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ARTICLE

Research Article

Personality traits of in-patients with substance use disorders in a mental health facility in Nigeria
Onyencho, V. Chidi, Ibrahim, A. Wakawa, Pindar, S. Kwajaffa, Duwap Makput, Mshelia, A. Ali, Rabbebe B. Isa, Yerima, M. Mukhtar and Baba, A. Karatu
Personality traits of in-patients with substance use disorders in a mental health facility in Nigeria

Onyencho, V. Chidi¹*, Ibrahim, A. Wakawa², Pindar, S. Kwajaffa², Duwap Makput³, Mshelia, A. Ali¹, Rabbebe B. Isa¹, Yerima, M. Mukhtar² and Baba, A. Karatu⁴

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Substance abuse is a multi-etiological, multi-dimensional and a worldwide problem with an alarming increase in its incidences. This study aimed to evaluate the patterns of use of psychoactive substances and to assess the predominant personality traits among the participants. This cross-sectional study used a purposive sampling technique to examined in-patients with substance abuse problem in a psychiatric facility in Maiduguri. One hundred and four (98.1%) males and (1.9%) females with mean age (x) of 31.1 years and SD (± 7.5) participated in the study. The study revealed cigarette (stimulant) as the most current substance of abuse 74.0%, cannabis (hallucinogen) 71.1%, opiates 69.2% and depressants 60.5%. Additionally, 87.5% of the participants used multiple psychoactive substances. Lastly, 90.4% of the participants’ scores were above the mean on Neuroticism, 73.1% on Psychoticism and 55.8% on Extraversion measures. High scores on the three dimensions of personality traits (Psychoticism, Extraversion and Neuroticism) have significant associations to psychoactive substance abuse. The study, therefore, recommend the incorporation of personality assessment in the routine work up and management of patients with substance abuse problems.

Key words: Substance abuse, personality traits, patterns of use, in-patients, mental health facility.

INTRODUCTION

The cost in lives, money and emotional turmoil has made the issues of drug abuse a major concern worldwide (Riding, 1992). Currently, over 8% of the general populations are believed to be users of illegal drugs (Substance Abuse and Mental Health Services Administration, 2003). Opiates continue to be the main drug of abuse in most European and Asian countries and account for 62% of all treatment demands (Word Health Organization, 2004).

In African countries, there is an increasing trend in psychoactive substance use and abuse (Adelekan et al., 2000; Reddy et al., 2007). In South Africa, 28.9% of Cape Town adolescents and 31.8% of Durban adolescents who were presented at trauma units were found to have...
positive breath for alcohol, also 15.4% of Cape Town adolescents and 28.6% of Durban adolescents tested positive for methaqualone (Parry et al., 2004). Another study in Africa shows that the bulk of all treatment demand was linked to cannabis use 64% (WHO, 2004). In Nigeria, substantial percentage of national budgetary health allocation is utilized for treatment and rehabilitation of people with substance use problems (Adelekan, 1996). Based on this, the Nigerian government has declared various “war on drugs” but the problem remains.

The sociodemographic profiles of substance abusers in a south-western Nigerian Psychiatric facility, as documented by Abayomi et al. (2012) revealed that males constituted the significant majority (85.7%), and their mean age was 31.8 years. Most of the respondents were never married (70.5%), about half of them were unemployed and 61.9% of them had less than secondary education. Another research in the southern part of the country by Eze et al. (2009) looked at the psychosocial characteristics of patients admitted to a drug rehabilitation unit found similar outcomes. In addition, most of the respondents used different combinations of psychoactive substances.

Studies have reported that psychoactive substance use is prevalent in Nigeria. Alcohol was reported to be the commonly use drug, both in terms of lifetime and recent use history, then tobacco, sedatives, stimulants and cannabis respectively meanwhile cocaine or other drugs was very rare (Gureje et al., 2007). Similarly, in another study conducted in south western Nigeria among tanker drivers, daily current use pattern for tobacco was the highest 45.5%, alcohol 43.3%, cannabis 16.5%, and caffeine 10.2% (Makanjuola et al., 2014).

Furthermore, in a study by Makanjuola et al. (2007) current use of one or more psychoactive substance was reported by 40.4% of all respondents, 35.6% of whom were using more than one substance. The most frequently used substances (both currently and lifetime) were mild stimulants (33.3%), followed by alcohol (13.6%), sedatives (7.3%) and tobacco (3.2%). No subject reported current use of cocaine or heroin.

Drugs and substances abuse is a significant issue that is hazardous to the health and development of young people and it cuts across age, religious affiliation, ethnicities and social class. Despite continuous enlightenment on the hazardous effects of psychoactive substances by government, non-governmental organization (NGO’s) and Health Care Providers (HCP), the demand and quest for it is increasing at an alarming rate. Haladu (2003) gives the following as the main causes of drug abuse; experimental curiosity, peer group influence, lack of parental supervision, personality problems, the need for energy to work for long hours, availability of the drugs and the need to prevent the occurrence of withdrawal symptoms. In another study, peer influence and self induced experimentation were found to be a predisposing factor to substance use and abuse (Makanjuola et al., 2014). Also, a study in India found Peer influence to be responsible for drug use, followed by curiosity (Sharma et al., 2012).

The relationship between personality and drug use is highly complex because the range of personality dimension which have been postulated to exist and which have been hypothesized to influence drug use is extremely broad and the personality factors may influence the use of drug at several levels (Cox, 1985). Lots of studies in different setting among different samples have showed the link between personality characteristics and drug use (Booth-Kewley and Vickers, 1994; Lawal and Ogunsakin, 2012).

Considering the role personality traits play in the aetiology and sustenance of substance use habits, Dubey et al. (2010) demonstrated that substance abusers had a significant high score on the neurotism and extraversion dimensions when compared to non-substance abusers. They further reported that substance abusers were more anxious, hostile, vulnerable to stress and had depressive traits. They were also more excitement seeking and assertive compared to normal subjects. Similar findings were reported among substance abusers by Kannappan and Cherian (1989).

In the Nigerian context, Oluwatelure (1995) found a positive correlation between extraversion and substance abuse. In another study, heavy users had higher scores on measures of psychotism and neurotism (Sher et al., 2000). Despite the fact extraversion/introversion traits had been found to be somewhat discrepant among drug abusers, more introversion and low extraversion were found among heavy users (Ebie and Pela, 1981; Rankin et al., 1982).

Several studies have revealed that substance abuse is prevalent among patients in Nigerian psychiatric facilities and particularly, drug treatment units (Adamson and Akindele, 1994; Adamson et al., 2010). Few studies were conducted that assessed the patterns of use among individuals with this problem and to the best of this study knowledge fewer studies assessed concomitant personality traits as vulnerability factor for substance use and mitigating factor for treatment in the Nigerian context. This is the first study in northeastern Nigeria that attempts to address these topical issues. The aims of this study were in two-fold; to evaluate the patterns of use of psychoactive substances among inpatients of the detoxification and rehabilitation wards of the Federal Neuropsychiatric Hospital, Maiduguri and to assess the predominant personality traits among the participants.

**METHODOLOGY**

**Research design and setting**

This is a cross-sectional survey of individuals with substance use problems using a purposive sampling procedure in the detoxification and rehabilitation units of the Federal Neuropsychiatric Hospital, Maiduguri. This is tertiary psychiatric
Participants and procedure

A total of 104 in-patients with substance use disorders undergoing detoxification or rehabilitation programmes in the facility were recruited into the study over a period of three years (February, 2011 to April, 2014). Inclusion criteria; the participants: must be psychological stable as determined by the management team and must give his/her informed consent to participate. The exclusion criteria were: presence of comorbid psychiatric disorder and presence of florid drug-related symptomatology like withdrawal symptoms. In order to rule out comorbid psychiatric conditions and drug-related withdrawal syndromes among the participants, thorough mental state assessment and physical evaluation were independently conducted by two psychiatrists in the management team.

Data collection

The following instruments were used for data collection:

1. An anonymous sociodemographic questionnaire designed by the authors that sought for variables like age, gender, marital status, religion, educational status, ethnicity, past and current use substance of abuse and route of administration.

2. Eysenck personality questionnaire (EPQ-90): This is a 90 item version of the Eysenck Personality Questionnaire (EPQ) that assesses personality traits in adults (>17 years of age). The responses are organized in a dichotomous fashion of “yes” or “no”. This instrument was developed by Eysenck and Eysenck (1975) and was standardized for Nigerian use by Eysenck et al. (1977). The instrument assesses three domains of personality; Psychoticism measures extent of an individual’s tough mindedness, Extraversion measures the extent of an individual’s social interaction with other people, Neuroticism measures the extent of an individual’s emotionality and the Lie is a measure of the extent to which a client has responded truthfully to the test items. Eysenck et al. (1977) provided the original norms for Nigerian samples, males 4.62; females 2.97 on 25 items Neuroticism measure, males 13.32; females 14.43 on 21 items Extraverted measure, males 6.43; females 8.42 on 23 items Neuroticism measure and lastly on the Lie scale, males 14.56 and females 13.46. Idemudia (1997) obtained a split-half reliability of 0.80, 0.79, 0.81 and 0.30 for each of the scales P, E, N and L, respectively. The internal consistency was high (alpha coefficient of 0.90 (P), 0.91 (E), 0.89 (N) and 0.40 (L). This present study established Cronbach alpha coefficient of .845; the scale has both content and faces validity.

Ethical consideration

Ethical clearance for this study was obtained from the institutional review board of the Federal Neuropsychiatric Hospital, Maiduugu and was found to be in conformity with the recommendations of the Helsinki declaration for research on human subjects. In addition, informed consents were obtained from the participants. The privacy and confidentiality were guaranteed and codes were used for data entry in order to maintain anonymity.

Data analysis

The data obtained were analyzed using the Statistical Package for Social Sciences, version 16. Descriptive statistics were used to analyze the demographic characteristics of the participants and their patterns of substance use. Furthermore, descriptive statistics were also used to summarize the total numbers of participants that fell under the categories of each personality traits taking into consideration the mean value for each of the trait as standardized for Nigerian sample (Eysenck et al., 1977).

RESULTS

Table 1 shows the summary of socio-demographic characteristics of the participants. The age ranges from 17 to 57 years with mean age of 31.1 and (SD ± 7.5). There were more males than female. Majority were single, religious affiliation shows more Moslems than Christians; employment rate was relatively high as most of the participants were employed in public and private sectors while others were either students, peasant farmers, artisans and petty traders, majority had at least secondary school education.

Table 2 revealed various reasons given by the participants for engages in substance abuse, more participants engage in substance as a result of the peer influence, followed by experimentation/curiosity. Others reason given were to increase performance and due to medical conditions (sickle cell anemia). Table 3 shows the current and past use of substance abuse. The most current substance of abuse are as follows; cigarette, cannabis, tramadol, alcohol, rohypnol, diazepam, codeine, other substance of abuse, “sukudye”, pentazocine, heroin, solution respectively. Furthermore, the most significant past substance of abuse are as follows; tramadol, cannabis, diazepam, cigarette, rohypnol, alcohol, codeine, other substance of abuse, “sukudye”, pentazocine, respectively.

Table 4 shows current patterns of psychoactive substance of abuse according to its effect on the central nervous system (CNS). A high numbers of the participants uses stimulants (cigarette) and hallucinogen (cannabis), followed by opiates, then depressants. A small percentage of the participants use either of the substances under volatile solvents, while another fraction uses other drugs of abuse. Table 5 shows that majority of the participants used multiple psychoactive substances while a small number of the participants only used one psychoactive substance.

Table 6 shows the percentage of participant’s personality traits on Eysenck Personality three dimensions. 73.1% of the participants scored above the mean while 26.9 scored below the mean on the Psychoticism measure, 55.8% scored above the mean while 44.2% scored below the mean on the Extraversion measure. Lastly, 90.4% scored above the mean while 9.6% scored below the mean on Neuroticism measure. In other to ascertain how truthful the participants has responded to the items of the test, the Lie scale was also computed, 74% of the participants score below the mean which is an indication of a valid response while 26% score above the mean which is an indication of faking or
Table 1. Socio-demographic characteristics of the study participants.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Participants (N=104) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group</strong></td>
<td></td>
</tr>
<tr>
<td>17-26</td>
<td>39 (37.5)</td>
</tr>
<tr>
<td>27-36</td>
<td>46 (44.2)</td>
</tr>
<tr>
<td>37-46</td>
<td>15 (14.4)</td>
</tr>
<tr>
<td>47-56</td>
<td>3 (2.8)</td>
</tr>
<tr>
<td>56 years above</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>102 (98.1)</td>
</tr>
<tr>
<td>Female</td>
<td>2 (1.9)</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
</tr>
<tr>
<td>Moslem</td>
<td>83 (79.8)</td>
</tr>
<tr>
<td>Christian</td>
<td>21 (20.2)</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>76 (73.1)</td>
</tr>
<tr>
<td>Married</td>
<td>26 (25)</td>
</tr>
<tr>
<td>Divorced</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Widowed</td>
<td>1 (1)</td>
</tr>
<tr>
<td><strong>Educational status</strong></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>2 (1.9)</td>
</tr>
<tr>
<td>Quranic education</td>
<td>6 (5.8)</td>
</tr>
<tr>
<td>Primary school education</td>
<td>2 (1.9)</td>
</tr>
<tr>
<td>Secondary school education</td>
<td>52 (50.0)</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>42 (40.4)</td>
</tr>
<tr>
<td><strong>Occupational status</strong></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>16 (15.4)</td>
</tr>
<tr>
<td>Peasant farmers</td>
<td>5 (4.8)</td>
</tr>
<tr>
<td>Petty traders</td>
<td>5 (4.8)</td>
</tr>
<tr>
<td>Artisans</td>
<td>4 (3.8)</td>
</tr>
<tr>
<td>Employed by government and private organization</td>
<td>41 (39.4)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>33 (31.7)</td>
</tr>
</tbody>
</table>

(Mean age: 31.1; S.D ± 7.5) years.

random responses.

**DISCUSSION**

Socio-demographical characteristics of the participants in this study revealed that most of participants were in their early adulthood, majority were males and single. Employment rate was relatively high as most of the participants were employed in public and private sectors while other were either students, peasant farmers, artisans and petty traders, majority had at least secondary school education.

This finding is also supported by Abayomi et al. (2012) who found a mean age of 31.8 in their study and reported that most of their participants were males, and never married. Similarly, Eze et al. (2009) reported most of their respondents to be male, single and unemployed. However, the discrepancies here is between educational attainments and employment status of the participants in this present study, 50% attended secondary school education and 40.4% attended tertiary education making a total of 90.4% while Abayomi et al. (2012) reported that 61.9% had less than secondary school education in their
Table 2. Mode of initiation of the participants into psychoactive substance use.

<table>
<thead>
<tr>
<th>Reasons for initiation</th>
<th>Participants (N=104) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer influence</td>
<td>90 (86.5)</td>
</tr>
<tr>
<td>Experimentation/curiosity</td>
<td>10 (9.6)</td>
</tr>
<tr>
<td>To increase performance/activities</td>
<td>3 (2.9)</td>
</tr>
<tr>
<td>Other factors</td>
<td>1 (0.9)</td>
</tr>
</tbody>
</table>

Table 3. Current and past use of psychoactive substance.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Current use of substance</th>
<th>Past use of substance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Cigarette</td>
<td>77</td>
<td>(74.0)</td>
</tr>
<tr>
<td>Cannabis</td>
<td>74</td>
<td>(71.1)</td>
</tr>
<tr>
<td>Tramadol</td>
<td>52</td>
<td>(50)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>28</td>
<td>(26.9)</td>
</tr>
<tr>
<td>Rohypnol (Flunitrazapam)</td>
<td>18</td>
<td>(17.3)</td>
</tr>
<tr>
<td>Diazepam</td>
<td>17</td>
<td>(16.3)</td>
</tr>
<tr>
<td>Codeine</td>
<td>11</td>
<td>(10.6)</td>
</tr>
<tr>
<td>“Sukudye”</td>
<td>6</td>
<td>(5.8)</td>
</tr>
<tr>
<td>Pentazocine</td>
<td>5</td>
<td>(4.8)</td>
</tr>
<tr>
<td>Heroin</td>
<td>4</td>
<td>(3.8)</td>
</tr>
<tr>
<td>Other substance of abuse</td>
<td>7</td>
<td>(6.7%)</td>
</tr>
<tr>
<td>Solution</td>
<td>1</td>
<td>(1.0%)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Current use of substance is the usage within the last three months as categorized by the World Health Organization (WHO) using the ASSIST Questionnaire. Other substance of abuse includes passion energy drink and benzhexol (anticholinergic effect).

study, also, Eze et al. (2009) reported high level of unemployment in their study. Sampling bias and operation classification of employment status may explain the discrepancies observed in the present study.

Modes of initiation into psychoactive substance were widely reported in the literatures, peer influence, followed by curiosity and to increase performance/activities were found in this study as contributors. This finding was in line with the previous studies that reported peer influence and self-induced experimentation/curiosity as some of the risk factors to substance use and abuse (Makanjuola et al., 2014; Sharma et al., 2002; Haladu, 2003).

Patterns of use and current psychoactive substance use were looked into. Cigarette and cannabis were found to be the most commonly used substances, followed by tramadol. This finding was in agreement with Makanjuola et al. (2014) finding that tobacco is the most currently used substance, followed by alcohol, caffeine, and cannabis. In another study with similar finding, cannabis was found to be prevalent and linked to the bulk of the treatment demand (WHO, 2004). However, this seems to differ from the study of Gureje et al. (2007) which reported alcohol to be the most commonly used drug in Nigeria, followed by tobacco, sedatives, stimulant and cannabis. The controversy here is the first ranking of alcohol; in this present study tobacco (cigarette) was found to be the most currently used drug, followed by hallucinogen (cannabis) in this part of the country. The Islamic injunction against the use of alcohol seems to be a factor here since 80% of the participants of this study were Moslems. Moreover some of the earlier mentioned studies were conducted in other parts of the country where majority of their participants were Christians.

Similarly, current patterns of use by classifying the substances into some groups according to its effect on the CNS. Majority of the participants used stimulants, followed by hallucinogen, then opiates. This finding is also consistent with the results of previous studies of Makanjuola et al. (2007, 2014) that ranked stimulant as the most frequently used substances.

Furthermore, multiple psychoactive substance use is another phenomenon to be focus on in a study on substance use in our society because of the different chemical interaction involved. Majority of the participants in this study were currently using two or more psychoactive substances. This is contrary to the finding...
Table 4. Current patterns of substance of abuse according to its effect on the central nervous system (CNS) and the route of administration.

<table>
<thead>
<tr>
<th>Classification of psychoactive substance</th>
<th>Psychoactive substance</th>
<th>Route of administration</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressants</td>
<td>Alcohol</td>
<td>Oral (Drinking)</td>
<td>60.5</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rohypnol</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>Stimulants</td>
<td>Cigarette (Nicotine)</td>
<td>Oral (Smoking)</td>
<td>74.0</td>
</tr>
<tr>
<td></td>
<td>Tramadol</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pentazocine</td>
<td>Intravenous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heroin</td>
<td>Oral</td>
<td>69.2</td>
</tr>
<tr>
<td></td>
<td>Codeine</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>Opiates</td>
<td>Pentazocine</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tramadol</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>Cannabis</td>
<td>Oral (Smoking)</td>
<td>71.1</td>
</tr>
<tr>
<td>Volatile solvents</td>
<td>Solution</td>
<td>Oral</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>“Sukudye”</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>Other drugs of abuse</td>
<td>Benzhexol (anticholinergic effect)</td>
<td>Oral (Drinking)</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>Passion energy drink</td>
<td>Oral</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Multiple and mono psychoactive substance use.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple psychoactive substance abusers</td>
<td>87.5</td>
</tr>
<tr>
<td>Mono psychoactive substance abusers</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Table 6. Personality traits of the participants.

<table>
<thead>
<tr>
<th>Personality Traits</th>
<th>High (%)</th>
<th>Low (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychoticism</td>
<td>73.1</td>
<td>26.9</td>
</tr>
<tr>
<td>Extraversion</td>
<td>55.8</td>
<td>44.2</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>90.4</td>
<td>9.6</td>
</tr>
</tbody>
</table>

of Makanjuola et al. (2007) that 35.6% of participants in their study were using more than one psychoactive substance. This implied that the rates of multiple psychoactive substance use in their study was low, taking into consideration of the total valid questionnaires 906 (94.3%) analyzed compared to 87.5% of multiple psychoactive substances use recorded in this present study. The disparity here might be the severity of the addiction or levels of substance dependence and different in the study group (students / individual with substance use problem in a psychiatric facility).

Research on substance abuse is inconclusive without considering personality traits of the abusers. A high numbers of the participants were high on Psychoticism measure which implies that average substance abusers are aggressive, egocentric, impersonal, impulsive, antisocial, un-empathetic, creative, and tough-minded. This finding supported Sher et al. (2000) who reported high score on measure of Psychoticism and Neuroticism among heavy users. Furthermore, average numbers of the participants were Extraverted; this implies that fifty percent of substance abusers are sociable, lively, active, assertive, sensation seeking, carefree, dominant, and venturesome. This finding agreed with Oluwatelure (1995) who found a positive correlation between Extraversion and substance abuse. However disagreed
with Ebile and Pela (1981) and Rankin et al. (1982) studies that found drug abusers to be more introverted.

Lastly, a high numbers of the participants were high on Neuroticism measure which is an indication that most substance abusers are anxious, depressed, guilt feelings, low self esteem, tense, irrational, shy, moody, and emotional. This finding supported the findings of Dubey et al. (2010) who presented in their study that substance abusers had a significant high score on Neuroticism and Extraversion as compared to non-substance abusers.

Conclusion

This study established the predominant personality traits among individuals with substance problems using Eysenck Personality Questionnaire. High scores on the three dimensions of personality traits (Psychoticism, Extraversion and Neuroticism) are strongly associated with psychoactive substance abuse. Furthermore, cigarette, cannabis and tramadol were the most commonly abused substances in this part of the country and most of the participants abused more than one psychoactive substance. This study also revealed that substance abuse starts in early adolescents and most of the abusers were males and unemployed, students, artisans, peasant farmers and petty traders. Peer influence was a major mode of initiation.

In view of the earlier findings, it is recommended that personality assessment should be indicated in individuals with substance abuse problem. This will enlighten the therapists on the client’s strength and weakness rather than jumping into conclusion that the client is not motivated and not ready to change. In addition, it is also recommended that government, non-governmental organizations (NGOs) and Healthy City Program (HCP) should create adequate awareness on the consequences of substance abuse on our societies and the health implications of those substances of abuse. Routine Urine Drug Analysis (UDA) should be embarked on in our secondary schools since drug abuse starts in early adolescents.

LIMITATIONS

1. It was conducted in one of the mental health facilities in Northern Nigeria where most of the participants were Moslems; therefore, a generalized conclusion cannot be drawn to reflect the true situation of patterns of psychoactive substance use as other parts of the country are predominantly inhabited by Christians.

2. Due to socio-cultural influences, there were few female participants and this may make the influence of gender on psychoactive substance use less conspicuous.

3. Lastly, Eysenck three dimensions of personality traits has not covered all the aspect of personality traits, therefore further studies should look into other dimensions of personality traits of this study group.

Conflict of Interests

The authors have not declared any conflict of interests.

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