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# Occurrence, Pattern and Effects of Nonconventional Use of Substances among Youth in North-Central, Nigeria

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**Abstract** *Background*: use of substances among Nigerian youth for nonconventional purpose and cocktails of illicit substances have become a source of concern at various levels of the society. These substances include whitish end of lizard dung, hydrogen sulphide gas (sewer gas), seed of *Zakami*, Premium Motor Spirit (PMS), rubber solutions, nail polish cleaners, pawpaw leave and seed, *Moringa (Zogale)* leave, tear gas, gun powder, *Mandara (Kafra)* gutter from toilet. The use or abuse of such substances has devastating consequences on the individual health, family and society. *Objective*: To evaluate occurrence, pattern and effects of nonconventional substance use among youth in North-central, Nigeria. *Methods*: A cross-sectional research design was used to recruit eligible participants for this study with purposive and snowball sampling techniques. Data were collected with the help of research assistants (locators) using a structured questionnaire. Statistical software SPSS V20.0 (2010) was used to analyze both descriptive and inferential statistics. *Results*: The results of the study reveal that most of the nonconventional substance users were young unmarried male students of tertiary institutions with a mean age of 23 ± 4 years. Most of them were living with both parents and from monogamy family background. Additionally, a good number of the participants were into daily usage of these substances, were into either smoking or drinking of alcohol before they went into the use of these other substances. They have been into nonconventional substance use for past five years or more. The use of whitish end of Lizard dung, *Moringa (Zogale)* leave, Seed of *Zakami*, pawpaw leave, rubber solutions, premium motor spirit (PMS) and hydrogen sulfide gas (Gas from pit toilet) are the most used substances. Reasons for nonconventional substance abuse include peer pressure/influence, societal influence, poor parental monitoring and for relaxation or coping with stress. The effects include accidents, loss and damage to property, had unprotected sex, hospitalization and sudden difficulty in breathing. Participants' age and level of education correlate significantly with occurrence of nonconventional substance use/abuse. *Conclusion*: Findings from this study suggest that youths aged between 18 and 30 years were into nonconventional substance use/abuse. This result reinforces the importance of calling for more strategies to curtail the new trends in the use of nonconventional substances among youth and improvement on the available legislation on drugs and substances laws

***Keywords:*** *Nonconventional use of substances, substance abuse, Zakami, Gutter from toilet, Lizard dung*

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## 1. Background

Fundamentally, use of substance is a social act, common human behaviour [1,2] and it is not a new phenomenon [3]. The vast majority of adults have used some form of substances in their lifestyle [2]. Throughout history, psychoactive substances have been commonly used for a variety of purposes, from medicines to important components of rituals and ceremonies [3]. Different types of substances have spread throughout the world and the usage trends have changed over time. Use of substances such as alcohol, leaves, and tobacco has become one of the rising major public health and socioeconomic problem worldwide [4].

Use of different mood-changing substances has been reported to be prevalent among Nigerian youth. Studies [5,6] have established that most substances change the mind, the user's feeling, perception and behaviour when they are used, because they exert action on the brain. Nigeria is confronted with many social problems, one of which is the new trend in the use of nonconventional substances. Majority of Nigerian youth ignorantly depend on one form of substance or the other for various daily activities such as social, educational, political and moral [6].

Lately, non-medical consumption of cough syrups in Northern Nigeria has become a subject of public concern,

largely due to its potential danger to the society. Abuse of substances, licit or illicit, is so prevalent in our present societal context that we might as well ask, why some adolescents abstain from substance use, rather than why most do not [7].

Nonconventional substance use among Nigerian youth has become alarming at different levels of the society. Globally, it has been estimated that 90% of population aged 12 years or older are classified with dependency on psychoactive substances [8].

According to *UNODC* reports [9] on the use of illicit substances, there was an increase usage rate throughout the world in recent years. Similarly, the World Health Organization [10] estimates that 1.1 billion people, representing a third of the world population above the age of 15 years, use tobacco, principally in the form of cigarettes and out of these smokers, about 800 million, of them are males in developing countries.

Ifabumuyi [11] reported an increased in female involvement in substance abuse and a shift in the multiple pattern and types of substance use in Nigeria has been noticed. Reasons for these trends include urbanization, industrialization, and increased exposure to western life-style, peer influence, lacking family support, increasing advertisement of such substances in the mass media [12,13].

A comparative study by Festus [14] on the patterns of substance used in two selected Nigerian cities among prison inmates in Uyo and Kiru revealed that, participants highlights various reasons for using alcohol and other psychoactive substances. Those seen as, (easy to get) readily availabile alone accounts for more than 25% of the reasons in both cities, while influence from others, enhanced performance, unemployment and unidentified reasons were responsible for 24%, 22%, 18% and 10% respectively. The study further established that alcohol was the commonly used substance in Uyo while, inhalants such as glue, petrol, formalin and shoe polish were the substances consumed in large quantities at Kiru. Prevalence and patterns of substance used are strongly related to a range of factors, including age and sex, and these patterns vary for different types of drugs [15].

The use of nonconventional substances such as whitish end of lizard dung, hydrogen sulphide gas (sewer gas), seed of *Zakami* [16], Premium Motor Spirit (PMS), rubber solutions, nail polish cleaners, pawpaw leave and seed, *Moringa (Zhogale)* leave, tear gas, gun powder, *Mandara (Kafra)* and gutter from toilet [17] in Nigeria has been observed to become one of the growing major public health and socioeconomic problems. Modes of intake of these nonconventional substances include; smoking, drinking, inhalation or sniffing, chewing (local leaves or '*Zakami*') and licking or swallowing [17].

In developing countries, urbanization and globalization were reported to have significantly influenced on the pattern of substances usage [18,19,20,21,22]. However, locally available substances are still consumed more in both rural and urban communities [23,20,24,25]. Evidence suggests that these are sources for the emergence of highly potent habit-forming substances [26,27,28].

In spite of several efforts put in place to curtail the menace of substance usage, peer influence has been a major factor connected with adolescent substance use [29,30,31], delinquency [32] and sexual behaviours, family conflict, poor parental monitoring, parental substance use and academic problems [33]. The prominent reasons for starting to use substances among the ever users were due to peer pressure (56.7%), to get personal pleasure (48%), due to availability of substances (36.8%), due to academic dissatisfaction (27.5%), to stay awake (22.1%) and the least was to get relief from tension (15.0%) [34].

Despite the dangerous trend in view of the associated health hazards arising from widespread use of alcohol and other psychoactive substances, recent development in Nigeria has shown that the increasing incidence of youth restiveness and social vices may have been influenced by the use of substances [14,35]. A study [36] conducted in Western Kenya on substance abuse demonstrates that 61% of the participants engaged in unprotected sex and 55% experienced medical problems. The study further reveals that over 60% of the students in Kenya and Ethiopia reported engaging in scuffles, loss and damage to property, crimes, rape and homicide [37]. Use of substances has been reported to have a major negative impact on the wellbeing of individuals, families and communities, and it is a growing concern in Australia and internationally [2]. There is considerable controversy regarding appropriate responses to harmful substance use at all levels: individual, family, community, national and international [2].

Use of substances such as *khat* leaves has been associated with physical illness, injuries, under nutrition, mental distress, sleep disorders, problem drinking and heavy smoking [38], as well as recurrent brief psychotic episodes with associated violent behavior [39]. The consequences of drug addiction or abuse are so devastating and very shameful to the extent that both the nation and international organizations all over the world are worried about the spread of this scourge among the youth and adolescents [40]. Some of these consequences includes: Mental disorder, drop out from school, cultism, social violence, internet frauds, gang formation, destructions of normal academic activities, armed robbery / "419" syndrome, social miscreants (area boys and girls), lawlessness among youths, lack of respect for elders, rape, instant death, wasting of precious innocent lives and many more [40].

### 1.1. Objective of the Study

Youths play an important role in the growth and progress of any society and no nation could move up the ladder of development without involving its youth in the decision-making processes. However, the epidemic of nonconventional use of substance among the youth is on the increase. Therefore, this study sought to evaluate the occurrence, pattern and effects of nonconventional use of substances among youth in North-central, Nigeria

## 2. Methods

### 2.1. Study Setting

This study was carried out in Bida Local Government Area (LGA) of Niger State. Bida is the Headquarter of Bida Local Government Area in Niger State and it lies at $9^0$06' N and $6^0$01' E on the Nupe sand stone formation. The town is located to the Northeast of the Federal Capital

Territory Abuja with population of 188,181 in 2006 and projected population of 192,161 people in 2009. Bida has strategic places such as Bamisu estate, Ramatu Dangana, ECWA poly road, small market, main market and others. In addition to the strategic locations, Bida town has more than three tertiary institutions, public and private secondary and primary schools. Bida is not only occupied by northerners, it is also a town with vast tribes from other regions of the country like *Gbagyis, Igbo, Yoruba, Hausa, Igala, Urhobo, Calabar* and other tribes inclusive [41,42].

## 2.2. Study Design

A cross-sectional research design was used to recruit eligible participants for this study.

## 2.3. Study Population

The target participants for this study were all the substance users/abusers within Bida town, Bida Local Government Area between October – December 2015.

## 2.4. Data Collection Tools

Structured questionnaire developed by the authors from review of relevant literature was used to collect data from the participants who consented to participate in the study. The participants were located and the questionnaires were administered to them at their "joints" by the two trained research assistants. The literate participants filled the questionnaire themselves and those who are non-literates were structurally interview using the same questionnaire to elicit the same responses from the participants.

## 2.5. Sampling Technique

Bida was purposively selected for this study because of the rapid popularization of the town and observed cases of substance use/abuse among the population. Participants were recruited with the use of snowball sampling technique. This sampling technique allowed the investigators to hand-pick, recruit and train the first cases (locators) or population considered to be typical or possess the desired set of information or characteristics for inclusion in the study [43,44]. This sampling method was considered for this study because of the sensitive nature of the issue studied (private matter) and the participants may not want to divulge detailed information needed for this study. This is so because, the study requires the knowledge of trained insiders (users/locators) to locate, identify, interview and administer the questionnaire to other members of the population needed for this study with or without the principal investigators. The use of locators in snowball sampling is akin to the use of key informants in field studies. Their users assume that knowledge is differentially distributed and that certain persons, as a result of their past or present situations, have greater accessibility and knowledge about a specific area of life than others. This sampling technique (snowball) has been previously used in hidden populations which are difficult for researchers to access (such as drug users and commercial sex workers), or in cases where a sampling frame is hard to establish. It is assumed that cases are affiliated through links that can be exploited to locate other participants based on existing ones [43,45] and participants' selection process is completed, if no new participants could be located [46].

## 2.6. Data Analysis and Management

The statistical software SPSS V20.0 (2010) was used to analyze the data. Categorical data were expressed as proportions and percentages while continuous variables were expressed as mean± standard deviation. Association between categorical variables was expressed using Chi square ($\chi 2$), degree of freedom and test of statistical significance ($p$-value) was set at $p$=0.05.

## 2.7. Ethics Consideration

Permission to carry out this study was obtained from the office of Niger State Primary Health Care Development Agency on the 22nd October, 2015 and individual participants consent was sought before the administration of the questionnaire.

# 3. Results

## 3.1. Socio-Demographic Characteristics

Of the 194 participants surveyed in this study, the majority 158 (81.4%) were male and 186 (96.9%) of them are between eighteen and twenty nine years old, with a mean age of 23 (sd=± 4 years). A little above two-third 132 (68.0%) of participants are still unmarried, more than half 110 (56.7%) live with both parents and a simple majority 140 (72.2%) are from monogamy family background and six in every ten 118(60.8%) of participants were in tertiary level of education (see Table 1).

**Table 1. Socio-demographic characteristics of participants**

| | Frequency | Percentage |
|---|---|---|
| **Gender** | | |
| Male | 158 | 81.4 |
| Female | 36 | 18.6 |
| **Age in years** | | |
| 18-21 | 92 | 47.4 |
| 22-25 | 44 | 22.7 |
| 26-29 | 50 | 25.8 |
| 30-33 | 6 | 3.1 |
| ≥34 | 2 | 1.0 |
| **Who do you stay with?** | | |
| Both parents | 110 | 56.7 |
| Mother only | 42 | 21.6 |
| Father only | 26 | 13.4 |
| Aunty/uncle/brother & sister | 16 | 8.2 |
| **Level of education** | | |
| Non-literate | 4 | 2.1 |
| Primary | 8 | 4.1 |
| Secondary | 46 | 23.7 |
| Tertiary | 118 | 60.8 |
| Quranic | 18 | 9.3 |
| **Family background** | | |
| Monogamy | 140 | 72.2 |
| Polygamy | 34 | 17.5 |
| Separated | 20 | 10.3 |
| **Occupational status** | | |
| Government employee | 20 | 10.4 |
| Merchant | 40 | 20.8 |
| Farmer | 57 | 29.7 |
| NGO | 53 | 27.6 |
| None | 22 | 11.5 |

**Table 2. Prevalence of nonconventional use of substances among participants**

| Substances | Yes (%) | No (%) | Mean | Std.dev |
|---|---|---|---|---|
| Whitish end of Lizard dung | 25(12.9) | 169(87.1) | .12 | .33 |
| Hydrogen sulfide gas (Gas from Pit toilet) | 12 (6.2) | 182 (93.8) | .06 | .24 |
| Premium Motor Spirit (PMS) | 18 (9.3) | 176 (90.7) | .09 | .29 |
| Rubber solutions | 18 (9.3) | 176 (90.7) | .08 | .29 |
| Nail polish cleaner | 6 (3.1) | 188 (96.9) | .03 | .17 |
| Pawpaw leave | 18 (9.3) | 176 (90.7) | .11 | .29 |
| Pawpaw seed | 12 (6.2) | 182 (93.8) | .06 | .24 |
| *Moringa (Zogale)* leave | 21 (10.8) | 173 (89.2) | .10 | .31 |
| Seed of *Zakami* | 18 (9.3) | 176 (90.7) | .09 | .29 |
| *Mandara (Kafra)* | 16 (8.2) | 178 (91.8) | .08 | .27 |
| Tear gas | 12 (6.2) | 182 (93.8) | .06 | .21 |
| Gun powder | 2 (1.0) | 192 (99.0) | .01 | .10 |
| Gutter from toilet | 2 (1.0) | 192 (99.0) | .01 | .10 |
| Cumulative mean | | | .07 | |

***Decision mean =1.000***

Table 2 above reveals the prevalence of nonconventional use of substances among participants were whitish end of lizard dung 12.9%, *Moringa (Zogale)* leave 10.8%, premier motor spirit 9.3%, rubber solutions 9.3%, pawpaw leave 9.3% and seed of *zakami* 9.3% respectively.

**Table 3. Patterns of nonconventional use of substance among the participants**

| Variables | Frequency | Percentage |
|---|---|---|
| **How long have you been using this non nonconventional substances** | | |
| <1 year | 14 | 7.2 |
| 1-2 years | 6 | 3.1 |
| 3-4 years | 22 | 11.3 |
| 5-6 years | 19 | 9.8 |
| > 6yrs | 35 | 18 |
| No response | 98 | 50.5 |
| **How often do you use these substances?** | | |
| Daily | 95 | 49 |
| Weekly | 52 | 26.8 |
| Monthly | 45 | 23.2 |
| No response | 2 | 1.0 |
| **At what age did you start smoking or drinking alcohol?** | | |
| 10-15 years | 56 | 28.9 |
| 16-20 years | 88 | 45.4 |
| 21-25 years | 37 | 19.1 |
| 26-30 years | 11 | 5.7 |
| 31-35 years | 2 | 1.0 |
| **Were you into smoking before you started using? nonconventional substances** | | |
| Yes | 102 | 52.6 |
| No | 58 | 29.9 |
| Unsure | 34 | 17.5 |
| **Were you into drinking alcohol before you started using nonconventional substances** | | |
| Yes | 162 | 83.5 |
| No | 20 | 10.3 |
| Unsure | 12 | 6.2 |

Table 3 shows that nearly two in every ten 35 (18.0%) of participants indicated that they have used nonconventional substances for more than 5 years and nearly half 95 (49.0%) of them within the age of 10 and 25 years started the used of these substances on daily bases with a mean age of 20 years of nonconventional substance use. More than a third 88 (45.4%) of participants between the ages of 16-20 years affirmed that they were into either smoking or drinking of alcohol before they started the use of nonconventional substances.

**Table 4. Factors militating against nonconventional use of substances among participants**

| Factors | Yes (%) | No (%) | Mean | Std.dev |
|---|---|---|---|---|
| Peer pressure/ influence | 104 (53.6) | 90 (46.4) | .53 | .49 |
| Societal | 39 (20.1) | 155 (79.9) | .20 | .40 |
| Poor parental monitoring | 36 (18.6) | 158 (81.4) | .18 | .38 |
| To relax or cope with stress | 36 (18.6) | 158 (81.4) | .17 | .37 |
| School/education | 28 (14.4) | 166 (85.6) | .14 | .32 |
| Experimentation and rebellion | 24 (12.4) | 170 (87.6) | .12 | .33 |
| Media adverts | 8 (4.1) | 186 (95.9) | .04 | .19 |
| Urbanization and unemployment | 12 (6.2) | 182 (93.8) | .06 | .24 |
| Poverty | 8 (4.1) | 186 (95.9) | .04 | .19 |
| To get more energy to work | 16 (8.2) | 178 (91.8) | .08 | .27 |
| Unidentified reasons | 2 (1.0) | 192 (99.0) | .01 | .10 |
| Availability | 8 (4.1) | 186 (95.9) | .04 | .19 |
| Sexual behaviours | 8 (4.1) | 186 (95.9) | .04 | .19 |
| Family conflict | 2 (1.0) | 192 (99.0) | .01 | .10 |
| Parental substance use | 4 (2.1) | 190 (97.9) | .02 | .14 |
| Academic problems | 8 (4.1) | 186 (95.9) | .04 | .19 |
| ***Cumulative mean*** | | | 0.09 | |

Decision mean = 1.000

As shown in Table 4, peer pressure/ influence was identified as major factor militating against nonconventional use of substances among youth (53.6%), this was followed by societal (20.1 %%), poor parental monitoring (18.6%) and the same portion (18.6%) to relax or cope with stress.

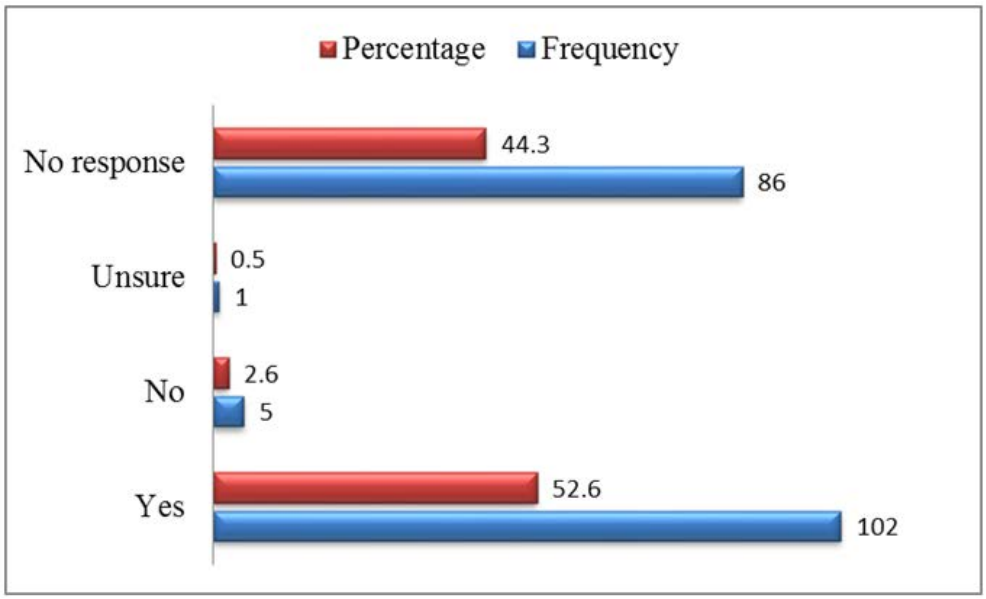


**Figure 1.** Participants opinions on the effects of nonconventional use of substances on the users

Figure 1. Illustrates that a simple majority 102 (52.6%) of participants asserted that the use of nonconventional substances had effects on the user's health.

Table 5 shows that seven in every ten (136, 70.1%) of participants identified accident as a major effect of nonconventional substance use, which they have experienced with relative percentages in loss and damage to property (124, 63.9%), had unprotected sex (123, 65.4%), hospitalized (120, 61.9%) and sudden difficulty in breathing (118, 60.8%).

Factors associated with nonconventional use of substances among participants are highlighted in Table 6. Fundamentally, age, the parents/guardian whom the participant stay with and level of education had significant impacts and were associated with occurrence, pattern and effects of nonconventional use of substances among youth in North-central, Nigeria.

**Table 5. Selected effects of nonconventional of use of substances among the participants**

| Effects | Yes (%) | No (%) | Unsure (%) |
|---|---|---|---|
| Had unprotected sex (n=188) | 123 (65.4) | 59 (31.4) | 6 (3.2) |
| Loss and damage to property | 124 (63.9) | 50 (25.8) | 20 (10.3) |
| Injuries | 85 (43.8) | 92 (47.4) | 17 (8.8) |
| Sleeping problems | 99 (51.0) | 81 (41.8) | 14 (7.2) |
| Violence | 105 (54.1) | 79 (40.7) | 10 (5.2) |
| Extravagancy | 111 (57.2) | 69 (35.6) | 14 (7.2) |
| Poverty | 90 (46.4) | 96 (49.5) | 8 (4.1) |
| Sudden difficulty in breathing | 118 (60.8) | 66 (34.0) | 10 (5.2) |
| Accident | 136 (70.1) | 44 (22.7) | 14 (7.2) |
| Hospitalized | 120 (61.9) | 56 (28.9) | 18 (9.3) |

**Table 6. Association between selected variables and nonconventional use of substances**

| Selected variables | Chi square ($\chi 2$) | df* | p-value |
|---|---|---|---|
| ***Age versus against nonconventional use of substances*** | | | |
| Have you ever used any of the nonconventional substances before | 56.932 | 15 | 0.000 |
| How long have you been using this nonconventional substances | 64.259 | 25 | 0.000 |
| At what age did you start smoking or drinking alcohol | 85.948 | 20 | 0.000 |
| Were you into smoking before you started using nonconventional substances | 24.079 | 10 | 0.007 |
| Were you into drinking alcohol before you started using non conventional substances | 32.670 | 10 | 0.000 |
| ***Who do you stay with versus nonconventional use of substances*** | | | |
| Have you ever used any of the nonconventional substances before | 15.155 | 9 | 0.087 |
| How long have you been using this non nonconventional substances | 61.649 | 15 | 0.000 |
| At what age did you start smoking or drinking alcohol | 30.815 | 12 | 0.002 |
| Were you into smoking before you started using non conventional substances | 6.890 | 6 | 0.331 |
| Were you into drinking alcohol before you started using non conventional substances | 19.865 | 6 | 0.003 |
| ***Level of education versus nonconventional use of substances*** | | | |
| Have you ever used any of the nonconventional substances before | 66.520 | 12 | 0.000 |
| How long have you been using this non nonconventional substances | 43.045 | 20 | 0.002 |
| At what age did you start smoking or drinking alcohol | 56.537 | 16 | 0.000 |
| Were you into smoking before you started using non conventional substances | 18.876 | 8 | 0.016 |
| Were you into drinking alcohol before you started using non conventional substances | 14.580 | 8 | 0.000 |

*df = degree of freedom

# 4. Discussion

The major findings in this study revealed prevalence rates of nonconventional use of substances among youth. The prevalence rates recorded calls for strategies to curtail its usage among youth and improvement on the available legislation on drugs and substances laws in the country. In this study, the majority of participants admitted their use of nonconventional substances such as whitish end of lizard dung, hydrogen sulfide gas (sewer gas), Premium Motor Spirit (PMS), rubber solutions, nail polish, pawpaw leave, pawpaw seed, *Moringa (Zogale)* leave, Seed of *Zakami*, tear gas, gun powder, *Mandara (Kafra)* and gutter from toilet. This corroborates with previous studies [47-50] that in Nigeria, there has been reports of use of non-conventional substances like nail polish cleaner, gasoline, lizard excreta, *zakami* and rubber solution, pit toilets and that the users of nonconventional substances have been found to be widespread in the Northwest, Northeast and North central regions of the country.

The findings from this study established that the majority of participants were male between the ages of 18 and 30 years, with a mean age of 23 ± 4 years. Age set had statistical significance with ever used of the nonconventional substances before ($p$=0.000), current use of nonconventional substances ($p$=0.000), age of start of smoking or drinking alcohol ($p$=0.000) whether or not smoking before the start of using nonconventional substances (p=0.007) and drinking of alcohol before starting using nonconventional substances (p=0.000). A report by NDLEA [48] associated age, gender and level of education substance use/abuse. The Report stated that most of the substance users in Nigeria were exposed to the substance between the ages of 13 and 19 years when they were still in secondary school. The Report further stated that, this cuts across age, sex and socio-economic status [48].

It is significant to note that not all participants in this study used all types of nonconventional substances. Participants were mostly into the used of whitish end of Lizard dung, *Moringa (Zogale)* leave, Seed of *Zakami*, pawpaw leave, rubber solutions, premium motor spirit (PMS) and hydrogen sulfide gas (Gas from Pit toilet). As revealed in this study, majority of participants were between the ages of 18 and 30 with a mean age of 20 years of nonconventional use of substances. Most of participants were into smoking and drinking of alcohol before they venture into the use of nonconventional substances.

On factors militating against the use of nonconventional substances among participants, most participants identified peer pressure/ influence (54%), societal influence (20%), poor parental monitoring (19%) and to relax or cope with stress (19%) were the major factors predisposing participants into the use of nonconventional substances. This findings is in agreement with experts [48,51,52] view who identified major causes of drug abuse as peer pressure, weak parental control, child abuse, imitation, emotional stress, the availability of the drugs and the ineffectiveness of the laws on drug trafficking. Additionally, the study also revealed that there is a notable association between who the participant stays with as against nonconventional use of substances and whether they have ever used any of the nonconventional substances.

Key findings of this study was the participant's narration of the effects experienced from the use of nonconventional substances and the association between participants level of education with nonconventional use of substances. This implies that regardless of the participant's consciousness of effects experienced from the use of nonconventional substances and their educational level, they were not deterred with their usage. This finding concur with previous study [50] conducted, which identified that five in every ten participants in their study opined that most of the nonconventional substance users are aware of the dangers associated with the substances. Similarly, a study on implications of drug addiction by Dankani [53] shows that 85% of participants were aware of the negative implications of misuse of

drugs. In addition, a NDLEA Report [51] stated that the consequences of drug abuse are very unpleasant and most of the abusers ended up with huge health and social problems such as morbidity, injuries, unprotected sex, violence, deaths, automobile accidents, homicides, suicides and physical or psychological trauma, dependence, and many more.

## 5. Conclusion

There are substantive numbers of nonconventional substance users with a strong association between participants' age, parental influence and level of education with occurrence, pattern and effects of nonconventional use of substances among youth in the study. The study established that the older the participants were, the lesser their usage of the substances. The findings also reveal that most of the participants were in tertiary level of educational. Thus, the higher the educational level, lower the numbers of nonconventional substance users. There is urgent need to institute both educational and enlightenment programmes targeted at youth on the dangers associated with substance abuse. Families, institutions of learning and national drug law enforcement agency staffers need continuing education and research to keep them updated with the new trends and developments in the use of substances among youth. These social institutions will help guide the youth. This study also calls for more studies to explore new trends in the use of nonconventional substances among the youth and improvement on the available legislation on drugs and substances laws in the country. Such study should be more nation-wide on outlook because of the limited scope of this study in terms of sample size and geographic coverage.

This study focuses on one region in the country, thus further national study should be carried out.

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## Conflict of Interest

The authors declare that they have no conflicts of interests.

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