



## High Incidence of Substance Abuse among Youths in Cocoa Research Institute Community, Ibadan, Nigeria

A. O. Orimogunje<sup>1</sup>, B. A. Ogundeji<sup>1\*</sup>, E. E. O. Agbebaku<sup>1</sup>, D. Awodumila<sup>1</sup>,  
S. T. Balogun<sup>1</sup> and A. Aboderin<sup>1</sup>

<sup>1</sup>Cocoa Research Institute of Nigeria, P.M.B. 5244, Ibadan, Nigeria.

### Authors' contributions

This work was carried out in collaboration among all authors. Author AOO designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors BAO, EEOA, DA, STB and AA managed the manuscript. All authors read and approved the final manuscript.

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### ABSTRACT

**Aims:** This study hereby examined the high incidence of drug abuse among the youths in Cocoa Research Institute of Nigeria (CRIN) community at Ibadan, Nigeria.

**Study Design:** Multistage sampling approach.

**Place and Duration of Study:** CRIN staff quarters and surrounding communities.

**Methodology:** A multistage sampling approach was used for the study. The first stage involved the purposive selection of Senior Staff Quarters, Junior Staff Quarters and Alata road because majority of the respondents resides there. The second stage involved using simple random sampling technique to select Twenty- two (22) respondents from the three locations above, making the total sample size to be Sixty-six (66) respondents. Data were obtained using an interview schedule. Descriptive (frequencies, percentages, mean values) and inferential (Chi-square, PPMC) statistics were used to analyze the data at 0.05 level of significance.

**Results:** Mean age of the respondents was 31.0 years, this indicates that most of the respondents were in their youthful age and very energetic. Majority (80.3%) of the respondents were male and only 19.7% were female. In the causes of substance abuse, prevention of coronavirus disease

\*Corresponding author: E-mail: [tundeji1@gmail.com](mailto:tundeji1@gmail.com);

(COVID-19) ranked first on the list with mean (1.87).

**Conclusion:** The relationship between Sex ( $\chi^2=0.032$ ,  $p=0.859$ ), Marital status ( $\chi^2=6.905$ ,  $p=0.032$ ), Religion ( $\chi^2=5.052$ ,  $p=0.025$ ), indicate that there is significant relationship between Marital status and Religion and effects of substance abuse.

*Keywords: Substance abuse; youth; Covid-19; drugs; addiction.*

## 1. INTRODUCTION

Substance abuse is usually used interchangeably with the term drug abuse. The term 'drug' refers to "any substance, when taken into a living organism, limits ill-health". A drug is a chemical modifier of the living tissues that could bring about physiological, sociological and behavioral changes. Drugs are substances when used can change the mood, attitude, cognition, behavioral pattern and overall body function [1]. Drugs are used for curing or relieving pains. But if drugs are abused, they can become very "destructive to the individual and to society at large". Drugs such as stimulants activate the central nervous system, resulting in sleeplessness, nervousness, increased aggressiveness, restlessness, and anxiety that may be beyond the control of the user [2].

Substance abuse may be defined as an unnecessary over dependence or misuse of some drugs with or without a prior medical diagnosis from registered health practitioners. Substance abuse is a serious issue nationally and globally which cut across all gender, but mostly common among young boys and girls. The population of youth that indulge in drug abuse is very alarming and worrisome. The menace is more common in developing countries like Nigeria. Drug abuse is a major challenge to public health, social gathering and individual lives. It usually gives rise to insecurity issues, economic crises, public nuisances and social problems. For instance in primary schools, friends that are into drug form groups to engage in organized crimes and disorganize normal academic calendar. The activities of secret cults are known to have been a threat to security of lives and properties in secondary schools, colleges, polytechnics and most universities [3].

Drug abuse increases the population of patients hospitalized in connection with drug addiction, and over dependence on drugs is associated with lack of coordination and the loss of capacity for self control. Drug abuse can damage brain cells, thus resulting in brain damage [3]. Studies have shown that inability to control oneself and

emotional breakdown as a result of drug abuse is associated with banditry, mental disorder, high crime rate and youth violence [4].

British Broadcasting Corporation (BBC) reported that over three million codeine bottles are consumed daily by youths in north central Nigeria [5]. Excess dosage of codeine can cause schizophrenia and organ failure among other health challenge [6]. Some Nigerian youths ignorantly depend on various drugs such as Tobacco, Indian hemp, Cocaine, Morphine, Codeine, Heroine, Alcohol, Ephedrine, Madras, Caffeine, Glue, Barbiturates, and Amphetamines to carryout daily activities like social, educational, political, moral and so on [7].

Drug abuse is connected to high violence and crime rate. Drugs are not only taken for the purpose of relaxation, being tipsy and being happy only but also to be fearless, bold and for strength as well as self-confidence. These intended gains derive from it, drive drug use and abuse. When addiction sets in, some youths have to resort to stealing like pick-pocketing, armed robbery, burglary, and property theft and other illegal sources to acquire money to sustain their drug habits. This can cause untold hardship and psychological breakdown to the victims, which will in-turn affect the efficiency, effectiveness and concentration in the workplace. When youths influenced by drugs become hindrances to peace and security in the society, the impact of drug use and abuse goes beyond health distortion to affect even the economy and security of the people living in that environment. The impact of drug abuse among Nigerian adolescents has been a feature of a morally bankrupt, corrupt and wasted generation and loss of our societal values and ideals [8].

Increasing youth involvement in substance use and abuse is a major threat to national development, family stability and social security from which they need to be protected. The main objective of this study was to ascertain the high incidence of drug abuse among the youths in the study area, while the specific objectives were to;

- describe the personal characteristics of the respondents in the study area,
- determine the knowledge level of the respondents on substance abuse,
- ascertain the perceived causes of substance abuse by the respondents
- identify the effects of substance abuse by the respondents

#### **Hypothesis of the study;**

- There is no significant relationship between the personal characteristics and substance abuse by youth on security and safety of lives and properties in the study area;
- There is no significant relationship between the effects of substance abuse and security and safety of lives and properties in the study area.

## **2. MATERIALS AND METHODS**

Cocoa Research Institute of Nigeria (CRIN) community is an area sited in Oluyole Local Government Area (LGA) of Oyo State where CRIN was established. The CRIN community comprises the Senior Staff Quarters, Junior Staff Quarters and some neighbouring villages like Alata, Onipe, Odo-Ona, Ogo-Oluwa, Idi- Ayunre etc.

A multistage sampling approach was used for the study. The first stage involved purposive selection of Senior Staff Quarters, Junior Staff Quarters and Alata road because majority of the respondents reside there. The second stage involved simple random sampling technique to select twenty- two (22) respondents from the three locations, making a total sample size of sixty-six (66) respondents.

Data were obtained using interview schedule. Descriptive (frequencies, percentages, mean values) and inferential (Chi-square, PPMC) statistics were used to analyze the data at 0.05 level of significance. The variables of the study were measured as follows:

- **Knowledge on Substance Abuse:** Correct responses were sought from the respondents on a list of ten questions presented to respondents to ascertain their knowledge on substance abuse. This was measured using a two-point scale of 'True' and 'False' by assigning scores of 1 and 0,

respectively. Maximum obtainable score was 10 and minimum score was 0. The scores of each of the items were summed up to form a composite knowledge score for each respondent. Respondents were then categorized into two using the mean score as the benchmark, such that scores below the mean were rated "low knowledge", on substance abuse while scores equal to or above the mean score were rated as "high knowledge".

- **Perceived Causes of Substance Abuse:** The respondents were presented with a list of thirteen perceived causes of substance abuse from which they indicated their frequency of use. It was measured on a 3-point scale of 'Never', 'Occasionally' and 'Regularly', with scores of 0, 1 and 2 assigned respectively. The mean score for each perceived causes of substance abuse was obtained and used to rank them in order of importance.
- **Effects of Substance Abuse:** The respondents were presented with a list of twelve effects of substance abuse from which they indicated their frequency of use. It was measured on a 3-point scale of 'Never', 'Occasionally' and 'Regularly', with scores of 0, 1 and 2 assigned respectively. The mean score for each perceived causes of substance abuse was obtained and used to rank them in order of importance.
- **Perceived Benefits of Substance Abuse:** The respondents were presented with a list of seven perceived benefits of substance abuse from which they indicated their frequency of use. It was measured on a 3-point scale of 'Never', 'Occasionally' and 'Regularly', with scores of 0, 1 and 2 assigned respectively. The mean score for each perceived causes of substance abuse was obtained and used to rank them in order of importance.

## **3. RESULTS AND DISCUSSION**

Table 1 shows the mean age of the respondents was 31.0 years, this indicates that most of the respondents were quite young and very energetic, so most of them will engage in the tedious livelihood and economic activities which may be part of the reason they indulge in substance or drugs e.g. codeine to enhance or

boost their energies. So when they are used to a particular dosage, after sometimes, that dosage will not be effective again, so there is high probability to increase the dosage which may lead to the abuse of that particular drug. This corroborates Oshodi et al. [9] findings, that most of the drug addicts started smoking from their youths. The older they grow they tend to seek new thrills and gradually go into hard drug abuse. Majority (80.3%) of the respondents were male and only 19.7% were female. This could be because male counterparts engage in more energy tasking enterprise to fend for the family. This was in support of report by UNODC [10] that drug abuse appears to be common among males with 94.3% than females 5.8%, and the age of first use was 10-29 years. Majority (93.9%) of the respondents were educated with different levels of academic attainments. The high literacy level also contributed to the high knowledge level about substance abuse for the respondents. Moreover, 30.3% were singles, this also my contribute to the rate at which substance is being abused, because they have more time to hang out with friends at joints and bars and have enough freedom to do whatever they wish to do with little or no parents supervision.

Table 2 shows that the respondents have high knowledge on substance abuse and the consequences, but despite the high knowledge in substance abuse, they still indulge in the act of substance abuse. This is tandem with Adekeye et al. [11]. That reveals that university students have adequate knowledge of the consequences of risky alcohol and drugs use on physical and social health. Also a research conducted in Makarere in Uganda found that youths had adequate knowledge of both the short-term and long-term consequences of alcohol use [12]. This is in contrast with O'Malley [13] findings that substance abuse has been attributed to lack of proper knowledge on its associated risk.

Table 3 shows the distribution of the respondents based on the causes of substance abuse. Prevention of Coronavirus Disease 2019 (COVID-19), ranked 1<sup>st</sup> on the list with mean (1.87). This might be because of the wide spread information on different media houses and social media platforms that alcohol-based sanitizers prevents COVID-19, so people carries the cheap sachets of alcohol in their pockets at the peak of the epidemic to rub their palms and drink to serve as sanitizer. This is in line with Nielsen [14] report that stated, as stay-at-home orders began in some states in the United State of America as

a mitigation strategy for COVID-19 transmission, 54% increase in national sales of alcohol compared with when there was no COVID-19, online sales of alcohol increased by 262% from 2020. Influence of bad company was ranked 2<sup>nd</sup> with mean (1.45), this indicates that substance abuse by the respondents was influence by peers in school or street to "belong or feel among" This is line with Hamisu et al. [15] that reported peer group influence plays a major role in influencing many adolescents into drug abuse, because peer pressure is a fact of teenage and youth life. As sign of puberty, adolescents tries to be less dependent on their parent, and show more interest in friend's company as a sign of freedom. Social media influence was ranked 3<sup>rd</sup> with mean (1.36). Alcohol and pain relieving drugs are regularly advertised on social media (Facebook, Twitter, WhatsApp, Instagram, Youtube-channels etc) Radio, Newspapers and Television. The advertising of tobacco products is now banned, but research from Strathclyde University published by Cancer Research concluded that cigarette advertising did encourage young people to start smoking and reinforced the habit among existing smokers [15].

Table 4 shows the effects of substance abuse on the respondents. Bullying was ranks 1<sup>st</sup> with mean (1.47) this was buttressed by the report that drug abuse is associated with condition like, restlessness, nervousness, increased aggressiveness, and anxiety that may be beyond the control of the user. So the bullying is usually experienced at home, in the street and in the workplace. Mental disorder was ranked 2<sup>nd</sup> with mean (1.29), this is in consonance with UNODC [10] reported that drug abuse is a major disturbing health related issues all over the world, adolescents experience mental health programme, either temporarily or for a long period of time. Some become insane, maladjusted to school situations and eventually drop out of school.

Table 5 shows the distribution of the respondents based on benefits derived from substance abuse. To derive pleasure was ranked 1<sup>st</sup> among the benefits with mean (1.83). This is compliance with Abudu (2008) report that, adolescents take various substance to alter their mood, to relax, to feel good, to overcome boredom and to relieve tension in the family and in the work place. To build confident was ranked 2<sup>nd</sup> with the mean (1.51), this is in line with Olatunde [16] in his own views, stated that people use drugs for a variety of reasons which includes: pressure from

friends and peers, for pleasure, to overcome illness, gain confidence, overcome shyness, to be able to facilitate communication etc. Also sound sleep was ranked 3<sup>rd</sup> with the mean (1.47).

**Table1. Distribution of respondents by personal characteristics**

| Variable              | Frequency | Percentage (%) | Mean |
|-----------------------|-----------|----------------|------|
| <b>Age</b>            |           |                |      |
| 22-26                 | 14        | 21.2           | 31.0 |
| 27-31                 | 26        | 39.4           |      |
| 32-36                 | 18        | 27.3           |      |
| 37-41                 | 8         | 12.1           |      |
| Total                 | 66        | 100            |      |
| <b>Sex</b>            |           |                |      |
| Male                  | 53        | 80.3           |      |
| Female                | 13        | 19.7           |      |
|                       | 66        | 100            |      |
| <b>Marital Status</b> |           |                |      |
| Single                | 20        | 30.3           |      |
| Married               | 43        | 65.2           |      |
| Divorced              | 2         | 3.0            |      |
| Widowed               | 1         | 1.5            |      |
|                       | 66        | 100            |      |
| <b>No of Children</b> |           |                |      |
| 1-2                   | 37        | 56.1           |      |
| 3-4                   | 25        | 37.9           |      |
| 5 and above           | 4         | 6.0            |      |
|                       | 66        | 100            |      |
| <b>Religion</b>       |           |                |      |
| Christianity          | 54        | 81.8           |      |
| Islam                 | 6         | 12.1           |      |
| Traditional           | 4         | 6.1            |      |
|                       | 66        | 100            |      |
| <b>Education</b>      |           |                |      |
| No formal education   | 4         | 6.1            |      |
| Primary               | 10        | 15.1           |      |
| Secondary             | 25        | 37.9           |      |
| Tertiary              | 27        | 40.9           |      |
|                       | 66        | 100            |      |
| <b>Occupation</b>     |           |                |      |
| Farming               | 16        | 24.2           |      |
| Business              | 14        | 21.2           |      |
| Civil Servant         | 25        | 37.9           |      |
| Artisan               | 11        | 16.7           |      |
|                       | 66        | 100            |      |

**Table 2. Knowledge categories on substance abuse**

| Knowledge           | Frequency     | Percentage |
|---------------------|---------------|------------|
| High ( $\geq$ mean) | 46            | 69.7       |
| Low ( $<$ mean)     | 20            | 30.3       |
| Mean $\pm$ SD       | 6.9 $\pm$ 1.9 |            |

**Table 3. Distribution of respondents on causes of substance abuse**

| S/NO | Causes of substance abuse                   | Mean | Rank             |
|------|---|------|------------------|
| 1    | Unemployment                                | 0.71 | 12 <sup>th</sup> |
| 2    | Prevention of COVID-19                      | 1.87 | 1 <sup>st</sup>  |
| 3    | Bad company                                 | 1.45 | 2 <sup>nd</sup>  |
| 4    | High birth rate                             | 0.86 | 9 <sup>th</sup>  |
| 5    | Numerous bars/ joints around the quarters   | 0.93 | 7 <sup>th</sup>  |
| 6    | Lack of discipline from parents             | 0.84 | 10 <sup>th</sup> |
| 7    | Influence of Corp members and IT students   | 1.03 | 6 <sup>th</sup>  |
| 8    | Environmental porosity                      | 0.70 | 13 <sup>th</sup> |
| 9    | Exposure to social media influence          | 1.36 | 3 <sup>rd</sup>  |
| 10   | Ignorance / misinformation about some drugs | 1.14 | 5 <sup>th</sup>  |
| 11   | Learnt habit from the parent                | 0.87 | 8 <sup>th</sup>  |
| 12   | Extreme cold weather ( climate change)      | 1.19 | 4 <sup>th</sup>  |
| 13   | Laziness                                    | 0.80 | 11 <sup>th</sup> |

**Table 4. Distribution of respondents on the effects of substance abuse**

| S/N | Effects of substance abuse | Mean | Rank             |
|-----|----------------------------|------|------------------|
| 1.  | Mental Disorder            | 1.29 | 2 <sup>nd</sup>  |
| 2.  | Sexual Harassment          | 0.79 | 7 <sup>th</sup>  |
| 3.  | Burglary/ Theft            | 1.00 | 4 <sup>th</sup>  |
| 4.  | Thuggery                   | 1.21 | 3 <sup>rd</sup>  |
| 5.  | Rape                       | 0.82 | 6 <sup>th</sup>  |
| 6   | Bullying                   | 1.47 | 1 <sup>st</sup>  |
| 7.  | Unnecessary Street Fight   | 0.89 | 5 <sup>th</sup>  |
| 8   | Child Abuse                | 0.76 | 8 <sup>th</sup>  |
| 9   | Unwanted Pregnancies       | 0.70 | 9 <sup>th</sup>  |
| 10  | Early Marriage             | 0.69 | 10 <sup>th</sup> |
| 11  | Drop-out from school       | 0.58 | 12 <sup>th</sup> |
| 12  | Untimely death             | 0.60 | 11 <sup>th</sup> |

**Table 5. Distribution of respondents on the benefits of substance abuse**

| S/N | Benefit of substance abuse  | Mean | Rank            |
|-----|-----------------------------|------|-----------------|
| 1.  | To build confident          | 1.51 | 2 <sup>nd</sup> |
| 2.  | Sexual enhancement          | 0.97 | 6 <sup>th</sup> |
| 3.  | Working strength enhancer   | 1.12 | 5 <sup>th</sup> |
| 4.  | Sound sleep                 | 1.47 | 3 <sup>rd</sup> |
| 5.  | Tipsy feeling               | 0.95 | 7 <sup>th</sup> |
| 6   | Increase sense of belonging | 1.32 | 4 <sup>th</sup> |
| 7.  | Pleasure                    | 1.83 | 1 <sup>st</sup> |

**Table 6. Relationship between sex, marital status, religion, education, age, knowledge on substance abuse, causes of substance abuse, benefit of substance abuse**

| Variable        | $\chi^2$ | Df | r-value | p-value | Decision |
|-----------------|----------|----|---------|---------|----------|
| Sex             | 0.032    | 1  | -       | 0.859   | NS       |
| Marital status  | 6.905    | 2  | -       | 0.032   | S        |
| Religion        | 5.052    | 2  | -       | 0.025   | S        |
| Education       | 2.468    | 2  | -       | 0.291   | NS       |
| Age             | -        | -  | -0.078  | 0.581   | NS       |
| Knowledge score | -        | -  | 0.185   | 0.137   | NS       |

Table 6 shows the relationship between sex ( $\chi^2=0.032$ ,  $p=0.859$ ), marital status ( $\chi^2=6.905$ ,  $p=0.032$ ), religion ( $\chi^2=5.052$ ,  $p=0.025$ ). This indicates that there is significant relationship between marital status and religion and effects of substance abuse. For instance married youth are more likely to hang out less at bars to drink alcohol because of family commitment than singles. Also significant association between marital status and substance abuse is premised on the fact that since married individuals are expected to display a level of responsibility and become more concerned with family matters, their tendency to abuse substances would reduce. Studies have shown that marital status was connected with a decline in alcohol abuse, and divorced women have been found to drink more than women who stayed married [17]. Also religion has significant relationship with the effects of substance abuse. It implies that because of religious inclination, many people tend to avoid alcohol to serve as good example to people looking up to them as mentors. This was reported in Michalak et al. [18] findings which suggested that religion is most strongly associated with the decision to use or completely abstain from alcohol or drugs, and less strongly associated with abuse or dependence, among adolescents.

Similarly, the promise of and/or supposed benefits to be derived from consuming hard substances (mental alertness, to remain awake, etc.) may inform the respondents' decision to use such substances. However, they may unwittingly end up consuming higher doses and become addicted to them.

But on the contrary, despite the high knowledge level of the respondents, they still indulge in substance abuse. Knowledge score ( $r=0.185$ ,  $p=0.137$ ), it means knowledge is not significant to substance abuse. This is in contradiction with Notoatmodjo [19] that found out that the higher the knowledge level of adolescents the better the behavior in preventing drug abuse. But the finding agrees with Sunaryo [20] who found that there was no significant relationship between knowledge of students and tendencies in abusing substances. So it means that high knowledge level on substance abuse and its consequences do not necessarily translate to abstinence from taking, drugs, alcohol and related substances.

#### 4. CONCLUSION

Substance abuse is a problem that is causing serious concern to individuals and government

all over the world. The abuse of drugs and other substances constitutes one of the most important risk behaviour among adolescents in Nigeria. Many of them engaged in drug abuse out of pleasure, sound sleep, to build confidence, sexual enhancement, peer influence etc. However, to mitigate the occurrence of substance abuse, government should do a wide range sensitization that alcohol do not prevent COVID-19 spread, also COVID-19 vaccines should be made available as an option to prevent the spread of COVID-19. Furthermore, social media advertisement on various substances should be censored and well regulated. Lastly, government at all levels should enact measures on people selling drugs and alcohol indiscriminately on the street, government quarters and motor parks in other to reduce the menace of substance abuse.

#### CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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