African Journal of Drug & Alcohol Studies, 16(1), 2017

PATTERN OF SUBSTANCE ABUSE AT THE DRUG DE-ADDICTION UNIT OF A NIGERIAN PSYCHIATRIC HOSPITAL

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ABSTRACT

Substance abuse is a complex challenge of modern society with significant public health importance. The aim of the study was to identify the common drugs of abuse, socio-demographic features and clinical characteristics of individuals who abuse substance in a drug de-addiction unit of a psychiatric hospital in Nigeria. It was a cross-sectional descriptive survey of 86 in-patients of the drug de-addiction unit of Federal Neuropsychiatric Hospital, Enugu, South-Eastern Nigeria. A modified questionnaire by United Nations Office on Drugs and Crime Nigeria Epidemiology Network on Drug Use (NENDU) was used to obtain the data. Data analysis was done using the Statistical Package for Social Sciences (SPSS), version 20. Results show that the primary substances of abuse were cannabis (81.4%) and alcohol (16.5%), while cocaine and other stimulants were rarely used (1.2%). The mean age of the participants and age at initiation of substance use were 30.88±8.49 and 22.59±5.98, respectively. Indices of social disadvantage were seen in people with substance use disorders. The commonest route of use was by smoking (81.3%) with mental disorders, as the most common comorbidity seen (88.3%). The finding in this study on cannabis is conceded by existing literature, which reports a persistent rise in its use despite international and national efforts to reduce its supply. The early age at initiation begs for more comprehensive drug prevention programmes especially in the various levels of education.

Keywords: Pattern of substance use, De-addiction Unit, Nigeria, Cross-sectional study

INTRODUCTION

Substance abuse is a complex and multidimensional problem with a long history and global impact. It is influenced by social, economic, political, and psychosocial factors (Rather, Bashir, Sheikh, Amin and Zahgeer, 2013). The problem

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is not restricted to an individual, drug or community but involves the interaction among the triad (Arturo, 1990).

In some cultures in Nigeria, traditional drugs (e.g., alcohol, kolanuts) are used by sections of the society either for leisure or as part of religious ceremony. Therefore, their consumption does not invite any sanction from the society. While the use of alcoholic beverages and tobacco is endemic in many societies, the use of other psychoactive substances appears to be an epidemic, with semblance to a communicable disease (zMe, 1990).

The health consequences of illicit drug use continues to be of global concern, this is more so because majority of problem drug users have limited access to treatment (UNODC, 2014). Globally, it is estimated that a total of 246 million people (1 out of 20 people) between the ages of 15 and 64 years, used an illicit drug in 2013 (UNODC, 2014). About 27 million people, which is the estimated total population in Malaysia, are problem drug users. 12.19 million of the problem drug users inject drugs and an estimated 1.65 million of those who injected drugs were living with HIV in 2013. The annual statistic of drug related deaths as of 2013 was 187,100 (UNODC, 2014). This projects a heavy burden on the existing public health systems in terms of prevention, treatment and care of drug use disorders as well as the health consequences.

Over the past few decades, the drug scenario in Nigeria has changed rapidly according to the National Drug Enforcement Agency (NDLEA, 2013). The changes are seen in terms of availability, choice of psychoactive drugs, users and their socio-demographic characteristics (NDLEA, 2013). The increase in drug abuse at the different levels of society during the past decades and their attendant physical and psychiatric problems have become a subject of public concern and moral panic, especially among young people.

According to the World Drug Report, 2015, there are national and regional variations in the pattern of drug use. The limited data available indicate that the use of opiates (heroin and opium) has remained stable at the global level (UNODC, 2015). This is probably due to trends in America and Europe. Cocaine use has declined overall, while use of cannabis and pharmaceutical opioids has continued to rise globally (UNODC, 2015). There are also indications that the number of people requiring treatment for cannabis use is increasing in most regions of the world (UNODC, 2015).

However, a community-based study done in Nigeria showed that the commonly used psychoactive substances in the decreasing order are alcohol, tobacco products, cannabis and stimulants (Omoluabi, 1995). In Nigeria, some regional differences exist. For example, kolanut is the most commonly used psychoactive substance in northern Nigeria, while alcohol is the most common in southern Nigeria. This may be due to cultural influences on pattern of substance use such that northerners who are predominantly Moslem are less likely to use alcohol for religious reasons (Abasiubong, Udobang, Idung, Udoh & Jombo, 2014). In the hospital setting, the most commonly used psychoactive substance among in-patients in Nigerian psychiatric facilities is cannabis. This is similar in most regions of the country (Abdulfatai and Balarabe, 2016). This may reflect the increasing availability of cannabis as well as its accessibility in the country, with most people starting its use early in life (UNODC, 2013). Cannabis has

been reported to be produced in Nigeria as discovered by the NDLEA, when 3,908 hectares of farmland produced marijuana between 2013 and 2014 at the Southern part of the country (INCSR, 2015).

The socio-demographic profile of individuals has been shown to affect the pattern of drug use (Van-Etten and Anthony, 2001). Compared with drug use among men, overall drug use remains low among women (Van-Etten and Anthony, 2001). At the global level, men are three times more likely than women to use cannabis, cocaine or amphetamine, while women by contrast are more likely than men to misuse prescription drugs, especially opioids and tranquilizers (INCSR, 2015). This may reflect differences in opportunities to use drugs due to influence of the social or cultural environment rather than intrinsic gender vulnerability (Van-Etten and Anthony, 2001). The area of residence, characteristics of the neighbourhood, and having friends that abuse substances are identifiable socio-demographic risk factors for drug abuse (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010). Based on epidemiological data, the increasing population of Nigeria and worsening economic hardship shows there is an urgent need for substance abuse policies and programmes as regards prevention and treatment.

The United Nations Office on Drugs and Crime (UNODC) has recently established a drug treatment unit in a Federal Neuropsychiatric Hospital in South-Eastern Nigeria for comprehensive drug de-addiction programme. The data collection engrained in the programme provides a good opportunity to evaluate the pattern of use and socio-demographic profile of drug users in this area. These data highlight the extent of problems that substance abuse is causing, identified the type of the substances used and the population group with the highest burden, and will inform the direction of policy and target resource. The objectives of the study were to identify the common drugs of abuse, to identify their socio-demographic characteristics, and some clinical indices associated with drug use among these patients.

METHOD

Study design and population

This was a cross-sectional hospital based descriptive study of 86 in-patients admitted into the drug treatment unit of the Federal Neuropsychiatric Hospital, Enugu, South-Eastern Nigeria. This is a 300-bed hospital located within Enugu metropolis. The state was created from the old Anambra state in 1991. Enugu was the capital of the old Eastern region of Nigeria. The hospital serves the entire South-Eastern states and neighbouring geopolitical zones. The hospital offers both acute and long term care for psychiatric in-patients with a comprehensive drug treatment program in collaboration with UNODC. It also operates an out-patient clinic on weekdays and emergency clinic on daily basis. The average length of stay in the hospital is approximately 4weeks. Patients with substance use disorder can stay for as long as 90-days. Participants were 86 patients admitted to the drug treatment unit of the hospital from January, 2016 to December, 2016. All were sampled after obtaining a written informed consent.

Procedure and Measurement

All participants were interviewed by the researcher and the UNODC trained data collection officers using a questionnaire adapted from United Nations Office

for Drug and Crime Nigeria Epidemiology Network on Drug Use (NENDU).

ETHICS

Ethical approval was obtained from the ethical committee of the Federal Neuropsychiatric Hospital Enugu, Enugu state, Nigeria. International Ethical norms and standards were strictly adhered to at all times.

Data analysis

The results were analyzed using the Statistical Packages for Social Sciences, version 20. Sample means, standard deviations, and percentages were calculated.

RESULTS

All the 86 patients admitted within the one-year period of the study in the drug

Table 1. Socio-demographic profile of the patients

Characteristics	(N = 86)	%
AGE **Mean= 30.88 ± 8.49**		
SEX		
Male	83	96.5
Female	3	3.5
MARITAL STATUS		
Never Married	76	88.4
Married	7	8.1
Separated/Divorced/Widowed	3	3.5
EDUCATIONAL STATUS		
Never completed primary	3	3.5
Completed primary	10	11.6
Some secondary	13	15.2
Completed secondary	30	34.9
Some tertiary	15	17.4
Completed tertiary	15	17.4
EMPLOYMENT STATUS		
Regular employment	13	15.1
Occasional employment	15	17.4
Pupil/student	17	19.8
Unemployed	41	47.7
AREA OF RESIDENCE		
Urban	33	38.4
Semi-Urban	27	31.4
Rural	26	30.2
TYPE OF ACCOMMODATION		
Home/Stable	81	94.2
Dormitory/Institution	1	1.2
No stable	4	4.7
LIVING STATUS		
Alone	15	17.4
With parents	53	61.6
With spouse/partner	3	3.5
With friends	14	16.3
With children alone	1	1.2

de-addiction unit of the hospital participated. As shown in Table 1, the mean age of the participants was 30.88±8.49 years. Eighty-three (96.5%) were males, 88.4% were never married, 47.7% were unemployed, 38.4% resided in urban areas, 94.2% in stable accommodations and 61.6% lived with parents.

The mean age at first use of a psychoactive substance among the participants was 22.59±5.98 years. The most common route of drug use was by smoking (81.4%), 87.2% used drugs daily, 55.5% had previous treatment for drug related problems. The mean number of treatment was 1.05±1.17; the most common comorbid health condition was mental and behavioural disorders (88.4%). All participants paid out of the pocket either through personal income or from family and friends, the primary source of drugs was from the street. (Data presented in Table 2.)

Table 2. Clinical characteristics of the patients

Characteristics		(N = 86)	%
AGE AT FIRST USE	**Mean= 22.59 ± 5.98**		
ROUTE OF DRUG USE			
Swallow		14	16.3
Smoking		70	81.3
Snort/Sniff		1	1.2
Inject		1	1.2
FREQUENCY OF DRUG USE			
Daily		75	87.2
2-6days per week		10	11.6
Once per week or less often		1	1.2
PREVIOUS TREATMENT			
Yes		48	55.8
No		38	44.2
NUMBER OF TREATMENT	**Mean 1.05 ± 1.17**		
COMORBID CONDITIONS			
None		4	4.7
Respiratory diseases		1	1.2
Mental disorders		76	88.3
Liver disease		5	5.8
SOURCE OF REFERRAL			
Self		4	4.7
Family/friends		76	88.3
Court/police		6	7.0
TYPE OF ADMISSION			
Voluntary		79	91.9
Involuntary		7	8.1
PAYMENT FOR TREATMENT			
Personal income		15	17.4
Family/friends		71	82.6
PRIMARY SOURCE OF DRUG			
Friends		33	38.4
street		53	61.6

The most common primary drug was cannabis (81.4%), followed by alcohol and stimulants. Cocaine was rarely used among the participants. (See data in Table 3 and Figure 1).

DISCUSSION

In recent times, the drug treatment unit of our institution has witnessed a tremendous rise in admission for drug related problems. This has become a public concern especially with the changing pattern and demographics of substance abusers, associated crime rate and lost productivity in a struggling Nigeria's economy.

Africa, with Nigeria in particular is considered a major transit hub for drugs trafficked to other parts of the world. The geographical location of the area covered by the hospital is within a major trafficking route in Nigeria (Anambra State);

Table 3. Pattern of drug use among the patients

	First (n = 86) N (%)	Second (n = 40) N (%)	Third (n=15) N (%)	Fourth(n = 4) N (%)
Alcohol	14(16.5)	14(35.0)	7(46.7)	1(25.0)
Cannabis	70(81.4)	4(10.0)	1(6.7)	0(0.0)
Cocaine	1(1.2)	1(2.5)	1(6.7)	0(0.0)
Other stimulants	1(1.2)	14(35.0)	4(26.7)	1(25.0)
Opiate	0(0.0)	5(12.5)	2(13.3)	0(0.0)
Sedative-hypnotics	0(0.0)	2(5.0)	0(0.0)	2(50.0)
Poly-drug use	(n = 86)			
	N	%		
Yes	39	45.3%		
No	47	54.7%		

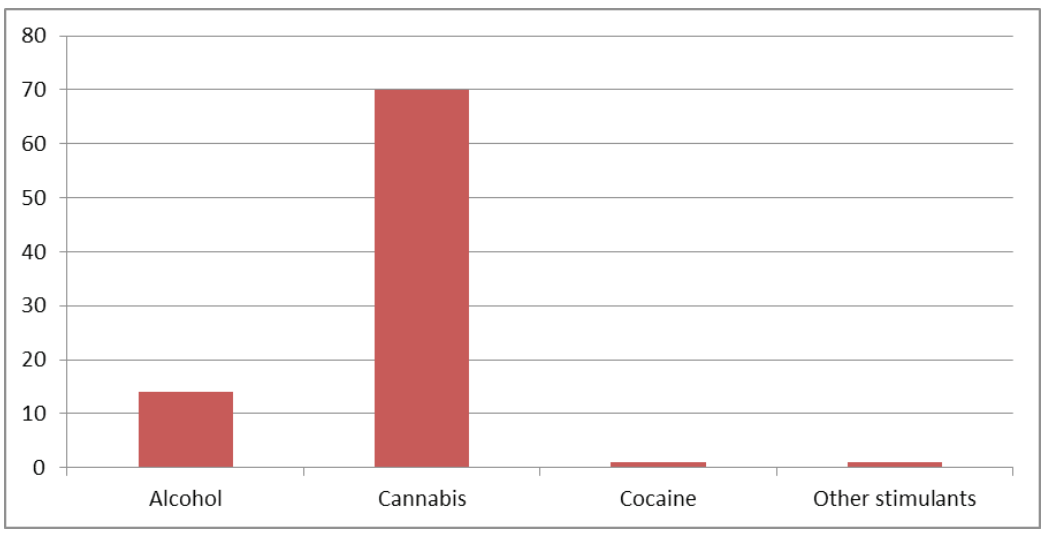

Figure 1. Frequency of primary substance of abuse among the study participants (bars show number of participants for each drug)

cannabis production and distribution in Nigeria (NDLEA, 2013). This study was conducted to determine the pattern of substance abused among in-patients in the drug de-addiction unit of a Nigerian Psychiatric Hospital. The present study showed that most of the participants were males (96.5%), and the mean age of the participants was 30.88±8.49. This is similar to the previous reports that showed that substance use was the most occurring activity common among adolescent and young adults (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010; Gupta, Kajal, Padda, Monga, Devgan, 2016). Most of the participants in this study were unemployed, 17.4% were occasionally employed, while 15.1% were engaged in full occupation. Therefore, this study supports other studies that showed a negative association between employment and drug use (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010). Majority of the participants were never married (88.4%), whereas only 8.1% of the participants were married. This is similar to the report by United State National Institute on Drug Abuse, which noted that drug abuse is lowest in persons that are married, while those who were single and those who were divorced showed much higher rates of abuse (NIH, 2010). Most of the participants lived with a family member and had stable accommodation (66.3% and 94.2%, respectively). This is different from some studies done in western countries which reported higher rates in the absence of family structure and quality (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010; McArdle, Wiegersma, and Gilvary, 2002). Although, this study did not examine the quality of the family relationships. This result may partly be due to the strong family ties in this society that enables family to be involved in the care of wards, and partly due to avoidance of stigma that a homeless drug abuser may bring to such families.

The mean age at first use was 22.59±5.98; the commonest route of use was by smoking (81.4%), which mirrors the commonest drug of use. This is similar to the finding by Avci and his colleagues in a hospital population but differs from school based studies that reported earlier age at first use (Avci, Sarikaya, Kavak, Ozmen, Aydin and Arslan, 2016). Most of the participants had previous treatment (55.8%) and 88.4% had comorbid mental disorder. This reinforced the findings of previous global reports on comorbidity between substance use disorder and other mental disorders (NIDA, 2010). The United State National Institute on Drug Abuse, Research Report Series, 2010 reported higher comorbidity between substance use disorders and other mental disorders (NIDA, 2010). They also enumerated the possible reasons for this high comorbidity to include; first, drugs of abuse can cause abusers to experience one or more symptoms of another mental illness. Second, mental illness can lead to drug abuse and finally, both substance use disorder and other mental illnesses may be caused by overlapping factors such as underlying brain deficits, genetic vulnerabilities, and early exposure to stress or trauma (NIDA, 2010).

The common primary substances of abuse were cannabis (81.4%), alcohol (16.5%), cocaine and other stimulants (2.4%). The secondary substances of abuse were opiates (tramadol, codeine in cough syrups), sedative-hypnotics. This pattern is similar to that reported in Sokoto, Northern Nigeria, which showed that cannabis was the most common abused

drugs among their in-patients (Abdulfatai and Balarabe, 2016). However, this differs from other reports from the same region (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010). Igwe et al found that the most common drug of abuse in Enugu, Southern Nigeria was alcohol (Igwe, Ojinaka, Ejiofor, Emechebe and Ibe, 2010). This could be due to the differences in the sampled population; in the present study, in-patients on treatment were used while their study was done among students. This may also reflect a changing pattern of drug abuse in this environment owing to the increased availability and affordability of cannabis as recently by the National Drug Law Enforcement Agency (NDLEA, 2013).

Limitations and Conclusion

This was cross-sectional study with a non-probability sampling method. The hospital based population may limit the application of this study to the general population. Future studies should probably employ a longitudinal design with community based population. Multi-center studies may also better explain the variation in substance abuse across geopolitical zones.

Survey of drug treatment units of psychiatric hospitals in order to assess the pattern of abuse, variability of substances used, geopolitical variations in availability and accessibility of psychoactive substances as well as the presence of comorbidities would become necessary in order to inform effective policy formulations and management strategies.

This study provided data on the pattern of substance abuse in a drug de-addiction unit of a psychiatric facility in the South-Eastern Nigeria. The finding that cannabis is most frequently used drug strengthens the call on NDLEA to improve on their existing strategy to curb this menace. More so, indices of social disadvantage (e.g., unemployment, being unmarried, poor educational status) are seen more on drug abusers which calls for an integrated social service to reduce the impact of socio-economic factors on this population.

Conflict of interest

There are no conflicts of interest

CONTRIBUTORS

Justus Uchenna Onu and Ngozi Nneka Unaogu were the primary investigators. However, the first and second authors contributed to the study design, analysis and interpretation of data, drafting the manuscript and approved the final draft for submission. The 3rd, 4th and 5th authors contributed to data collection.

Role of funding sources

Self-financed

Acknowledgments

The authors would like to thank Dr. J.U. Onwukwe, the Medical Director, Federal Neuropsychiatric Hospital, Enugu, for providing the enabling environment and some logistic support for this study.

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