

Sociodemographic and Substance Abuse Profiles of Inpatients at the De-Addiction Unit of a Northern Nigerian Tertiary Hospital

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Abstract

Introduction: Substance abuse is a major public health issue globally, affecting the physical and psychosocial well-being of millions directly or indirectly. Nigeria has been listed among the countries with the highest users of harmful drugs in the globe. The objective of this study was to determine a detailed breakdown of the sociodemographic characteristics, as well as the profile of substance users in the De-addiction Unit of a Nigerian tertiary hospital. **Methodology:** The study population comprised 166 patients admitted into the de-addiction unit of the psychiatry department, where the average length of admission period was 6 weeks. A descriptive cross-sectional approach was adopted in the design of the study. The UNODC Nigerian Epidemiology Network on Drug Use (NENDU) questionnaire was used for data collection via interviews conducted by the researchers and UNODC-trained assistants. The study duration was 3 years (January 2018 to December 2020). Ethical approval was obtained from the health research ethics committee of the AKTH. Data obtained was analyzed using statistical package software for social sciences (SPSS) version 22. **Result:** A little over three-quarters (125) of the respondents were aged 35 years and below. Over half (104) were unemployed. The mean age of onset for substance use was 22 years. The primary substance of abuse among most respondents was Cannabis, and the most common route was via smoking. The main source of the abused substances reported by respondents was street dealers. Few respondents (37) admitted to injectable substance use and much fewer (3) to sharing syringes with other users. Only 19.3% were tested for HIV among the respondents. **Conclusion:** Findings from this study demonstrate that the majority of in-patient substance abusers were adolescents and young adults (16 - 35 yrs), commencing the habit at an average age of 22 years, unemployed and mainly using Cannabis as the primary drug of abuse obtained in most cases from street dealers.

Keywords

Substance Abuse, Drug Abuse, De-Addiction, Cannabis, Opioids, Kano, Nigeria, Rehabilitation

1. Introduction

Substance abuse is a major public health issue globally, affecting the physical and psychosocial well-being of millions directly or indirectly. Because it is so rampant across different cultural divides, under different guises, substance abuse is often regarded as a transcultural problem. A team of experts has categorically stated that substance abuse is an ongoing crisis affecting every region of the world [1]. According to the World Health Organization, substance abuse is defined as the harmful or hazardous use of a psychoactive substance [2]. It is worthy to state that a psychoactive substance is any form of substance that acts on the brain to alter the mental state of an individual. Hence not all psychoactive substances are substances of abuse, as psychotropic medications have a role in the management of different mental disorders.

Figures released by the United Nations Office on Drugs and Crime (UNODC) indicated that 284 million people aged 15 - 64 years have used substance of abuse globally in the year 2020 alone [3]. That represents a 26 percent increase over the previous decade. This is an alarming revelation because the age range quoted covers people who are in the most productive stages of their lives. Substance abuse is a leading contributor to the global burden of disease, being an integral part of the infamous triad of the well-mentioned “mental, neurologic and substance use disorders”, which create a global burden almost similar to the whole infectious diseases combined. Substance use disorder, in its own right, causes 20 million disability-adjusted life years (DALYs) and 8.6 million years of life lost (YLL) [4] [5].

Substance abuse menace is underestimated in different parts of the globe, especially in the developing world where resources are grossly inadequate to address the mental health challenges in general and substance abuse in particular. Due to its complex nature, to effectively reverse the ugly trend of substance use disorder, a multisectoral approach is highly desirable.

Nigeria has been listed among the countries with the highest users of harmful drugs in the globe [6]. This could be attributable to the various challenges facing the health and other relevant sectors in the country, which provide a breeding ground for the rising cases of substance abuse, especially among the youth. However, the recently assented Nigerian Mental Health Bill has made highly commendable provisions for the management, treatment and research of mental health conditions in general and substance use disorder in particular [7]. What remains is the political will to ensure that such provisions of the bill are put into practice. Despite the obvious nature of drug abuse in Nigeria, still not much research efforts have been put into it.

The objective of this study was to determine a detailed breakdown of the sociodemographic characteristics, as well as the profile of substance abuse among the in-patients in a de-addiction unit of a Nigerian tertiary hospital.

2. Methodology

The study was conducted in the de-addiction units of the male and female psychiatric wards of Aminu Kano Teaching Hospital (AKTH). The 500-bed capacity tertiary teaching hospital is located in northern Nigeria's commercial city of Kano. It has various clinical and administrative departments. The Department of Psychiatry offers both in-patient and out-patient services, covering wide ranges of mental and substance use disorders across all age groups. The department arguably has the highest number of in-patient bed occupancy among teaching hospitals in Nigeria. In collaboration with UNODC, the department runs a specialized substance use disorder unit, which offers treatment for both the in-patient and out-patient clients. In addition, the Department of Psychiatry AKTH offers community mental health services in a rural health center located on the outskirts of Kano City.

The study population comprised 166 patients admitted into the de-addiction unit of the psychiatry department, where the average length of admission period was 6 weeks. Only respondents who objectively met the ICD-10 substance dependence criteria were selected for the study. A simple random sampling technique was employed in the descriptive cross-sectional study. The UNODC Nigerian Epidemiology Network on Drug Use (NENDU) questionnaire was used for data collection via interviews conducted by the researchers and UNODC-trained assistants. The aforementioned questionnaire was used because of its simple design and is used in other UNODC centers in the country, which will allow for a better comparison. The study duration was 3 years (January 2018 to December 2020). Ethical approval was obtained from the health research ethics committee of the AKTH.

Data obtained was analyzed using statistical package software for social sciences (SPSS) version 22. Continuous variables were presented using the measures of central tendency such as mean and standard deviation, while categorical variables were expressed as simple whole numbers percentages.

3. Results

Socio-Demographic Characteristics among the Respondents

The mean age of the respondents was 30.67 ± 9.60 years, with ages ranging from 16 to 59 years. A little over three-quarters of the respondents were aged 35 years and below, as less than 10% were aged 46 years and above. The majority, 147 (88.6%), of the respondents were males. About a third of the respondents have completed a tertiary level of education but over half (62.7%) were unemployed. Nearly all (99.4%) of them were from stable homes and up to 83.6% lived with their family/relatives. Only about one-fifth were married. Ninety-seven percent

had been living in an urban area. For more details on the sociodemographic characteristics see **Table 1**.

Table 1. Sociodemographic characteristics of the respondents.

Sociodemographic Variables	Frequency	Percentage (%)
Age Groups (years)		
16 - 25	58	34.90
26 - 35	67	40.40
36 - 45	27	16.30
46 - 55	10	6.0
>55	4	2.0
Sex		
Males	147	88.60
Females	19	11.40
Marital Status		
Divorced/Separated	12	7.20
Married	34	20.50
Single	119	71.70
Widowed	1	0.60
Education		
Primary	71	42.80
Some secondary	1	0.60
Secondary	11	6.60
Some tertiary	23	13.90
Tertiary	60	36.10
Employment Status		
Regular Employment	58	34.90
Occasional Employment	4	2.40
Unemployed	104	62.70
Living Status		
Stable home	165	99.40
Unstable setting	1	0.60
Living with		
Family/relatives	139	83.70
Spouse	26	15.70
Friends	1	0.60
Area of Residence		
Urban	161	97.00
Semi-urban	5	3.00
Rural	0	0

Substance Abuse-Related Characteristics among the Respondents

The mean age at onset of substance use was 22.16 ± 7.31 years. The most predominant primary substance of abuse was Cannabis, used by 77 (46.4%) of the respondents, while Stimulants were the least commonly used, see **Figure 1**. Opioids were the second most commonly used drug and pentazocine was the most common opioid abused, see **Figure 2**. Polydrug problem was detected in 19 (11.4%) of the respondents.

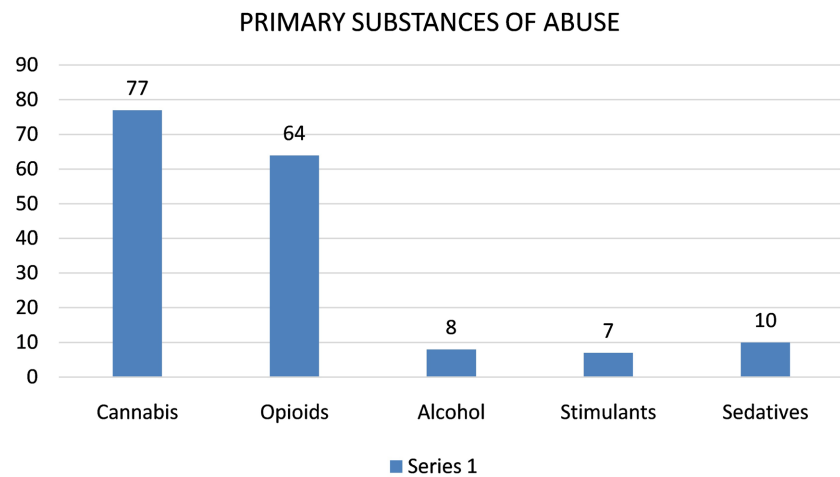


Figure 1. Primary substances of abuse among the respondents.

OPIOIDS BEING USED AS PRIMARY SUBSTANCE OF ABUSE

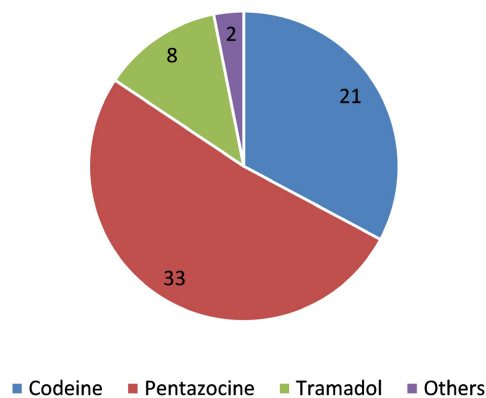


Figure 2. Opioids being used as primary substance of abuse among the respondents.

The most common route of substance use was via smoking (44.0%). The majority, 157 (94.60%), use their respective substances of abuse on a daily basis. Less than half of the respondents have used a secondary substance of abuse. While the main source of the substance of abuse was street dealers (88.0%), see **Figure 3**. Over three-quarters of the respondents had no history of past substance abuse treatment.

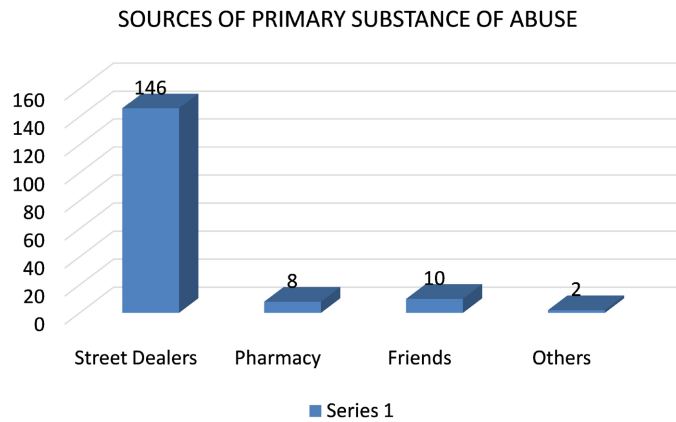


Figure 3. Sources of primary substance of abuse among the respondents.

Among the respondents, 37 admitted to using injectable drugs within 12 months of the interview, but only 3 admitted to having shared injection needles. Only 19.3% had been tested for HIV in the last 12 months but none tested positive for the virus. Meanwhile 27 (16.30%) of the respondents had background general medical conditions like sickle cell disease (6 persons), hypertension, respiratory and liver diseases. In addition, 49 of the respondents were found to have a co-morbid primary mental disorder. For more details, see **Table 2**.

Table 2. Substance abuse characteristics among the respondents.

Substance Abuse Characteristics	Frequency	Percentage (%)
Primary Substance of Abuse		
Cannabis	77	46.40
Opioids	64	38.60
Alcohol	8	4.80
Stimulants	7	4.20
Sedatives	10	6.0
Route of Administration of Primary Substance		
Smoking	73	44.00
Swallowing	49	29.50
Injection	32	19.30
Sniffing	12	7.20
Frequency of Substance Use		
Daily	157	94.60
2 - 3x weekly	8	4.80
Weekly	1	0.60
Use of Secondary Substance of Abuse		
No	73	44.00
Cannabis	18	10.80
Opioids	34	20.50

Continued

Alcohol	4	2.40
Stimulants	12	7.20
Sedatives	21	12.70
Others#	4	2.40
Previous Treatment for Substance Abuse		
Yes	38	22.90
No	128	77.10
Source of Primary Substance of Abuse		
Street Dealers	146	88.00
Pharmacy	8	4.80
Friends	10	6.00
Others@	2	1.20
Tested for HIV in Last 12 months		
Yes	32	19.28
No	134	80.72
Comorbid Mental Disorder		
Yes	49	29.52
No	117	70.48
History of General Medical Condition		
Yes	27	16.30
No	139	83.70
History of Polydrug Problem		
Yes	19	11.40
No	147	88.60

Others# included organic solvents and nicotine products. Others@ included stealing and picking leftovers.

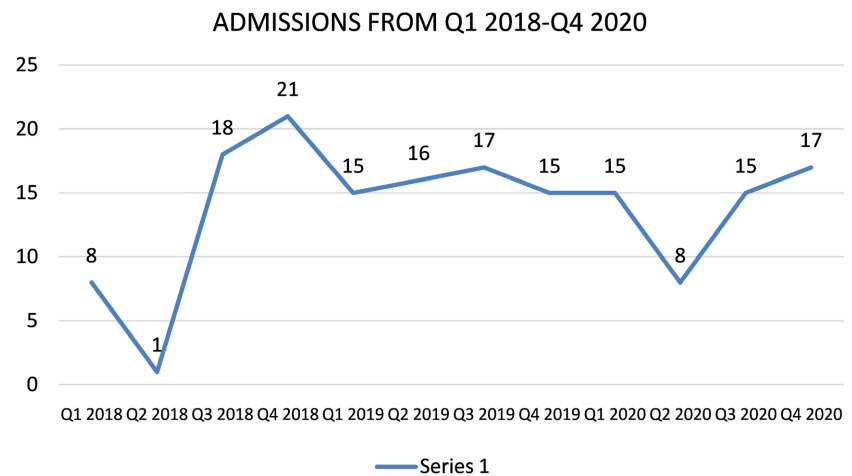


Figure 4. Admission rate in the drug ward over 3 year (Jan 2018-Dec 2020) period.

In the course of this study, 48, 63 and 55 respondents were interviewed in the years 2018, 2019 and 2020 respectively. The interview rate over the 3year study periods showed a significant decline in the second quarters of the years 2018 and 2020. This trend is depicted in **Figure 4**.

4. Discussion

The majority of the respondents were aged at most 35 years, this represents a young and potentially productive age group. The implication of this revelation is that substance abuse, on both the short and long terms, could be devastating to the affected persons as well as the overall economy. However, the finding of a predominantly young population of substance use disorder is not unprecedented, as others have made similar findings [8] [9]. Another finding by this study was that the overwhelming majority of the respondents were males. This is another expected finding, which has been well documented in the literature on substance use disorder. Although the exact reason for the high male-female ratio is outside the scope of our study, possible reasons could be related to the fact that the study was conducted in a male-dominated culture, where males have more freedom to obtain substance abuse because of a relatively lower social limitation. It is also notable that the majority of the respondents had never married, this could imply that marriage is protective against indulgence into or perpetuation of substance use among vulnerable individuals. Our finding is also in keeping with what was obtained by Unaogu and colleagues in southeastern Nigeria [8]. Unemployment has also been found to be common among the respondents. Although we were not able to differentiate between those who were not able to secure or retain employment among the respondents, several factors could have played a role in the negative relationship between substance abuse and employment [10]. Other Nigerian researchers have made similar findings. The majority of the respondents had only a primary level of education, which is a possible explanation that substance abuse hurts educational achievement. Unexpectedly, about 36% of the respondents have attained a tertiary level of education, which suggested that apart from education other factors play a role in the onset and persistence of substance abuse.

The majority of the respondents were living in a stable family setting, this could be attributable to the fact that in an African social environment, the traditional family bond is usually strong. However, the quality of the family life may not be good, as in some situations internal family conflicts could act as stressors that predispose some vulnerable to substance abuse [11]. In line with the predominantly stable family life among the respondents, most of them were staying with their family members and relatives and fewer were in the company of their spouses.

The mean age of onset of substance abuse was early 20s, which has been reported by previous researchers [8] [12]. Early onset of substance abuse is associated with poor long-term outcomes [13]. This serves as a wake-up call for all stakeholders about the future dangers that could present long after the onset of substance abuse. In this study, Cannabis was the predominant primary substance of

abuse, implying the need for more surveillance as to the impact of the substance on the mental health of individuals using it. Studies from both the northern and culturally different southern parts of Nigeria have equally identified cannabis to be the most common substance of abuse among admitted patients [8] [9]. To our surprise, none of the respondents had stated nicotine as his or her primary substance of abuse despite the high rate of nicotine use disorders in our community [14]. However, a possible explanation could be that being a legal drug, most people do not regard nicotine use as a major threat to mental health. Smoking was the main route of the administration of the substances of abuse, this too is not unprecedented. The possible explanation for this could be that the predominant substance of abuse, which is cannabis, is usually smoked and also smoking route is known to be fast-acting. The overwhelming majority of the respondents have admitted to using the primary substance of abuse on a daily basis, this was not surprising because nearly all of the respondents were being managed for severe substance use disorder, also known as dependence. As one of the features of substance dependence is the persistent urge to take the substance of abuse. Less than half of the respondents were using only one substance of abuse, but among those with secondary substance of abuse, opioids were the main index agents. This is in keeping with the fact that most substance abusers use multiple substances at different times of their journeys into the world of drug dependence.

Street drug dealers are the major sources of the substances of abuse among the respondents, which could be because the majority of the patients were using cannabis, which is an illegal drug in Nigeria. Hence cannabis can usually be obtained only from criminal street dealers. In addition, the Nigerian government has banned the sale of some codeine-containing cough syrups, a measure that drastically reduced the role of pharmacies as sources of substances of abuse. Contrary to our finding, among a population of students in southern Nigeria, the major sources of substance of abuse were friends [15]. To our surprise, only about 30% of the respondents were found to have a comorbid primary mental disorder. This could be due to diagnostic overshadowing or the inability of some of the patients to give a true account of their past mental health history.

It is recommended that relevant stakeholders ensure that all hands are on deck to fight the menace of substance abuse, especially among the youth who represent the age group most affected. In addition, measures should be put in place to make sure that cannabis and opioid abuses are drastically reduced or even eliminated from society. Only about 20 percent of the respondents underwent HIV screening in the last 12 months, this could be due to a lack of awareness or access to voluntary counseling and testing services. These call for efforts to launch enlightenment campaigns towards substance users about the risks involved, especially on aspects of parenteral drug use, sharing of injection needles and routine screening for commonly associated infections such as HIV and Hepatitis C viral infections. This also justifies the need for integration of the interrelated services to ensure a comprehensive package that will yield the best possible outcome for the individuals un-

dergoing rehabilitation for substance use problems.

Limitations

1) The study was conducted in a tertiary health facility which is out of reach of the majority of the substance users, for socioeconomic among other reasons. Hence, our findings are unlikely to reflect the reality on the ground.

2) The cross-sectional descriptive design of the study could not allow us to establish causal relationships between variables or determine predictors of certain behaviors.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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