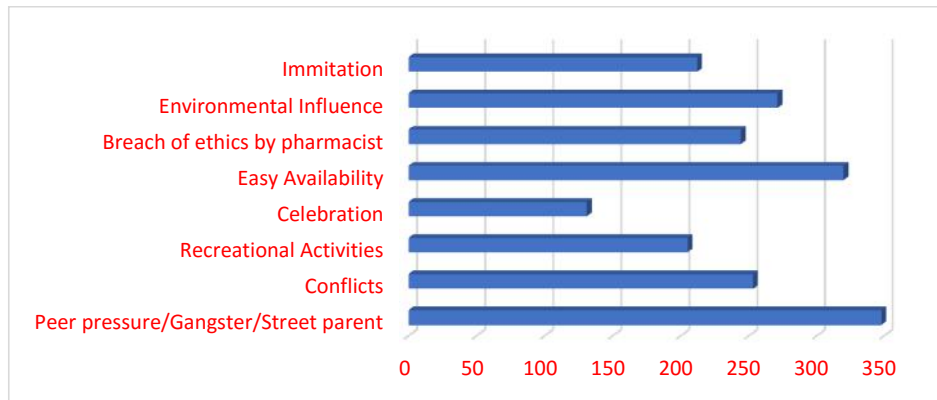


Figure 2: Social factors leading to the abuse of pharmaceutical opioids

Figure 2 shows the social factors responsible for pharmaceutical opioid abuse. It indicates that peer pressure/gangsters/street parents are significant factors responsible for abuse of pharmaceutical opioids in decreasing orders, followed by ease of availability, environmental influence, disputes, pharmacist infringement of ethics and constraints. However, it is disheartening that the violation of ethics by pharmacists has contributed greatly among the numerous causes.

**Figure 3: Psychological Factor**

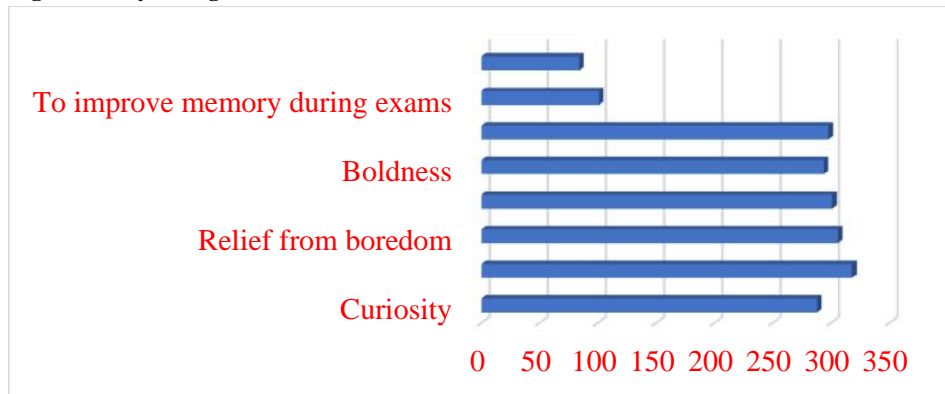


Figure 3: Psychological Factor that causes pharmaceutical opioids abuse

Under the psychological variables responsible for the abuse of pharmaceutical opioids as shown in Figure 3, feeling high, financial hardship, curiosity, psychological distress, relief from boredom and boldness to talk in government locations or among colleagues were the main reasons for the students' abuse of pharmaceutical opioids.

**Consequences of Pharmaceutical opioids abuse**

Results of the study show the consequences of the abuse of pharmaceutical opioids. It was observed that 81.2 percent of the respondent could no longer do without the pharmaceutical opioids being abused. About 80.3 percent of the respondents stated that ending drug misuse was hard for them. It is also noted that 96.3 percent of learners did not feel bad about not using medical prescription opioids. This is because most of them think that they are taking it to relieve boredom, make them feel high, and sometimes, when they are faced with some psychological issues, it enables them to get rid of the issues that may arise.

The response also indicated that 61.3 percent of students had decreased in their academic performance, as they claimed it had a negative impact on them. Further oral interview with some of the students indicated that, before



they became involved in the abuse of pharmaceutical opioids, particularly codeine and tramadol, their academic performance was better compared to the current scenario. Although, with their poor academic results, some of them feel bad, others see it as an ordinary situation and blame their parents for poor parental care. It is also disheartening that some students have encountered a crisis with school leadership by being suspended from college as a consequence of the abuse of pharmaceutical opioids, thus extending their stay at college, delaying graduation years. However, 73.1 percent of the respondents stated that, due to their misuse of prescription opioids, particularly codeine, they have been engaged in crises with their relatives and even school leadership in one manner or the other.

The outcome also shows that the abuse of pharmaceutical opioids has negatively influenced the living standard of 56.1 percent of the respondents. It was noticed that most students no longer spent their earnings on good food that will assist them to build their bodies, rather any small income they get is spent on drugs.

Most of the students also stated that it also influenced their income as they are always short of cash as a consequence of their eagerness to get high and thus spent most of their money in other to possess the drugs without prescription from the physician. It was also noted from the respondents' reaction that 38.9 percent of them were involved in various issues with the police because they had some opioids. However, 53.4% of the students engaged in street fight. Some of the respondents stated that in most instances, when they discover that their gangs are involved in a struggle with another individual, they prefer elevated peer pressure/gangster/street parents.

It is also observed that 62.6 percent of the respondents have engaged in one illegal activity or the other as a result of getting access to some pharmaceutical opioids. It was noticed from the interaction with the students that some forced their way in getting money from the junior students or from those who are scared of them. Some even claimed to deceive their parents in order to get money for the purchase of the drugs.

More so, 53.4 percent of the respondents have indulged in fighting when they are under the influence of the misuse of pharmaceutical opioids. It was found that a majority of them even take opioids in order to allow them get high and give them the opportunity to indulge in fighting. Some, however, claim that whenever they noticed that they may be involved in one crisis or the other, they abuse the opioids so as to make them fearless to withstand anyone. Furthermore, a higher percentage of the respondents have experienced one sickness or the other as a result of the abuse of pharmaceutical opioids. It was noted that 81.6 percent of them have been treated for one ailment or the other, and 77.6 percent of them are now battling with a certain medical issue as a result of taking drugs without medical prescriptions.

#### **Implication of the Findings to the attainment of sustainable development**

Good health is viewed as a nation's riches. The achievement of all sustainable development goals in any economy depends on the health of that economy's citizens and the extent of its growth of human capital through education. The economy's youth is said to be the basis of any economic sustainability. Based on the results, it is evident that at their young ages, most youth are involved in pharmaceutical opioid abuse and this has also influenced their health status and academic performance. The catastrophic impact of the consequences has some consequences for the country's achievement of sustainable development. First, in the area of health expenditure, large health expenditure affects the economic development as most of the income that would have been channelled into the manufacturing of other products is diverted to the individual's curative health purposes. Second, the bad educational status of most respondents and youth involved in pharmaceutical opioid abuse affects the country's human capital growth. This affects the employment status in the economy and decreases revenue, as most learners end up dropping out of school, thereby affecting the future objective of development. Declining grades, absenteeism from school/college and other activities, and increased potential for dropping out of school/college are problems associated with youth substance abuse.

In addition to personal adversities, the abuse of alcohol and other drugs by youth may result in family crises and jeopardize many aspects of family life, sometimes resulting in family dysfunction. This will lead to loss of future hope for parents. This occurs because most abusers of pharmaceutical opioids do not care about their parents, younger ones and elderly ones' whereabouts, as long as they have opportunity to have access to the drugs. This, no doubt, affects the productivity of the youth and, hence, stands as an impediment to achievement of sustainable development. Finally, without a quick response to the continuous abuse of pharmaceutical opioids, Goal 3, Target 5 of the SDG which focuses on the prevention of substance abuse cannot be achieved in 2030.

### **Conclusion and Recommendations**

This study examined abuse of pharmaceutical opioids among students of tertiary institutions in Oyo town, Oyo State, Nigeria. A total of 380 participants were randomly selected from four institutions namely, Ajayi Crowther University, Ekiti State University (Alayande Campus, Oyo), Federal College of Education Special and Emmanuel Alayande College of Education. Descriptive analysis and Logistic regression model were employed. Based on the findings of the results, the study concluded as follows: First, there is a high rate of abuse of pharmaceutical opioids among students of the tertiary institutions in Oyo Town. Second, a majority of those who abuse opioid are male and this has affected their living standard. Third, among the factors that cause abuse of pharmaceutical opioids, the social factor stands as the leading factor, followed by psychological factor while biological factor is the least of the causes. Fourth, young people who persistently abuse substances often experience an array of problems, including academic difficulties, health-related problems (including mental illnesses), poor peer relationships, and involvement with the juvenile justice system. However, all of the factors are major determinants of students' abuse of pharmaceutical opioids. Fifth, the high rate of abuse of pharmaceutical opioids affects the academic performance of the student negatively and also leads to mental illness, high social vices which affected human capital development in the economy. It is, therefore, concluded that if the menace is not quickly addressed, attaining sustainable development in the state may not be realistic. Hence, the study recommends as follows: there is a need for enlightenment on the implications of pharmaceutical opioids abuse for students and young people, and it should also be included in the school curriculum at all levels. Also, a high tariff should be imposed on the importation of ethical drugs. Regulatory bodies should be empowered to control the distribution and sales of drugs, and given the power to prosecute offenders. Campaign and advocacy should be intensified, while manufacturers should control and standardize channels of distribution and accessibility to prevent abuse and misuse of pharmaceutical opioids.

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### **References**

- Adeyemo, F.O., Ohaeri, B., Pat, U.O and Ogodo, O (2016). Prevalence of drug abuse amongst University students in Benin City, Nigeria. *Public Health Research* 6(2): 31-37.
- Ajibola, I., Ayodele, O.A., Olumide, A., and Ogunlaja, A.O (2018) Substance abuse among students in selected secondary schools of an Urban community of Oyo-State, South West Nigeria: implication for policy action. *African Health Sciences* 18(3):776-785.
- Brodhag, C and Taliere, S (2006). Sustainable development strategies. Tools for policy coherence. *Natural Resources Forum*, 136 – 145.
- Chikezie, U.E and Ebuenyi, I.D (2019) Tramadol misuse in the Niger Delta. A review of cases presenting within a year. *Journal of Substance Use*. 24 (5): 487-491.
- Degenhardt, L., Bruno, R., Lintzeris, N., Hall, N., Nielsen, S and Larance, B (2015). Agreement between definitions of pharmaceutical opioids use disorders and dependence in people taking opioids for chronic non – cancer pain: a cohort study. *The LANCET Psychiatry*, 2(4): 314-322
- Flay, B. R., Snyder, F. J., & Petraitis, J. (2009). The theory of triadic influence. In R. J. DiClemente, R. A. Crosby & M. C. Kegler (Eds.), *Emerging Theories in Health Promotion Practice and Research* (Second ed., pp. 451-510). San Francisco, CA: JosseyBass

- Gboyega, E.A and Benjamin, O, O (2012) social network characteristics, perceived drinking norms and hazardous alcohol use. *African Journal of Drug and Alcohol Studies*, 11(1) 1-7.
- Haladu, A.A. (2003). Outreach strategies for curbing drug abuse among out-of-school youth in Nigeria: A challenge for community Based Organization (CBOS), in A. Garba (ed). *Youth and drug abuse in Nigeria: Strategies for counselling, management and control*. Kano: Matosa Press.
- Johnson, O.E., Akpanekpo, E.F., Okonna, E.M., Adeboye, S.E and Udoh, A.J (2017). The prevalence and factors affecting psychoactive substance use among undergraduate students in university of Uyo, Nigeria. *Journal of Community Medicine and Primary Health Care* 29(2).11-22
- Kamlesh, K.S and Soma, S (2012) Substance abuse causes and consequences. *Research Gate* <https://www.researchgate.net/publication/246544796>
- Kimegard A, Foley, M, Davey, Z, Dunne, J, Drummond, C and Deluca, P (2017) Codeine use dependence and help seeking behavior in the UK and Ireland: an online cross-sectional survey. *International Journal of Medicine* 5(3), 559-564.
- Larance, B., Degenhardt, L., Lintzeris, N., Winstock, A and Mattick, R (2011). Definitions related to the use of pharmaceutical opioids: extramedical use, diversion, non – adherence and aberrant medication – related behaviours. *Drug Alcohol Review* 30(3), 236-245.
- McArthur, W. J and Rasmussen, K (2019), Classifying sustainable development goal trajectories: A country – level methodology for identifying which issues and people are getting left behind. *World Development Elsevier* 123(2019) 1-13,
- Mensah, J (2019). Sustainable development: means, history, principles, pillars and implications for human actions: literature review. *Journal of Cogent Social sciences* 5(1)
- Moses, U.I, Sam, O.S., Innocent, O., Uhembe, A.C and Zuwacra, A.A (2019) Factors affecting entry into drug abuse among youths in Lafia metropolis: implication on security. *SAGE Open Publication Journal* 1-15
- NIDA (2019) Prescription opioids: Retrieved from <https://www.drugabuse.gov/publications/drugfacts/prescription-opioids-on-2019>. September, 4
- Obot, I.S. (2005). Substance use among students and out-of-school youth in Urban area of Nigeria. In I.S.Obot & S. Saxena (Eds), *Substance use among young people in urban. Environment*. 133-146. Geneva: WHO
- Oyewole, B.K., Animasahun, V.J., Chapman, H.J (2018). Tobacco use in Nigerian youth: A systematic review. *PLoS ONE* 13(5): e0196362. <https://doi.org/10.1371/journal.pone.0196362>.
- Ogunsola, O.O and Fatusi A.O (2016) Risk and protective factors for adolescent substance use: a comparative study of secondary school students in rural and urban areas of Osun State, Nigeria. *International Journal of Adolescent Medicine and Health*. 29(3) doi: 10.1515/ijamh-2015-0096
- Smart, R.G., Hughes, P.H., Johnston, L.D., Anumonye, A., Khast, U., Mora, M.E (1980). *A methodology for student drug use surveys*. Geneva: World Health Organization Offset Publication No. 50.
- Talyana, L and Alexander, G. C (2015) The prescription opioid addiction and abuse epidemic: how it happened and what we can do about it. *The Pharmaceutical Journal* 294(7866) doi 10.1211 pg/2015
- Tara, C, John, W, Charlse, D.H.P, Padraig, M, Richard, H and Vanhout, M C(2018). A comparative analysis of pharmacists' perceptions on codeine use and misuse- a three country survey, *Substance Abuse Treatment, Prevention and Policy* 13(12) 1-8
- United Nations Office on Drugs and Crime, UNODC (2018, June 20). *World Drug Report 2018* Pre-briefing to the member states. Vienna: Author. Retrieved from <https://www.unodc.org/wdr2018/prelaunch/Pre-briefingAMfixed.pdf>
- UNODC (2019) UNODC contributions to the 2030 Agenda of sustainable development <https://www.unodc.org/westandcentralafrica/en/2019-01-23-unodc-contributions-to-sdgs.html>
- Yisa, I.O, Lawoyin, T.O, Fatiregun, A. A and Emelumadu, O.F (2009). Pattern of substance use among senior students of command secondary schools in Ibadan, Nigeria. *Niger J Med*. 18(1):98–102