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# BULLETIN ON NARCOTICS

Volume LXII, 2019

**Drugs in the Nigerian population**



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## PREFACE

The *Bulletin on Narcotics* is a United Nations journal that has been in publication since 1949. It is printed in all six official languages of the United Nations (Arabic, Chinese, English, French, Russian and Spanish).

The *Bulletin* provides information on developments in drug control at the local, national, regional and international levels that can be of benefit to the international community.

The present issue of the *Bulletin* (vol. LXII, 2019), whose guest editor is Isidore Obot, professor of Psychology, University of Uyo, and Director of the Centre for Research and Information on Substance Abuse, Uyo, Nigeria, is focused on the topic of drugs in the Nigerian population. It comprises nine articles that provide important insights into the availability of drugs and their use, consequences and policy implications to address the issue of drugs in Nigeria effectively.

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Individuals and organizations are invited by the Editor to contribute articles to the *Bulletin* dealing with policies, approaches, measures and developments (theoretical and practical) relating to various aspects of the international drug control effort. Of particular interest are the results of research, studies and practical experience that would provide useful information for policy-makers, practitioners and experts, as well as the public at large.

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1997 and 1998

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## **Drugs in the Nigerian population: availability, use, consequences and policy implications**

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### **ABSTRACT**

*One of the major characteristics of Nigeria as a country is its large and youthful population; another is that although it has become the country in Africa with the largest economy, close to half the population lives in extreme poverty. For more than 50 years, illicit drugs have had a presence in the lives of Nigerians, in particular the urban population, as either articles of trade or substances of abuse. It began with cannabis in the 1950s, but the situation today is much more diverse and complex, involving illicit drugs such as heroin, cocaine and methamphetamines, and pharmaceutical substances such as opioid analgesics. Although there has been a general lack of reliable data on drug availability and use, a recent national survey has provided much-needed information on the state of the drug problem in Nigeria. The annual prevalence of illicit drug use among adults is 14.4 per cent, which is significantly higher than the global prevalence of 5.5 per cent; cannabis is the drug used most often in Nigeria, followed by opioids, cough syrups containing codeine, and tranquillizers and sedatives. High-risk drug users reported adverse health consequences such as drug use disorders and infections. Although most drug users expressed a need for treatment, the country lacks adequate opportunities for treatment and care. The articles published in this issue of the Bulletin on Narcotics have addressed these and other issues, and they deserve greater attention from professionals and policymakers if a major drug crisis is to be averted in the country.*

*Keywords:* drug use, epidemiology, national survey on drugs, Nigeria

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### **Introduction**

With an estimated population of more than 195 million, Nigeria is by far the most populous country in Africa and among the 10 most populous countries in the world [1]. As in most developing countries, the population is relatively young and the annual population growth rate is high (2.6 per cent). The segment of the population normally considered as the adult population for the purpose of drug use surveys (persons aged 15–64) makes up 53 per cent of

the country's population, which is more than 100 million people. The urban population has been growing rapidly over the years, reaching 50 per cent of the total population in 2018.

In 2014, Nigeria became the country with the largest economy in Africa, overtaking South Africa, which had occupied that position for many years. Despite that economic achievement, Nigeria is ranked just 157 out of 189 countries on the Human Development Index. It is a poor country as judged by the number of people who live below the poverty line and by per capita income. According to the World Poverty Clock, the number of people in extreme poverty in the country is 94 million, or 48 per cent of the population [2]. Other social, health and economic indicators paint a bleak picture. For example, the literacy rate is 61 per cent, life expectancy at birth remains at a lowly 53 years and the number of mean years of schooling is 6.2 years, although the country's overall score on the Human Development Index has risen significantly over the past decade. That is the context of drug use research in Nigeria today, a country in which drug trafficking and use has been a subject of interest for many years, going back to the late 1950s, when cannabis became the predominant drug-related topic in social, medical and political discourse.

The earliest published works on drugs and related problems in the country focused on cannabis trafficking and abuse in the western area of the country. One of the first studies, a review by Lambo [3] of hospital case files for a five-year period (1954–1958), showed that there were 18 cases of drug addiction and 16 cases of alcoholism. Later, studies by researchers working in psychiatric clinics (including a paper published in this journal by Asuni [4], continued to focus on the analysis of records of patients admitted for treatment for mental illness and for whom there was a reported association between the reported symptoms of psychological disorders and a history of cannabis use [5]. Although the early researchers avoided using the language of causation [6], that association remains strong in the public imagination today and in reports based on data collection exercises, including data from the Nigerian Epidemiological Network on Drug Use, which continue to show that cannabis is the primary drug most often cited for treatment demand. What has emerged in more than 50 years of research on illicit drugs is that the image of cannabis as the symbol of national crisis has remained a key feature of Nigerian drug policy, and to a degree also West African drug policy, until today [6, p. 70].

### **Availability of drugs**

Cannabis has a long history in Nigeria, probably dating back to the 1920s but usually reported to have been brought into the country by servicemen

returning home from Asia after the Second World War [7 and 8]. By the late 1950s, *Cannabis sativa* had become a popular crop in some parts of the country, and use seemed widespread among marginal groups, mostly in urban areas. Today, the drug is available in all parts of Nigeria, and cultivation and trafficking continue despite an illicit drug control regime with stiff penalties.

Other illicit substances were to enter the Nigerian territory in later years, and the country's international image has indeed been affected because of the activities of drug traffickers and manufacturers [7]. After cannabis came heroin and cocaine in the 1980s [7], and in the past decade the country has been faced with the spectre of local manufacture of methamphetamine and illicit trade in opioid analgesics (especially tramadol and cough syrups containing codeine).

### **Drug use in Nigeria: the current situation**

Although trafficking in illicit drugs had become a widespread phenomenon, until recently it was difficult to obtain an accurate picture of the extent of drug use in Nigeria and the various ramifications of that use, and, in fact, the state of knowledge about the situation remains tenuous. Further, government policy had also been overly supply-oriented, focusing on law enforcement measures to control local cultivation of cannabis and the trafficking of other substances through the country. The reality was that drugs were “not just in transit” [9] through the territory of Nigeria: drug use had become a habit among various population groups. Two projects in the past five years have provided some answers to a host of questions on drug use in the country.<sup>1</sup> The first is the national drug use survey and the second is the development of the Nigerian Epidemiological Network on Drug Use.

### **Epidemiology of drug use: the national survey**

The first national survey on drug use in Nigeria was conducted in 2017. The survey consisted of face-to-face interviews with nearly 40,000 adults (aged 15–64) contacted in households across the country, interviews with more than 9,000 drug users and almost 3,000 key informants, and the analysis of existing data on treatment and law enforcement, all of which provided an extensive data set of information on different aspects of drug supply and demand [10].

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<sup>1</sup> The two projects and the research conducted for all the papers included in this special issue of the journal were made possible through development funding provided to Nigeria by the European Union. The projects were all implemented by the United Nations Office on Drugs and Crime (UNODC).

**Table 1. Annual prevalence (percentage) of drug use in Nigeria, by sex, 2017**

<i>Drug type</i>	<i>Men</i>	<i>Women</i>	<i>All adults</i>
All drugs (total)	21.8	7.0	14.4
Injecting drug use	0.12	0.04	0.08
Cannabis	18.8	2.6	10.8
Heroin	0.1	0.03	0.1
Pharmaceutical opioids	6.0	3.3	4.7
Cocaine	0.1	0.04	0.1
Tranquillizers/sedatives	0.5	0.4	0.5
Amphetamines	0.3	0.2	0.2
“Ecstasy”	0.4	0.3	0.3
Hallucinogens	0.03	0.02	0.03
Solvents/inhalants	0.5	0.1	0.3
Cough syrups containing codeine	2.3	2.5	2.4

Source: United Nations Office on Drugs and Crime, *Drug Use in Nigeria 2018* (Vienna, 2019).

Note: Survey of persons aged 15–64. Percentages given for estimated prevalence have been rounded.

One of the key findings of the national survey is that the annual prevalence of use of traditional illicit drugs and non-medical use of medicines is 14.4 per cent (i.e., 14.3 million persons aged 15–64, or 1 in 7 adults). What is striking about this annual prevalence is that it is almost three times the global average of 5.5 per cent [10], a finding that has raised much concern about drug use in the country. Not surprisingly, the illicit drug reported to be used the most by Nigerians is cannabis, used by 10.6 million adults, followed by opioids (4.6 million), codeine-containing cough syrups (2.4 million) and tranquillizers/sedatives (481,000). Other drugs used by significant numbers of Nigerians, according to the national survey, are “ecstasy”, inhalants, amphetamines and cocaine. The large number of people who reported use of opioids (e.g., tramadol and codeine), which was in line with years of anecdotal evidence, seems to have contributed to the overall high rate of drug use in Nigeria. Indeed, the role of the country in the global opioid crisis is reflected in the *World Drug Report 2019* as follows: “the survey data from Nigeria led to a revision of the number of past-year users of opioids to 6.1 million, compared with the previous estimate of 2.2 million” [11, p. 7]. In the light of the survey in Nigeria and a similar survey in India, it was realized that the number of opioid users and the number of people suffering from drug use disorders globally were much higher than had previously been thought [11, p. 7].

Table 1 shows the differences between men and women in the annual prevalence of drug use. One in four drug users is a woman; the largest



difference between men and women is in the use of cannabis and the smallest difference is in the use of tranquillizers. Other findings from the survey are that Nigerians aged 25–30 are more likely to use drugs than people in other age groups, and, except for pharmaceutical opioids – which have the highest prevalence among the age group of 60–64 years – the prevalence of drug use is lowest among the age groups of 15–19 and 50–64 years.

Analysis of the national drug use survey data provides a rich source of reliable baseline information on drug use in Nigeria that goes beyond prevalence of use among the general population. The survey also provides information on high-risk drug use, defined as use of opioids, cocaine or amphetamines five times in the previous 30 days, injecting drug use and infections among people who inject drugs. There are an estimated 376,000 high-risk drug users in Nigeria, representing 0.4 per cent of the population. Among those high-risk users are 80,000 injecting drug users, of which the vast majority (90 per cent) are opioid users.

The national drug use survey has also shown that a typical drug user uses multiple drugs: one finding was that 52 per cent of high-risk users had used three or four drugs concurrently or sequentially in the past year, and 31 per cent reported using five or more drugs. Finally, because high-risk drug users often engage in risky injecting practices – an observation supported by the available data – they are more likely to be infected with HIV, hepatitis B or hepatitis C than the general population.

### **Need for treatment and other services**

One recurring observation about the world drug problem is the lack of access to treatment for people with drug use disorders. For many years there has been a wide gap between treatment availability and treatment needs. In 2016, for example, only 1 in 6 people with drug use disorders worldwide received evidence-based treatment. That gap is much wider in low- and middle-income countries, as clearly highlighted by the drug use survey data in Nigeria.

**Table 2. Percentage of past-year drug users who have drug use disorders in Nigeria, by drug type**

<i>Drug type</i>	<i>Percentage of users with drug use disorders</i>
Cannabis	32
Solvents/inhalants	29
Heroin	26
Pharmaceutical opioids	20
Methamphetamines	17
Tranquillizers	16
Cough syrups containing codeine	15
"Ecstasy"	15
Amphetamines	14
Cocaine	11

Source: United Nations Office on Drugs and Crime, *Drug Use in Nigeria 2018* (Vienna, 2019).

The number of people who need treatment for drug use disorders in Nigeria is high, as suggested by the prevalence of use and, as shown in table 2, by the proportion of past-year users of several drugs who have problematic drug use. High-risk drug users in Nigeria generally express a need for treatment services, and in the survey nearly 40 per cent said they had an urgent need for treatment, and 80 per cent expressed having at least some need. In reality, only 12 per cent reported lifetime access to treatment and 4 per cent had received treatment in the past year. There are obviously several reasons for this abysmal level of treatment access in Nigeria, and according to the survey's respondents, the top five reasons were as follows: affordability, fear of stigma, unavailability of services, lack of information and fear of registration. Some of these reasons may explain why high-risk drug users interviewed in the survey chose faith-based centres, non-governmental organization treatment services and home treatment over government hospitals.

### **Data on treatment demand: the Nigerian Epidemiological Network on Drug Use**

The Nigerian Epidemiological Network on Drug Use provides more in-depth information about demand for substance use disorders in Nigeria. The Network was established in 2015 with funding from the European Union and technical support from UNODC as part of European Union development funding for Nigeria to address the country's drug and related organized crime problem. The main objective of the initiative is to determine the number and characteristics of people with drug use disorders in Nigeria, including data on the types of drugs used, primary substances of

use and associated health problems and aggregate data on drug supply. Data for the project are routinely collected from 11 selected treatment centres and 7 counselling services run by the National Drug Law Enforcement Agency.

Like the national drug use survey, aimed at making available baseline data concerning the general population, the Nigerian Epidemiological Network on Drug Use is an effort to improve the availability and quality of data on drug use and related problems in Nigeria. In that regard, the programme has already shed much light on the unclear situation of the treatment sector and contributed to drug use research in general. A few consistent findings can be identified in the four reports that have been issued by the National Drug Law Enforcement Agency so far. The first is that cannabis is the most often mentioned primary substance of abuse by clients in the treatment and counselling centres. In the Agency's 2018 report [12], for example, it was reported that cannabis accounted for 48 per cent of the episodes, followed by opiates (33 per cent) and alcohol (12 per cent). The high rate of use of cannabis as primary substance of abuse is probably due to the number of people who use this drug in Nigeria and to the finding that 1 in 3 cannabis users is dependent, compared with the lower overall rate of 1 in 5 of all drug users in Nigeria being dependent.

### **Need for more research and the way forward**

It is not quite clear why the health burden attributable to cannabis seems to be higher in Nigeria than in western countries. The explanation that "Nigerian cannabis" has a much higher concentration of tetrahydrocannabinol is not convincing and seems based on anecdotal evidence. Certainly more research is needed from various quarters, including civil society [13], to bring clarity to this question and to other issues of relevance to drug policy in the country. Research is also needed on the gender dimension of drug use and drug problems, treatment needs, the consequences of drug use (including death from overdose), drug use by street children and displaced people, and the effectiveness of interventions used in the country.

The articles published in this issue of the *Bulletin on Narcotics*, which examine both qualitative and quantitative aspects, address several of these issues, but it will take more sustained and focused investigations to find the answers that will improve our understanding of the drug problem in Nigeria and form the basis for rational policies and effective interventions. With the growing interest in drug-related issues that has been shown at the highest levels of government and, more specifically, the acceptance of and plans for a roll-out of harm reduction measures, there are positive signs that a more responsive policy environment will emerge in the coming years.

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# Socioeconomic context of cannabis cultivation and trafficking in selected Nigerian communities

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## **ABSTRACT**

*Cannabis is one of the most widely used drugs in Nigeria. This use has been sustained, in part, by widespread cannabis cultivation and trafficking in certain parts of Nigeria, which have persisted despite the destruction of many hectares of cannabis crops by law enforcement agencies every year. The present study is aimed at exploring the socioeconomic factors that underpin the cultivation of cannabis in selected communities in Nigeria. In-depth interviews and key informant interviews were conducted in two communities in Oyo State. The pool of participants consisted of 68 respondents comprising 52 men (76.5 per cent) and 16 women (23.5 per cent). Focus group discussions were also conducted to get a deeper understanding of some of the factors at play. Results from the interviews and discussions suggest that unemployment, corruption, the relative ease of cultivation, the demand from users ready to buy and relatively higher economic returns are some of the drivers of cannabis cultivation and trafficking. The need for stakeholders to shift focus and address those salient underlying factors in order to achieve a reduction in cannabis cultivation and trafficking was emphasized.*

*Keywords:* cannabis, drug trafficking, Nigeria, Oyo State

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## Introduction

Cannabis is one of the most widely used drugs in the world [1 and 2], and this has serious implications for its production and trafficking. As a result, cannabis cultivation and trafficking are a significant global challenge and a source of concern for stakeholders in terms of drug control. In view of the global and regional distribution of cannabis use, it is not surprising that the second largest area of cannabis cultivation subjected to eradication in the world was in Africa during the period 2010–2015 [3]. Countries such as Egypt, Ghana, Kenya, Lesotho, Malawi, Morocco, Nigeria, South Africa, Swaziland, the United Republic of Tanzania and Zambia top the list of cannabis cultivation in Africa [3].

In some countries, the simple possession of drugs, including cannabis, carries long prison sentences, and drug trafficking may result in life imprisonment or, depending on the quantity that is trafficked, the death sentence [4]. Nevertheless, many countries have decriminalized or legalized cannabis use [5]. In Nigeria, cannabis cultivation and trafficking have been criminal offences since the adoption of the Dangerous Drugs Act in 1935, in which cannabis was labelled as a dangerous drug to be controlled. After the independence, a recommendation to apply the death penalty for cannabis cultivation was included in the Indian Hemp Act of 1966, but the threat of capital punishment was removed in the Indian Hemp amendment decree of 1975 by revoking the death sentence and commuting it to prison terms and fines. However, the financial penalties and prison terms were increased in the Indian Hemp Act of 1984 [6 and 7].

According to the *World Drug Report 2018* of the United Nations Office on Drugs and Crime (UNODC) [8], cannabis cultivation and trafficking are widespread across most countries in the world. In its report, UNODC also suggests that cannabis is considered by many as a very lucrative business worth billions of dollars [8]. In Nigeria, for instance, a kilogram of cannabis (with a planting-to-harvesting cycle of three to six months) sells for about \$30, while cocoa (with a minimum cycle of four years from planting to harvesting), sells for considerably less per kilogram [9].

Nigeria has witnessed a significant increase in cannabis use in recent times, with young people using it in various ways [3 and 10]. In Nigeria, although cannabis cultivation, trafficking and use are prohibited by an act of Parliament, it remains one of the most widely used drugs in the country [11–13]. According to the *World Drug Report 2011*, Nigeria ranks sixth on the list of the 10 countries with the highest prevalence of cannabis use, with a prevalence of 14.3 per cent.

Since its introduction in Nigeria after the Second World War, cannabis has been found in virtually all regions [7 and 14]. Nonetheless, owing to a range of socioeconomic and other factors that are yet to be fully understood, cannabis is grown predominantly in the south-western States of Ekiti, Ogun, Ondo, Osun and Oyo [12]. These States consist predominantly of farming communities that traditionally cultivated cocoa, cashew, kola nut, rubber and other cash crops. Cannabis cultivation is now widespread in those communities, rapidly replacing other cash crops, to the consternation of the Government of Nigeria [12 and 15–17].

In its annual report of 2014, the National Drug Law Enforcement Agency of Nigeria reported that 3,271 suspected drug traffickers, comprising 3,062 male and 209 female offenders, had been arrested and that a total quantity of 205,373 kg of cannabis had been seized [18]. In 2015, the Agency seized 871,480 kg of cannabis and destroyed 377 ha of cannabis crops [9]. The same year, in one of several seizures in Ondo State, the agency found 34,080 kg of cannabis in a single location [13]. According to Iloani [19], the National Bureau of Statistics indicated in its reports for 2017 that cannabis constituted 61.8 per cent of the total drug seizures in Nigeria. Despite the destruction of cannabis crops and seizures of trafficked cannabis, cannabis cultivation and trafficking continue to thrive in Nigeria.

The prevalence of cannabis cultivation in Nigeria and the seeming inability of the law enforcement agencies to eradicate it point to some salient underlying issues that need to be taken into account by stakeholders in order to meet the challenge posed by cannabis in Nigeria. Incidentally, researchers, policymakers and law enforcement agencies have not given much attention to the socioeconomic factors that may be encouraging cannabis cultivation and trafficking. Without a proper understanding of the socioeconomic benefits driving cannabis cultivation and trafficking in those and other areas, it is likely that the host communities may act counter to the objectives of law enforcement agencies of discovering and eradicating cannabis plantations and trafficking networks. The present study, therefore, is aimed at investigating the socioeconomic factors influencing cannabis cultivation and trafficking in selected communities in Oyo State, in south-western Nigeria.

## **Method**

### *Description of the study setting*

The study was conducted in two communities, Oyo and Ogbomoso, in Oyo State. Oyo State is one of the south-western States where cannabis cultivation and trafficking occur [12 and 13]. Oyo and Ogbomoso are some of the

largest towns in the State. The two communities are largely agrarian, and some of the large expanse of their hinterland can be used for cannabis cultivation. In addition, Ogbomoso is a border town sharing a border with Kwara State in the north and the Oke-Ogun area in the north-west.

### *Sample and sampling procedures*

Altogether, 68 participants (52 men and 16 women) were recruited into the study, which included 58 focus group discussions, six individual interviews and four key informant interviews. The criterion for inclusion in focus group discussions was being a local farmer. Cannabis farming is an illegal enterprise punishable under relevant domestic laws. It is therefore a clandestine activity, and the farmers are a hard-to-reach population (Faugier, 1997). The description “cannabis farmer” was not used, and none of the participants admitted to cultivating cannabis, although it was suspected that many did. Participants were recruited through a combination of snowball and targeted sampling. The first set of participants was contacted with the help of community informants, and they were used to initiate a chain referral process to recruit other people from their social network. A minimum quota was set for female participants. Four members of the research team, who were from the same ethnolinguistic group as the participants and had great rapport with them, carried out recruitment and data collection in the two communities. Recruitment and data collection were conducted in two phases, to allow for provisional coding to inform the focus of subsequent data collection, and lasted for two months.

### *Ethics and confidentiality*

Participation in the study was voluntary and all participants provided informed written consent to participate in the study by signing a consent form. They were all informed that they were at liberty to opt out of the interview or to not answer a question if they chose. Confidentiality and anonymity were also guaranteed. Each respondent received a ceramic mug and a baseball cap in return for their participation. None of the recruited participants opted out of the study. Many felt that it provided them with an opportunity to express their views on cannabis cultivation and trafficking and the rationale for engaging in it. The study was approved by the Research Ethics Review Committee of the Ministry of Health, Akwa Ibom State.

### *Data collection*

Data were collected by means of in-depth individual interviews and focus group discussions facilitated by a topic guide, which was designed to explore



the participants' views. A total of eight focus group discussions were conducted (four per community), while individual interviews were conducted with key people in the communities, including chiefs, suspected cannabis growers and/or traffickers, traditional rulers, leaders of road transport workers, law enforcement officials and youth group leaders. Interviews took place in town halls, the National Union of Road Transport Workers local chapter office and, only for interviews with law enforcement officers, the National Drug Law Enforcement Agency office.

The key issues discussed were: the socioeconomic status of local cannabis cultivators; the economic value of cannabis cultivation relative to other cash crops; why and how cannabis cultivators address law enforcement interference in their activities; the cost implications of growing cannabis relative to other crops; the relative economic benefits for people involved in cannabis cultivation and trafficking; and the preferred and actual destinations of the bulk of cannabis produced in these areas, and why. Focus group discussions and interviews were conducted in English and audio recorded with the consents of participants. Interviews took place at convenient locations within the communities. Focus group discussions lasted for a maximum of 90 minutes, while individual interviews lasted for a maximum of 60 minutes.

### *Data analysis*

Focus group discussions and interviews were transcribed verbatim and checked for accuracy. Thematic coding and analysis were undertaken on the transcripts. Coding drew on a combination of a priori themes reflected in the interview guide and inductive codes generated through immersion in the data. Initial coding was undertaken by the first four researchers and was considerably refined as a result. A second round of coding was undertaken to break down the coded data into smaller units. Codes were developed on the basis of participants' descriptions. Computer software for qualitative analysis was not used. Coding was done manually and involved assigning codes to relevant portions of the transcripts. The entire research team reflected on the coded data, leading to refinements, the merging of codes and clarifications of the meanings of codes. The analysis and drafting were enriched by the diverse disciplinary and theoretical perspectives of the research team, which included clinical psychology, sociology and public health.

## **Results**

Interviews revealed a number of interrelated themes with regard to cannabis cultivation and trafficking, namely: the cultivation of and demand for

cannabis; the social and economic status of key actors in the trade; the economic value of cannabis relative to other cash crops; responses to law enforcement activities; and the cost of cannabis cultivation and relative benefits of the trade for various actors. Participants' accounts provided powerful descriptions of the costs and benefits of cannabis cultivation and trade, and showed how huge benefits contributed to sustaining trade in the face of significant costs.

### *Demand and cultivation of cannabis*

In both communities, most of the participants were of the view that people continued to cultivate and traffic in cannabis in their area because of pervasive poverty and the high level of unemployment in the area. Participants asserted that cannabis cultivation and trafficking were a source of employment and a local coping strategy against poverty. Some said that cannabis cultivation provided a source of income to many people along the production and supply chain.

Many participants also asserted that there was a steady pool of users ready to buy who used cannabis for occupational purposes, such as commercial sex workers, members of vigilante groups, members of ethnic militias, law enforcement agents, members of fishing communities and drivers. The existence of user groups made cannabis cultivation and trafficking a very lucrative business in the communities. Some of the respondents called it the "ready market" initiative.

Most of the participants reported that people continued to cultivate and traffic in cannabis in their area because of governmental corruption and neglect of the needs of the people. They asserted that, since the Government did not address widespread unemployment, certain segments of the vast group of unemployed people had started to cultivate and traffic in cannabis. One respondent said the following:

The corrupt nature of the Nigerian Government, coupled with their incompetence and neglect of the people's needs, have created a vacuum which has encouraged some people to become involved in the cannabis business and some to become users of cannabis.

Government civil servants also use cannabis, and this further increases demand for the substance, leading to increased cultivation. Another respondent, a community leader, said the following:

Rampant cannabis cultivation and trafficking are a result of a governmental set-up, in the sense that some people in government also use the drug, and therefore ensure the continuation of their source of supply.

Another participant, a worker, described how idleness linked to a lack of viable employment served as a push factor for young people to become involved in cannabis cultivation:

Joblessness is a critical factor that contributes to the continued cultivation of and trafficking in cannabis, because idle hands are the devil's workshop. People who do not have jobs are usually tempted to engage in criminal activities, consequently drug cultivation and trafficking become a job creation avenue for the vast array of unemployed citizens and provide them with a steady source of income.

Since there is a strong demand for cannabis among users, the profit derived from its sale is huge, which motivates cultivators and traffickers to continue the business. Some of the cultivators and traffickers have other jobs but are not satisfied with the profit derived from them, and therefore get involved in the cannabis business. The quick and easy returns from the sale of cannabis are a major attraction of the illicit enterprise. The huge profits made from cannabis cultivation and trafficking are enough of an incentive to perpetuate the business. A female respondent, for example, offered the following thought:

Since the thirst of money is what moves the world, cannabis cultivation and trafficking continue to increase because of the heavy profit that accrues from them. Cannabis yields a profit margin that no other business can provide. Therefore, people who profit from it will stick with it.

Most people do not actually know cannabis. The inability to identify the cannabis plant helps cultivators to carry on their business without suspicion. A cash crop farmer said the following:

Ignorance and a lack of knowledge inherent in the general populace regarding what cannabis looks like make it easier to conceal from the public view. Since most people cannot identify cannabis, they cannot report it to the police even when they see it. Cultivators capitalize on this to plant it even in unlikely places, such as forest reserves and parks.

Respondents also reported a weak presence of law enforcement agents in the communities, coupled with the fact that the police mostly let the National Drug Law Enforcement Agency handle drug-based crime and focused on armed robbery and stealing. They pointed out that cannabis seizures were infrequent, and cannabis cultivation and trafficking flourished as a result.

### *Socioeconomic status of cannabis cultivators and traffickers*

Respondents were not unanimous about the economic status of the typical cannabis cultivator. Many of the respondents reported, however, that most cannabis cultivators were of middle to high socioeconomic status. Accordingly, the typical cultivator was a wealthy or a rich man with a strong network and connections with government officials. Respondents argued that it took a lot of money to invest in commercial cannabis cultivation and trafficking. Such people had, among other things, to acquire (or, sometimes, to occupy illegally) a large expanse of land; buy seedlings; hire farmers, security personnel and transport personnel; bribe government officials; and hire lawyers and pay for court fees during litigations.

While most respondents opined that commercial cannabis cultivators belonged to the middle to upper socioeconomic class because of the very large amount of cash necessary to go into cannabis production, it was generally agreed that more resources and connections were needed for trafficking than for cultivation. Traffickers included people in the upper class engaged in wholesale, people in the middle class who sold in bulk and people in the lower class who retailed cannabis to the end consumers.

Some respondents said that cannabis cultivators were sponsored by some people in government, which made it a business of upper-class individuals. Many of the respondents reported that cannabis cultivators were wealthy or rich people with a great deal of influence, a strong network and connections with people in government. They argued that, while commercial cannabis cultivation and trafficking gave a huge return on investment, they were also highly capital-intensive. For instance, a middle-aged respondent said the following:

Cannabis cultivators are rich people who invest a lot of money into the business. Since the cultivation of cannabis takes a lot of planning and capital, it is the truly rich who can start and remain in the business.

A few respondents insisted that cultivators of cannabis were people from the lower class who planted cannabis in the deep jungle and then sold it wholesale to wealthy people who trafficked in it. One of them said the following:

The poor are the planters of marijuana because they know where they can use huge tracts of land for free over a long period of time without interference from the local community. They eventually transfer the cannabis harvest to rich traffickers who move it to the source of consumption.

The general agreement among participants, however, was that commercial cannabis cultivators were of the upper socioeconomic class because of the

huge amount of cash necessary to cultivate the crop, while the majority of traffickers were people from different socioeconomic classes.

A law enforcement officer stated the following:

It takes the wealthy to sponsor cannabis cultivation and trafficking because of the heavy investment in land, labour, capital and management. It also takes wealthy people who are highly connected and influential to bribe law enforcement agencies and pay for legal advice and counsel, coupled with the ability to handle the heavy returns on investment in the business.

### *Economic value of cannabis relative to other cash crops*

As shown in the table below, respondents reported that cannabis was more economically valuable than other cash crops, such as cocoa, oil palm, cassava or cashew. This is not just because it is in higher demand among consumers and returns higher financial yields, but also because cannabis is a sturdy plant that can grow almost anywhere, can be easily planted and has a quick growth and maturation rate. It is also easy to process and has users ready to buy, compared with other cash crops that take a lot of work to plant and process.

Respondents said that cannabis was a money-making plant and generated a large income over a short period. Those who bought cannabis were always available and ready to buy at a moment's notice, compared with other cash crops. During the focus group discussions, a female respondent argued that oil palm was more lucrative than cannabis. Her view was, however, not shared by the majority, who opined that cannabis had all the advantages of the other cash crops from a financial perspective and was better economically because it could be sold at any time.

A participant who claimed to be knowledgeable about cannabis cultivation described some relative advantages of cannabis cultivation as follows:

“Half of half” [12.5 kg] of cannabis sells for between 40,000 and 50,000 naira, whereas “half of half” of cassava sells for less than 10,000 naira. Besides, the amount of labour required for cassava (over a period of 12 months, on average) is much higher than that required for cannabis (about six months) before harvesting.

Another respondent, a local farmer who claimed never to have been involved in the cannabis business, said the following:

Only very few cash crops have the attributes of cannabis. Cannabis is lucrative through and through. It gets sold and paid for without complaint by consumers. People buy cannabis quickly and steadily, regardless of the season. A bowl of fresh cashew sells for between 2,000 and 3,500 naira, and a bowl of cashew seeds sells for 3,000 naira. Labour costs 12,000 naira per acre, depending on the season. A bowl of cannabis can be as expensive as 5,000 naira, with cheaper labour and fringe benefits, such as the capture of wild animals like antelopes, deer and wild pigs, which eat the leaves and then fall into slumber.

A female respondent, a cashew farmer, said that:

Compared with all other cash crops, cannabis is the most lucrative and profitable and is more viable economically because it can be sold at any time.

According to participants, all parts of the cannabis plant are useful. The leaves, stems, seed, roots and sap are all effective, and therefore no part is wasted. They all generate money for the cultivator. Still, according to them, very few cash crops have the same attributes. They observed that, regardless of the hazardous health and social effects of cannabis, it was widely sold and consumed by people.

### *Response to law enforcement activities*

Respondents reported that cannabis cultivators dealt with interference by law enforcement agents by means of “settlements”. More specifically, cannabis cultivators bribed law enforcement agents, such as police and National Drug Law Enforcement Agency officers, with money and cannabis products. If bribery failed, operators did their best to evade detection by law enforcement agents by hiding cannabis products in a variety of ways, including wrapped and concealed inside dry fish or loaded with onions and other products. They recounted cases in which law enforcement agents had seized such products from cannabis traffickers, which made some people refer to cannabis as “eja” (fish). Some respondents said that cultivators and traffickers hired heavily armed security personnel to guard their cannabis plantations.

Some respondents said that cannabis cultivators and traffickers operated mostly at night to avoid law enforcement agents, and some stated that there were people in government who protected cannabis cultivators and traffickers. Participants also reported that, whenever cannabis cultivators and traffickers encountered road blocks or ran into law enforcement agents doing spot checks, they either bribed the law enforcement agents on the spot or called

their law enforcement protector to arrange for the dismantling of the road block and allow for easy passage. It was also common, according to the respondents, for cultivators to move to another discreet location when they were caught or their crops were destroyed. One respondent said the following:

Many cannabis cultivators have a close connection with law enforcement agents. Through their connections, the cultivators have friends and paid informers among senior and junior police officers and National Drug Law Enforcement Agency agents and periodically give them substantial bribes to get information on what to expect. When raids or road blocks threaten the activities of cannabis cultivators or traffickers with connections, such compromised law enforcement agents provide traffickers with prior intelligence and warnings, which enable them to escape the stop-and-search operations.

Another participant stated the following:

There are top people in government who protect cannabis cultivators and traffickers from legal prosecution, thus making them untouchable. Since cannabis is transported by road, cannabis cultivators and traffickers negotiate for protection with people in government or law enforcement agencies, and they pay them off by giving them money and the cannabis product. Cannabis cultivators and traffickers are also very aggressive when protecting their crops. They hire heavily armed security personnel to protect them.

Respondents recalled an incident in which two law enforcement agents had been gunned down in their homes because they were always seizing the cannabis found and arresting cannabis traffickers, refusing to take bribes. Such accounts show that violence is an integral part of the cannabis trade in Nigeria, contrary to widely held views.

### *Cost implications of growing cannabis relative to other crops*

Respondents reported that the cost implications of growing cannabis were favourable compared with other cash crops. They asserted that farming any cash crop was very challenging, given the long-term phases of planting, weeding, pest control and harvesting, security needs and other factors. Cultivating cannabis, however, was more economically viable and productive, because all the phases of cultivation were relatively straightforward and uncomplicated, taking altogether between four and six months. They also stated that cannabis was a weed and that, because of its sturdy nature, it outcompeted other weeds, which gave it an added advantage. A farmer reported the following:

Cannabis is easier to grow compared with other cash crops. Cannabis is not susceptible to pests, which saves on pesticide costs. Cannabis, like other crops, attracts a variety of wild animals from far and near with its strong odour; however, unlike with other crops, wild animals doze off after eating the cannabis plant, and the cultivator can capture them and sell or eat them.

According to another participant:

A major advantage is the short period required to grow and harvest cannabis. A cannabis cultivator can get two to three harvests in a year on the same plot, depending on the breed of cannabis, as opposed to other cash crops that take longer to even get one harvest in a year. This also implies that, sometimes, operators have harvested and abandoned the site even before the National Drug Law Enforcement Agency gets wind of its existence.

Participants also agreed that, for such other cash crops as cashew, cocoa, oil palm and cola nut, seedlings were relatively expensive compared with cannabis seedlings. Consequently, it was cheaper to cultivate cannabis per acre of land than other cash crops. Thus, cannabis cultivation was more cost-effective than other cash crops.

### **Socioeconomic factors influencing cannabis cultivation and trafficking in selected Nigerian communities**

#### **Favourable climate and terrain**

- Easier access to the market, multiple routes within the area and easy linkage to northern and southern Nigeria, as well as neighbouring countries, in particular Benin
- Few natural and artificial barriers: language homogeneity, highly urbanized area, fewer security checkpoints

#### **Pervasive poverty and high level of unemployment**

- A source of employment
- A way to fight poverty
- A source of income for many people along the production and supply chain

#### **Availability of a regular pool of users, making cannabis cultivation and trafficking a very lucrative business**

- No glut in the market
- People who use cannabis for occupational purposes, such as commercial sex workers, members of vigilante groups, members of ethnic militias, law enforcement agents, members of fishing communities and drivers



### **Ignorance**

- Most people do not actually know cannabis. The inability to identify cannabis is a contributing factor that plays in favour of cultivators, especially in carrying out their activity without raising suspicion

### **Cannabis is considered to be economically more valuable than other cash crops, such as cocoa, oil palm, cassava, cashew and cola nut, owing to the following:**

- High demand and users ready to buy
- Higher returns on investment
- Sturdiness, as the plant can grow almost anywhere and can be easily planted
- Shorter growth and maturation cycle
- No need to buy land or own land permanently
- Easier processing than for other crops
- It can be preserved for a long period
- Not prone to pests, unlike other crops
- Additional income through the selling of bushmeat

### **Law enforcement agents' interference and operators' response**

- Scant presence of law enforcement agents in the communities
- Operators capitalize on the lack of synergy among various law enforcement agencies by offering bribes to law enforcement agents
- Evasion and concealment of cannabis through ingenious means (including by being wrapped and concealed inside dry fish or loaded with onions and other products)
- Hiring of heavily armed security personnel to guard cannabis fields and plantations

Source: Fieldwork (2018).

### *Relative benefits of cannabis cultivation*

According to participants, major players were involved in the cannabis business. In most large-scale operations, there was always a financier, who provided the funds, the land and the necessary connections. That person was the primary investor. There was also the grower or farmer, who had the technical know-how. It was pointed out that the financier might also be the grower or farmer. Naturally, there was the trafficker, who organized how the goods got to the retailer or the final destination. Other fringe players were the drivers, the loaders, the retailers, the informants, security personnel and the middlemen.

Participants reported that everyone involved in cannabis cultivation and trafficking drew substantial economic benefits, the cultivators getting the

lion's share. They stated that cultivators sold wholesale or in bulk and were sometimes paid before delivery. Traffickers distributed the products to different outlets and also made a lot of money, with occasional shortfalls in their capital when their products were seized and when they had to expend cash on lawyer fees during litigations. There was a consensus, however, that cannabis was more profitable than other crops for all those involved in its trade, from planting to trafficking. All actors in the trade received good compensation.

Respondents agreed that the cannabis business paid all its employees very well because it was a lucrative business with quick and constant returns, and because of the need to satisfy all involved so that the secrecy attached to the business could be maintained. Even the common labourers on the cannabis farms were paid very well for their contributions compared with labourers on farms producing other crops.

Drivers who move the substance from one place to another take huge risks, including long-term imprisonment if they get caught in transit. Consequently, they are paid well because they risk their freedom and their lives when they transport the drug. Some respondents described the money paid to cannabis truck drivers as "blood money". Drivers transporting legal crops get a regular pay and are not frequently harassed by law enforcement agents. The truck drivers of cannabis products also carry bribe money to pay off law enforcement agents standing at the road blocks. If those drivers manage to escape the road blocks, they also pocket that money, which increases their take in the operation. The compensation structure is captured in the following comment by a law enforcement officer:

In many cases, as garnered from the interrogation of arrested suspects, the cannabis business is bankrolled by a financier who invests the cash to set up the business and pay all the stakeholders. The financier sets a specific wage or a percentage of the profit with the growers, who are farmers who claim that they are experienced in cannabis cultivation either as on-site agents or part-time farmers. The financier also sets a payment standard with the truck drivers, who transport the product, the "crop sitters", who tend the crop on the farm, and the processors, who separate the harvested crop into leaves, stems, seed, roots, and other parts, at a level that satisfies all parties. On average, all stakeholders in the cannabis business get paid well.

## **Discussion and conclusions**

This qualitative study investigated the costs and benefits of cannabis cultivation and trafficking in Oyo State in Nigeria. In all the communities, most of the respondents were of the view that people continued to cultivate and

traffic in cannabis because of pervasive poverty and the high level of unemployment in the area. They stated that cannabis cultivation and trafficking were a source of employment and a way to fight poverty. Cannabis cultivation provided a source of income to many people along the production and supply chain. This finding explains why operators continue to take obvious risks to remain in the business and why the supply reduction approach has failed in Nigeria. The finding is corroborated by the report of Falayi [9], according to whom cash crunch and poverty are some of the reasons for getting involved in the cannabis cultivation and trafficking business. This finding also finds support in Becker's rational choice theory [19], which argues that people make rational choices in all aspects of their lives.

Another economic driver of cannabis cultivation is the existing demand. Accordingly, there is always a steady pool of customers ready to buy (as well as of traffickers), including people who use cannabis for occupational purposes, such as commercial sex workers, members of vigilante groups, members of ethnic militias, law enforcement agents, members of fishing communities and drivers. The availability of users ready to buy make cannabis cultivation and trade a very lucrative business in those communities. Some of the respondents called it the "ready market" initiative. Earlier reports [2 and 10–13] corroborate the view that quite a lot of people from all strata use marijuana and that this demand makes cannabis cultivation and trafficking inevitable. According to those reports, the cannabis business is simply operating according to the laws of demand and supply. Apart from explaining why people would continue in this line of risky business, this finding also supports the inaccurate but socioculturally entrenched myths about cannabis. An effective demand reduction should incorporate interventions that address those myths and misconceptions regarding the efficacy of cannabis.

Because of the demand for cannabis, profits derived from its sale are huge, which motivates cultivators and traffickers to continue the business. Some of the cultivators and traffickers have other jobs but are not satisfied with the profit derived from them and prefer the quick and easy returns earned from the sale of cannabis. The incredible profit made from cannabis cultivation and trafficking is enough of an incentive to perpetuate the business. This finding was supported by the National Drug Law Enforcement Agency [12], which found that the cannabis production business was very lucrative, which is why eradicating it seems to be a challenging task. A parallel can also be drawn between these findings and the reports of Falayi [9], in the sense that cannabis production is far more lucrative than the cultivation of other crops, by a ratio of 1:20 or more. This partly explains why the trade thrives in spite of spirited law enforcement activities. The criminalization of cannabis cultivation and use has contributed to this state of affairs.

Findings also indicate a weak presence of law enforcement agents in the communities. In addition, bribery and connivance between cannabis operators and personnel of law enforcement agencies are the rule rather than the exception. These findings are not surprising, given the fact that cannabis still manages to get to the last point in the chain (the users) and is still always readily available, notwithstanding huge seizures reported by the law enforcement agents. If supply reduction initiatives are to yield the desired results, personnel saddled with the task of apprehending cannabis cultivators and traffickers must do their work diligently and conscientiously.

The law enforcement agencies in the selected communities refused to release official figures on seizures. Their commands insisted that, to do so, a directive must be received from their headquarters. Since official figures on seizures were not the main objective of the study, and given the near impossibility of obtaining clearance from the headquarters of those agencies, we only conducted in-depth interviews with the law enforcement personnel, and the information obtained from them corroborated that obtained in the focus group discussions. Nevertheless, we are convinced that those limitations are not susceptible of vitiating the findings and conclusions of the study.

We recommend that more effort be put into cannabis demand reduction. Given the socioeconomic drivers of cannabis cultivation and trafficking, it is doubtful that supply reduction alone would ever work. Second, the Government must also tackle the severe poverty in the communities concerned by creating employment or opportunities for gainful self-employment. Governmental efforts should be geared towards making cultivation of traditional cash crops, such as cocoa, cashew, cola nut and palm products, more attractive by providing subsidies and other incentives.

There is a need to screen, train and retrain law enforcement personnel involved in combating cannabis cultivation and trafficking. If supply reduction initiatives are to yield the desired results, law enforcement officials must do their work diligently and conscientiously. The increased and prompt payment of wages is essential for reducing incentives for corruption and complicity in the illicit cultivation of and trade in cannabis. There is need for community awareness and involvement in tackling cannabis cultivation in those areas. Without the cooperation of the host communities, little can be achieved in terms of curtailing the booming cannabis “business”, as it is perceived by many to be economically viable. The host communities must be made aware of reasons why cannabis cultivation and trafficking are detrimental to their well-being in the long term.

There are several myths and misconceptions about cannabis that can serve as motivating factors for its use (and, consequently, more cultivation and trafficking). For example, many people believe that cannabis gives users enhanced strength and boldness, which explains why violent behaviour is

often attributed to cannabis use. An effective demand reduction programme should incorporate interventions addressing myths and misconceptions regarding cannabis. Treatment services should also be provided to people addicted to cannabis. Emphasis should be placed on the possible negative consequences associated with cannabis consumption. This might discourage people who do not want to experience psychiatric complications arising from cannabis abuse and might also create a twinge of conscience in cannabis cultivators and traffickers who do not want to be contributors to increased psychiatric challenges among those who use their products.

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# Tracking opiate routes in Nigeria: identifying trafficking routes through dealers and users of tramadol and codeine

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## ABSTRACT

*Tramadol and codeine-containing mixtures are the pharmaceutical opioids with adverse health consequences most used in Nigeria. Widespread use has provoked stricter State control of these drugs, yet trafficking and availability remain a challenge. Knowledge of the trafficking routes of these substances may provide insight into how to control them better and reduce demand. The present study was aimed at investigating the routes through which tramadol and codeine get to illicit users in Nigeria. The profile and characteristics of those users, as well as their willingness to receive treatment in Enugu State, were also explored. A mixed-method approach was used, and 119 pharmacists and patent medicine dealers participated in focus group discussions, while 70 tramadol and codeine users completed the drug use assessment scale and participated in in-depth interviews. We found that tramadol and codeine had complex but well-developed traffic routes, making them easily accessible to users, in spite of restrictions. Established networks of corrupt customs and other security officials aid and abet the passage of the drugs to the markets. The open drug market system in Nigeria exploited by profit-seeking business persons facilitates an illegal flow of these opioids. Supplies from the open markets feed pharmacy and patent medicine dealers through whom users acquire the drugs. Users have dealers supply the drugs to “safe centres” for easy access. The drugs are also*

*peddled by hawkers and sold at roadside kiosks. Findings also showed that tramadol and codeine use was spread among people from diverse walks of life, though young men, students and artisans were perceived to be particularly at risk. A total of 47.4 per cent of users of tramadol and 30 per cent of users of codeine-containing mixtures expressed the desire to receive treatment. However, many users of tramadol (47.5 per cent) and codeine (50 per cent) did not know where to go for help. The authors of the study recommend easy and free access to treatment, youth-targeted drug abuse awareness campaigns and the removal of restrictions on codeine and tramadol as critical to demand reduction.*

*Keywords:* codeine, drug abuse, government restriction, tramadol.

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## Introduction and background

Pharmaceutical opioids are the most abused prescription drugs in Nigeria, with an estimated 4.6 million users in 2017, according to a recent drug use report [1]. Major opioids identified in the report were tramadol, codeine and morphine, in their order of prevalence. The misuse of opioids is increasingly recognized as a global problem, accounting for more than 70 per cent of the disease burden linked to drug use disorders [2]. This phenomenon has attracted increased global and local attention from health, security and government agencies because of its implications. The illicit use of tramadol and codeine, the two known opioids, has been identified as a major challenge because of their negative consequences on the health of the individual, including medical and psychiatric morbidities and death by overdose [3 and 4].

International and regional bodies, such as the United Nations Office on Drugs and Crimes (UNODC) and the European Commission, concur that drug problems are found worldwide and require coordinated efforts to engage the pivotal aspects of production, trafficking and use [5]. In Nigeria, while a policy has been in force with respect to tramadol and codeine abuse, there seems to be no evidence-based studies to show the modus operandi through which these controlled substances continue to be in widespread use. Understanding the routes through which tramadol and codeine become available to illicit users in Nigeria will aid the demand reduction thrust.

The update review report on tramadol issued by the World Health Organization in 2014 [6] showed growing evidence of abuse of that drug in the United States of America, Europe and African and West Asian countries. In England and Wales, the number of deaths associated with tramadol use increased from 87 in 2009 to 175 in 2012 [7]. WHO [6] also reported large seizures of tramadol and codeine preparations in North and West Africa.



Abuse of tramadol is reported in Egypt, Gaza (State of Palestine), Jordan, Lebanon, Libya, Mauritius, Saudi Arabia and Togo [8].

Similarly, codeine has been widely reported globally as another frequently misused over-the-counter drug [9]. Codeine occurs naturally with morphine in poppy seeds but can be synthesized as a methylated morphine derivative [10]. The scale of misuse and dependence varies across countries, owing to the hidden and complex nature of availability, distribution and abuse [11]. Codeine has been found to be highly addictive, making it prone to abuse [10]. Often found in prescription cough syrups and analgesics, codeine is used in the treatment of mild to moderate pain, cough and diarrhoea [12]. However, its euphoric and relaxing attributes are deemed pleasurable and make codeine an attractive drug of abuse, despite its side effects, including tendencies to drowsiness and slowed heart rate [10].

### **Tramadol and codeine abuse in Nigeria**

Population-based studies and epidemiological reviews of substance abuse in Nigeria were conducted more than three decades ago (e.g., Pela and Ebie, 1982 [13]). More recently, a major epidemiological study in Nigeria showed a high annual prevalence (4.7 per cent) of the non-medical use of opioid analgesics, including tramadol and codeine [1]. The non-prescriptive use of pharmaceutical opioids may have adverse health consequences [14], including addiction and organ damage. It could also dispose users towards crime in order to fund the cycle of reuse. Available data [1] showed that people between the ages of 25 and 39 years were the biggest users in the year under review, which may have consequences on the efficiency, dependability and productivity of the workforce.

The frequency of media reports on the disturbing nature of drug use suggests a need to probe and establish empirical evidence for drug abuse epidemiology and corresponding evidence-based policy and intervention strategies in Nigeria. The severity of the problems has attracted the attention of the Government, as illustrated by the round table on substance abuse epidemic in Nigeria held by the President of the Senate in Kano, in December 2017 [14, 15 and 16].

Furthermore, Obot [17] reported that the abuse of tramadol and codeine-containing syrups was growing in Nigeria and West Africa, especially among “street children”, secondary school and university students. Current data [1] showed a positive relationship between age and drug use among people between the ages of 15 and 34 years. The risks of dependence on tramadol and codeine, which are widely used as medication for pain and cough, are known to be high [18], making their misuse clinically and socially more critical.

Following a series of acts of violence, crime and sudden deaths associated with the abuse of those drugs in Nigeria and consequent extensive reporting in the media, especially the report by BBC News on the widespread abuse of codeine-containing syrups [19], the Government of Nigeria announced stricter control on the domestic production of codeine on 1 May 2018, citing widespread abuse. In its report, the BBC also suggested that there were strong connections between the illicit use of codeine and tramadol and crime. For example, it claimed that the abuse of tramadol played a key role in sustaining conflict in the north-east of Nigeria [20]. There is suspicion that a daily intake was encouraged among Boko Haram terrorists and vigilante groups to help them to fight, resulting in the creation of a whole population of addicts.

The Federal Ministry of Health of Nigeria established the Codeine Control and other Related Matters Working Group on 23 January 2018 with the mandate to develop key recommendations and strategies to address the misuse of codeine, tramadol and other related substances in Nigeria [21]. Probably on the basis of the recommendation of that group, the Ministry banned the import and domestic production of codeine-containing syrups on 1 May 2018 [22], citing the high rates of abuse of the substances and their negative health consequences.

Adeyeye [14] asserts that the first significant attempt to regulate the distribution of tramadol in Nigeria was through a National Council on Health resolution in 2013. In that resolution, the Council required that tramadol be sold only on prescription in Nigeria. However, the extent to which the resolution was implemented is unclear. Despite the control efforts of the Government, the illegal import of those prescription opioids has continued. In June, September and November 2018, containers of tramadol were frequently seized by customs operatives in Nigerian ports [23 and 24]. Understanding trafficking routes of illicit drugs is important in structuring policies and interventions to control the flow to users. Currently, little is known about how the controlled substances, tramadol and codeine, continue to get to illicit users despite strict regulations in Nigeria.

Given the foregoing, the present study is aimed at surveying dealers and users of tramadol and codeine to understand the dynamics of acquisition and use of those substances, including the profile of users and other user-specific information.

## Specific objectives

The study is aimed at:

(a) Identifying the routes through which tramadol and codeine become available to users in the study area and the commonly available dosage of the drugs, especially tramadol;

(b) Since trafficking is driven by demand, understanding who the users are, their demographic profile, motivation for use and factors inhibiting the willingness to receive treatment.

## Method

### *Study setting and participants*

The present study was conducted in Enugu State, south-eastern Nigeria. A mixed method design combining qualitative and quantitative approaches was used. Two groups of participants were involved. Group I represented non-medical users of tramadol and codeine, with 70 participants. They were students, artisans and other professionals who volunteered to be part of the study. Incidentally, all identified users were male. The researchers targeted key locations in the study areas where the use of drugs was believed to be prevalent (e.g., tertiary institutions) and highly notorious urban and rural spots according to the researchers' geomapping information. Group II represented professionals authorized to buy and sell drugs to end users. These professionals, who were between 18 and 70 years of age, were registered pharmacists or their representatives (24 participants, comprising 13 women and 11 men) and members of the Nigerian Association of Patent and Proprietary Medicine Dealers (95 participants, comprising 26 women and 69 men).

To recruit drug users (group I), a snowball sampling method was used. This technique was effective in enlisting the cooperation of participants. Pharmacists and patent medicine dealers also assisted in recruiting drug users who sought the drugs in their shops. For group II, drug dealers, community pharmacists and patent medicine dealers were invited through the leadership of their professional organizations, namely, the Association of Community Pharmacists of Nigeria and the Nigerian Association of Patent and Proprietary Medicine Dealers, Enugu State chapter, respectively. Members of the two associations who were present on the scheduled dates participated in the study. A total of six focus group discussions were held in the three senatorial districts of Enugu State, one with pharmacists and pharmacy assistants, and five with members of the Nigerian Association of Patent and Proprietary Medicine Dealers.

### *Data collection instruments*

Four instruments were used for data gathering: a semi-structured questionnaire (the drug use assessment scale), an in-depth interview guide for users of the substance of interest, a focus group discussion guide for pharmacists and patent medicine dealers and an in-depth interview guide for bulk drug dealers. The interviews and focus group discussions were recorded.

### *Procedure*

Institutional approval was obtained from the Director of Pharmaceutical Services of the Ministry of Health of Enugu State and the Association of Community Pharmacists of Nigeria. A combination of quantitative and qualitative approaches was adopted for the study in order to collect data from different perspectives.

### *Quantitative method*

Key areas identified during the geomapping phase were visited by the research team to collect survey data. In addition, five participants from group II (pharmacists and patent medicine dealers) volunteered to help to recruit drug users who sought the drugs of interest from their outlets. Altogether, 70 tramadol and codeine users completed the consent form and the drug use assessment scale. Consenting participants were surveyed through in-depth interviews on the use, supply and demand patterns of codeine and tramadol and associated information. Interviews were recorded and subsequently transcribed for analysis.

### *Qualitative method*

Six focus group discussions (one with community pharmacists and five with patent medicine dealers) were held at different locations in the towns of Nsukka, Oji and Enugu, Enugu State. The reason for holding only one discussion with practicing community pharmacists was the concentration of such practitioners in the town of Enugu, with little or no presence in less urban parts of the State. A total of 20 pharmacists, four pharmacy assistants and 95 patent medicine dealers participated in the six focus group discussions organized in different parts of the State that covered its three senatorial districts.

### *Data management and analysis*

Quantitative data from the questionnaires were analysed using Statistical Package for Social Sciences (SPSS Statistics 24). A descriptive analysis was used to study the users' responses to the drug use assessment scale. Qualitative data from the six focus group discussions and the in-depth interviews were transcribed by the researchers. A thematic analysis involving axial and selective coding was used to make sense of the data in relation to the research questions.

### *Demographics*

Most of the participants were from the Igbo ethnic group, reflecting the setting of the study (south-eastern Nigeria). Most users of both drugs were single (67.1 per cent). Many of the users (55.7 per cent) had attained a tertiary level of education. Participants also indicated that 41.4 per cent of their mothers and 30 per cent of their fathers had attained a tertiary level of education. Forty per cent of users of tramadol and codeine had a monogamous family background, while 25.7 per cent had single parents. A large proportion of the users were students (25.7 per cent), followed by self-employed persons (24.3 per cent). Most of the participants were from the lower-income band (52.9 per cent), earning less than \$202 a month.

#### **Demographic characteristic of users of tramadol and codeine participating in the study**

<i>Characteristics</i>	<i>Frequency (percentage)</i>
<b>Marital status</b>	
Single	47 (67.1)
Married	12 (17.1)
Cohabiting	4 (5.7)
Widowed	1 (1.4)
Divorced	6 (8.6)
<b>Ethnicity</b>	
Igbo	49 (70)
Hausa	6 (8.6)
Yoruba	10 (14.3)
Efik	2 (2.9)
Others	3 (4.2)
<b>Educational qualification attained</b>	
Primary level	5 (7.1)
Secondary level	23 (32.9)

<i>Characteristics</i>	<i>Frequency (percentage)</i>	
Tertiary level	39 (55.7)	
Postgraduate	1 (1.4)	
<b>Religion</b>		
Christianity	55 (78.6)	
Islam	5 (7.1)	
Traditional	7 (10)	
<b>Parents' educational qualification</b>		
	<b>Mother</b>	<b>Father</b>
Primary level	5 (7.1)	6 (8.6)
Secondary level	15 (21.4)	24 (34.3)
Tertiary level	29 (41.4)	21 (30.0)
Postgraduate	13 (18.6)	4 (5.7)
<b>Family type</b>		
Monogamous	28 (40)	
Polygamous	20 (28.6)	
Single parent	18 (25.7)	
<b>Employment status</b>		
Full-time	10 (14.3)	
Part-time	4 (5.7)	
Self-employed	17 (24.3)	
Unemployed	11 (15.7)	
Unemployed, not searching	7 (10)	
Student	18 (25.7)	
Retired	1 (1.4)	
<b>Monthly income</b>		
<75,000 naira (<\$202.7)	37 (52.9)	
75,000–150,000 naira (\$202.7–\$405.41)	8 (11.4)	
150,001–300,000 naira (\$405.42–\$810.81)	4 (5.7)	
>300,000 naira (>\$810.81)	1 (1.4)	

Source: Fieldwork (August–November 2018).

## Results

Of the 70 respondents to the drug use questionnaire, 54.3 per cent reported using tramadol only, 28.5 per cent reported using codeine only and 17.1 per cent reported using related drugs other than tramadol and codeine. Fewer tramadol users (31.6 per cent) had faced arrest by security agencies at least once compared with codeine users (45 per cent). Most users of tramadol

(84.2 per cent) and codeine (70 per cent) sought and bought the drugs themselves. Interestingly, most users reported no difficulty in finding and buying tramadol (58 per cent) and codeine (85 per cent), which suggests the possible lack of effectiveness of the ban and control placed on those drugs, especially codeine. Nearly half of the tramadol users (44.7 per cent) and 35 per cent of the codeine users reported being in their first year of using the drug. The most commonly used dosage for tramadol was in the range of 200 to 225 mg (42.1 per cent), while 15.8 per cent sought and used doses of 500 mg. Among codeine users, 45 per cent reported a daily use of at least two bottles of the cough syrup, while 40 per cent reported a daily use of at least three bottles. Most users of codeine (55 per cent) used at least two bottles of syrup a day.

Users of tramadol (47.4 per cent) and codeine (30 per cent) affirmed that they needed help to stop using the drugs. A similar percentage indicated that they were willing to present themselves for treatment of the problematic use of the drugs, with 47.4 per cent for tramadol and 35 per cent for codeine. However, many users of tramadol (47.5 per cent) and codeine (50 per cent) did not know where to go for help. Many users supplied their phone numbers and pleaded to be contacted for treatment. This may indicate their willingness to get help.

In course of the present study, the Government of Nigeria effected a ban on the sale and production of cough syrups containing codeine. Many participants (both dealers and users) were defensive when asked questions regarding the current sale and use of the substances of interest. In a somewhat protective manner, such participants sometimes referred to activities “before the ban” and often ended their narratives with “that was before the drugs were controlled”.

Even though the researchers set out to answer specific research questions, the findings are presented in a flow of themes that capture users, patterns of use, drug acquisition modules and the road from producer to consumer. We present and briefly discuss these findings in a thematic style.

### **Trafficking routes of tramadol and codeine**

For tramadol, pharmacy operators and patent medicine dealers identified different sources through which the drugs entered Nigeria. Countries such as China and India were commonly cited as countries of supply of cheaper brands. Supplies from Malaysia and Switzerland were also mentioned and considered highly potent and efficacious, as well as more expensive. Codeine-containing syrups, on the other hand, are mostly manufactured in Nigeria, though foreign brands are also available. It is important to note that the

recent BBC report mentioned above possibly contributed to the crackdown by the Federal Government of Nigeria on the three pharmaceutical companies that manufactured codeine-containing syrups, given the proximity of the two events. Indeed, the domestic production of those syrups was banned in Nigeria on 1 May 2018.

The interplay of wealthy dealers, porous borders and corrupt border control officials at seaports and airports was identified as the chief problem with controlling the availability of the drugs on the open market. Talking of business moguls, a pharmacist in Enugu stated the following:

They have the clout. Clout is more important in this. If [tramadol and codeine] get to the airport or seaport, they have that political clout or money to give to whomever is the official there, and they will take their goods.

It is important to note the following statement by a pharmacist in Enugu about the entry routes of illicit drugs:

Illicit drugs come in through Aminu Kano International Airport, and some come in through the waterways, then some through land borders, but the highest number is through Aminu Kano International Airport, because there is less control there, and they also have a big drug open market there in Kano ... Sabon Gari market ... In Enugu it is in Ogbete, it is in New Market, it is in Kenyatta, at Gariki.

Imported tramadol was reported to be often brought in through Mallam Aminu Kano International Airport using a known agent referred to as “Al-Haji”. According to a pharmacist in Enugu, “once you contact Al-Haji and pay his bill, your goods will be delivered to your location”. Both patent medicine dealers and pharmacists admitted purchasing from bulk dealers with the best competitive price that they could find on the open drug market. However, there were medium-sized dealers who imported relatively smaller amounts of the products and relied on corrupt agents for clearing and delivering the drugs to their selling points.

Corruption networks based on the exchange of bribes continue to protect the illicit consignments as they transported by road along their different routes. Security agents at the seaports, airports or land borders and highway patrol teams were all mentioned as being bought off to ensure the smooth passage of illicit drug consignments. Onitsha market (Bridgehead, Onitsha, also known as “Headbridge”) was identified as a major and popular hub for the distribution of the drugs of concern and indeed other drugs to hinterland areas of the south-east and beyond. It is possible that other areas, such as Kano and Lagos, supplied the Onitsha market as it has neither an



international airport nor land borders. In addition, middlemen sell to retailers, including medium-size dealers and “mallams”<sup>2</sup> (a group of dealers), typically men from northern Nigeria who either directly sell the drugs in specific locations across the State or have a network of hawkers who peddle the drugs around. These drugs are sold in locations of high human concentration, such as barracks and *garki* (a collection of settlements of herdsmen where cows and associated goods are sold). Other drugs such as flunitrazepam (sold under the brand name Rohypnol and also known as “refnol” or “blue sky”) are also moved in the same way.

### **Perceived corruption as key support for trafficking and availability of tramadol and codeine in Nigerian open drug market system**

At the time of writing, Nigeria allowed an open drug market where pharmaceuticals were traded openly by business people, with very loose control. Almost any category of pharmaceuticals could be traded in (either bought or sold) on the open drug market. The open market plays a key role in the demand for and supply of both licit and illicit pharmaceuticals and was heavily discussed and criticized by professional drug dealers and sellers. A pharmacist stated the following:

The pharmaceutical distribution system in Nigeria is chaotic. What rules is the open market ... Some of the distributors are not even pharmacists and they distribute for major companies ... Most people in Nigeria acquire drugs from the patent medicine dealers who obtain these controlled drugs from the open market, so whatever the pharmacy sells, the patent medicine dealer sells and they sell without prescription ... That is the heart of the matter, that is the real problem.

The open market is so influential that a pharmacist in Enugu admitted that: “Yes, we buy from them ... We go there to buy from them if they offer a competitive price. Even some of these pharmaceutical companies dump their goods on the open market”.

Again, dealers in the open market were reportedly organized in strong groups and unions, which enabled them to broker deals with corrupt officials, sometimes at the highest levels, to obstruct or delay the implementation of policies that might obstruct the flow of their drug consignments and operations. Operating within this network protects both big and small dealers. Seized consignments are often rescued with the intervention of those groups and unions. Some corrupt security personnel were reported to be

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<sup>2</sup> “Mallams” in this context does not have the traditional meaning of “religious scholars”, but is a term often used by people from southern Nigeria to refer to their northern compatriots.

implicated in the illicit drug circle, as a patent medicine dealer in Nsukka described how “they go after small dealers whom they can quickly intimidate and extract money [bribes] from by threatening them”, whereas if this dealer belongs to a network or union, “their goods will be protected”. In the opinion of pharmacists in Enugu, the proper control of drugs and the fight against drug abuse cannot record success until the open markets are closed.

Pharmacists also stated that wealthy business individuals who would not otherwise qualify obtained approval for licences through corruption. Those people, who were driven by profit and did not understand standard and ethical practices, acquired, purchased or presented the licences of qualified pharmacists with which they imported drugs. A pharmacist in Enugu stated that: “Those people and, sometimes, big companies use a pharmacist’s licence to import these drugs, clear it through customs and distribute it on the open market ... They may not allow the pharmacist full control over the drugs ... They dump it on the open market”. It is through that process that drugs may end up in the wrong hands. These businesses control the markets and pharmacists admitted to purchasing from them if they offered competitive prices.

Pharmacists raised concerns about the unwillingness of the Government to abolish the open drug market and restrict drug dispensation to pharmacies. A pharmacist in Enugu stated the following: “The Federal Government brought out the National Drug Distribution Guidelines, but for the past two to three years, they have not been implemented, they keep postponing them. The latest deadline is January 2019, and I do not think that it is going to work because it is an election year ... The Government is not likely to implement them, they are likely to shift it again ... That is the problem ... the Guidelines ... they have not done anything to implement them.”

### **Who uses tramadol and codeine?**

Pharmacists and patent drug dealers identified users as often being young males (between the ages of 15 and 30) and, sometimes, people over 30. Most requests do not come with prescriptions. A pharmacist in Enugu stated that: “Only about 1 in 10 may come with a medical prescription”. Tramadol was much more often described as being more of a widespread concern than codeine. Heavy use of tramadol was often reported among “people who do hard work [manual labour], such as masons, quarry workers, brick moulders and layers, etc.”, as described by a patent medicine dealer in Nsukka. Artisans, operators of commercial motorcycles, sex workers, farmers, security agents, labourers and herdsmen also frequently bought the drugs. According to a patent medicine dealer in Nsukka, labourers believed that the drugs “helped them to sleep well after work”. Requests for tramadol were also

reported from known orthopaedic patients, people experiencing pain and a few elderly people who suffered from arthritis and rheumatoid pains. However, the regular demand emanating from those groups was also reported to be alarming, as it was not considered as “normal”, as stated by a patent medicine dealer in Nsukka, and suggested that they had developed addiction. Reports indicated a widespread pattern of use among diverse age groups and walks of life, but young people were the largest group of users (which concurs with current evidence [1]).

Patent medicine dealers and pharmacists also reported that corporate professionals, students in higher educational institutions, administrators and others sometimes asked for codeine with suspicious prescriptions. A pharmacist in the town of Enugu stated that: “One will always come in, neatly dressed, having got their doctor friends to make inappropriate prescriptions to enable them to get the drugs, and you see them ... pour the whole thing into their mouths at once.” Reports of health professionals being involved in the inappropriate prescription of tramadol and codeine-containing cough syrups are worrying.

### **Available dosage and pattern of demand**

A broad range of doses is available on the market. Pharmacists, patent medicine dealers and users reported that tramadol was available in doses of 50, 75, 100, 125, 150, 175, 200, 220, 225, 250, 400 and 500 mg. Pharmacists reported having and dispensing 50 mg doses (exclusively on medical prescription), and that many non-prescription requests were often for stronger doses. Patent medicine dealers denied dealing in the drug since the ban. However, they admitted that it was still available on the market.

On the other hand, codeine, often sought in the form of codeine-containing syrups, was almost always available in 100 ml bottles. Users would systematically complain of a serious cough but almost always showed abuse patterns at the moment of acquisition: “right there in front of you, they gulp down half or all the contents of the bottle at once”, said a patent medicine dealer in Nsukka. However, there were reports in the Oji metropolis that codeine tablets were now newly smuggled and available on the “dark market”.

Even though users reported that it was now more difficult to obtain the drugs, following the recent government regulations, their supply was still maintained from connections made prior to the regulations. They reported having access to the drugs from, as put by a university student in Enugu, “people who know them very well”. While they admitted that the drugs were more difficult to obtain from pharmacies, as those often required

prescriptions, alliances formed with some shops made the drugs easily available to them. Indeed, it was said that “supply, demand and use have remained, but strategies have changed”.

One user reported how young people could “organize in groups and have one person obtain the drugs in bulk and distribute them to the others”. These groups are sometimes clandestine, for example cult groups often associated with violent crimes. In Oji, labourers were also described as relying on this type of sourcing, distribution and use. A student user in Nsukka described how a network of dealers delivered the drugs to the home of users as follows: “The person who brings [tramadol] for my brother will always bring it in boxes containing numerous [blister] cards, perhaps 10 or more ... I will take some when he is not around.”

Users admitted that the price of the drugs had significantly gone up. The increase is more remarkable for codeine-containing syrup (with an increase of up to 1,500 per cent) than for tramadol (with an increase of up to 200 per cent). This has made business more attractive to dealers. In fact, a patent medicine dealer in Nsukka noted that: “Tramadol has no price, as the latter depends on the cost incurred from the point of bulk purchase to the final consumer ... If you buy off more security people, you simply increase your final price, and the users pay.”

### **Codeine and tramadol abuse: reasons, motivations and patterns of abuse**

Common reasons for tramadol abuse included enhancing energy to work for long hours or alleviating or preventing pain after strenuous work for artisans and labourers. A patent medicine dealer reported that labourers in particular took tramadol before their daily work “to gain strength to work for long hours and, after work, to avoid muscle pain”. Consequently, they often bought the substances in the morning and at the close of work, in the evening. Others, including security personnel such as soldiers, were reported as “seeking boldness and suppressing fear”. There were also other rather surprising reasons for use, including the management of epilepsy and convulsions. Tramadol was also highly sought as a sex enhancer. Some users reported that it enhanced sexual performance by delaying ejaculation. However, there were users whose dependence was not connected to pain relief or sex enhancement and who described a rather psychological dependence or a craving for the feeling of euphoria that the drug gave them. One user who ran a grocery shop in Nsukka said: “If I don’t take it, I won’t pull myself together ... I can’t function well.” Users often described how tramadol induced a feeling of euphoria and how they usually required high doses to maintain that effect. Cough syrups containing codeine are often abused for the euphoric “high” feeling that they

give. One student user in Enugu explained the preference for those syrups by stating that: “Compared with, say, alcohol ... one bottle of codeine is cheaper and gives a bigger high [laughs].”

The pattern of use for tramadol and codeine-containing syrup was notable. Users and dealers reported that concoctions were made from mixing codeine and tramadol with other substances, including alcohol and common soft drinks (in particular fizzy and carbonated drinks), Chapman and milk. Parties organized by students were reported as places where tramadol and codeine were used. Tramadol and codeine can be mixed with alcoholic drinks, such as spirits or beer, or combined with other “designer drugs”. Another polysubstance abuse pattern was to combine those mixtures with smoking marijuana to heighten the “high feeling”. Users in a state of “high” were often observed to have red eyes and slow psychomotor reactions. In Oji River, sudden deaths caused by the use of those drugs, especially tramadol, were reported to be on the increase.

Users’ experiences suggest a problem of dependence and the need for treatment. As they will often report requiring increasingly higher doses to achieve the desired “high” and spending time seeking the drugs. Many users and dealers already acknowledge the abuse problem that is approaching epidemic proportion, especially among young people, with the drugs of concern. However, none reported ever seeking professional help to stop the use.

### **Illicit acquisition and issues in seeking help**

While they acknowledged a dependence problem, many pharmacy operators and dealers were not sure how to go about breaking the cycle of abuse. Some, such as a pharmacist in Nsukka, reported that: “Once we see them, we know, we don’t sell to them ... They try and try again to see if they can confuse us, but we know them ... But they still manage to get it.” A pharmacy operator in Enugu also reported the following:

They come to you with these fake complaints, you sell it to them, then they come back again and again ... Then we know that there is a problem ... We stop selling it to them ... I try to call them in, ask them what is wrong, try to counsel them, and they go ... But I know that they will find a way to get what they want ... They know that we know their tricks.

It was reported that pharmacists were not sure where to direct people who abused tramadol and codeine for proper management or were not motivated to do so. Some users also reported not being aware that craving for tramadol and codeine could be treated or managed. In addition, there was apprehension among users about being arrested by law enforcement agents,

as well as the cost of treatment. Some pharmacists suggested setting up counselling points where users could be educated and managed for the abuse of these drugs. Nonetheless, many users indicated that they were willing to receive treatment and provided their phone numbers for contact and further engagement if any help became available.

### **Opinions on regulation: reasons for sustained trafficking**

Patent medicine dealers in particular had mixed opinions about the regulation of the drugs. Some considered the regulation unnecessary, considering their medical use. For example, a patent medicine dealer in Nsukka stated that: “Codeine-containing syrups are very powerful drugs that stop persistent coughs, they should have found another way to tackle it.” Others admitted concerns and the need to check the rising frequency of non-medical use, since alternative equivalents existed. A patent medicine dealer in Nsukka thus stated: “Honestly, people are abusing it, the demand is now unusual.” Even though the prohibition of the sale of tramadol and codeine by their market unions was acknowledged, the secret sale of tramadol and codeine-containing syrups was conceded, though often at the risk of the particular dealer. A patent medicine dealer in Nsukka thus stated that: “Tramadol and ... codeine are scarce, but if you want them, and as long as you have the money, you can still find them.” Patent medicine dealers explained why they were important players in the drug market, in particular with regard to tramadol and codeine-containing syrups. One reason was the consideration for people with genuine needs in remote areas. One dealer mentioned that: “Users of tramadol and codeine who truly need these drugs but live in rural areas may be unable to consult doctors and get regular prescriptions to buy the medication.” Another reason was what they considered an “inappropriate restriction process”. Some patent medicine dealers reported that they had large stocks, which, according to a dealer in Nsukka, “may last up until 2022, and dealers need to protect their businesses from incurring financial losses ... They cannot allow their stock to expire and go to waste”. For them, as explained by a dealer in Nsukka, “the Government should have found a way to absorb all drugs by buying them up from dealers so that the loss would not be borne by the businesses following the sudden ban”. Similar views were also expressed in Oji.

Again, the control of drugs such as tramadol and codeine create scarcity, drive up demand and prices and, consequently, make tramadol and codeine-containing syrups even more attractive to and profitable for dealers. Some dealers shifted blame for the continued availability of the drugs to importers and manufacturers. A patent medicine dealer in Enugu thus said that: “We do not manufacture these drugs, there are those licensed to import ... those are the people to check.”

## Influence of restrictions

Pharmacists admitted that the new regulations had apparently reduced the demand for the drugs in focus. Some, such as a pharmacist in Enugu, reported that, when they often used to have seven to eight requests per day, they now had none or one per week. That said, heavy users still try to obtain these drugs from pharmacies and continue to request them under different guises and through pressure. However, reduction in demand is attributed to the refusal of pharmacies to sell the drugs to users. Users have now diverted to other sources. A student user in Enugu described as follows other sources from which tramadol and codeine could still be obtained: “There are shops that, when you come in, they already know what you want and give it to you ... Those mallams who sell sweets and drugs in kiosks by the roadside ... They always have it ... You can see them around ... They even carry it around, hidden in showcases ... They know their customers.”

## Discussion

We found that the use of tramadol and codeine is widespread, affecting people from different walks of life, including students, artisans and people in the corporate world. Young people, especially men, are widely perceived to be the group most at risk, at least in Enugu State. This agrees with data from UNODC [1], according to which use increases rapidly from the age of 15 to the age of 34, with a gender ratio of one woman for every four drug users in the past year. We also found that the motivations for using tramadol included pain management and sleep improvement (especially for manual labourers), sexual enhancement and the induced feeling of euphoria. Codeine is widely sought for its euphoric effects. Users reported sensations that also suggested dependence. Various patterns of polysubstance use were also reported. Nonetheless, many tramadol and codeine users (47 per cent) were willing to get help to reduce or stop the use of the drugs, a finding that corroborates a UNODC [1] drug use survey in Nigeria that found a similar percentage of users willing to accept treatment. This suggests that targeting tramadol and codeine users for treatment may attract a substantial number of candidates.

A major challenge to treatment is that many users did not know that drug use problems could be treated as a health problem. More than 47 per cent of the participants did not know where they could seek help or get treatment. It was observed that many more people would want to be treated, provided that the facility was accessible and free from financial cost, stigmatization and intimidation by security personnel. Indeed, the perceived high cost of treatment had also been noted as the highest impediment to treatment for more than 60 per cent of users surveyed in previous research [1]. This may suggest a low level of awareness of drug use problems and existing treatments for



victims. Hence, awareness campaigns and drug education programmes may be helpful in informing users and attracting them to treatment. Groups that were identified as at risk (especially students and manual labourers) could be targeted for education and treatment. Drug education programmes for the general public could highlight the physical and mental health risks linked to the misuse of tramadol and codeine.

Reports that tramadol is available to users in doses of up to 500 mg is particularly worrying. Although no further details were obtained regarding the dynamics of use for this dosage, there is an increased risk of adverse effects and overdose. Future research could probe into the specific characteristics of high-dosage users. Drug law enforcement agents should also consider focusing on countering those dangerous dosages.

It is interesting to learn how tramadol and codeine continue to make their way to users despite regulations. Even though pharmacists report a decline in the demand for tramadol and codeine-containing syrups from their shops, they admit that users still manage to acquire the drugs. Overall, participants recognized that the supply and demand pattern had sharply changed following the regulatory announcements by the Government. However, both pharmacy operators and patent medicine dealers were not particularly sure of what the new government regulations were. While some believed that the new regulations consisted of a total ban on tramadol and codeine, others thought that they were a stricter regulation and restriction, implying that such drugs could only be sold on proper prescription. Either way, neither participants nor dealers believed that the ban and control were effective, as they recognized that trade on these drugs had evolved to become shady, secretive and lucrative, as dealers and users had devised new means of sourcing and distributing the drugs. There are two implications to this. First, as far as the general public is concerned, including pharmacists and patent medicine dealers, and indeed the wider Nigerian community, there is a need for more education and awareness of policies on drugs to inform citizens adequately of specific details of the Government's position.

Second, our finding is an accidental evaluation of government policy and an indication that banning may not be the ultimate solution to ending drug crises. It seems that the impact and consequences of the restrictions and bans imposed on the drug business community were not considered. From our findings, we learned that drugs available to businesses before the ban could in fact fuel smuggling and trafficking, as businesses consequently created an underground sales network to dispose of their stocks in secrecy in order to curtail losses. With the scarcity of the products caused by stricter controls, there was an opportunity for businesses to make higher profit margins from the sale of their stocked-up drugs. This high profit encourages the trafficking and smuggling of controlled substances, including tramadol and



codeine-containing syrups. Thus, the question of what to do with available controlled substances should always be considered when devising a government policy, as stockpiles thereof could slip into the illegal market, attracting higher profit and more dealers.

Systemic corruption involving a number of actors, including drug control agents, security agents and businesses, and inaction by the Government were reported to support and sustain the supply of restricted substances, including tramadol and codeine. Business moguls use the licences of qualified pharmacists to import drugs that slip through customs, protected by influential persons and groups, and are distributed in poorly controlled open markets where both over-the-counter and prescription drugs may be acquired by any buyer. Open markets are perhaps the centre point of drug misuse in Nigeria, supplying both pharmacies and patent medicine dealers. Patent medicine dealers, who outnumber trained pharmacists, are more widespread, have a hold on rural communities and are comparatively less likely to insist on prescriptions before dispensing tramadol, codeine-containing syrups and indeed other prescription drugs to users. UNODC [2] identified opportunities for corruption along all stages of the drug supply chain. The narratives of pharmacists and dealers also concur with the findings of the UNODC *World Drug Report 2017* [2] in that drugs are increasingly trafficked by looser, less sophisticated actors.

Specifically, concerns were raised about Kano International Airport and open drug markets in Sabon Gari (Kano), Headbridge (Onitsha), Lagos drug markets and Ogbete (Enugu) markets as key locations where drug-related activities connected to the use of tramadol and codeine are rife. Specific studies of these areas will likely yield useful information in combating the misuse of drugs, including tramadol and codeine. Interventions and policies are likely to be effective if they target these hotspots and routes. In addition, an analysis on the unwillingness of the Government to engage and dismantle the open drug market is required. One can only speculate that the issue of job losses for the numerous individuals making a living from the open market, the big pharmaceuticals who depend on those markets to distribute their products and the absence of pharmacies in rural and remote areas all have individual and interactive roles in potentially making restricted and banned drugs, such as tramadol and codeine-containing syrups, fall into the wrong hands.

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Community Pharmacists of Nigeria, Enugu State chapter, and the Nigerian Association of Patent and Proprietary Medicine Dealers, Enugu State branch (Enugu East, Enugu West, Nsukka and Oji River [1 and 2]).

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# Prevalence and pattern of substance use among internally displaced persons in north-central Nigeria

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## ABSTRACT

*Populations displaced by conflicts experience many negative and stressful events that increase the risk of substance use as they try to cope with these experiences. The aim of the present study was to determine the prevalence and pattern of substance use among internally displaced persons. A cross-sectional quantitative study was carried out among 847 participants aged 18 years and older. It was conducted in six local governments, two each in the Plateau, Nasarawa and Benue States of north-central Nigeria. The national drug survey questionnaire used by the United Nations Office on Drugs and Crime and the Federal Ministry of Health of Nigeria in 2016 was adopted for use in the collection of data. A total of 25.4 per cent of the participants reported that they had used a substance. Among those participants, 17.5 per cent had used alcohol, 8.1 per cent had used tobacco, 4.8 per cent had used opioids, and less than 1 per cent had used cannabis, tranquillizers, amphetamines, hallucinogens or solvents. Substance use disorder was found in 4.5 per cent of the participants, with alcohol use accounting for 36.8 per cent of the disorders, tobacco use for 33 per cent, tramadol use for 10.5 per cent and cannabis use for 5 per cent. Because substance use among internally displaced persons in north-central Nigeria is an emerging issue of significance to public health, substance use prevention programmes need to be integrated into services provided to internally displaced persons in order to help curb this growing problem.*

*Keywords:* internally displaced persons, north-central Nigeria, substance use, tramadol.

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## Introduction

Internally displaced persons are persons or groups of persons who have been forced or obliged to flee or leave their homes or places of habitual residence as a result of, or in order to avoid, the effects of armed conflict, situations of generalized violence, violations of human rights and natural or human-made disasters, and who have not crossed an internationally recognized State border [1 and 2].

Reports issued by the United Nations at the end of 2014 revealed that 59.5 million people had been displaced as a result of violence. Of those, 38.2 million were internally displaced persons, of which 12 million were in Africa [1 and 3]. At the global level, Nigeria is ranked third among the countries with the largest number of internally displaced persons, accounting for 3.3 million such persons, followed by the Syrian Arab Republic (6.5 million) and Colombia (5.7 million) [4 and 5]. As a result of the ongoing insurgent activities of Boko Haram, Fulani militancy, intercommunal clashes and ethno-religious conflicts, these figures are increasing daily [5].

Forced migration is occurring at unprecedented levels, with forcibly displaced persons exposed to a large number of traumatic and violent events, poor living conditions, impoverishment, loss of self-esteem, and cultural and social disarray [3 and 6]. As a result, some persons may turn to substance use in order to cope with these stressors [7 and 8].

According to the United Nations Office on Drugs and Crime (UNODC) *World Drug Report 2018*, about 275 million people worldwide, which is about 5.6 per cent of the global population, had used drugs at least once in 2016, while 31 million people had suffered from drug use disorders [9]. In Nigeria, the past-year prevalence of all forms of drug use was estimated at 14.4 per cent, with one in every four drug users being women and 1 in every 5 persons who had used drugs in the past year suffering from drug use disorders [10].

A total of 25 per cent of internally displaced persons in camps in northern Nigeria were said to have used substances, including codeine, tramadol and adhesive solution, among others [11 and 12]. There is ongoing fear that these camps may become breeding grounds for drug users. Moreover, a common opinion reported among internally displaced persons was that the use of such drugs cushioned the effects of stress, depression and traumatic experiences [12].

Among internally displaced persons, the prevalence of harmful alcohol use ranged from 4 to 36 per cent, and, as observed in a number of different studies, the prevalence of alcohol dependency ranged from less than 1 per cent to 42 per cent, the prevalence of tobacco use ranged from 2.18 to 66.4 per cent and the prevalence of the use of other substances ranged from 1 to 20 per cent [3, 6 and 13–15].

Despite these large figures, in low- and middle-income countries, in particular Nigeria, which has a growing burden of internally displaced persons, the prevalence of substance use is a poorly investigated subject, thus the related body of evidence is limited [1 and 7].

The present study is aimed at determining the prevalence and pattern of substance use among internally displaced persons in north-central Nigeria, with a view to contributing to the body of knowledge on the subject and bringing to light the need to integrate drug use treatment and prevention services into services provided for this population.

## **Method**

### *Study area*

North-central Nigeria consists of six states and the Federal Capital Territory; the region extends from the west to the east of the country and is situated around the confluence of the River Niger and the River Benue. The states include Benue, Kogi, Kwara, Nasarawa, Niger and Plateau States. It is a region of diverse ethnicities and cultures.

Plateau, Nasarawa and Benue States were purposively selected because of the number of internally displaced persons residing there, including those who were displaced from their ancestral lands and others who migrated from conflict areas in the north-eastern part of Nigeria and settled there. Plateau State covers an area of 26,899 km<sup>2</sup>, with a population of about 3.5 million people. There are 17 local government areas, and currently the areas of Jos North, Jos South, Barkin Ladi and Riyom house large populations of internally displaced persons, about 77,317 persons in total [16]. Nasarawa State has a total land area of 27,137 km<sup>2</sup> and a population of 1,826,883. It has 13 local government areas, and among those, internally displaced persons have resettled mainly in Karu, Keffi and Lafia, where about 37,553 such persons reside [17]. Benue State occupies an area of about 30,955 km<sup>2</sup>, with about 5 million people and 23 local government areas [18]. Most internally displaced persons in Benue State have settled in Makurdi, with a population of about 85,393.

### *Study design*

A cross-sectional descriptive quantitative design was used in the study.

### *Study population*

The sample comprised men and women aged 18 years and older who were internally displaced persons.

### *Sample size determination*

The minimum sample size calculated was 416, but this figure was doubled to better represent the internally displaced population across the study area.

### *Sampling technique*

A three-stage sampling technique was used to select participants for the study.

*Stage 1.* Three states in the north-central region that are heavily burdened by internally displaced persons were purposively selected: Benue, Nasarawa and Plateau States.

*Stage 2.* The local government areas accommodating internally displaced persons in each state were listed and two areas were selected from each state using a simple random sampling procedure.

The number of internally displaced persons in the selected areas was difficult to obtain from local government officials owing to poor data-keeping, thus it was difficult to proportionally allocate using the formula initially proposed. Therefore, a third of the total sample size was allocated to each of the three states and was then divided between the two local government areas in each of those states where the research was conducted.

*Stage 3.* Using simple random sampling, clustered settlements of internally displaced persons were selected from each area and eligible participants who gave their consent were interviewed until the required sample size was achieved.

### *Study instruments*

A structured questionnaire used by UNODC and the Federal Ministry of Health of Nigeria to conduct the national survey on drug use and health in 2016 was adopted and used for this study. The questionnaire consisted of 15 sections, of which the following were used in this study:

Section 2. Demographic information of the respondent

Section 5. Prescription drug misuse

Section 6. Tobacco use



Section 7. Alcohol use

Section 10. Self-reported substance use

Section 11. Information about drug dependence and drug use disorders

Section 14. Interviewers' comments and evaluation

Section 15. Interviewers' check

### *Data collection*

Research assistants were recruited and trained over a one-week period using a pretest of the questionnaire. Data were collected over a period of 6 weeks; 2 weeks were spent in each state. The questionnaire was administered by the interviewers and about 15–20 minutes were spent with each participant after obtaining their informed consent. The questionnaire was written in English but allowed for the interviews to be conducted in English, Hausa, Igbo, Yoruba or Pidgin. It was administered in English, Pidgin and Hausa, which were the languages predominantly spoken in the study area. As a quality control measure, at the end of each day, completed questionnaires were reviewed by the lead researcher, their data was compared with the next day's collected data and errors were identified and corrected.

### *Data analysis*

The data were cleaned, entered and processed using the Statistical Package for Social Sciences, version 22.

### *Ethical considerations*

Approval for the study was obtained from the ethics committee of the Ministry of Health of Plateau State and permission was obtained from the chairpersons of the selected local government areas.

## **Results**

A total of 853 internally displaced persons agreed to participate in the research. However, 847 questionnaires were eventually analysed, as six questionnaires were excluded for having incomplete data, thus representing a 98 per cent response rate.

**Table 1. Sociodemographic distribution of the study participants**

<i>Variables</i>	<i>Number of participants</i>	<i>Percentage of all participants</i>
<b>State</b>		
Plateau State	296	34.9
Benue State	260	30.7
Nasarawa State	291	34.4
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>Sex</b>		
Male	367	43.3
Female	480	56.7
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>Marital status</b>		
Married	629	74.3
Single	129	15.2
Widow or widower	87	10.3
Divorced	2	0.2
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>Age group</b>		
≤ 20	79	9.3
21–30	244	28.8
31–40	214	25.3
41–50	131	15.5
51–60	72	8.5
61–70	47	5.5
> 70	42	5.0
No response	18	2.1
<b>Total</b>	<b>847</b>	<b>100.0</b>

More women (56.7 per cent) than men were encountered among the internally displaced persons in the study area. A total of 74 per cent of the total population studied were married and about 53 per cent of the participants were between the ages of 21 and 40.

**Table 2. Other sociodemographic characteristics of the study participants**

<i>Variables</i>	<i>Number of participants</i>	<i>Percentage of all participants</i>
<b>How long have you been living in this location?</b>		
1–6 months	150	17.7
7–11 months	141	16.6
1–3 years	168	19.8
4–6 years	343	40.5
> 6 years	20	2.4
No response	25	3.0
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>Are you able to read and write a simple statement in any language you understand?</b>		
Yes	479	56.5
No	368	43.4
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>What is the highest level of education you have completed?</b>		
Informal education	82	9.7
Primary school	109	12.9
Secondary school	292	34.5
Nigerian Certificate of Education, Ordinary National Diploma or nursing programme	77	9.1
First-level degree, Higher National Diploma, Bachelor of Arts or Bachelor of Science	16	1.9
Post-graduate study	34	4.0
Others <sup>a</sup>	237	28.0
<b>Total</b>	<b>847</b>	<b>100.0</b>
<b>Are you currently working for monetary or in-kind compensation?</b>		
Regular full-time work	101	11.9
Regular part-time work	74	8.7
Irregular jobs	127	15.0
Unemployed	545	64.3
<b>Total</b>	<b>847</b>	<b>100.0</b>

<sup>a</sup> "Others" includes vocational and certificate courses, etc.

A total of 40.5 per cent of the participants had lived for 4 to 6 years in their current residence and more than half (56.5 per cent) were literate. A total of 64.3 per cent of the participants were unemployed.

**Table 3. Prevalence of substance use among the study participants**

Variables	Plateau State		Benue State		Nasarawa State		Combined total	
	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants
<b>Substance use</b>								
Absent	226	26.7	226	22.1	219	25.9	632	74.6
Present	70	8.3	73	8.6	72	8.5	215	25.4
<b>Total</b>	<b>296</b>	<b>34.9</b>	<b>260</b>	<b>30.7</b>	<b>291</b>	<b>34.4</b>	<b>847</b>	<b>100.0</b>
<b>Frequency of use</b>								
At least once during lifetime	70	32.6	73	34.0	72	33.5	215	100.0
At least once in the past 12 months	26	31.7	40	48.8	16	19.5	82	100.0
At least once in the past 30 days	21	37.5	23	41.1	12	21.4	56	100.0

The lifetime prevalence of substance use among the participants was 25.4 per cent, divided more or less equally among Plateau State, Benue State and Nasarawa State.

**Table 4. Prevalence of substance use disorder among the study participants**

Variables	Plateau State		Benue State		Nasarawa State		Combined total	
	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants
<b>Substance use disorder<sup>a</sup></b>								
Absent	281	33.2	247	29.2	281	33.2	809	95.5
Present	15	1.8	13	1.5	10	1.2	38	4.5
<b>Total</b>	<b>296</b>	<b>34.9</b>	<b>260</b>	<b>30.7</b>	<b>291</b>	<b>34.4</b>	<b>847</b>	<b>100.0</b>

Variables	Plateau State		Benue State		Nasarawa State		Combined total	
	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants	Number of participants	Percentage of participants
<b>Substances used</b>								
Tramadol	5	13.1	0	0.0	4	10.5	4	10.5
Alcohol	8	21.1	2	5.3	2	5.3	14	36.8
Cannabis	2	5.3	0	0.0	0	0.0	2	5.3
Taba/snuff	0	0.0	2	5.3	3	7.9	5	13.1
Tobacco/cigarettes	0	0.0	5	13.2	1	2.6	5	13.1
<b>Total</b>	<b>15</b>	<b>39.5</b>	<b>13</b>	<b>34.2</b>	<b>10</b>	<b>30.0</b>	<b>38</b>	<b>100.0</b>

<sup>a</sup> For the purposes of the study, a substance use disorder was considered to be present if three or more “yes” responses were given in section 11, on information about drug dependence and drug use disorder, of the national drug use survey questionnaire.

Substance use disorder was found in 4.5 per cent of all participants and among those participants, the most used substance was alcohol (36.8 per cent), followed by tobacco (26.2 per cent) and tramadol (10.5 per cent).

**Table 5. Lifetime prevalence of substance use among the study participants, by age group (percentage)**

	Age (years)							Total
	< 20	21–30	31–40	41–50	51–60	61–70	> 70	
Used a substance at least once	7.5	22.9	25.2	17.3	11.7	10.3	5.1	100 (26% of all participants)
Never used a substance	10.2	31.7	26.0	15.3	7.6	4.1	5.0	100
<b>Total</b>	<b>9.5</b>	<b>29.4</b>	<b>25.8</b>	<b>15.8</b>	<b>8.7</b>	<b>5.7</b>	<b>5.1</b>	<b>100</b>

The lifetime prevalence of substance use was highest among the participants between the ages of 31 and 40, and lowest among those under the age of 20 (7.5 per cent) and those over the age of 70 (5.1 per cent). However, the majority of participants over the age of 50 had used substances.

**Table 6. Past-year prevalence of substance use among the study participants, by age group (percentage)**

Use in the past 12 months	Age (years)							Total
	< 20	21–30	31–40	41–50	51–60	61–70	> 70	
Yes	6.1	22.0	28.0	20.7	9.8	12.2	1.2	100 (9.9% of all participants)
No	9.9	30.3	25.6	15.3	8.6	5.0	5.5	100
<b>Total</b>	<b>9.5</b>	<b>29.4</b>	<b>25.8</b>	<b>15.8</b>	<b>8.7</b>	<b>5.7</b>	<b>5.1</b>	<b>100</b>

Among the participants who had used substances at least once in their lifetime, those between the ages of 31 and 40 accounted for the highest percentage (28 per cent) and those over the age of 70 accounted for the lowest percentage (1.2 per cent). The majority of participants between the ages of 61 and 70 had used substances in the past year.

**Table 7. Prevalence of substance use in the past 30 days among the study participants, by age group**

Use in the past 30 days	Age (years)							Total
	< 20	21–30	31–40	41–50	51–60	61–70	> 70	
Yes	7.1	17.9	23.2	21.4	12.5	16.1	1.8	100 (6.8% of all participants)
No	9.7	30.3	26.0	15.4	8.4	4.9	5.3	100
<b>Total</b>	<b>9.5</b>	<b>29.4</b>	<b>25.8</b>	<b>15.8</b>	<b>8.7</b>	<b>5.7</b>	<b>5.1</b>	<b>100</b>

The lowest percentage of current substance use was found among the participants over the age of 70 (1.8 per cent), while the highest percentage was found among those between the ages of 31 and 40 (23.2 per cent). However, the majority of participants between the ages of 51 and 70 were found to be current substance users.

## Discussion

Female internally displaced persons accounted for more than half of the participants, most of whom were married. This is comparable with the demographics described in some of the reviewed literature [3, 13 and 19]. It may be attributable to the higher prevalence of death among men during conflicts, as a consequence of their efforts to protect women and children and defend their territories.

The most populous age group was represented by the participants between the ages of 21 and 50, a youthful population in which most of the people had a low level of education and more than half were unemployed. These factors increase the likelihood of substance use [19] and also increase mental stressors, which further push individuals to increase their use of substances in a bid to cope [8 and 20].

The lifetime prevalence of substance use was 25.4 per cent, which was higher than that reported by Horyniak et al. in relation to refugees in Afghanistan, and by Nadine et al. in relation to Lebanon [3 and 8]. This could be explained by the fact that more types of substances were explored in the present study, in comparison with the reviewed literature. The lifetime prevalence of substance use observed among the participants in the present study was, however, lower than that observed among the general population in the cities of Kano (47.4 per cent) [21] and Uyo (37.7 per cent) [21]. Methodological differences could account for the different results. Moreover, the study conducted in Kano and Uyo was carried out among a more homogenous population, which may account for the higher prevalence observed in that study. The past-year prevalence of substance use of 9.7 per cent was comparable with that observed among the general population in the national drug survey conducted in north-central Nigeria. It was, however, higher than the prevalence of 5.6 per cent observed in the UNODC global report [9 and 10] and lower than that observed among the general population in the cities of Kano [21] and Uyo [21], although the respondents in the study conducted in those locations were clients that had been brought in for rehabilitation, which may explain why the prevalence was comparatively lower in those studies than in the present study. In addition, north-central Nigeria is still undergoing conflicts, and with a rise in conflicts, substance use is likely to increase. Also, owing to the poor and harsh living conditions experienced by the internally displaced persons there, many of them could eventually resort to substance use in order to cope [12].

Participants with substance use disorders comprised about 5 per cent of the total population and accounted for about 46 per cent of those who reported past-year use of substances, with alcohol being the most used substance, followed by tobacco and tramadol. This is similar to findings reported by Horyniak et al. in relation to internally displaced persons in Myanmar, the Islamic Republic of Iran, Viet Nam and Afghanistan [22]. Although lower than that observed in Croatia [3], the proportion of respondents with substance use disorders in the present study was higher than that observed among the general population in the national drug use survey [10]. This could nevertheless be a reflection of the unpleasant experiences and hardship internally displaced persons may have experienced, which may have caused them to resort to more harmful use of substances in order to cope.

The substance most used by the internally displaced persons was alcohol, with a prevalence of 18 per cent, of which about one third had consumed alcohol regularly in the past 30 days. The prevalence of alcohol use observed in the present study was higher than that reported in Colombia, Afghanistan and Iraq [3 and 8]. This may be explained by the cultural acceptance of alcohol use in the study area, where alcohol is seen more as a social beverage than as a harmful substance. The prevalence of alcohol use was, however, lower than that observed in Cambodia, Croatia and Serbia [3 and 8], and this may also be explained by the cultural acceptance of alcohol use, as alcohol is freely available, with limited restrictions on its use, in those countries. Alcohol was also the most commonly used substance among the general population, although the prevalence of its use was lower than that reported by Gureje [23], Lasebikan [24] and Abosiubong [21], whose studies were conducted mostly in the southern part of Nigeria, where the use of alcohol has been found to be higher than in the northern regions of the country.

Tobacco is another socially and culturally acceptable substance, which may explain why the lifetime prevalence of its use was 8.1 per cent among of the study participants, almost half of which were currently tobacco smokers, a finding similar to that reported by Lo et al. [14]. Among the general population in Nigeria, tobacco is the second most used substance, although the prevalence of its use has been found to be lower than that of other substances [21 and 23].

The use of opiates, in particular the pharmaceutical drug tramadol, is gaining in popularity in various regions. About 5 per cent of the population had used it at least once, of which almost half were currently using it. Various reasons have been given for its use, including to enhance physical strength in work, as most of the internally displaced persons who work are farmers or artisans. Those that use it believe it boosts their energy, thus making them more productive [12].

With regard to tranquillizers, amphetamines, cannabis, cocaine and hallucinogens, the prevalence of use fell between nil and 1 per cent for each substance, which was largely similar to the range observed in reports analysed as part of a systematic review [8]. The lack of availability and affordability of some of these substances might impede their use, and often leads users to seek less expensive alternatives. This could explain the lower prevalence of their use.

Age has been a factor associated with substance use both in the general population and among internally displaced persons. The participants in this study between the ages of 31 and 40 were found to have the highest



prevalence of lifetime use, past-year use and use in the past 30 days. Similar associations were found in a systematic review by Weaver et al. and in the general population [10, 25 and 26]. However, in previous studies, the older age groups had been found to be more strongly associated with lifetime prevalence and the younger age groups more strongly associated with current use [23 and 24]. Young people are in a time in their lives in which they typically experiment with new substances and must deal with peer pressure and other societal pressures, which may cause them to resort to substance use. Young people also represent a part of the workforce in which individuals struggle to make ends meet. As a result of frustrations and disappointments, they can easily turn to substance use. Among internally displaced persons, young people are more exposed to violence, experience more dissatisfaction with being displaced, and must deal with losses and the shattering of their expectations and plans, often leading them to use substances in order to deal with their pain and endure the difficulties of life. Among the study participants between the ages of 61 and 70, the majority had used a substance in the past year and were currently using a substance. This phenomenon warrants further research, as it could be attributed to attempts by people in that age group to cope with their experiences of conflict, or simply to a coinciding substance use disorder.

## **Conclusion**

The high prevalence of substance use observed in this study brings to light the plight of a neglected group of people whose population is increasing along with an increase in conflicts, in particular in north-central Nigeria. This study has contributed to the body of evidence and drawn attention to the need for more research in this area. The needs of internally displaced persons should be addressed psychosocially, as the effect of unmet needs has a bidirectional relationship with the eventual use of substances by such persons. This is a call for the comprehensive integration of substance use prevention services into the services already being provided to internally displaced persons.

Because this study was cross-sectional in design, it did not allow for the exploration of causality and ongoing complications. The dearth of literature on the subject prevented the making of robust comparisons, therefore inferences were made. Moreover, the scope of the study was limited to the prevalence of substance use, thus other factors associated with substance use were not explored. More research needs to be carried out among populations of internally displaced persons to explore the various factors that interact with substance use among them; longitudinal studies that examine the possible causes and effects of such use are needed in particular.

This study adds to the body of literature on the subject, which will help to inform Governments about the need for comprehensive health services for internally displaced persons. Addiction and trauma management interventions need to be integrated into the conceptual framework.

Findings should be made known to policy and decision makers to facilitate the efficient planning, implementation and evaluation of interventions involving internally displaced persons.

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# Prevalence of non-medical use of opioids among market women in Ibadan, Nigeria

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## ABSTRACT

*Empirical studies indicate that one in every four drug users in Nigeria is a woman. Increasing economic burden has necessitated women working outside the home in low-income petty trading. Anecdotal observations reveal that market women who own stalls and peddle their wares at local markets are a group vulnerable to the non-medical use of opioids. The aim of the study was to examine the lived experience of market women, including with regard to knowledge, drug use and misuse and social networking related to the non-medical use of prescription opioids, in Ibadan, a large city in Nigeria. A total of 181 purposively sampled women took part in the study. Qualitative and quantitative methods, by means of focus group discussions and structured self-administered questionnaires, respectively, were employed to collect data. Findings indicate that there is general knowledge about pharmaceutical and local opioids among market women. However, the type of trade was a factor in knowledge of and experience with specific types of opioids. In particular, liquor sellers were more conversant with the different types of opioids, such as tramadol and codeine, than women trading in other goods. A large number of participants admitted to using tramadol, but use was mostly restricted to the relief of body pain and ache arising from the stress of their trade.*

**Keywords:** Ibadan, market women, Nigeria, non-medical use, prescription opioids.

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## Introduction

The non-medical use of prescription opioids has become a growing health concern worldwide [1 and 2]. Opioids are a class of substances that act on opioid receptors to produce morphine-like effects. Medically, they are primarily used for pain relief and anaesthesia, and drugs such as OxyContin, Vicodin, tramadol, codeine and morphine are legally prescribed. In 2016, for the second year in a row, the largest seizures of pharmaceutical opioids were made in Africa (mostly in West, Central and North Africa), accounting for 87 per cent of the global total. Empirical documentation [3 and 4] and anecdotal reports in Nigeria reveal an increased use of opioids for non-medical reasons [5]. These findings led the Government of Nigeria to impose in 2018 a ban on codeine, an active pharmaceutical ingredient used in cough syrup.

The non-medical use of opioids in Nigeria is of concern. Anecdotal observations reveal that analgesics are readily available over the counter, at bus stations and in mechanic garages in local communities in Nigeria. Treatment provision data suggest that the extent of the non-medical use of pharmaceutical opioids in Nigeria is quite large. In 2016, cannabis (45 per cent) and opioids (36 per cent) were the main substances, excluding alcohol, for which people sought treatment for drug use disorders across drug treatment centres in Nigeria. According to the United Nations Office on Drugs and Crime, the most problematic opioids were tramadol and codeine [5]. Tramadol is an opioid used to treat moderate to severe pain that is widely trafficked for non-medical use in the region. It is smuggled into markets in West Africa, including Nigeria, from where some is trafficked onwards to the Middle East [5].

Prescription opioids used for non-medical purposes are the second most commonly used drug type in Nigeria [5]. According to the comprehensive national survey on drug use in Nigeria conducted in 2018, one of every four drug users was a woman [5]. An estimated 4.7 per cent of the adult population (about 4.6 million people) reported using opioids, such as tramadol, while an estimated 2.4 per cent of the adult population (nearly 2.4 million people) used cough syrups containing codeine and dextromethorphan for non-medical purposes in 2017 [5]. The gender difference in the non-medical use of pharmaceutical opioids, such as tramadol, codeine, morphine, tranquillizers and cough syrups containing codeine or dextromethorphan, was less pronounced (6 per cent among men versus 3.3 per cent among women). More women (20 per cent) than men (11.5 per cent) had injected pharmaceutical opioids, while the level of misuse of cough syrups among men and women was almost comparable, with 2.3 and 2.5 per cent, respectively [5].

Findings from the Nigerian Epidemiological Network on Drug Use reveal that, in Nigeria, women are at greater risk of using opioids for

non-medical purposes than men [6], and thus of developing opioid use disorders [7]. Studies on risk factors and the prevalence of a non-medical use of prescription drugs indicate that women and young girls are more likely to use prescription drugs for non-medical purposes [3]. Women are particularly important in the Nigerian context, owing to the fact that they are becoming very savvy and active economically, providing the support needed at home and sometimes becoming the sole provider for their families, with a greater burden of care [8]. Market women fall into that category. They include young and older women who own stalls or peddle their wares in local markets.

Inferentially, market women may be seen as an emerging at-risk population that uses and abuses prescription opioids primarily for non-medical purposes. Market women are a population of interest when considering the extent of hard work required by their daily trade. The assumption is that women who need to meet the increasing and inevitable demands of their trade are likely to seek an escape in the use and misuse of non-medically prescribed pain relievers in the form of opioids. However, non-medical opioid use and its associated conditions, including opioid dependence, can heighten the risk of pregnancy complications and birth defects [9].

Although drug use among women in Nigeria has been examined in empirical studies, those have mainly concentrated on ascertaining the prevalence rate of other drug use. Little is known about the experience and use of opioids for non-medical purposes among market women. To develop strategies to prevent and treat appropriately the increasing non-medical use of prescription opioids, there is a need for greater knowledge of its use among that cohort. The present study meets this aim by examining the experience and non-medical use of opioids among market women in Ibadan, a large city in Nigeria.

## **Method**

### *Study setting*

The study was conducted in Eleiyele market in Ibadan. Eleiyele is a suburb located in the Ibadan North-East Local Government Area of Ibadan city. It borders Dugbe, a major commercial centre, in the north and the Ibadan Polytechnic and the University of Ibadan in the south. Eleiyele market started as a stopover for trading in daily and fresh food brought by farmers who reside outside Ibadan. The market has now evolved into a large open-air market particularly known for discounted foodstuff, fruits, vegetables, pepper and other consumables. The market attracts traders from different ethnic groups in Nigeria, with the Yoruba-speaking group predominating.

Meetings related to the market and the welfare of traders are held in the *ile egbe* (market house). The market house served as the setting for the study focus group discussions and quantitative study among the market women. The team leader and research assistants visited the market house several times to enable the participants to take part in the study.

### *Participants*

A total of 181 market women trading at the Eleiyele market participated in the study. The women worked first and foremost as food vendors, but also as vegetable, provisions, daily-needs product and liquor sellers, as well as cassava processors and sellers. The participants were between the ages of 18 and 78 years, with a mean of 43.6 years and a standard deviation of 15.3. The mean number of years of schooling for the women was 7.42 (with a standard deviation of 4.27) and the mean family size was 5.37 (with a standard deviation of 2.89).

### *Sampling technique*

A purposive sampling procedure was used for the study. All women who own stalls or peddle their wares regularly at the market were considered as market women and eligible to take part in the study. Inclusion criteria included: (a) women of 18 years of age or more; (b) women who peddled wares or had owned a stall within the Eleiyele community for a period of at least six months; (c) women able to understand Yoruba or English; and (d) women able to give informed consent. In the first instance, a pool of all trades predominated by women in the study site was compiled. Index participants were then recruited through the trade associations sampled, on the basis of the study criteria.

### *Study instruments*

A focus group discussion guide containing 21 items was used to collect data about the nature and challenges of the women's trade and how participants coped with body pains and aches arising from the stress of their trade, including their experience with opioids. The focus group discussions provided a safe space for participants to discuss without judgement or prejudice issues such as knowledge about opioids, their street names, availability, accessibility, lifetime opioid use, reasons for use and network of users. A structured questionnaire containing open-ended and Likert scale questions was also distributed to the participants. Questions served to assess the participants' type of trade, education, family type, religious affiliation, marital status, family size and non-medical use of opioids.



## Procedure

Initial mobilization and information sessions were undertaken on site. The team leader first met the head of the market associations, known as the *babaloja*, which means “father of the market” in Yoruba. The *babaloja* thereafter invited the team leader on an appointed day to meet representatives of different trades at the market, when the objectives and approach to the study were explained. Logistics were planned and dates for the focus group discussions and quantitative study agreed by both parties. Afterwards, a formal approval to conduct the study among the market women was granted by the chair of the Eleiyele market. The market house served as the setting for the focus group discussions and quantitative study. Data were collected using structured self-administered questionnaires in English and Yoruba. The focus group discussions were conducted in either Yoruba or English and were tape-recorded. An open-ended question format was adopted to allow for flexibility and encourage the participants to describe their experience with opioids in their own words. All focus group discussions were recorded using an encrypted digital voice recorder and transcribed verbatim by the research assistance. The focus group discussion conducted in Yoruba was translated into English. Participants’ personal information and that mentioned during the focus group discussions were anonymized using pseudonyms. Most focus group discussions lasted about 40 minutes, while the completion of the questionnaire took an additional 15 minutes. A total of seven focus group discussions were conducted with 56 market women between the ages of 18 and 78 years, categorized into young and old adults. Eight market women took part in each focus group discussion and afterwards completed the questionnaire. The remaining 125 participants in the study mainly completed the questionnaire. Each participant received a pack of refreshments and a UNODC-inscribed souvenir.

## Data analysis

A thematic approach was used to analyse the interview transcripts [10]. The subordinate themes were merged into major themes on the basis of the frequency of the data supporting the themes. Three major themes emerged from the data set, namely, knowledge about opioids, drugs used by market women and reasons for drug use. Extracts from the data set were selected as examples under each theme. The frequency computation, mean and standard deviations of sociodemographic variables were calculated using the SPSS Statistics 20 software.

### Ethical approval

The proposal was reviewed and approved by the Social Sciences and Humanities Ethics Committee of the University of Ibadan. Each participant received an information sheet about the study and an informed consent letter which was signed before the study was conducted. To ensure privacy and minimize the risk of physical or verbal attacks by inquisitive people, the study was conducted in the *ile egbe*. Participants were informed that, if they felt unsafe at any point during the study, the study could be completed in their stalls at an agreed time and date.

### Results

A total of 181 market women took part in the study. As shown in table 1, 45.9 per cent of the participants were above 40 years of age. With regard to the type of trade, 69.6 per cent were food vendors, 24.3 per cent were non-food vendors and 6.1 per cent were liquor sellers. Twenty-one per cent of participants had no formal education, while 30.4 per cent had received primary education, 41.4 per cent secondary education and 7.2 per cent tertiary education. With regard to religion, 49.7 per cent were Christian and 50.3 per cent were Muslim. With regard to family type, 59.7 per cent were from a monogamous family and 40.3 per cent from a polygamous family. With regard to marital status, 93.9 per cent were married and 6.1 per cent had never been married. Lastly, 54.1 per cent had a small family (1–5 members), 35.4 per cent a medium family (6–8) and 10.5 per cent a large family (9 or more).

**Table 1. Sociodemographic and health characteristics of the market women**

Variable	Category	Frequency	Percentage
Gender	Female	181	100.0
Age	> 40 years old	83	45.9
	< 40 years old	98	54.1
Type of trade	Food vendor	126	69.6
	Liquor	11	6.1
	Non-food vendor	44	24.3
Education	No education	38	21.0
	Primary education	55	30.4
	Secondary education	75	41.4
	Tertiary education	13	7.2

Variable	Category	Frequency	Percentage
Religion	Christianity	90	49.7
	Islam	91	50.3
Family type	Polygamy	73	40.3
	Monogamy	108	59.7
Marital status	Never married	11	6.1
	Married	170	93.9
Family size	Small (1–5)	98	54.1
	Medium (6–8)	64	35.4
	Large (9 or more)	19	10.5

The distribution of participants by type of drug used (table 2) shows that about 29 per cent were current polydrug users. Codeine (20.4 per cent) was the most commonly used drug and opium (0.5 per cent) the least commonly used drug.

**Table 2. Distribution of participants by type of drug used**

Drug type	Frequency
Heroin	Never used 179 (82.9%)
	Current use 2 (0.9%)
Opium	Never used 180 (83.3%)
	Current use 1 (0.5%)
Codeine	Never used 137 (63.4%)
	Current use 44 (20.4%)
Prescription	Never used 168 (77.8%)
	Current use 13 (6.0%)
Polydrug abuse	Never used 119 (55.1%)
	Current use 62 (28.7%)

Three broad themes, namely, knowledge about opioids, drugs used by market women and reasons for drug use, emerged from the thematic analysis of the focus group discussions. Each theme is developed below, together with the percentage of market women who provided evidence for them.

1. Knowledge about opioids

There was sufficient knowledge about opioids, such as cannabis (23 per cent), codeine (27 per cent) and tramadol (51 per cent), among the market women.

A liquor seller said:

I sell alcohol, so there is no way I won't hear about it, even codeine. In my part-time as a hotel worker, I see people use all sort of drugs. (*Liquor seller, focus group discussion 5*)

Another market women, speaking about codeine, said:

Codeine has been in existence for long. We know it. I have used it ... Codeine is used when we are not feeling too well. Codeine is mixed with hot gin for abortion in the past. Codeine is used for fever and body pain. Young women use it as well. Codeine is well known and available. (*Vegetable seller, focus group discussion 2*)

The liquor sellers described a local blend of tramadol, cannabis and codeine commonly referred to as *skuchi* in the local dialect. *Skuchi* is sold as a beverage. Participants who traded in provisions and daily-needs products also described a combination of pharmaceutical tablets ingested orally commonly referred to as *akapo*.

A women describing *akapo* said:

When you buy *akapo*, paracetamol might be given, and calcium, Novalgine, Felvin and others. It overworks. There was a time I used it. I was awake all through the night, I had to drink palm oil and milk to subside the pain. (*Provisions and daily-needs product seller, focus group discussion 4*)

Twenty per cent of the market women had learned about the different types of opioids from people whom they had seen use them with subsequent negative effects. A liquor seller describing her first encounter with cannabis said:

Someone ... added it to my mother's food before and she slept all day. (*Liquor seller, focus group discussion 5*)

However, some of the women (10 per cent) said that they had learned about opioids the first time that they used it themselves.

It's a prescription from the hospital I was given when I complained of body pain, leg pain, sleeplessness. (*Vegetable seller, focus group discussion 2*)

I used it when I had lots of work to do and starting it seemed difficult, so when you use tramadol, in five minutes you won't even know you are doing anything. (*Liquor seller, focus group discussion 5*)

Knowledge of cannabis was almost non-existent among cassava sellers, who were mostly elderly women. A cassava seller, talking about cannabis, said:

What does that even mean? (*Cassava seller, focus group discussion 3*)

## 2. *Drugs used by market women*

There was evidence of self-medication, especially among sellers of liquor, provisions and daily-needs products. The drugs commonly used were tramadol, Felvin and Novalgin. Some of the women (14 per cent) admitted to using one of those drugs. Two liquor sellers, commenting on their use of tramadol, said:

I use it when I have work to do and if I don't want to end up having body pain. I realized that when I use it, I work extra hard and won't even notice I did anything, but once it wears off, you will feel the body pain. (*Liquor seller, focus group discussion 5*)

I used it when I had lots of work to do and starting it seemed difficult, so when you use tramadol, in five minutes you won't even know you are doing anything. (*Liquor seller, focus group discussion 5*)

Only few of the market women (6 per cent) admitted to obtaining prescriptions from the hospital. A vegetable seller narrated how tramadol was prescribed to her at the hospital when she "complained of body pain", as follows:

It's a prescription from the hospital I was given when I complained of body pain, leg pain, sleeplessness. (*Vegetable seller, focus group discussion 2*)

With regard to the use of cannabis, older market women believed that it was mostly used by young people. Two elderly fishmongers, commenting on cannabis use among young people, said:

It is not common among old women, but we might not know if we have been given cannabis water, because the country is in disarray. (*Fishmonger, focus group discussion 1*)

I don't know how it is consumed, but I know youths abuse cannabis. There are some that ... put it in a bottle like concoction and take it in the morning. (*Fishmonger, focus group discussion 1*)

Some of the women (8 per cent) narrated how drug use, especially tramadol and cannabis, was more common among the Hausa ethnic group. A liquor seller, commenting on this, said:

I have an association I belong to, and most of them are Hausas. Out of 58 of us, only four people don't take cannabis. They use it to make tea. In fact, I have friends that, if they invite me for their party and serve me vegetable soup, I can't eat it because I know they have added cannabis. (*Liquor seller, focus group discussion 5*)

Few market women (6 per cent) admitted to using cannabis, but not to relieve body pain. Two liquor seller responding to the question about their use of cannabis said:

I haven't smoked it before, but I use it to cook beans, make vegetable soup too. (*Liquor seller, focus group discussion 5*)

I noticed that my skin is fresher and bright when I eat it. (*Liquor seller, focus group discussion 5*)

Use of *akapo* and *skuchi* was not common among the market women. A vegetable seller described how *akapo* and *skuchi* were more commonly used by men than women, stating:

*Skuchi* use is not common among market women, but I have seen it with a man in the market, and he said it is used by boys to gain more energy. (*Vegetable seller, focus group discussion 2*)

However, some market women (6 per cent) explained that they used *akapo* to "feel high", while two liquor sellers said that they had used *skuchi* to be "sexually more active". Responding to the question about their use of *skuchi*, two liquor sellers said:

When you take a normal quantity, you will only feel high. I take it once in a while when my husband takes me out and I feel normal. (*Liquor seller, focus group discussion 5*)

I sleep normal and I'm more sexual active. (*Liquor seller, focus group discussion 5*)

### 3. Reasons for drug use

Use of drugs centred on relieving body pains and aches arising from stress. A fishmonger, commenting on this, said:

Yes, we use drugs after every day's work. We often have body pains, joint pain, leg pain, backache. (*Fishmonger, focus group discussion 1*)

About 27 per cent of the market women said that they experienced body pain after their daily work and admitted to resorting to drugs to relieve body

pain and leg pain and to sleep. Three market women stating their reasons for using tramadol said:

Tramadol is beneficial to the body because it relieves me of my leg pain. It is OK if not abused. (*Vegetable seller, focus group discussion 2*)

I used it when I had lots of work to do and starting it seemed difficult; so when you use tramadol, in 5 minutes you won't even know you are doing anything. (*Liquor seller, focus group discussion 5*)

Even if I shower and don't use drugs, I can't sleep. I won't feel OK. (*Provisions and daily-needs product seller, focus group discussion 4*)

A liquor seller explaining why she used *akapo* said:

I use it when I have work to do and if I don't want to end up having body pain. I realized that when I use it, I work extra hard and won't even notice I did anything, but once it wears off, you will feel the body pain. (*Liquor seller, focus group discussion 5*)

Although cannabis use was not very common among the market women, some (18 per cent), especially the liquor sellers, explained how it was mostly added to food. Three liquor sellers, commenting on the use of cannabis in preparing food such as beans and vegetable soup, said:

It is common among women, they use it to cook beans. (*Liquor seller, focus group discussion 5*)

I haven't smoked it before, but I use it to cook beans, make vegetable soup too. (*Liquor seller, focus group discussion 5*)

It is even used to make rice and even beans. (*Provisions and daily-needs product seller, focus group discussion 4*)

## Discussion

Codeine and the polydrug *akapo*, a combination of prescription opioids that includes tramadol, were the drugs predominantly used by market women in the study. In recent years, the non-medical use of such pharmaceutical opioids as tramadol and codeine-based cough syrups has been increasingly reported in Nigeria. The report on the recent survey on drug use in Nigeria confirms the finding of the present study that the non-medical use of cough syrups containing codeine or dextromethorphan (such as Coldex or Benylin) is the third most common form of substance misuse in Nigeria [5]. Ibadan

is the capital of Oyo State, a south-western State in Nigeria. The annual estimated prevalence of drug use in that State is 23 per cent [5]. This finding confirms reports of a high prevalence of opioid use in Oyo State in 2017 (8.3 per cent) [5].

Three major themes (knowledge about opioids, drugs used by market women and reasons for drug use) emerging from the lived experience of non-medical use of opioids by market traders were identified and analysed in the present study. There is general knowledge about pharmaceutical and local opioids among the market traders. However, the type of trade appears to be a determining factor in the knowledge of and experience with specific types of opioids. In particular, liquors sellers were more conversant with the different types of opioids, such as tramadol and codeine, than women trading in other goods. The non-medical use of pharmaceutical opioids, in particular tramadol, was high among participants. A large number of them admitted to using tramadol, but use was mostly restricted to the relief of body pain and aches arising from the stress of their trade rather than for recreational purposes. That stress and the availability and ease of purchasing of pharmaceutical opioids create favourable conditions for the abuse of opioids, especially tramadol, among market women. Unlicensed drug peddlers abound in local markets. Moreover, in pursuit of economic gain, local pharmacies sell pharmaceutical products without requiring buyers to produce valid prescriptions for such products.

Combining several pharmaceutical opioids in a polydrug popularly known as *akapo* is also common practice among the market women. This practice thrives on the belief that combining pharmaceutical opioids is more effective in relieving pain and aches than single doses. Women are increasingly providing for a very large part of the financial and economic needs of their family through their trades. Some of the participants in the study were as a matter of fact the breadwinners in their homes. Since they have to ply their trade on a daily basis to make ends meet, they need to be well at all times to attend to their customers. If peradventure one were to become ill, she would incur a financial loss arising from the time spent visiting the hospital, being admitted and of waiting for the prescribed single drug doses to have an effect. In lieu of that, combining several pharmaceutical opioids in a single dose is a better alternative to meet their obligation to earn an income.

### *Limitations*

Although Eleiyele market in Ibadan has a general market association and leadership, the market leadership is segmented by types of trade. That is, each trade had its own trade union. This created bureaucratic bottlenecks because permission to recruit participants was required at different levels:



first from the general market association, and then from the leadership of specific trade unions within the general market.

#### *Demand for monetary compensation*

At the start of the project, the market leaders in the study site were compensated for their effort to mobilize market women to take part in the study. However, in the course of the study, there were frequent demands for additional monetary compensation, with claims that, otherwise, the study would be hampered. The market association was using the research to favour its membership. Initially, the leadership of the Eleiyele market informed only members of the market association about the research. However, when this was observed, the research team resorted to meeting with the heads of the trade unions in the general market to inform them about the study and recruit participants from each trade.

### **Conclusions, implications and recommendation**

A substantial number of the market women have knowledge about pharmaceutical and local opioids, but only a few have a lived experience with them. Liquor selling as a common type of trade appears to be a factor in knowledge and experience with specific types of opioids. In particular, liquors sellers were more conversant with the different types of opioids, such as tramadol and codeine, than women trading in other goods. A large number of participants admitted to using tramadol, but use was mostly restricted to the relief of body pain and ache arising from the stress of their trade. It would be premature to formulate policies on the basis of these preliminary findings. More exploratory studies are needed to link specific trades to the use of opioids.

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# Factors influencing treatment-seeking behaviour among persons with drug use disorders

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## ABSTRACT

*Treatment-seeking behaviour significantly influences the course and outcome of mental, social and physical problems associated with substance use disorders. However, there is a dearth of information on the treatment-seeking behaviour of persons with drug use disorders in south-west Nigeria. We conducted the present qualitative study to identify the factors influencing treatment-seeking behaviour among persons with drug use disorders in order to develop recommendations to improve the uptake of drug treatment services in south-west Nigeria. There were 44 in-depth interviews conducted on drug users that had sought or received treatment for drug use. There were also three focus group discussions and six interviews of key informants. We used topic guides based on research questions and analysed transcripts using qualitative content analysis. The common themes found to influence treatment-seeking behaviour among participants were the perceived need for treatment, stigma, treatment cost and availability of funds, social support, fear of treatment-related issues, beliefs about treatment and alternative therapies and the perceived quality of care. It is important to understand the context and rationality of decision-making among persons involved in drug use. Exploring the clients' views could potentially help professionals to improve the quality of health services, inform policymakers and promote programmes that could increase the uptake of drug treatment services in Nigeria.*

**Keywords:** drug use disorder, in-depth interview, south-west Nigeria, treatment seeking.

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## **Introduction**

Treatment-seeking behaviour significantly influences the course and outcome of mental, social and physical problems associated with substance use disorders [1]. Drug use disorders contribute significantly to morbidity and mortality worldwide. It is important that drug users enter treatment to reduce that morbidity [2]. In drug use disorders, the individual experiences changes in thinking and behaviour, in addition to physical signs caused by continued use despite harm [3]. This syndrome includes craving, withdrawal symptoms, unsuccessful attempts to quit, the consumption of larger amounts over time and the inability to meet social and occupational obligations. This pattern of mental and behavioural changes occurs irrespective of the substance consumed [4].

Drug users need treatment for intoxication, withdrawal, drug dependence and common mental and physical problems associated with drug use, such as depression, anxiety, infections and chronic liver disease [5 and 6]. Nevertheless, previous studies suggest that there exists a huge treatment gap for persons with drug use disorders. A review of 37 studies in developed countries found that unmet need for substance use disorders was as high as 78.1 per cent [7]. Although varying rates of treatment seeking have been reported, depending on geographical location and setting, it may be as low as 1 per cent among persons with drug use disorder [8–10]. Several factors influence the use of health-care facilities by persons with drug use disorders. In the study of access to health care, five broad categories have been identified, namely, health policy, characteristics of health delivery system, use of health services, consumer satisfaction and characteristics of the population at risk [11]. Structural factors, such as the fragmentation of health care, the availability of trained personnel and infrastructural challenges, may limit access to existing facilities. In low- and middle-income countries, inadequate funding and low staff-to-client ratios may make access more difficult for persons with drug use disorders [12]. Additional contextual factors beyond health, such as poverty, inequality and low levels of literacy, add to the challenge of getting appropriate treatment for drug use disorders. Nevertheless, previous studies suggest that individual factors and cultural barriers may potentially influence treatment seeking even if appropriate facilities are available. Therefore, persons with drug use disorders may not seek treatment despite evidence that early entry into substance treatment programmes may reduce physical and psychosocial harm related to drug use [1]. This is because treatment-seeking behaviour is a dynamic process affected by multiple factors [13]. Those factors may not be universally consistent because of the interplay of treatment-seeking behaviour with the sociocultural views of the individual. In western countries, the client's age, duration of psychoactive substance dependence and psychiatric co-morbidity were identified as common factors contributing to the use of drug abuse treatment facilities

[14 and 15]. Furthermore, such factors as previous treatment-seeking attempts, perception of need for treatment, accessibility of treatment options, lack of trust in the treatment outcome, treatment cost and availability of funds, perceived quality of treatment and referral patterns have been identified as playing important roles in treatment-seeking behaviour [14 and 16–18].

These findings may not be consistent with evidence from non-western countries, which suggests that sociocultural factors, such as stigma, beliefs, attitude and social support, may play a more significant role in influencing treatment-seeking behaviour among drug users. For example, in Brazil, drug use, severity, presence of co-morbidity and family support have been cited as important factors influencing treatment seeking among drug users [19].

According to the national survey of drug use in Nigeria of 2018, an estimated 22.4 per cent, or 4.38 million people, had used drugs in the previous year. The prevalence of illicit psychoactive substances reported in south-west Nigeria were: cannabis (14.1 per cent), opioids (7.9 per cent), codeine-containing cough syrup (3.6 per cent) and amphetamines (0.3 per cent). More than one third of cannabis users, one quarter of heroin users and one fifth of opioid users met the criteria for drug use disorders or dependence [20]. Data on the sociodemographic profile of treatment seekers in Nigeria are available. According to the Nigerian Epidemiological Network on Drug Use, cannabis, cocaine and “crack” cocaine constituted 49 per cent of primary drug use by treatment-seeking persons with substance use disorders in 2016 [21].

According to a descriptive survey of substance abuse treatment centres in Nigeria, 48 per cent of the centres were located in south-west Nigeria and 58 per cent were run by non-governmental organizations [22]. In south-west Nigeria, drug abuse treatment provided by stand-alone mental health facilities and faith-based institutions involves residential and intensive outpatient treatment programmes [23]. In addition, some persons with drug use disorders benefit from brief interventions at secondary and tertiary health-care facilities in south-west Nigeria.

In a recent survey of barriers to accessing drug treatment services, the cost of treatment, stigma, the unavailability of treatment services, lack of awareness and fear and distrust of government facilities were identified as possible factors [20]. Nonetheless, little is known about the individuals’ perception and experience of drug abuse treatment and how those can potentially influence treatment-seeking behaviour. Apart from structural factors, it is important to explore an individual’s willingness to seek care. This may involve a deeper understanding of drug users’ attitude and perception of drug abuse treatment. In view of the above, there is a need for more

information on the treatment-seeking behaviour of persons with drug use disorders in south-west Nigeria.

To tackle this issue, the study used a conceptual model originally proposed by Aday and Andersen [11] to explore treatment-seeking behaviour by considering the three main characteristics of consumers: predisposition to use, such as values about health and illness; factors that enable or hinder use, such as social support; and treatment needs. What sociocultural factors influence treatment-seeking behaviour among persons with substance use disorders in south-west Nigeria? What motivates those persons to seek treatment? Exploring the reasons for seeking treatment may help professionals to improve the quality of health services, inform policymakers and promote programmes that improve the uptake of drug treatment services in south-west Nigeria.

## Method

The present qualitative study was conducted to gain insight into the factors influencing the treatment-seeking behaviour of persons with drug use disorder.

The study was conducted in three locations: Ikeja (Lagos State), Abeokuta (Ogun State) and Ogbomoso (Oyo State). These are major towns in three of the six States (Ekiti, Lagos, Ogun, Ondo, Osun and Oyo) in south-west Nigeria. The population of the region is estimated at 32.5 million people. The main ethnic group is Yoruba, with different dialects spanning the entire region. The region is also home to two of the three largest cities in Nigeria, namely, Lagos and Ibadan.

### *Study population*

The main respondents were adults of 18 to 65 years of age who had been diagnosed by psychiatrists as suffering from drug use disorders (according to the fifth edition of the *Diagnostic Statistical Manual of Mental Disorders* [4]) and had sought or received treatment for drug abuse and related problems. We included female and male adults and users of various illicit drugs to enrich the interviews. Key informants from the community, such as health workers who were directly involved in drug abuse treatment, were also interviewed.

### *Sampling and recruitment*

The main respondents were drug users recruited from a major drug house in Ikeja and two centres in Abeokuta and Ogbomoso that offered drug abuse

treatment services. These centres run outpatient clinics and facilitate weekly therapeutic meetings for persons with substance use disorders. With the permission of relevant authorities, potential participants were recruited from those sites. To ascertain diagnosis of drug use disorders, two psychiatrists evaluated the participants for features of mild to severe drug use disorders, as defined in the *Diagnostic Statistical Manual of Mental Disorders*. After recruiting the first respondents, snowballing was used to recruit more participants. To allow for maximum variation, gender, age and types of drug used were considered in selecting participants for in-depth interviews. A total number of 44 in-depth interviews were conducted. There were also six key informant interviews involving two doctors, three nurses and one social worker, all with experience in the field of substance use treatment. In addition, we conducted four focus group discussions. Three groups were comprised of men (one in Ikeja and two in Ogbomoso) and one group of women, in Ikeja (with five women).

#### *Data collection procedure*

The researcher and four research assistants trained in the use of qualitative methods to take notes and interview. Topic guides for the in-depth interviews and focus group discussions were developed to facilitate the discussions. This involved the use of a number of open-ended questions that were based on the research objectives. We developed topic guides on the research objectives in order to explore different factors, such as treatment needs, knowledge of treatment choices, perceived challenges associated with treatment, motivation to seek treatment, perception of treatment efficacy, perception of associated psychosocial problems that need treatment and treatment expectations. Some of the questions asked included: “should persons who abuse drugs seek treatment?”, “why?”, “for what possible reasons can drug abusers seek treatment?”, “what is your experience with seeking drug abuse treatment?”, “what are the barriers to using drug abuse treatment facilities?”, “what are the enablers?” and “what helps a drug abuser to stay in treatment?”. Each interview lasted 15 to 75 minutes. The interviews were recorded with MP3 devices, with the permission of the respondents. We also took written notes. The interviews were conducted in Yoruba or English, according to the interviewees’ preference, to facilitate effective communication.

#### *Data processing and analysis*

The principal researcher led the data processing and analysis. The research assistants transcribed the audio recordings while Dr. Abayomi checked for accuracy. A grounded theory approach was used during data analysis.

Dr. Abayomi generated an initial set of codes manually after reading the transcripts. Dr. Alatishe then reviewed the codes by cross-checking them against the transcripts, to ensure agreement. Following further discussions among the authors, some codes were reassigned. We then proceeded with an analysis in three phases. First, themes that emerged from transcribed data were selected and noted. Second, we labelled and arranged responses according to emerging themes, such as stigma, perceived need for treatment and social support. Third, we synthesized and summarized an analysis under each theme to reflect the various views of respondents. Frequency tables were used to describe sociodemographic variables and substance use.

### *Ethical considerations*

Ethical approval was obtained from the Institutional Ethical Review Committee of the Ladoké Akintola University of Technology Teaching Hospital, Ogbomosho. All participants were given adequate information before consent was obtained. Interviews were held in private settings to reduce the risk of social harm. We removed all personal identifiers, such as hospital numbers and names, to maintain confidentiality. Psychological support was available to persons who needed additional help during the interviews.

## **Results**

### *Sociodemographic characteristics and drug use*

The participants had a mean age of 33.1 years (with a standard deviation of 13.5). There were 37 men and nine women, of 18 to 62 years of age. The majority were single (71.7 per cent) and Christian (89.1 per cent), had completed secondary school education (67.4 per cent) and belonged to the Yoruba ethnic group (80.4 per cent) (see table below). The majority of the respondents were also polysubstance users (58.7 per cent) and reported the current use of a wide range of illicit psychoactive substances. Most reported using cocaine, cannabis, heroin, codeine and tramadol. The commonest form of multiple illicit drug use was a combination of cocaine and heroin (57 per cent). Eighteen of the respondents were receiving drug abuse treatment as at the time of the interviews.



**Sociodemographic characteristics of respondents  
(total number of respondents: 46)**

<i>Variable</i>	<i>Number</i>	<i>Percentage</i>
<b>Sex</b>		
Male	37	80.4
Female	9	19.6
<b>Age group (years)</b>		
18–30	31	67.4
31–40	5	10.9
41–50	4	8.7
51 and above	6	13.0
<b>Marital status</b>		
Never married	33	71.7
Married	7	15.2
Others	6	13
<b>Ethnicity</b>		
Yoruba	37	80.4
Igbo	7	15.2
Hausa	2	4.3
<b>Religion</b>		
Christianity	41	89.1
Islam	5	10.9
<b>Educational level</b>		
None	1	2.2
Primary	5	10.9
Secondary	31	67.4
Tertiary	9	19.6
<b>Polydrug use</b>		
Yes	27	58.7
No	19	41.3

The participants had either sought treatment or received care in private or public treatment settings. Some had received treatment at multiple centres. Most described having a positive experience with community-based centres that offered basic support. Some had had experience with a supportive environment where their physical needs, such as clothing, food and shelter, had been provided for.

## Factors that influence treatment seeking among drug users

During the in-depth interviews, the participants highlighted factors that could influence treatment-seeking behaviour.

### *Perceived need for treatment*

This theme captures the participants' predisposition to treatment. Although most of the drug users appreciated the value of treatment, they acknowledged that they were unlikely to seek treatment voluntarily unless it was necessary. Others, however, admitted that experiencing symptoms of co-morbid mental illness might give them no choice. It is not unusual for people to define themselves as "social users" who do not need treatment until disabling mental symptoms develop. This was highlighted by a 26-year-old participant with co-morbid mental illness (key informant 34):

I felt I was just a social user, so there was no reason to seek treatment until I started hearing and seeing strange things. This was a terrifying experience for me. I didn't want to lose my mind.

Some of the respondents expressed a need for detoxification, which was described in varying ways, repeatedly stressing the need to "flush" the system. In some cases, this is in response to physical complications that may overwhelm persons with drug use disorders, as expressed by a 26-year-old unmarried woman who was a user of cocaine and heroin (key informant 15):

Going for medical treatment to remove the bad blood, that is, the "Charlie" [cocaine-tainted] blood and be given normal blood, so that I can be able to get myself, chilling out, that is, going somewhere and leaving the environment where illicit drugs are available for like a period of one month.

While an individual may have used drugs to cope with problems, persistence of such challenges can further deteriorate the drug user's circumstance, which might trigger an acute need for help and a move to seek treatment. Apart from health problems, the loss of productivity, interpersonal crises and other multiple losses at home and work may contribute to treatment seeking, as illustrated below:

From my own observation, it is not until the drug users hit rock-bottom, although it is not advisable, but most of the time it is either when they lose their wife or their partner, or there is no more job, or their health is in danger, before they contemplate treatment. (*Key informant 3, 40-year-old man, unemployed user of cocaine and cannabis*)

Drug users who have a strong sense of being in control are unlikely to seek treatment. This feeling may be re-enforced by attempts to quit on their own and past periods of voluntary abstinence. This may be due to their perception of drug use disorder as a moral weakness rather than a disorder. According to a 21-year-old undergraduate with cannabis dependence (key informant 29), believing that one could stop if one so desired reduced the value of seeking formal treatment:

I used to feel like there is nothing I will come and do here in rehab. I used to always believe that, if I wanted to stop, I could easily stop. I have taken breaks before at different times, as much as four months at a stretch, so I have always felt like if I wanted to stop, I would stop. I still hold on to that belief.

Although they had not successfully achieved remission in the past, they were confident about their capacity to quit without support from therapists and treatment facilities. Participants without the perceived need for treatment were unlikely to seek help voluntarily.

### *Stigma*

Stigma had an impact on why respondents sought treatment services. Psychiatric hospitals offer treatment for both substance use disorders and mental illness in view of its frequent co-occurrence with psychoactive substance use. Being a patient of such hospitals is often stigmatizing, even for cocaine and heroin users who do not suffer from co-morbid mental illness. Female drug users expressed concern about the implications of their being identified as drug users in the course of receiving care.

Some of the participants expressed concern about public attitude to drug users. According to a 31-year-old music producer who used cocaine, heroin and crack (key informant 7), reflecting on how people viewed drug users before and after treatment might discourage drug users from seeking treatment:

There is an awkward way people that don't do drugs look at people that do drugs, they condemn us saying "this one is different". Those that are even seeking treatment, when they want to go for treatment, they might be thinking about what people will say. This may draw them back, preventing them from going into rehab.

This concern about attitude to drug users also extends to family members and partners, who may not have known that an individual suffered from drug-use disorder until that person sought treatment. Since seeking treatment involves acknowledging the extent of drug use, thinking about how

loved ones will react may delay the decision to seek treatment. The impact of not knowing how partners will react when drug users obtain treatment was highlighted by a 25-year-old unemployed male user of cannabis and codeine:

I was concerned about what people would say if they saw me being admitted. What would go on in my parents' minds about me? This made the decision to get treated difficult for me.

One reason for this negative attitude to drug users is its close association with mental health, which is highly stigmatized. In view of this, friends and family discouraged persons with drug use disorders from receiving care from mental health facilities that offer drug abuse treatment. This was the experience of a 22-year-old user with cannabis and codeine dependence (key informant 32):

When I even told all my friends, all of them were like "ha", you don't have to go to rehab, do you have to go to the rehab? The thought was it is mad people that have to go to rehab, you know, at Aro [a neuropsychiatric hospital], in Abeokuta. That was the kind of thing we were all looking at, that you don't have to go, it is mad people that go there.

Respondents were also bothered by health-care professionals' attitude to drug users. This hindered the voluntary disclosure of information on drug consumption during hospital visits and reduced the likelihood of initiating drug abuse treatment on their own. This issue was raised by a 25-year-old female user of cannabis, codeine and tramadol (key informant 36) who refused to share pertinent information about her drug use during an emergency:

I once reacted to two tablets of tramadol and started vomiting blood. Despite this, I refused to seek help in the hospital because I didn't feel like going. How will I tell the doctor that I smoke and use hard drugs? Don't you know this can get me into trouble if people come to know about my drug use?

#### *Treatment cost and availability of funds*

Some participants were only willing to seek treatment if it was free. In the absence of local health insurance schemes, drug treatment is paid out of pocket. While those with adequate support received help from extended family members who bore the cost of treatment, others engaged in illegal activities, such as begging, stealing and prostitution. Some participants said that they would rather spend money on drug use than their health. According to a 24-year-old unemployed female drug user, drug use mattered more than treatment if money was available:

Hmm, that place [referring to a popular drug abuse treatment centre] is too far. If you want to go to Yaba, is it not money you will spend? I will probably spend 300 naira on transport. With that, I can get two Charlies [cocaine doses] that can cure me a bit.

The lack of funds in resource-constrained settings where extended family members contribute to fund care was a source of concern to individuals who did not have the means to complete drug treatment on their own. Although non-governmental organizations occasionally organize free interventions, a 40-year-old unemployed male user revealed that funding might even limit access to cost-free community drug-intervention programmes:

If you invite a drug user who stays in Ikeja to the health centre on Lagos Island for an intervention, funding can be a problem... The person won't even get there because he doesn't have the funds.

### *Social support*

Most of the participants that sought treatment were supported by family members and friends who obtained information on drug abuse treatment services available, conveyed drug users to the facility, paid the bills and continued to motivate them during follow-up.

For young individuals with drug use disorders, parents played a critical role in treatment seeking. Apart from funding the cost of care, they acted as caregivers in times of crisis and might be involved in relapse prevention. The participants highlighted these important roles during the interviews:

Without the support of my parents, I would not have considered getting help. At that time, I didn't even know the service was available at the Teaching Hospital. (*Key informant 34, a 26-year-old participant with co-morbid mental illness*)

My parents initiated the drug abuse treatment I received in 2017. They took me to the pharmacy and gave me drugs to use. The doctors were open and supportive. I decided to quit based on advice. My family was very supportive in taking me to the hospital and taking me for check-ups regularly. (*Key informant 33, a 25-year-old unemployed, male polydrug user*)

Family members, friends and colleagues may provide the motivation that drug users need to seek treatment. According to a 22-year-old participant with multiple drug dependence (key informant 30), having people who cared might motivate those feeling ambivalent about undergoing treatment:

It is difficult for drug users to seek treatment on their own. Drug users only seek treatment if someone close to them or someone who cares

about them tries to help them and notices that, OK, their life is maybe going backwards, and tries to help them. It is very difficult for a drug user to personally determine to do it himself.

*Fear of treatment-related issues*

Apart from the financial burden of care, a number of treatment-related issues might interfere with receiving care. This includes entry requirements, treatment processes, demand on time, involvement with therapists, leaving home to be part of therapeutic communities and impact on current lifestyle.

One participant, a 25-year-old multiple drug user (key informant 33), felt that residential treatment would disrupt his lifestyle and productivity and cited this as a source of concern that influenced treatment seeking:

Why will I go for treatment when I have a lot of things to do at home? I was angry and violently refused any attempts to get me into inpatient care.

For persons with drug use disorders with co-physical health conditions, receiving a diagnosis may be a source of anxiety. This fear of what formal evaluation in the hospital may reveal may affect treatment seeking. According to one of the participants, a 25-year-old female user of marijuana, codeine, tramadol and pentazocine (key informant 36):

After going to the hospital on one occasion, I became frightened when the doctor said I could die.

The risk of being exposed may also be a barrier to treatment. Public health facilities keep open wards that are accessible to health workers, visiting family members and support staff. This may make privacy difficult to maintain. One 20-year-old undergraduate was worried about how a breach in confidentiality may affect him after his discharge:

If a good friend of mine should see me in the drug abuse facility, he will be talking about different things. He may pass the information to my friends who may begin to think there is something wrong with me and may not want to associate with us. (*Key informant 38, a 20-year-old undergraduate in treatment for cannabis use*)

In some instances, the health-care practitioner may breach confidentiality, with significant impact on the patient. A 25-year-old female multiple drug user expressed concern about receiving care in the hospital after a negative experience:

I confided in him that I was using marijuana, codeine and tramadol. He then went on to tell my dad I was using drugs, without my consent.

### *Beliefs about drug abuse treatment and alternative therapies*

Apart from physical recovery and support through withdrawal phases, some interest was shown in other aspects of treatment, such as relapse prevention. Participants also had doubts about the effectiveness of treatment. Some felt that problems associated with drug use could be effectively managed at home or with alternative therapies. Rather than seeking help at appropriate facilities, they had other ways of managing problematic drug use. For example, a 22-year-old man with cannabis and codeine dependence believed in “chewing groundnuts” to manage drug intoxications:

When I was in Unilag [University of Lagos], if I smoked, you know, maybe when you go to the club... When you are very high, maybe you probably don't really have control of yourself, they say “chew groundnuts”. I don't know if there is really a specific quantity, I just know you chew groundnut until... you just keep on chewing... I don't know how to explain it, but I know it helps, it reduces the... your tendency to misbehave.

The participants preferred buying medications without prescription to manage complications of drug use. They believed that this could resolve most of the problems. This reliance on self-medication was expressed by the participants. According to a 25-year-old female user (key informant 36), it was possible to identify and regularly buy medicines to resolve drug-related problems:

I resolve most problems with self-medication, usually with a medication called “chest and lungs”, sleep and food. I also drink a lot of water after drug use.

The persistence or deterioration of health conditions after self-medication may influence the decision to seek treatment:

If unpleasant drug-related symptoms occur, I still prefer to buy drugs directly from the local chemist. It is only if the health condition becomes unbearable or out of control that I ever consider seeking treatment. (*Key informant 37, a 25-year-old female user of marijuana, codeine, tramadol and pentazocine*)

### *Perceived quality of care*

In terms of choice of treatment, the availability of basic amenities, medications to manage withdrawal symptoms and general attitude of health-care

workers were mentioned as factors that may weigh on their decision to seek treatment voluntarily at a specific facility. In determining quality of care, drug users focused on their personal experiences with treatment and reports from co-users that had received care in the past.

One participant, a 43-year-old polydrug user, reiterated that the availability of food in the health facility was an important consideration in seeking treatment there:

If a centre is unlikely to give extra benefits, such as food, I will not go there. But if I know I can get good things such as food within 30 minutes, why won't I go there? I don't care about what others say or think about my drug use as long as I know there are benefits in going to a centre.

Another participant, a 36-year-old unmarried songwriter involved in heroin and cocaine use (key informant 20), pointed out why he was unlikely to seek long-term care in a faith-based organization without capacity for medical care. According to him, those organizations ran abstinence programmes and were unlikely to support people experiencing withdrawal with medications:

They do take people to church, but most people leave there because they complained of pains. They do need medications, even if it is paracetamol.

The perception of the quality of care available at specific treatment facilities was also acknowledged by a 24-year-old unemployed married woman, user of cocaine and skunk (key informant 18), who said she would resist attempts to take her to public treatment facilities for drug abuse treatment because she felt they could do more harm than good:

There is a place called "Majegun", where some of our guys go to, they say they used to give them Largactil. There is one of our guys here who just came back with swollen legs! I will swear for any person who tries to take me there for treatment. Do they want to kill me?!

One participant, a 55-year-old unemployed male user of cocaine and cannabis (key informant 22), who had been treated in hospitals and spiritual homes, shared some of his negative experience. According to him, he was unlikely to seek such treatment again:

I was chained to the ground and given herbs and all types of traditional medicine. Nothing orthodox. It was always the local stuff, until one feels capable of conducting oneself in a normal way.



We triangulated data from in-depth interviews with focus group discussions and interviews with health workers. During the focus group discussions, stigma, cost and social support were also cited as factors that may influence treatment-seeking behaviour among drug users. According to the participants, many might become motivated if people showed them love and affection. However, common beliefs about persons with drug use disorders lead to social distance and discrimination. For example, one female participant who had been homeless for seven months said that she had been expelled from home because of her drug use. She slept at drug houses and engaged in prostitution to support her drug use. According to her, the drug dealers seemed to care more about her than her family members, therefore she regularly turned to others at the drug houses for support and advice:

We need more people to show more love and, as they said earlier, no discrimination; show them more love and show them caring, concern that you know will make them want to avoid that thing that people don't like in them. (*Focus group discussion 1*)

We want our parents not to chase us away because we are taking drugs, and they should not see us as if we are not children again. They should take us closer and pray for us, and I know we will change because it not from our mind. Family members should be supportive and users should not be cast away. (*Focus group discussion 3*)

Even if they know it's causing problems, anything that can make them seek treatment, like love, family, friends... these may push. They have someone they want to be better for. Most drug abusers don't care anymore, so it has to be something strong, like relationships or responsibilities. (*Focus group discussion 4*)

The participants also believed that Government should develop better policies to reduce stigma and create a better atmosphere for drug users to talk openly about drug-related problems and seek treatment:

For those that have stopped smoking, government legislation should discourage discrimination so somebody can easily declare himself and seek treatment without worrying about the stigma. (*Focus group discussion 1*)

The role of insight in attitude to treatment was reported. Lack of insight may affect knowledge of the harmful effects of drugs and awareness of the value of treatment, and influence the perceived need for treatment. According to the participants, when persons lacked insight, they were unlikely to support interventions actively:

Some of us are ignorant of the effects of drug use. Even if you bring intervention to our doorstep here, some people will still resist it. So there must be continuous education. (*Focus group discussion 1*)

Most of these users are not actually aware of the fact that they can help themselves or they can get treatment, so many of them don't know that these facilities are there to help them, [furthermore] the outreach [service] probably isn't getting to them. (*Focus group discussion 2*)

Cost was cited as a significant barrier to accessing treatment. Drug abuse treatment is expensive. Many centres request an initial deposit that is more than the country's monthly minimum wage. Without the support from family members and non-governmental organizations, the most vulnerable "just continue using till they give up".

Some people want to go for treatment, but these treatment facilities are expensive and not everybody can afford it. For those that seek treatment, maybe their family members are there to help them, but if they are alone and they don't have the money, they just continue using it and they just give up. So if probably the Government can help in making it easier for them to get access by subsidizing treatment, that will help. (*Focus group discussion 2*)

## Interviews with health workers

We interviewed health workers working in the field of substance abuse treatment to validate some of the views expressed by drug users. According to the key informants, stigma and the attitude of family members played a strong role in determining whether to seek or stay in treatment.

People don't want to have any contact, anything in their history that says they have been in contact with psychiatric services, stigma is a barrier to treatment-seeking behaviour and the use of available services. (*Key informant 24, a mental health worker in Abeokuta*)

I remember a student with drug use disorder we recently managed. Even the way his mother talked to the client did not help, saying "see what you have done to your life, all your mates have graduated, some of them are already working in banks and doing well, see how you have destroyed yourself". (*Key informant 26, a mental health worker in Ogbomoso*)

One of our clients was rejected by family members. He wasn't allowed into the house because they felt he would bring drugs home. So, the only option he had was to go back to the joint. Of course, being around such

things, at first they will give you it for free, but definitely, they are trying to hook you up. That's how he later died. (*Key informant 28, a psychiatric nurse working in a community-based drug abuse treatment facility*)

## Discussion

Our findings provide important insights into the treatment-seeking behaviour of people who use drugs. We identified seven factors that potentially influence treatment seeking among persons with drug use disorders, namely, perceived need for treatment, stigma, treatment cost and availability of funds, social support, fear of treatment-related issues, beliefs about treatment and alternative therapies and perceived quality of care.

In exploring the predisposing component of Aday's conceptual framework [11], we found that beliefs about treatment and alternative therapies, perceived quality of care and fear of treatment-related issues were important factors influencing treatment-seeking behaviour.

Beliefs about treatment and personal experience with health services may affect how drug users feel about seeking treatment when the need arises. Some of the participants asserted that what they knew about drug abuse treatment, based on personal experiences and feedback from co-users, could potentially affect their choice of treatment. This supports evidence that negative perceptions about treatment effectiveness restrict help-seeking in persons with drug use disorders [24 and 25]. Ignorance, suspicions about treatment and adverse personal experiences have also been observed to be potential barriers to enrolment into drug abuse treatment [25]. The perceived quality of care may also influence how long drug users stay in treatment. All of the respondents desired an emotionally and physically supportive atmosphere irrespective of the treatment setting and duration. One recurrent theme expressed by cocaine and heroin users in the present study was their inability to cope with withdrawal symptoms during hospitalization in centres that ran abstinence programmes. In the absence of substitution therapy, drug users may disengage early, increasing the risk of relapse.

In the present study, stigma, social support, treatment cost and availability of funds were found to be factors within the enabling component of the framework. These factors highlight the important role of resources specific to individuals in gaining access to treatment.

People react emotionally when loved ones check into rehabilitation facilities. Loss of trust, shame, guilt, disappointment and anger are not uncommon reactions of family members during treatment. The stigma attached to

receiving drug abuse care may be a barrier to treatment seeking [26]. Apart from self-stigma, treatment delay may be attributed to the negative attitude of the community and health-care professionals towards drug users.

The impact of stigma on female drug users was highlighted in the present study. The fear of being exposed before, during or after care may have a greater impact on female drug users, who prefer self-medication and reliance on co-users rather than trained health workers in times of crisis. Such concerns about privacy and confidentiality among users of drug abuse treatment services have been reported in the past [27]. The social sanctions associated with female drug use may make it more difficult for a female drug user to obtain needed treatment and delay treatment seeking. Delay by women in seeking treatment has also been reported for other health conditions associated with shame and embarrassment [28]. It may potentially lead to higher morbidity among female drug users, who wait until the drug-related health problems become life-threatening before seeking help. These findings are consistent with available literature on stigma. For example, in a qualitative study of barriers to primary health care, provider stigma was problematic, and stigma was interconnected with other forms of discrimination [29].

In the present study, one major identified barrier to treatment was the availability of funds. Similar findings were reported in another study in the United States of America, where 42.9 per cent of individuals with unmet need for substance use disorder treatment cited financial difficulties as the most common reason for not seeking treatment [26]. It is also consistent with findings in developing countries. For example, the commonest barrier to treatment among drug users in the national survey of drug use in Nigeria of 2018 was the unaffordable cost of treatment [20]. The cost of drug abuse treatment in Nigeria, which patients usually pay out of pocket, places a financial burden on users and limits access to health facilities. Indirect costs of treatment, such as time lost to treatment, loss of revenue or loss of employment, also have a negative effect on academic pursuits, productivity and relationships.

The present study highlighted the role of the family in initiating and providing adequate support during and after treatment. This agrees with a study of persons with drug use disorders in India, in which it was reported that some drug users sought treatment under family pressure [30]. According to another study of treatment seeking and substance use, approaching family members was the most common form of seeking help [31]. Immediate and extended family members play a critical role in the health-care decisions of individuals in resource-constrained settings. Family members contribute to the cost of treatment, caregiving and community reintegration and provide social support.

According to the present study, the perception of the need for treatment may affect motivation to seek or stay in treatment. Some of those that voluntarily sought treatment were driven by their physical needs (food, clothing and shelter). Although the participants experienced craving, tolerance, withdrawal, reinstatement, loss of control and other features of dependence, some felt that they only needed treatment if serious physical or mental health problems developed. The focus on physical health is consistent with previous studies. For example, in a study of treatment goals in addiction health care, drug users rated physical health and recovery from psychological distress as very important goals [32].

In the present study, we found that experiencing serious physical and social problems during substance use was a strong motivation for engaging with health facilities. This is consistent with previous research on the users' perspective of reasons for seeking treatment. For example, in a study of why persons with drug use disorders quit, it was found that hitting "rock-bottom" generated feelings of despair, hopelessness and losing control that facilitated the decision to quit [33]. This decision to seek treatment may result from the build-up of harmful psychosocial problems creating a conflict between personal goals and continued use [34].

The study had its strengths and limitations. We did not assess specific types of physical or psychological co-morbidities experienced by the respondents, which could potentially confound the views and experiences of some of them. We used a purposive sampling method, which may entail a risk of bias and limits generalization.

## **Conclusions, implications and recommendations**

The present study identified perceptions and experiences that affect the treatment-seeking behaviour of persons with drug use disorders. In view of the potential impact of the drug users' knowledge of treatment seeking, educational interventions have a role to play in helping drug users to appreciate the value of evidence-based intervention and understand treatment options. This may include educational campaigns on when and where to seek treatment for drug use disorders. The study also found that the views of persons with drug use disorders remain valuable in optimizing the use of health facilities offering drug abuse treatment. The subjective assessment of such services also highlights the value of conducting needs assessment before establishing community-based treatment facilities in order to promote optimal use. For treatment providers' planning services, this may mean having the right mix of treatments according to the needs of the community. The experiences of the participants suggest that there is a need to continue to strengthen policies that discourage stigma and discrimination. To overcome

the substantial barrier of treatment cost, there may be a need to subsidize the costs of medications and other forms of treatment by expanding the coverage of insurance programmes. In addition, the present study underlined the important role of family members in initiating entry into treatment and bearing the burden of care. In view of the critical role of family members, specific programmes that strengthen support for the families of drug users should be developed or scaled up. These programmes may build the capacity of family members as treatment enablers and promote community reintegration after discharge. Future studies could evaluate the perception and impact of specific components of drug abuse treatment services and how those potentially influence treatment-seeking behaviour. It is important to understand the context and decision-making among persons involved in drug use. Exploring the clients' views could potentially help professionals to improve the quality of health services, inform policymakers and promote programmes that could increase the uptake of drug treatment services in Nigeria.

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# Access to treatment in drop-in centres by female drug users in southern Nigeria

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## ABSTRACT

*Epidemiological studies suggest that the gender gap in substance use disorders is closing. Some studies have shown that women seem to be less likely than men to seek help or to be diagnosed with substance use problems. In Nigeria, little is known about female drug users and there are no studies, programmes or forums specifically targeting women who use drugs. The present study is aimed at identifying the problems of female drug users in the five drop-in centres sponsored by the United Nations Office on Drugs and Crime in southern Nigeria (in Akwa Ibom, Enugu and Lagos States). A mixed method design was used in the study. A purposive sampling technique was used to select participants. Forty-nine female drug users were selected from Akwa Ibom State, 34 from Enugu State and 79 from Lagos State. A questionnaire for drug users on gender and access to treatment in drop-in centres in Nigeria was prepared and used to gather quantitative data, while focus group discussions were held in the drop-in centres with male and female participants to collect qualitative data. Results from the national survey showed that 38.3 per cent of the respondents wished to get help for their drug problems but were unable to. Some of the reasons were fear (16.1 per cent), affordability (17.1 per cent), lack of information (19.4 per cent), stigmatization (29 per cent) and unavailability of treatment services (19.4 per cent). In addition, 25.3 per cent of the women were not sure about the ease of access to treatment. This result also correlated with the qualitative study where the major reasons cited for not undergoing treatment were fear, stigmatization and lack of awareness. Participants also cited love and care, unconditional positive*

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*regard and acceptance, women-only care services, incentives and awareness as motivators for undergoing treatment.*

*Keywords:* access to treatment, drop-in centres, female drug users, southern Nigeria, women who use drugs.

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## Introduction

Substance use, with its attendant problems, has been a global concern for the past decades. It tends to persist, despite efforts to curb it, and affects people from different socioeconomic and demographic strata. Global reports from the World Health Organization (WHO) show that, worldwide, some 31 million persons suffer from drug use disorders, that the harmful use of alcohol results in 3.3 million deaths each year and that almost 11 million people inject drugs, of whom 1.3 million are living with HIV, 5.5 million with hepatitis C and 1 million with both HIV and hepatitis C [1 and 2].

Epidemiological studies and research in developmental psychopathology show that substance use disorders are in general much more common in men than women [2–4]. In a large international survey on mental health conducted across several countries, WHO found that women were less likely to use alcohol, cocaine, tobacco and cannabis [4]. However, the survey also suggested that the gender gaps for use of alcohol, cannabis and cocaine seemed to be closing. The fact that the gender gap differs across countries and is closing with time suggests that cultural factors are possibly influencing gender differences [5]. It is also clear that the patterns of substance use among men and women are different, and these differences in patterns have been well documented [6–9], and some studies have indicated that the diagnosis of substance abuse was not gender-specific, implying that both men and women suffer from substance abuse [10]. As the understanding of trends and patterns of substance use continues to change, interventions have been developed on the basis of available statistics to provide corresponding remedy to the abusers.

Explanations have been given as to why people who have drug-related problems do not get treatment. The reasons cited include denial, the feeling of being in control, fear, being cut off from supply, the inability to give up the feeling of “high”, the belief that the treatment will not help, the belief that nobody cares, stigmatization, the hope that the problem will solve itself on its own and the decision to die after having lost all hope [11].

For some time, it was assumed that women with drug abuse problems were more likely to leave treatment, but some literature counters this view [12]. However, in 2009, the Center for Substance Abuse Treatment reported that

there were gender-specific factors that significantly influenced treatment retention (duration of stay) among women living with substance use disorders [13]. Empirical evidence has shown gender differences in the use of psychoactive substances and of drug treatment centres and services among persons living with substance abuse problems. For instance, it has been found that the number of female problem users in the general population does not correspond with the proportion of women in alcohol and drug treatment (“gender gap”), especially among women of childbearing age [14].

Indeed, empirical evidence has shown gender differences in the use of intervention packages, especially the modern intervention package, with women showing significantly lower use than men. Indeed, women seem to be less likely than men to seek help for or to be diagnosed with a substance use problem [15 and 16]. It is known that women’s drug use tends to be covert and shrouded in secrecy [16] and that women are often difficult to gain access to for interview or treatment, possibly because of anxiety about stigmatization. Studies further show that poor mental health has been implicated in the poor outcomes of drug treatment services among street sex workers [17–19].

In the light of the foregoing, more men than women have been shown to use available treatment facilities. Reports from the project managers of drop-in centres indicate a lopsided attendance, with more male clients than female clients since the inception of the community service programme. The reports from drop-in centres in Uyo and across Nigeria have shown an estimated treatment ratio between men and women of 4:1 for first-time users of treatment services and 4:0 for old-time users [6 and 20–22]. This finding really brings to the fore the paucity of information on female drug users in Nigeria. Studies have been carried out to investigate male participation in treatment, and some of them have reported that the treatment was set up in such a way that it appeared more favourable and accessible to male users than female users [18]. While some studies have investigated the reasons for the low participation of female drug users in treatment, most have focused on specific populations of female drug users, such as sex workers [19, 20, 22 and 23], prison inmates [24], pregnant women and young mothers undergoing drug treatment [25], recreational drug users and users in drug treatment court [26–28], and on the relation between access to treatment and race and ethnicity [27 and 28] without investigating a more general population of women [23–26 and 30]. At the time of the present study, there had been no study or programme specifically targeting female drug users in southern Nigeria. Little to nothing is known about the real situation of women’s drug use in most parts of Nigeria.

The present study was aimed at identifying the reasons why female drug users in southern Nigeria are seldom clients of the drop-in centres situated

in their localities (Akwa Ibom, Enugu and Lagos States). It provided information on the estimated number of women who had ever used any kind of drug treatment service and investigated the attitudes and barriers to the use of the available treatment facilities by female drug users. Focus group discussions and in-depth interviews were used to identify factors that hinder the capability, opportunity and motivation of women who used drugs for seeking professional help. The findings of the study will provide an important contribution to the planning and implementation of effective responses to drug use disorders among women in Nigeria.

### **Objectives of the study**

The general purpose of the present study was to examine the factors (obstacles and challenges) experienced by female drug users in gaining access to and using drug treatment centres and services in southern Nigeria. It also investigated the attitudes of female drug users towards those drug treatment centres and services and their inclination to seek help from those centres.

### **Method**

#### *Design*

A mixed-method study design was used to help to identify factors that influenced accessibility to treatment services and understand the attitudes of women who used drugs towards seeking professional help.

#### *Setting*

The study was carried out in the four communities with drop-in centres. The centres were those supported by the United Nations Office on Drugs and Crime (UNODC) and had been in operation for at least two years at the time of the research. They included the Centre for Research and Information on Substance Abuse and the Mobile Manna Foundation (both in Akwa Ibom State), the Society for the Improvement of Rural People (Enugu State), and the Freedom Foundation and the Centre for the Right to Health (both in Lagos State).

#### *Sampling*

Three months before the commencement of the present study, the lead researcher made contact with drop-in centres to inform them of the research study and solicit their assistance in identifying drug spots frequented by

female drug users in their communities. The spots identified were either “drug bunks” (places where drug addicts live or that they visit frequently) that attracted both male and female drug users from diverse ethnic and socioeconomic backgrounds in large numbers, or “sex chalets” (where commercial sex workers live). But whether they were drug bunks or sex chalets, those places also served as homes for the female drug users. The management and staff of the drop-in centres served as link persons to the participants, some of whom had had prior contacts with the centres.

Purposive-mixed-probability sampling methods were used in recruiting the participants for the study. The target population was people who used drugs and resided in the selected communities.

Within the drug users’ communities, only female drug users were recruited for the quantitative part of the study, and snowballing was used to recruit participants. Every fifth respondent was asked whether she would be willing to participate in the focus group discussions.

The inclusion criteria for female participants were to be at least 16 years of age, to reside in the communities of the drop-in centres and to have used drugs in the previous 12 months, irrespective of patterns of drug use, sexual orientation and socioeconomic status. The criteria for inclusion of male participants in the qualitative part of the study were to be at least 16 years of age, to be drug users, to live in the same communities as the participating female drug users and to have close contacts with them. The men participated in the focus group discussions and provided information on the reasons why female drug users are seldom clients of drug treatment centres.

The respondents were excluded if they were overly intoxicated or under the influence of drugs at the time of recruitment (as evidenced by their lack of coordination, staggering and slurred speech).

## **Data collection instruments**

### *(a) Problem drug use questionnaire*

The instrument used for quantitative data collection was a revised version of the questionnaire for problem drug use assessment in Nigeria. This questionnaire was used by the Centre for Research and Information on Substance Abuse for the national survey of drug users and key informants carried out under the project on response to drugs and related organized crime in Nigeria funded by the European Union and implemented by UNODC. The questionnaire measured the sociodemographic nature and pattern of drugs treatment history, the level of dependence, sexual history and treatment

service use. For the survey, copies of the questionnaire were administered to the participants at drug-use spots, while those who had indicated interest in being part of the focus group discussions were invited to the drop-in centre facilities for the sessions. This applied to the male focus group sessions as well.

### *(b) Focus group discussions*

Focus group discussions were used to collect qualitative data on the attitudes and perceptions of participants towards seeking professional help. The focus group interviews were divided into sessions for men and sessions for women. The sessions with women who used drugs were aimed at identifying the challenges that such users encountered in society and how those challenges affected their attitudes towards seeking professional help. There were four focus group sessions per centre, two for each gender.

The sessions with men who used drugs were aimed at investigating their perception of drug use by women and their attitudes towards women who used drugs. The questions were open-ended and semi-structured.

## **Data analysis**

### *(a) Quantitative study*

A statistical analysis was carried out using the statistical package for the social sciences IBM SPSS Statistics 20. Appropriate statistical distributions and assumptions, including for multi-collinearity and homoscedasticity of residuals, were checked and found to be in agreement. Univariate analysis was used to obtain demographic information on participants and information on the drugs used. Patterns of drug use and barriers to access to treatment were also extracted, including with regard to the perceived need for treatment.

### *(b) Qualitative study*

The qualitative data (i.e., the information from focus group interviews) were analysed by means of a thematic analysis to identify the participants' perceived barriers to using treatment services. This type of analysis, developed by Braun and Clarke [31], is a qualitative research method that examines themes within the collected data. It involves "theme searching".



Considering that themes had to be evaluated, the researchers were mindful of following rigorously the set guideline of coding process in accordance with its systematic phases. These phases included familiarization with data, generating initial codes, searching for themes among codes, reviewing the themes, defining and naming the themes and producing the final report [32 and 33]. The researchers also involved independent reviewers (people with no knowledge of psychology or analysis in health psychology) and a co-reviewer (an English language expert with five years of experience as a reviewer) from whom they received feedback on how the themes related with the data and the research question [31–33]. They were each given a copy of the transcript with a list of the derived themes and asked to identify the themes in the transcript. The main purpose of this procedure was to build reliability in theme analysis coding. The feedback received helped the researchers with identifying any conflicting results with respect to themes added or removed by the reviewers. Only themes accepted by two thirds of the reviewers were retained.

## **Ethical approval**

Ethical clearance for this research was obtained from the Research Ethics Review Committee of the Ministry of Health of the Akwa Ibom State. The major ethical considerations were confidentiality, voluntariness, informed consent and freedom to withdraw at any point in the study.

## **Results**

### *Quantitative results*

#### *(a) Demographics*

A total of 188 copies of the questionnaire were completed by women who used drugs, 18 of which were incompletely answered, 8 invalid (wrongly completed) and 162 correctly completed and included in the data analyses. Only women were recruited to participate in this part of the study. In terms of distribution, 48.8 per cent of the respondents were recruited in Lagos State, 30.2 per cent in Akwa Ibom State and 21 per cent in Enugu State. The mean age of participants was 29.2 years, and the majority of them (61.7 per cent) had never been married. Casual employment and sex work were the most reported sources of financial support (49.4 and 47.5 per cent, respectively).

## (b) Drug use

**Table 1. History of drug use, average age at first use and use in the previous 12 months**

<i>Drugs</i>	<i>Lifetime use</i>		<i>Use in the previous 12 months</i>		<i>Average age at first use</i>
	<i>Number</i>	<i>Percentage</i>	<i>Mean</i>	<i>Percentage</i>	<i>Mean</i>
Cannabis (herb or resin)	110	67.9	18.14	96.4	18.14
Heroin	47	29.0	22.21	89.4	22.21
Painkillers or analgesics (such as tramadol, morphine, pethidine and pentazocine)	90	55.6	19.37	95.6	19.37
Tranquillizers (such as bromazepam, Valium, tropium and Calmpose)	18	11.1	17.61	100.0	17.61
Methamphetamine (crystal or powder)	12	7.4	18.67	83.3	18.67
Methamphetamine tablets (such as Pervitin, Methedrine and Desoxyn)	2	1.2	16.00	100.0	16.00
Cocaine	41	25.3	22.00	97.6	22.00
"Crack" cocaine	43	26.5	21.60	97.7	21.60
Amphetamines (such as Dexedrine and Adderall)	1	0.6	1	100.0	18.00
"Ecstasy"	7	4.3	5	71.4	22.57
Lysergic acid diethylamide (LSD)	0	-	-	-	-
Phencyclidine (PCP)	0	-	-	-	-
Solvents and inhalants (such as glue)	2	1.2	2	100.0	18.50
Cough syrup (such as Coldex)	77	47.5	76	98.7	18.73
Alcohol	106	65.4	104	98.1	17.93
Maltranal	0	-	-	-	-
Others	14	8.64	14	100.0	14

**Table 2. Frequency of drug use in the previous 30 days**

<i>Type of drugs</i>	<i>About once a week</i>		<i>2-3 days a week</i>		<i>4-6 days a week</i>		<i>Every day</i>		<i>No response</i>	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
Cannabis (herb or resin)	3	2.7	13	11.8	14	12.7	65	59.1	3	2.7
Heroin	3	6.4	2	4.3	2	4.3	34	72.3	3	6.4

Type of drugs	About once a week		2-3 days a week		4-6 days a week		Every day		No response	
	Num-ber	Per-cent-age	Num-ber	Per-cent-age	Num-ber	Per-cent-age	Num-ber	Per-cent-age	Num-ber	Per-cent-age
Painkillers or analgesics (such as tramadol, morphine, pethidine and pentazocine)	34	37.8	7	7.8	11	12.2	28	31.1	4	4.4
Tranquillizers (such as bromazepam, Valium, tropium and Calmpose)	5	27.8	3	16.7	3	16.7	5	27.8	0	0
Methamphetamine (crystal or powder)	2	16.7	1	8.3	5	41.7	1	8.3	2	16.7
Methamphetamine tablets (such as Pervitin, Methedrine and Desoxyn)	1	50.0	0	-	1	50.0	0	-	0	-
Cocaine	0	-	3	7.3	1	2.4	9	22.0	2	4.9
"Crack" cocaine	4	9.3	14	32.6	1	2.3	17	39.5	2	4.7
Amphetamines (such as Dexedrine and Adderall)	0	-	0	-	1	100.0	0	-	0	-
"Ecstasy"	0	-	2	28.6	0	-	0	-	2	28.6
Solvents and inhalants (such as glue)	0	-	0	-	0	-	0	-	0	-
Cough syrup (such as Coldex)	10	13.0	28	36.4	5	6.5	25	32.5	2	2.6
Alcohol	11	10.4	8	7.5	34	32.1	48	45.3	2	1.9
Others	1	7.1	1	7.1	2	14.3	9	64.3	0	-

Table 1 shows that most female drug users had used the following drugs in their lifetime: cannabis (110), alcohol (106), painkillers (90), cough syrup (77), heroin (47), cocaine (41) and "crack" cocaine (43). Other substances

mentioned included tranquilizers, methamphetamine crystals and tablets, “ecstasy”, solvents and other mixtures. None of them had used any LSD-type or PCP-type drugs. Only one respondent had used an amphetamine-type drug. The mean age at first use was 18.14 years for cannabis, 17.93 years for alcohol and 19.37 years for painkillers. Most of the respondents had a lifetime use of the same drugs. Daily use was reported by 59.1 per cent of cannabis users, 72.3 per cent of heroin users, 31.1 per cent of painkiller users, 27.8 per cent of tranquilizer users and 8.3 per cent of methamphetamine users. Among cocaine users, 22 per cent reported using it every day and 61 per cent once a month; while 39.5 per cent of “crack” cocaine users reported daily use. The one respondent who reported using amphetamines used it four to six days a week; while more than 36 per cent of cough syrup users reported that they used it two to three days a week

#### *(c) Pattern of use*

More than three quarters (78.1 per cent, or 96 respondents) of the cannabis users smoked it, while 44.7 per cent of the heroin users (21 respondents) injected it and 36.2 per cent smoked it. Almost all (92.2 per cent) of the respondents who used painkillers or analgesics, such as tramadol, morphine, pethidine and pentazocine, 88.9 per cent of tranquilizer users (16 respondents) and the majority of methamphetamine crystal users (66.7 per cent, or eight respondents) ingested them orally. With regard to cocaine, 68.3 per cent (28 respondents) of users injected it and 17.1 per cent smoked it; while 55.8 per cent (24 respondents) of “crack” cocaine users reported smoking it. A total of 98.1 per cent of alcohol users (104 respondents) and 98.7 per cent of cough syrup users (76 respondents) reported drinking those substances. All 14 respondents who reported using other substances smoked them. Some 32 of the 162 respondents (19.8 per cent) had injected drugs before. The mean age at first injection was 21.73 years, and the drugs injected were heroin and cocaine.

#### *(d) Treatment history*

Less than a quarter of the respondents (12.3 per cent) reported that they had received treatment for drug use. Among those, 25 per cent had received treatment for cannabis use, 5 per cent for methamphetamine use, 20 per cent for cocaine use, 20 per cent for “crack” cocaine use, 15 per cent for alcohol use, 6 per cent for painkillers use and 4 per cent for heroin use. We also examined the type of treatment centres that respondents said they had had access to in the previous 12 months. The largest group (30 per cent) had received treatment from a non-governmental organization, while 25 per cent had received treatment from a government hospital and 15 per cent from a

private hospital, 10 per cent had received treatment at home and 10 per cent had received other types of treatment. The average age of respondents at first treatment was 28.05 years and the average number of times that they had received treatment was 1.72 times. The longest time spent in treatment was 21 days, in a non-governmental organization, and the shortest time 3 days, in a government hospital. Most respondents reported HIV counselling and testing (71.4 per cent), counselling (14.3 per cent) and detoxification (14.3 per cent) as the types of treatment services received. A total of 7.4 per cent of the respondents reported an urgent need for treatment, 2.5 per cent some need for treatment and 1.2 per cent no need for treatment.

#### *(e) Service use*

A total of 62 respondents (38.3 per cent) reported being unable to get help or treatment for their drug problems. When asked why, 29 per cent cited stigmatization, 19.4 per cent reported a lack of information, 19.4 per cent reported that treatment facilities were not available, 17.7 per cent said that they could not afford treatment, 16.1 per cent reported a lack of specialized treatment services and 16.1 per cent reported fear.

### **Qualitative results**

The responses of the participants in the focus group discussions were recorded with a digital voice recorder for ease of transcription. Notes were also taken in the course of the interviews and used with the tape recordings to transcribe the data. The transcripts were read through and major themes were identified (fear, stigmatization and lack of awareness) to explain the probable reasons why fewer women than men use the available treatment facilities across southern Nigeria.

#### *(a) Fear*

Across all five centres used in the study, participants shared stories of maltreatment received because of their drug use. Most participants indicated that the fear that characterized their interactions with other drug users who were not women, non-drug users and law enforcement representatives had been a major hindrance to their access to treatment. When looking at “fear”, several sub-themes emerged from the focus group discussions. These included fear of arrest, fear of withdrawal symptoms and fear of violations of confidentiality.

Some of the participants described those and other types of fear, as indicated below.

(i) *Fear of arrest.* Female drug users' fear of being arrested by the National Drug Law Enforcement Agency or the police was one of the reasons for not enquiring about help available at the drop-in centres. Fear of arrest was one of the sub-themes emerging from the focus group discussions, both in the male-only and female-only discussion groups. They described members of the Agency and the police as harsh, unfriendly and exploitative, using their habit against them, even though some police personnel indulged in the same habit. One participant described it thus:

The police in Nigeria are corrupt. They will jail us. [The National Drug Law Enforcement Agency] is corrupt. They carry us, raid us, rape our girls and collect money from us.

Another respondent, from Enugu, also stated:

The policemen wen come to us no dey gree pay us. Dem go tell us say dem dey help us and if we talk dem go arrest us because we dey smoke igbo. If police wan arrest me wen him come meet me for my place, wetin dem go do me if I come dat una treatment?

More than half of the respondents reported witnessing the arrest of other drug users as events that had traumatized them and made them unwilling to undergo treatment.

(ii) *Fear of withdrawal symptoms.* Another type of fear emerging from the focus group discussions was the fear of withdrawal symptoms associated with cessation, which they described as “jonesing”. These withdrawal symptoms are usually managed with the taking of other drugs, and the unavailability of those substances to assuage the pain and discomfort associated with trying to curtail the use of the major drug of choice creates fear in most drug users. This is because coming to the treatment facility may deny them access to the drugs that they use to manage the withdrawal symptoms. Some respondents stated:

I don't know of any treatment that can make me to stop taking drugs because I have tried severally on my own to stop, but the “jonesing” [withdrawal] was too much for me.

Most of them don't want to go because of the fear that they will chill out [go cold turkey] and they don't know what will happen to them if they chill out.

(iii) *Fear of the treatment techniques and procedures.* Some respondents feared, from experience, that treatment techniques and procedures might be unpleasurable and too harsh. There was also doubt among the drug users about the effectiveness of the treatment obtainable in the treatment facilities. One respondent stated:

I cannot go. They turn us to farmers, they leave us under hot sun when I remember that place, I dey fear well. I no get friend for there. They collect our phone, chain us for bed and in the morning we go start to clear grass. No food, no medicine hah Aunty I no dey go again.

(iv) *Fear of violations of confidentiality and of lack of privacy.* Some respondents were uncomfortable with divulging personal information to health-care providers because of perceived stigmatization by their family. Some drug users were not on cordial terms with members of their family owing to their drug use and were scared of their family members becoming aware of their whereabouts. Some of the participants indicated that:

Some of them are scared because of their family background. They don't want their family to know where they are, and some like living on their own so it is difficult for one to tell them or advise them on anything.

Hah! I no fit tell them about myself oo. Dem go tell other people.

If you go that place for treatment, people go laff you because all your personal mata go dey outside.

### (b) *Stigmatization*

In all the centres, female drug users reported that they were discriminated against and maltreated by members of the public and even their family members. They were even discriminated against by the male drug users, some of whom stated that “those girls are hopeless and useless girls”, “they have no future” and “they are promiscuous, they have friends who behave like them and they do not take advice. Their life has finished.” The female drug users outlined stigmatization as a major reason for their reluctance to turn to treatment services. One of the respondents, a 15-year-old girl, captured it in the following words:

They beat me even on my right. Because I am smoking, they beat me. Because I am an addict, they use that to ride me. People that hear that someone is smoking drugs, they will be treating someone anyhow. People like my daddy will be beating me.

It is hard for us to come to this treatment centre because people are looking at you and the moment you enter this building, people will say you have HIV.

The participants also described other types of stigmatization that possibly made them reluctant to undergo treatment, such as:

(i) *Shame*. The participants across the centres described feelings of shame and discomfort at the thought of meeting other people and telling them that they needed help with problems associated with drug use. Some statements showing these feelings included the following: “they are ashamed of coming out because they do not want people to know they are using drugs”. Another respondent put it thus: “Shame, because people go come know say I dey do drugs”, while others stated, *inter alia*: “I dey feel shame say I dey do drugs and if I come go treatment centre, I go expose myself be that”, “I no go fit go because shame dey catch me, walahi. If I reach there sef I fit go see person wen sabi me. Hah!”.

(ii) *Discomfort*. The participants also described the discomfort that they felt about how they perceived that other people looked at them and what they thought about them. One participant put it thus: “When you dey waka for road, people go dey look you because you dey take drugs. For this area, protection dey.”

(iii) *Non-acceptance by other people*. The participants pointed out that non-drug users and drug users of the opposite sex made them feel uncomfortable and self-conscious, especially non-drug users.

(c) *Lack of awareness*

Another major theme that was discovered was the lack of awareness. In all the centres, it was stated that, for many, lack of knowledge of the existence of the drop-in centres and of what services they offered was a reason why women did not use those services. There was a fair knowledge of the existence of treatment facilities, although the responses were mixed. While some of the respondents stated that they knew about the centres, others were glaringly ignorant of their existence. This shows that discussions about treatment rarely come up among drug users, as captured in this response: “Dem dey carry dem go but them go run come back and dem go come continue from where dem stop.” Another respondent said: “I don’t even know anything about any treatment, how can I go about it? Because there is no information about any treatment on drug, then how are we supposed to know?”

In the light of the participants’ responses, other themes were developed as factors that would encourage them to use treatment facilities. These are themes that bordered on things that female drug users would like to see in drop-in centres to encourage them to come were:



*(i) Encouragement, love and care.* Respondents stated:

Love and care as for me, show me care. Do not scared of me or think that this girl, I get so so thing for house make she no use drug eyes steal am go. The moment you start judging me, if I look at your face, I go get am. Treat me like yourself.

Love and caring. As for me, show me love, show me care.

As we dey, make you people no run from us say na dirty people. They will accept us and not judge us.

We need doctor to dey look us, check us, heal us, talk to us like human beings if dem do all those things, we go come.

*(ii) Incentives.* Respondents stated:

I get small baby, if I see service wey go take care of me and my baby, show me love and caring and teach me small hand-work, I will go.

If them give me small money, clothes and means of survival, I will go for treatment.

Women like money. If you tell them they will share money there and mean it, they will come and even bring their friends. Women get power.

I will come if I am sure that I will see a doctor.

*(iii) Awareness-raising.* Respondents stated:

Make dem dey tell people about this place and the treatment wey we go get here they will come.

Make dem dey teach people as una dey do so, teach us, educate us the more, we go dey come.

*(iv) Women-only treatment facilities.* While some respondents reported that they were fine with both male and female caregivers, a large number of the female respondents expressed preference for the latter only.

## Discussion

The present study examined the reasons why female drug users are not using the treatment facilities available in their localities, despite the fact that their services are provided at no cost to drug users. It is one of the first studies conducted in Nigeria that concentrate primarily on investigating factors that hinder female drug users from using treatment facilities. Other studies had reported the unavailability of female drug users in the available treatment facilities [10, 11, 26, 29, 30 and 34].

A quantitative analysis of the data gathered indicated that most female drug users were polydrug users, using a combination of three or more of: cannabis, alcohol, painkillers, heroin, cocaine and “crack” cocaine. This was consistent with findings in the qualitative analysis. Although female drug users expressed concern about their drug use lifestyle, there was still reluctance to seek help. Factors identified as major barriers were stigmatization, fear, lack of awareness, distance to treatment facilities, discomfort with male health-care providers and cost of treatment. These findings were consistent with findings in earlier studies that such factors as fear, stigmatization, lack of awareness, distance to treatment facilities and cost of treatment hindered female drug users from using treatment facilities [31 and 35–39]. This could be attributed to the fact that most African societies have low tolerance for female drug users and may perceive them as indecent [30]. In addition, most women in the Nigerian society are economically poor and therefore lack money to meet basic needs. They associate any treatment with cost and avoid it. Treatment facilities could be located on the premises of other health facilities, such as hospitals, to reduce real and perceived stigmatization.

Furthermore, the participants suggested that services should be made more accessible and more female-friendly, and that the atmosphere should be warm and welcoming. Service providers should be warm, accepting and non-judgmental, and services for women should preferably be provided by women, ideally women of sexually active age who could relate with the patients and understand them better. This was also supported by findings in other studies [37–40]. These suggested gender bias in the perception and reception of drug treatment services provided to date in southern Nigeria. Such services should be made more gender-sensitive, more women should be employed and trained to provide them, and the facilities should be located nearer to the people than they are at present.

For effectiveness and efficiency, and as already underlined in earlier findings, the treatment package should include decent clothing for female drug users, as many years of drug use usually take a toll on the clothes that women wear [38–41]. In that regard, a participant stated: “As we dey make you people no run from us say na dirty people. They will accept us and not judge us”. Raising awareness and improving understanding of the nature of drug use treatments will further enhance accessibility to treatment. Services showing unconditional positive consideration for female clients and providing services that emphasized love and care were also suggested.

## **Conclusion**

The present study investigated reasons that female drug users in southern Nigeria were seldom clients of treatment facilities despite their availability and gratuitousness.

Findings show that major barriers included: stigmatization; fear; lack of awareness; distance to treatment facilities; interference with the ability of drug users to care for their dependants, should they be admitted at the treatment facilities; discomfort with male caregivers; and cost of treatment. It was suggested that, to ensure the effectiveness and efficiency of treatment, the package should be made more gender-sensitive and brought nearer to the female folk, that more women should be trained in raising awareness and that clothing should be provided.

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# Alternative treatment and therapies for drug addiction in Nigeria

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## ABSTRACT

*Alternative treatment refers to health-care interventions developed and guided by ethnocultural and/or religious beliefs and principles. The World Health Organization estimates that, in Nigeria, as in other developing countries, up to 80 per cent of the population uses alternative treatment methods to meet their health-care needs [1]. Alternative treatment services are generally acceptable, accessible and affordable, especially in comparison with western and orthodox medical services [2]. While anecdotal evidence abounds regarding the nature, effects and outcomes of alternative treatment programmes, there exists a dearth of empirical evidence about existing alternative treatment practices (both orthodox and unorthodox) that would form the basis for engagement with alternative treatment providers. The objective of the present study was to assess alternative substance use disorder treatment services that exist and to examine principles, methods and practices used in the treatment of patients suffering from substance use disorders. The study employed cross-sectional qualitative methods to evaluate 27 alternative addiction treatment centres selected specifically in northern and southern Nigeria. Most of the centres (82 per cent) described their treatment approach as being based on a combination of traditional, cultural and religious concepts. The average number of staff members was 10 but varied widely, with some centres run by the proprietor alone, while others had up to 25 staff members. The patient capacity of the centres also varied widely, from small centres with capacity for four patients to centres with capacity for 350 patients. The centres also varied considerably in the maximum duration of time that patients spent in their care, from two weeks to up to four years. The majority of the centres believed that, in general, addiction resulted from spiritual causes and often involved demonic (or malignant) spirit forces, and their practices were developed in response to that belief. A notable finding of the present study, in all the centres visited, was the absence of documentation regarding treatment service processes. None of the centres created or stored written records of treatment and assessment protocols or updated treatment plans created with the involvement of the patients. Our findings support an urgent need for engagement with alternative treatment providers in the short term to establish a “documentation system” that would serve for improved patient services at the centres and provide critical data for a process and outcome*



*evaluation of their practices. Such a documentation system is also important for further studies into alternative treatment services available for women in northern Nigeria, in particular in the areas that we visited.*

*Keywords:* alternative therapies, alternative treatment, drug addiction, Nigeria.

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## Introduction

Alternative treatment refers to health-care interventions developed and guided by ethnocultural and/or religious beliefs and principles. The World Health Organization estimates that, in Nigeria, as in other developing countries, up to 80 per cent of the population uses alternative treatment methods to meet their health-care needs [1]. Alternative treatment services are generally acceptable, accessible and affordable, especially in comparison with western and orthodox medical services [2]. Access to specialized treatment services, such as those for mental health and addiction services, is further constrained by the shortage of trained professionals. The Association of Psychiatrists in Nigeria has some 250 psychiatrists in its registry, in a country with a population of about 190 million people [3].

Besides accessibility, studies suggest that knowledge and beliefs about mental illness also play a role in treatment-seeking behaviours, including the type of treatment services sought by the patient [4 and 5]. A study on the cultural perspectives and attitudes towards mental health in Nigeria suggested that the majority of Nigerians believed that supernatural “manipulations” were the underlying cause of substance use disorders and mental illness [6]. Participants in the study believed that, although mental illness could be brought on by substance use, the individual’s act of taking drugs in the first place was the result of an unconscious spiritual manipulation. While the supernatural aetiology is common among the more than 250 ethnic groups (and more than 500 indigenous languages), the “disease model” of addiction that underlies orthodox treatment principles and practices is rare in those cultural contexts [7]. Religious contexts also play a key role in beliefs about substance use disorders and mental health in Nigeria. As with cultural contexts, the disease concept of addiction is also uncommon among the two dominant religions in Nigeria, Christianity and Islam. Both religions favour the “moral model” which emphasizes that people become addicts out of their own volition, as a result of a gradual and consistent deviation from religious tenets and faith-based practices that would otherwise have served as protective factors for such individuals [8].

Some anecdotal evidence suggests that alternative treatment practices for mental illnesses and substance use disorders often cause harm to the



patients and, in most cases when they fail, patients are then taken in a considerably worse state to orthodox treatment facilities, where treatment professionals usually have to begin by “treating the treatment”. Others believe that alternative treatment interventions are the solution to the cycle of relapse and remission that characterizes orthodox treatment approaches, and they claim that patients who use alternative treatment practices are cured of their substance use disorder [4]. However, there exists a dearth of empirical evidence on existing treatment practices (both orthodox and unorthodox) [5].

## **Objective**

The objective of the present study was to describe the principles, methods, and practices of alternative drug use disorder treatment services in Nigeria.

## **Method**

### *Background of the study area*

Alternative addiction treatment centres were selected from urban and suburban areas in two States in northern Nigeria (Kano and Kaduna), where the Hausa and Fulani cultures are the dominant cultural context and Islam the main religious context; and two States in south-western Nigeria (Lagos and Oyo), where Yoruba tradition is the dominant cultural context and Christianity the main religion. We selected Kano and Lagos States because they represent the States with the largest population in northern and southern Nigeria, respectively. Kaduna and Oyo States were selected on the basis of their respective proximity to Kano and Lagos and their more suburban nature, by comparison.

## **Study population**

Twenty-seven alternative addiction treatment centres were selected in the study area. The following were the criteria that a centre had to fulfil before being allowed to participate in the study:

- The treatment facility must be an alternative treatment centre
- The primary focus of the facility must be addiction treatment, with or without services for those with co-occurring disorders
- The alternative treatment centre had to have been in existence for at least one year

## **Exclusion criterion**

Treatment centres that incorporated orthodox practices were excluded from the study.

## **Data collection management and analysis**

Research teams visited each of the centres, conducting separate individual interviews with the centre proprietor and one member of staff (preferably the most senior), focusing on the principles and beliefs guiding their specific intervention practices. In addition to the interviews, a questionnaire developed for the study was given to the respondents to elicit specific responses on the availability of documentation and on practices common in orthodox treatment settings.

Interviews were recorded using voice recorders and subsequently transcribed and thematically collated and reported. Data was analysed using statistical software (IBM SPSS Statistics 25).

## **Ethical approval**

Ethical approval for the present study was obtained from the Research and Ethics Committee of the Federal Neuropsychiatric Hospital, Barnawa, Kaduna State, and permission was obtained from the management of each treatment centre studied.

## **Results**

Of the 27 centres assessed for the present study, 12 were from the south-western region and 15 from the north-western region. All the centres offered their services only on an inpatient basis. Centres were grouped into three categories according to the overall treatment approach used, namely, those that attributed the principles from which their treatment practices derived to religion (specifically either Christianity or Islam), those that attributed them to traditional and cultural beliefs and concepts, and those that attributed them to a mix of both religious and traditional and cultural concepts. Most of the centres (82 per cent) described their treatment approach as being based on a combination of traditional, cultural and religious concepts. Three centres in the south-western region described their approach as exclusively based on traditional and cultural concepts, while one centre in the north-western region described its interventions as being exclusively based on Islamic religious concepts.

**Centre operations**

The centres studied were superintended by their proprietor, who was typically the most experienced in knowledge, skills and practices in the treatment approach model. In some cases, the proprietor was also a religious scholar (mallam), a traditional leader or a custodian of traditional medical skills passed down through generations. The proprietor was primarily supported by one or two permanent staff and a number of trainees or apprentices who, in some cases, had once been patients themselves at the centre. The average number of staff was 10 but varied widely, with some centres run by the proprietor alone, while others had up to 25 staff members. The patient capacity of the centres also varied widely, from small centres with capacity for four patients to centres with capacity for 350 patients. However, at the time of our assessment, the maximum number of patients at any particular site was 200 patients, and some centres did not have any patients. All the centres reported that relatives of their patients were the principal source of referral to the centre and that service fees were the sole source of their operational funding.

**Table 1. Key operational metrics**

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>
Number of staff	1	25	10.56
Current number of patients	0	200	50.78
Total patient capacity	4	350	121.85
Duration of stay (in weeks)	2	208	53.70

Table 1 shows that the centres also varied considerably in the maximum duration of time that patients spent in their care. Some treatment programmes had a duration of two weeks, while others had a duration of up to four years.

There appeared to be a significant difference between locations (either north or south) in the duration of stay, patient capacity and gender of patients accepted. Centres in the north had an average patient capacity of 152, while those in the south had an average capacity of 17.5. Also of note is that none of the centres in the north accepted female patients for treatment, while centres in the south were open to both female and male patients. Table 2 describes the regional difference in capacity, gender of patients accepted and duration of stay.

**Table 2. Location-based differences in capacity, gender and duration of stay**

		Centre capacity				Total
		Less than 10	10–30	31–50	51–100	
Location of centre	South (Lagos/Ibadan)	7	4	1	0	12
	North (Kaduna/Kano)	0	0	0	15	15
<b>Total</b>		<b>7</b>	<b>4</b>	<b>1</b>	<b>15</b>	<b>27</b>

		Gender of patients accepted at the facility		Total
		Only male	Male and female	
Location of centre	South (Lagos/Ibadan)	0	12	12
	North (Kaduna/Kano)	15	0	15
<b>Total</b>		<b>15</b>	<b>12</b>	<b>27</b>

		Maximum duration of stay					Total
		1–4 weeks	1–3 months	4–6 months	6–12 months	More than 1 year	
Location of centre	South (Lagos/Ibadan)	9	1	0	2	0	12
	North (Kaduna/Kano)	0	0	1	5	9	15
<b>Total</b>		<b>9</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>9</b>	<b>27</b>

### Causes of addiction

The majority of the centres believed that, in general, addiction resulted from spiritual causes and often involved demonic (or malignant) spirit forces.

Moral defects, such as stubbornness, greed and poor religious adherence, were often listed as contributing factors to the development of addiction. It is important to note that, in a number of cases, these factors were viewed as being interrelated. For example, peer influence may lead to moral defects, which in turn could expose the individual to demonic possession and result in addiction. The exact nature of interplay among those factors was often thought to be specific to the individual patient. Table 3 shows the breakdown of the causative and contributing factors listed by the centres.

**Table 3. Causative and contributing factors attributed to the development of addiction**

<i>Factors</i>	<i>Number of centres</i>
General spiritual causes	26
Curse on the individual	8
Demonic possession	25
Spiritual warfare between individuals other than the addict	1
Moral defects in the individual	18
Depression	3
Peer influence	3

### Treatment practices

Treatment practices at the centres varied in specifics; however, they were based on the application of the methods prescribed for dealing with the underlying causes of the addiction according to the treatment approach being used.

#### *Prayers*

Prayers (as a process for communicating with a recognized deity or supernatural being) were consistently used in all centres as part of the treatment. This treatment approach, applied in most cases under the guidance of the centre proprietor, was aimed at seeking the assistance of the supernatural being in resolving the underlying cause of the patients' problems.

#### *Divination*

Divination involves the use of particular processes to identify a treatment for the addiction supernaturally. The practice of divination was common at the centres visited. In some of them, divination was carried out by means of sacred objects and incantations. In others, in particular in the north, bibliomancy based on Islamic sacred texts was the method of divination. Divination was used in the centres to assess the specific causes of the patients' substance use disorder, the course of treatment to apply and when the patient was fit for discharge.

### *Physical restraints and corporal punishment*

We also found the use of physical restraints as a core practice in all the centres assessed. Practitioners explained that the restraints were necessary for the safety of both patients and staff, as the former might often become violent or self-destructive in the course of the treatment. Some centres reported that the restraints also prevented patients from absconding from treatment, in particular during its early stages, when the effects of the intervention were yet to be seen. All the centres used flogging and other forms of corporal punishment to teach the patients discipline. The practitioners described that a key component of the treatment of addiction was the “rehabilitation of the patients”, which involved instilling in them moral values in line with cultural norms and religious tenets. Most important among those virtues was “discipline”, as illustrated by one of the centre proprietors who stated that: “it is important for patients to learn discipline because the self-control that they need to stay away from drugs when they complete their treatment is built on discipline”.

### *Use of healing concoctions*

Another common practice was the use of concoctions, a mixture of various ingredients believed to have an overall curative effect. The most common practice was the use of mixtures containing chalk writings of sacred Islamic texts. In other centres, sacred herbs, such as those prescribed in Yoruba traditional practices, and oils were also used to prepare concoctions that patients would drink for their healing. In two of the centres visited, the specific drugs which the patient was addicted to were incorporated into an emetic concoction that the patient would consume during their first three days of treatment.

**Table 4. Reported treatment practices**

<i>Treatment practices</i>	<i>Number of centres</i>
Prayers	27
Physical restraints (chains)	27
Corporal punishment to instil discipline	27
Use of concoctions containing “sacred texts”	18
Use of concoctions made of herbs and oils	11
Use of concoctions containing specific drugs of abuse	2
Religious education (Islamic)	17
Shaving the patient’s head	16
Divination for the treatment process and specific interventions	14
Ritual baths	12
Affixing healing packs to the patient’s head	2

### *Religious education*

Seventeen of the centres visited reported Islamic religious education as a key component of their treatment. Patients were expected to undergo a rigorous study of the Qur'an, often committing the holy book to memory as a requirement for their discharge and treatment completion.

### *Shaving the patient's head*

Another common practice among the centres assessed was the shaving of the patient's head upon admission. In some centres, the staff reported that this was done to patients who were taken in dirty and generally unkempt in order to promote their personal hygiene. Some centres reported that the ritual indicated a sense of servitude to Allah by adherents to Islam, as was often done during the hajj.

### *Ritual baths*

Centres in the South reported the practice of ritual baths as useful in the treatment of addiction. Ritual baths entailed the use of water regarded as sacred, such as rivers considered the dwelling place of the goddess Ogun, the ocean, considered the dwelling place of the deity Olokun, or water that had undergone processes to make it sacred, to bathe the patient and cleanse them spiritually, allowing the healing process to progress.

### *Affixing healing packs to patient's head*

This unique practice was reported at two centres, in Ibadan, Oyo State. The practice entailed using a rope to tie a small packet of medicinal charms to the head of the patient, both to bring about healing and to ward off further spiritual attacks. Upon discharge, the packet was untied from the patient's head and ritually discarded to ensure that the patient would not relapse.

### **Discharge criteria**

The main criterion for discharge was the observation by staff of behavioural changes in the patient. Other criteria for the completion of treatment intervention and subsequent discharge included the observation of supernatural signs. For example, at a centre in Lagos, patients were chained immediately upon admission, and the chains would supernaturally break open upon completion of the patient's treatment, indicating that the patient had successfully completed their programme. In one centre, the completion of a religious education programme was a mandatory requirement for discharge.

A notable finding of the present study was the absence of documentation regarding treatment service processes in all the centres visited. None of the centres created or stored written records of treatment and assessment protocols or updated treatment plans created with the involvement of the patient. Intervention plans were exclusively developed by the centre proprietors, but not documented, and implemented under their direction by staff and apprentices.

## **Discussion**

Most of the treatment centres (85.2 per cent) reported using a combination of traditional and religious approaches. This means that the principles and approaches at those centres cannot be attributed simply to either ethnocultural concepts or religious teachings, but to an interplay between both. This interaction between traditional healing methods and religion in parts of Nigeria is well documented in the literature [8]. For example, in the Hausa culture, “mallams” are by definition healers specialized in both the use of traditional herbs and practices and Islamic prayers and practices. Our study is, to our knowledge, the first to describe the specific practices employed by mallams in the treatment of addiction.

Another key finding of the study is that the overall principle of treatment in all the centres visited was to resolve the spiritual manipulations considered to be at the root of the addiction problem, while simultaneously restoring, or strengthening, the patients’ willpower to abstain from future drug use and self-discipline in maintaining a lifestyle “protective” against both malevolent spiritual forces and drug use. While components of this principle are antithetical to the orthodox concept of addiction as a disease and the role of “willpower” in treatment and recovery, such aspects as the need for cognitive behavioural changes to sustain recovery are similar to orthodox treatment practices and can be further explored for engagement with alternative treatment providers [2 and 8–13].

The most critical finding is the complete absence of documentation in the centres visited. While Gureje and others (2018) noted the shortage of mental health and addiction researchers as a contributing factor to the dearth of empirical evidence on treatment practices in Nigeria, our study indicates that even more critical is the absence of data from which empirical evidence may subsequently be drawn.

## **Limitations**

Our study focused principally on two major ethnocultural groups, Hausa and Yoruba, and two religions, Christianity and Islam, which are not



representative of the vast cultural contexts that exist in Nigeria and do not take into consideration animism and other religions also present in the country. As such, there is a limit to the extent to which our findings may be generalized to the country as a whole.

## Conclusions

Alternative treatment methods for substance use disorders exist and thrive in Nigeria. These methods are based on a combination of ethnocultural and religious beliefs. In general, however, the principle of treatment in all the centres visited was to resolve the spiritual manipulations at the root of the addiction problem, while simultaneously restoring, or strengthening, the patients' willpower to abstain from future drug use and self-discipline in maintaining a lifestyle "protective" against both malevolent spiritual forces and drug use. None of the centres assessed in the present study kept the patients' treatment records that would be necessary for an objective evaluation of process outcomes. Our findings support an urgent need for engagement with alternative treatment providers in the short term to establish a "documentation system" that would serve for improved patient services at the centres and provide critical data for a process and outcome evaluation of their practices. Such a documentation system is also important for further studies into alternative treatment services available for women in northern Nigeria, in particular in the areas that we visited.

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# Adjudicatory control of narcotic and psychotropic drugs in Nigeria

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## ABSTRACT

*As a party to the three major treaties on drugs, Nigeria is obliged to control the manufacture, use, distribution and possession of drugs. Drug control efforts in Nigeria rely heavily on interdiction, arrest and the criminal justice system. Adjudicatory control is one of the main mechanisms utilized in the criminal justice approach to drug control. Adjudicatory control is administered by the judiciary at the federal level, with the Federal High Court of Nigeria as the first and primary forum for dealing with drug cases. The Court controls drugs by establishing whether substances are considered to be narcotic or psychotropic under existing laws. Furthermore, it processes alleged offenders through a schematized mechanism of arraignment, trial, verdict and sentencing. In this context, the present article reviews 2,506 court cases to analyse the function of the Court as an institution of drug control. The analysis shows, among other things, that there is a wide disparity in the length of adjudicatory processes and sentences imposed for similar offences. Moreover, the possession and use of otherwise licit painkillers are being prosecuted under provisions enacted to control narcotic and psychotropic substances. This raises uncertainties in drug control efforts in particular, as the drugs that are expressly prohibited are not classified at all, not even according to their degree of harm to society. The result is a wide latitude of discretion afforded to executive and judicial officers in dealing with drug cases. Judicially, such latitude results in a disproportionate focus on possession of small quantities of narcotics, in contrast to larger quantities.*

*Keywords:* adjudicatory control, cannabis, codeine, drug control, emerging drugs, khat, Federal High Court, National Drug Law Enforcement Agency, Nigeria, sentencing guidelines, tramadol.

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## Introduction

Nigeria is a party to the Single Convention on Narcotic Drugs as amended by the 1972 Protocol, the Convention on Psychotropic Substances of 1971 and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. Consequently, Nigeria is obligated to control the possession and use of, trade in, and dispersal of drugs [1]. The

present article analyses the adjudicatory processes and procedures employed in the control of drugs in Nigeria. It seeks to examine the institutional framework within which adjudication of drug control occurs, to analyse the substances that are controlled through the adjudicatory system and to interrogate the mechanisms for processing alleged drug offenders through the court system, with a view to suggesting improvements where necessary.

In fulfilling its international obligations, Nigeria takes an approach to drug policy that has a “strong focus on interdiction, arrest and the criminal justice system” [2]. This focus translates into having law enforcement agencies at the fore of drug control in the country [3]. The country’s law enforcement approach to drug control is implemented in such a manner that it is tilted “towards a repressive, criminal justice-centred approach, and away from the original concern with public health and harm reduction that inspired drug control in the first place” [4]. The law enforcement agencies of Nigeria frequently make arrests and they depend on the judiciary to adjudicate on the cases that arise from those arrests. The adjudicatory aspect of the criminal justice system is therefore involved in drug control in Nigeria. The adjudicatory mechanisms are aimed at ensuring that drugs are produced, imported, exported, used, sold, possessed and handled in the manner prescribed by law. It is in this context that this article discusses the adjudicatory control of drugs in Nigeria.

Despite its obvious involvement in drug control, the adjudicatory mechanism of the criminal justice system is largely neglected in policy initiatives and research work. This neglect is demonstrated in the National Drug Control Master Plan. The Plan “was launched with fanfare in 1999” [5]. In the current Plan, for the period 2015–2019, there is not a single mention of the word “court” or any other verbal indication that the Plan takes into account the adjudicatory control of drugs.

The present article, therefore, seeks to shed some light on an under-explored area of drug control in Nigeria. The information and data analysed for this article were obtained from court documents. Given their highly documentary nature, court proceedings and processes relating to drug cases can serve as a source of general information and data on matters relating to drug control in a country. In addition to general information on drugs that may be obtained, court records can also provide information on the role of the adjudicatory process in the control of drugs.

It is with a view to examining the control of drugs through the adjudicatory processes and procedures that this article applies information and data obtained from the review of court documents. The documents reviewed include court judgments, court orders and filed charges in 2,506 cases prosecuted and concluded between 2006 and 2018, with emphasis on the period

between 2008 and 2018 [6]. The case documents were obtained from 21 divisions of the Federal High Court [7]. All the geopolitical zones of Nigeria are covered by the reviewed cases. A total of 64 of the cases were from the north-central zone, 1,803 from the north-east zone, 41 from the north-west zone, 96 from the south-east zone, 195 from the south-south zone and 307 from the south-west zone [8].

The factors that determined the number of cases obtained for the review included the time available for the researchers to spend in each division of the Federal High Court, the number of return visits by the researchers to each division, and the activities at the courts affecting the availability of persons responsible for guiding or attending to the researchers. The mood of the responsible staff or their perception of the researchers or the research also determined the ease of processing and the volume of cases obtained [9]. The number of cases collected therefore bears no correlation to the actual number of drug cases adjudicated in the states or geopolitical zones. The collected cases nevertheless are representative of the whole body of drug cases adjudicated in Nigeria in the period under review.

## **Legal framework**

Nigeria operates a federal system of government that divides legislative, adjudicatory and executive powers among three tiers of government, the central, regional and municipal tiers, known in Nigeria as the federal, state and local governments, respectively. The Constitution of the Federal Republic of Nigeria of 1999 (the 1999 Constitution), stipulates and delineates the powers and duties of each tier of government. As provided under the 1999 Constitution, the federal government exercises exclusive power and authority over items contained in the Exclusive Legislative List. The federal and state governments jointly exercise powers over items on the Concurrent Legislative List, with federal laws superseding in instances of conflict. The local governments exercise powers and functions as prescribed in the Fourth Schedule to the 1999 Constitution.

The 1999 Constitution provides that only the legislative arm of the federal tier of government has legislative competence on drugs [10]. In effect, all valid drug laws are made by the National Assembly. Some laws relating to drugs existed before the advent of the 1999 Constitution; they are deemed to have been made by the National Assembly [11].

Laws that are interpreted by the courts for the purposes of drug control include the following: National Agency for Food and Drug Administration and Control (NAFDAC) Act of 1993; National Drug Formulary and Essential Drugs List Act; National Drug Law Enforcement Agency (NDLEA) Act

of 1989 (as amended); Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Act; Dangerous Drugs Act of 1935 (as amended); Indian Hemp Act of 1966 (as amended); Miscellaneous Offences Act, 1999; and Money Laundering (Prohibition) (Amendment) Act, 2012.

The drug laws made by the National Assembly can be divided into two categories: laws that relate to narcotic and psychotropic substances and laws that relate to other substances that are neither narcotic nor psychotropic. The overarching principle of Nigerian drug law is that both categories of drugs can be abused or misused and are therefore subject to regulation [12]. This principle is apparent when laws such as the NAFDAC Act are juxtaposed with laws such as the NDLEA Act. While the drugs contemplated under the NDLEA Act are narcotic, psychotropic or similar substances [13], the drugs contemplated under the NAFDAC Act include all drugs. As defined in the NAFDAC Act, the term “drug” includes:

any substance of vegetable, animal or mineral origin or any preparation or admixture thereof manufactured, sold or advertised for use in: (a) the diagnosis, treatment, mitigation or prevention of any disease, disorder, abnormal physical state or the symptom thereof, in man or animal; (b) restoring, correcting or modifying organic functions in man or in animal; (c) disinfection or the control of vermin, insects or pests; or (d) contraception [14].

Since the courts adjudicate by interpreting existing laws [15], adjudicatory control of drugs in Nigeria covers all drugs, including those that are neither narcotic nor psychotropic. However, the scope of this article is limited to the adjudication of cases involving narcotic or psychotropic drugs.

### **Substances subject to adjudicatory control**

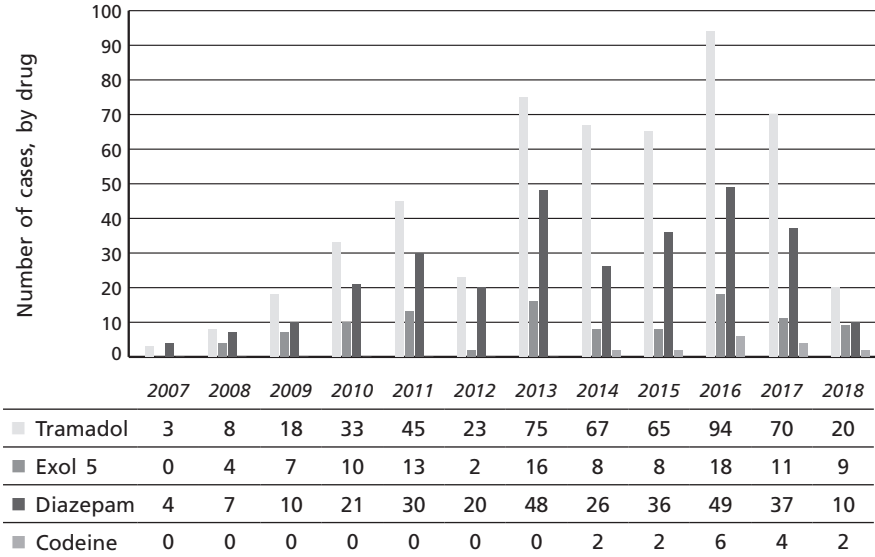
There are numerous publications on drugs in use [16], confiscated or destroyed drugs [17], and patterns of drug use in Nigeria [18]. These do not, however, necessarily indicate the substances being adjudicated upon by the Federal High Court. Certainly, the fact that drugs are being used, seized or destroyed does not necessarily mean that they are being dealt with by the adjudicatory system.

Therefore, one of the purposes of reviewing the drug cases used for the present research is to ascertain which drugs are actually subject to adjudication in Nigerian courts. In this regard, a review of 2,506 drug cases adjudicated in the divisions of the Federal High Court in the six geopolitical zones of Nigeria identified 25 substances that were regarded as drugs for the

purpose of criminal prosecution. The identified substances are presented in table 1 below, which shows that out of the 25 identified substances, the 11 most adjudicated are *Cannabis sativa*, tramadol, diazepam, Exol 5 [19], cocaine, heroin, codeine, unspecified psychotropic substances, pentazocine, rophynol and D5 [20].

While drugs such as *Cannabis sativa*, cocaine and heroin have been subject of prosecution for many decades [21], the other substances among the 11 most adjudicated substances mentioned above are emerging drugs that have more recently become the subject of adjudicatory control in Nigeria. They include tramadol, Exol 5, codeine, pentazocine, rophynol and D5. Unlike the near-passive public reaction to the older-generation drugs, there has been a sustained public uproar against the emerging drugs [22]. This uproar has led to various governmental and non-governmental interventions, which probably explains the decline in the frequency of cases involving the emerging drugs. Figure 1 depicts the evolution in the frequency of cases involving four emerging drugs that have been the subject of adjudicatory control.

**Figure 1. Evolution of emerging drug-related cases in the Federal High Court of Nigeria**



**Basis for subjecting emerging drugs to adjudicatory control**

As guaranteed by the Nigerian Constitution, a person cannot be charged for an offence which is not created by written law [23]. Drugs such as cannabis,

cocaine and heroin are expressly named in legislation and prohibited, except for clearly defined medical or scientific purposes. This manner of express naming and prohibition, however, raises some legal problems relating to the appropriateness of adjudicating on drugs that are not expressly mentioned and dealt with in the statute books.

On the one hand, the existing laws have provisions relating to the prohibition on the possession and use of and trade in drugs such as cannabis, heroin and cocaine. On the other hand, the laws do not have provisions relating to the prohibition on the possession and use of and trade in emerging drugs such as tramadol.

The situation is compounded by the reality that some of these emerging drugs are categorized as licit drugs under provisions of some existing laws. For example, tramadol, Exol 5 and diazepam, among others, are recognized as licit medications. The argument can, therefore, be made that possession of these drugs cannot be the basis for a criminal charge. It is worth emphasizing that, in section 12 of the National Drug Formulary and Essential Drugs List Act, essential drugs are defined as “drugs that satisfy the health-care needs of the majority of the population.” Interestingly, the general list in the first schedule to the National Drug Formulary and Essential Drugs List Act includes both diazepam and benzhexol as essential drugs. This amplifies the question as to the legal basis for subjecting these drugs to adjudicatory control.

The position taken by the courts is that these drugs are subject to adjudicatory control because they are either narcotic or psychotropic. For example, tramadol was the subject in the case *Idris v. Federal Republic of Nigeria* [24], where the appellant was charged under section 20 (1)(c) of the NDLEA Act. The Federal High Court noted that the law prohibits “any narcotic drug or psychotropic substance”. The Court further held that the expressions “narcotic” or “psychotropic substances” “will encompass all drugs known and those to be produced and discovered that may have psychotropic effects in the body.”

Thus, possession of tramadol, which is a drug not expressly prohibited by law, can result in trial before the Federal High Court. This is amply demonstrated in the case *Eze v. Federal Republic of Nigeria* [25], in which the Court of Appeal held that test analysis had disclosed that tramadol capsules had been found in the appellant’s possession. The appellant was found guilty because the Court considered tramadol to be a narcotic substance. Similarly, in *Ezeagu v. Gabizzinlingo Pharmaceutical Co. Ltd. and Anor* [26], the possession of 397 cartons of the drugs Asfed and tramadol was the basis for



the prosecution of unlawful possession of narcotic drugs and/or psychotropic substances. On the whole, judges have taken notice that tramadol is a drug that can be subject to adjudicatory control and the courts have shown a willingness to impose punishment for possession of the drug.

This approach of adjudicatory control of substances that are not expressly named and prohibited by law confers extremely broad power on the prosecutorial and adjudicatory authorities. This power is further amplified by the fact that the Federal High Court does not insist or even require that prosecutorial authorities give a specific name to a narcotic or psychotropic substance that is the subject of adjudication. All that is required is to describe the substance as a narcotic or psychotropic drug. This was observed in 13 out of the 2,506 cases reviewed. In those cases, neither the brand, type nor scientific name, nor even the street name, of the psychotropic substance was mentioned. In all 13 cases, it was enough to describe the prohibited substance by calling it a psychotropic substance. This has very far-reaching implications for emerging drugs, to the extent that a person possessing, dealing or trafficking in the new drug can be prosecuted, as long as it is established that the drug is a psychotropic substance.

This point is illustrated by the emergence of khat in the Nigerian substance use environment. Although khat was not specifically named in any of the 2,506 cases reviewed, it might well have been the substance that was the subject of the 13 cases in which the substance involved was not named but only identified as a psychotropic substance. Indeed, in one particular case, the substance involved was only identified as a “hard drug”. This description was sufficient for the purpose of subjecting the substance to the adjudicatory process before the Federal High Court. Thus, an emerging drug that is not presently named or identified may be subject to adjudicatory control if it is described as a “psychotropic substance” or “hard drug”.

While this approach snugly fits into the wider interdiction, arrest and criminal justice approach to drug control, it also appears to be at variance with the legal rights of manufacturers and citizens (especially patients). This is because both manufacturers and citizens should have access to publicly available documents that list the substances that are prohibited. Such lists of prohibited substances should be updated as the need occurs and they should also classify the substances according to the degree of harm they cause. Presently, neither the NDLEA Act nor any other Nigerian law groups narcotic drugs or psychotropic substances into classes [27]. This absence of classification creates a vacuum and affords executive or judicial officers dealing with drug cases a great deal of latitude in applying their own views on the harmfulness of the substances in question.

**Table 1. Substances subject to adjudication in the cases reviewed [28]**

<i>Substance</i>	<i>Frequency of occurrence in a total of 2,506 cases</i>
<i>Cannabis sativa</i>	2 156
Tramadol	521
Diazepam	298
Exol 5	106
Cocaine	60
Heroin	35
Codeine	16
Psychotropic substance (unspecified)	13
Pentazocine	11
Rophynol (rhyphenol)	11
D5	10
Methamphetamine	4
Lexotan	3
Amphetamine	1
Benzazole	1
Bromazepam	1
Digoxin	1
Ergometrine	1
Ephedrine	1
"Hard drug" (unspecified) <sup>a</sup>	1
Nitrazepam	1
Oxytocin	1
Paraldelyte	1
Pemoline	1
Rubber solution <sup>b</sup>	1

<sup>a</sup> In one case, it was sufficient to maintain the charge by describing the substance as a "hard drug".

<sup>b</sup> Street name for a variety of adhesive solutions.

## **Processes used in adjudicatory control of drugs at the Federal High Court**

Adjudication of drug cases is carried out by the Federal High Court. The Court has 37 judicial divisions located in state capitals and in the Federal Capital Territory, Abuja [29]. The 1999 Constitution vests the Federal High Court with exclusive powers to adjudicate on civil claims relating to

drugs [30]. It also has exclusive jurisdiction over the criminal prosecution of drug cases [31].

The jurisdiction of the Federal High Court over drug cases was challenged in the case *Mohammed v. Federal Republic of Nigeria* [32]. In that case, the appellant was charged before the Ilorin Division of the Federal High Court for unlawfully dealing in 20 kg of *Cannabis sativa*, an offence punishable under section 11 (c) of the NDLEA Act. The appellant pleaded guilty to the charge and was subsequently convicted and sentenced to two and a half years' imprisonment. On appeal to the Supreme Court, it was contended on the appellant's behalf that the Federal High Court lacked jurisdiction to try and convict him for the offence of dealing in Indian hemp, since section 8 of the Indian Hemp Act vested jurisdiction over matters related to Indian hemp in the Magistrate Court. Relying on section 251 (1), (m) and (s) of the Constitution, the Supreme Court noted that the Federal High Court was conferred with exclusive powers over drug matters [33].

Adjudication by the Federal High Court is preceded by pretrial processes, including investigation, arrest, detention, interrogation, interviewing, and forensic analysis of the substance in question. With regard to persons alleged to have been in unlawful possession of drugs, the Supreme Court, in the case *Chukwudi Ugwanyi v. Federal Republic of Nigeria* [34], laid down the procedure for arrest and prosecution, as follows:

- (a) The suspect is arrested on reasonable suspicion of being in possession of drugs;
- (b) The authorities take possession of the substance suspected to be drugs, in the presence of the suspect, and weigh it;
- (c) A preliminary test may or may not be conducted, depending on the circumstances, but if conducted, it is desirable that the test be done in the presence of the suspect;
- (d) Relevant papers, to wit: certificate of test analysis (if preliminary test is done), packing of substances and/or drugs, forms are filled out by the arresting authorities and signed by the suspect;
- (e) All of the substance is recovered, or a reasonable quantity thereof is sent to the laboratory for expert analysis;
- (f) The laboratory issues a report, which may be negative or positive. The Prosecution acts on the basis of the report to either prove its case against the suspect, or to allow him or her to go free if the report indicates a negative result for drugs.

The Court further noted that, depending on the circumstances of each case, non-compliance with the established procedure may or may not nullify a judicial proceeding.

Upon completion of the necessary pretrial steps, adjudication continues through the process of charging the suspected offender in the judicial division in which the alleged offence was committed, unless it can be shown that it is convenient to go to another judicial division for security reasons [35]. Thus, an alleged drug offender will ordinarily be tried in the judicial division in which the alleged offence occurred. The charge sheet must contain the following particulars:

- A statement of the offence, which shall briefly describe the offence
- A description of the offence or offences that the suspect is alleged to have committed
- The particulars of the offence, set out in ordinary language
- The specific law and section(s) of the law alleged to have been breached

Although the law requires that the charge should clearly describe the prohibited conduct of the person standing trial, a misnomer or mistake in describing the law creating the offence will not vitiate or nullify a finding of guilt against the defendant [36]. Similarly, a typographical error in describing the conduct will not vitiate the charge if the error does not affect the substance of the charge. For instance, in some of the cases reviewed, diazepam was misspelled as “diazapam” and pentazocine was misspelled as “pentazocin”. These misspellings did not vitiate the charges. The social psychology of the law in relation to drug cases suggests a lenient disposition of judges to the framing of charges. For example, reference to Panpiden cough syrup was sufficient in a charge, although the codeine in the syrup was the actual substance prompting the charge.

As indicated by the data on cases involving cannabis presented in table 2 below, persons involved with the smallest amounts of cannabis were the most likely to be charged for violating drug laws. Interestingly, the cases involving less than 5 kg of cannabis constituted about 77 per cent of the cases involving cannabis and 65 per cent of all 2,506 cases reviewed. Despite the high percentage of cases involving less than 5 kg of cannabis, the total weight of the cannabis involved in those cases was about 0.4 per cent of the total amount involved in all the cases reviewed.

There is no fast-track process for cases involving small quantities of drugs. Regardless of the volume of drugs involved, all the cases follow the same adjudicatory track as soon as the charge is filed at the Registry of the Federal High Court. After the charge is filed, the trial commences with the arraignment of the defendant. The arraignment consists of bringing the defendant(s) to the open court and reading out the charge to them in the language they understand. If the Court is satisfied that the defendant

understands the charge, it will ask the defendant to make a plea. At that stage, the defendant pleads guilty or not guilty [37].

Table 2 shows that most of the defendants in the drug cases pleaded guilty and that defendants in cases involving smaller amounts of drugs were more likely to plead guilty. Table 2 also shows that, in 96 per cent of the cases involving less than 5 kg of cannabis, the defendants pleaded guilty. This is closely followed by the percentage of defendants who pleaded guilty in cases involving between 5 and 9.9 kg of cannabis, which amounted to 91 per cent. It appears that 100 per cent of the defendants in cases involving about 20,000 kg pleaded guilty. However, this percentage is to be viewed in the light of the fact that there was only one such case among the 2,506 cases reviewed; in this instance, the 100 per cent represents one out of one. Generally, table 2 shows that the higher the volume of drugs involved, the lower the likelihood of a guilty plea.

If the plea is not properly taken, the case may be nullified on appeal. In the case of *Adewale Sodipo v. Federal Republic of Nigeria* [38], the appellant was charged with unlawfully dealing in 750 grams of *Cannabis sativa*, an offence punishable under section 11 (c) of the National Drug Law Enforcement Agency Act. The appellant was tried summarily and was convicted and sentenced by the Federal High Court. On appeal, the appellant contended that he was not properly arraigned before the Federal High Court: the charge was not read to him in a way that he could understand and his plea was not recorded in his own words. It was also argued on his behalf that his reply to the statements of facts was not recorded by the trial court, and that the Court had convicted him only on the basis of the statements of facts made by the prosecutor.

The Court of Appeal, after a review of the records of the proceedings of the Federal High Court, found that the Federal High Court had failed to record the plea of the appellant, that there was no evidence to support the assertion that he had understood the charge read to him and that he had not been called upon to respond to the facts reviewed by the Prosecution. The Court of Appeal agreed with the appellant that, in the circumstances, there had been no proper arraignment by the Federal High Court. The Court of Appeal consequently allowed the appeal and held that the proceedings of the Federal High Court were null and void.

Following the arraignment, the trial of the case continues until a verdict is delivered by the judge. The duration of the trial is not predictable. As shown in table 2 below, cases may last between one day and seven years. In a certain case [39], relating to the possession of 8 kg of cannabis, although the defendant pleaded not guilty, the trial went on for four years in the judicial system before the defendant was discharged. As reflected in table 2,

cases involving 41–50.9 kg, 51–100 kg or 201–500 kg of cannabis tended to have the longest trial duration. Cases involving less than 5 kg of cannabis were generally of a shorter duration than other cases, except for those involving 151–200 kg, 200,000–300,000 kg or 10,000–20,000 kg of cannabis, respectively.

## Verdict and sentence

Interdiction and punishment are central to drug control in Nigeria [40]. The punishment aspect is triggered by the verdict and the sentence is delivered by the Federal High Court. The verdict, which follows the trial, usually takes the form of a declaration by the judge that the defendant has been convicted or discharged. Table 2 shows that, as a general trend, cases involving smaller amounts of drugs have the highest rates of conviction. For example, 99 per cent of cases involving less than 5 kg of cannabis resulted in a conviction.

In cases where the defendant is convicted, the judge passes a sentence ranging from one month to eight years of imprisonment. Most cases are prosecuted by the National Drug Law Enforcement Agency, which usually charges the defendants for having violated the NDLEA Act. The NDLEA Act stipulates that offenders are liable to imprisonment for life if they are convicted of importing, manufacturing, producing, processing, planting or growing, or exporting, transporting, trafficking, selling, buying, exposing, offering for sale or dealing in cocaine, heroin, LSD or similar drugs [41].

A maximum sentence of 25 years is prescribed for the offences of possession, and use by smoking, inhaling or injecting, of cocaine, LSD, heroin or similar drugs [42]. Similar punishment is prescribed for persons who knowingly allow or permit their premises to be utilized for the storage and concealment of, or dealing in, drugs [43].

The courts have expressed divergent views on the question of the life sentence stipulated by the NDLEA Act. In the case *Janet Danso v. Federal Republic of Nigeria* [44], the Court of Appeal noted that it was not the intention of the law to make the life sentence mandatory. It follows from this Court of Appeal decision that the sentencing judge has the discretion to impose either a life sentence or a lower sentence.

In contrast, the Court of Appeal, in the case *Lawrence v. Federal Republic of Nigeria* [45], held that the life sentence stipulated in the NDLEA Act was mandatory and not discretionary. Similarly, in the case *Chibuzor v. Federal Republic of Nigeria* [46], the Court of Appeal noted that the life sentence prescribed by the NDLEA Act “is mandatory and no discretion is vested in a Court to impose any less term” [46].

Notwithstanding the controversy regarding the nature of the powers of the Federal High Court to sentence under section 11 of the NDLEA Act, the majority of judges rely on their discretion in sentencing convicts. The reliance on discretion is “facilitated by Nigerian drugs legislation, which makes no distinction between the kind or quantity of substances, first or repeated offences, the suspect’s intentions or record” [47]. As demonstrated in table 2 below, it is difficult to predict the manner in which a judge will exercise sentencing discretion in the adjudication of a drug case. The quantity of the drug in question does not seem to significantly affect the duration of the sentence. Table 2 shows that cases with the most severe sentences, in terms of duration, involved less than 5 kg of cannabis. The defendants in case No. FHC/YL/113C/2010 [48] and case No. FHC/YL/74C/2011 [48] were sentenced to the longest term of imprisonment out of all the cases reviewed, each being sentenced to a term of eight years.

In case No. FHC/YL/113C/2010, the defendant was charged with dealing in *Cannabis sativa*, Tramol and D5 in quantities of 1.4 kg, 400 grams and 106 grams, respectively. Therefore, it might appear that it was because multiple substances were involved that the defendant got the long term of imprisonment. However, in case No. FHC/YL/74C/2011, the defendant was charged with dealing in 100 grams of cannabis. No other drug was involved, but he also received a prison term of eight years.

The cases No. FHC/JAL/10C/2016 [48], No. FHC/JAL/21C/2016 [48] and No. FHC/YL/85C/2012 [48] also show the manner in which sentencing discretion is exercised. All three cases lasted for just one day. All involved male defendants who pleaded guilty. But they received different prison sentences, of 6 years, 5 months and 2 years, respectively. They involved unlawful dealing in cannabis in the amounts of 17 kg, 13 kg and 11 kg, respectively.

In addition to, or instead of, a term of imprisonment, the Federal High Court may also, at its absolute discretion, impose a fine after a verdict of guilty is delivered. In case No. FHC/IB/87C/2012 [48], the defendant received a term of two months’ imprisonment or a fine of 10,000 naira for the unlawful possession of 10.1 kg of cannabis. In contrast, the defendant in case No. FHC/IB/47C/2013 [48] was convicted for the unlawful possession of 10 kg of cannabis. He was sentenced to two years’ imprisonment in addition to a fine of 30,000 naira. Thus, the quantity or volume of drugs does not determine the severity of the fine or prison sentence. This is further demonstrated by case No. FHC/IB/52C/2013 [48], in which the defendant, charged with the unlawful possession of 13.75 kg of cannabis, received a prison term of three months and a fine of 10,000 naira.

Where the Federal High Court gives the option of a fine, it does not appear that the fines are determined on the basis of the number of years of



imprisonment required under the imprisonment option. In case No. FHC/YL/48C/2012 [48], a male defendant convicted for dealing in 15.5 kg of cannabis received a sentence of 20 months' imprisonment or a fine of 20,000 naira. In case No. FHC/YL/49C/2010 [48], another male defendant convicted for dealing in 18.85 kg of cannabis was sentenced to a term of 18 months' imprisonment or a fine of 50,000 naira. The defendant in case No. FHC/YL/46C/2007 [48] was convicted for dealing in 11.5 kg of cannabis and was sentenced to three years' imprisonment or a fine of 50,000 naira. The same amount, 50,000 naira, was the fine option in case No. FHC/YL/6C/2007 [48], in which the defendant was given the option of either spending five years in prison or paying the fine.

In the absence of sentencing guidelines, judges do not have a clearly calibrated standard for guiding their discretion. Those that bear the brunt of this absence of sentencing guidelines fall well into the group of low-level offenders described as "grass-roots casualties" [47]. Although the Administration of Criminal Justice Act of 2015 sets out a broad procedure and guidelines for sentencing persons convicted of offences in Nigeria [49], the elements to be taken into consideration as prescribed by the Act are too broad and require particularization through sentencing guidelines. The elements prescribed by the Act are as follows:

- The case shall be treated on its merit
- The principle of reformation
- The chances of the sentence being reduced by an appellate court
- The maximum punishment shall not be imposed on first-time offenders
- The periods of time spent in prison while awaiting trial are to be computed and included in the terms
- The antecedents of the convict
- Doubts about the age of the accused person shall be resolved in favour of the accused person
- Consolidation of sentences for two or more offences committed in the same transaction
- The convict should be sent to prison in cases where other forms of punishment have failed or are likely to fail and where there is a need to isolate the convict from society



**Table 2. Adjudication of cases involving cannabis**

Quantity of cannabis involved (kg) <sup>a</sup>	Number of cases	Total weight of cannabis in all cases (kg)	Shortest trial duration (days)	Longest trial duration (days)	Shortest sentence (months)	Longest sentence (months)	Defendants convicted (percentage)	Defendants pleading guilty (percentage)
0.1–4.9	1 629	1 484.7	1	1 095	1	240	99	96
5–9.9	152	1 063.4	1	1 723	1	120	93	91
10–20.9	125	1 837.3	1	1 734	1	84	95	85
21–30.9	50	1 264.6	3	1 460	6	120	88	79
31–40.9	28	987.2	1	1 460	2	180	83	83
41–50.9	18	817.5	9	2 567	3	84	80	75
51–100	47	3 561.3	1	2 530	5	180	90	82
100–150	15	1 922.8	2	1 756	5	60	65	65
151–200	10	1 634.8	47	819	8	60	78	67
201–500	24	7 634.7	19	2 233	6	84	91	68
501–1 000	5	5 505.4	8	1 415	18	60	67	50
2 001–5 000	3	10 510	27	1 570	6	6	33	33
10 000–20 000	1	19 958	188	188	60	60	100	100
200 000–300 000	1	28 1227	814	814	0	0	0	0

<sup>a</sup> Some of the cannabis cases reviewed are not represented in the table, either because the amount was not indicated in the court documents reviewed or the amount was recorded in in terms of wraps, tablets, capsules, stems, blocks, "loose quantity", sachets or pieces, which are not easily converted into kilograms.

## Conclusion

Essentially, adjudication of drug control occurs within a defined legislative framework. The Federal High Court is required to adjudicate on drug cases within that framework. There is no customary or unwritten law in the adjudicatory control of drugs. This would ordinarily suggest that citizens are aware of the drugs that have been expressly identified and prohibited within the legislative framework that the Court applies. However, the Court allows the adjudicatory control both of substances that are expressly named (and prohibited) and of those that are not expressly named but that are said to be psychotropic substances.

This approach is a double-edged sword. It can capture emerging drugs, but it can also be disadvantageous for citizens who do not know that a particular substance is considered to be psychotropic by the Court. In either

event, persons involved with small amounts are more likely to be charged, convicted and given the longest terms of imprisonment. It is therefore important for the general public to have a detailed and documented guide on the substances that are prohibited or considered as psychotropic. Such a document should also include the criteria for classifying a substance as psychotropic. At a minimum, narcotic drugs should be classified according to the degree of danger they pose to society.

In addition, the adjudicatory process is presently disproportionately focused on low-level offenders and there appears to be a need to refocus on persons unlawfully involved with larger volumes of drugs. In relation to both low-volume and high-volume drug cases, the extant law and practice on sentencing in drug cases is controversial, complex and confusing. It is therefore important to not only clarify the law but also to encourage the use of sentencing guidelines. Finally, the use of data obtained from court documents can help to interpret or put other drug-related data into context. This is particularly true for countries such as Nigeria, “where the availability of data is very limited” [50].

## Notes and references

1. See Biju Panicker, “Legalization of marijuana and the conflict with international drug control treaties”, *Chicago-Kent Journal of International and Comparative Law*, vol. 16, No. 1 (March 2016), chap. I, for the general argument that the three treaties create drug control obligations for States.
2. Adeolu Ogunrombi, “West Africa: a new frontier for drug policies?”, *International Journal on Human Rights*, No. 21 (August 2015).
3. See, for example, Gernot Klantschnig, “The politics of law enforcement in Nigeria: lessons from the war on drugs”, *Journal of Modern African Studies*, vol. 47, No. 4 (December 2009), pp. 529–549.
4. Alex Klein, *When Agendas Collide: Combating Drugs and Organised Crimes in West Africa*, Policy Brief No. 4 (Swansea, United Kingdom, Global Drug Policy Observatory, Swansea University, June 2014).
5. Isidore S. Obot, “Assessing Nigeria’s drug control policy, 1994–2000”, *International Journal of Drug Policy*, vol. 15, No. 1 (February 2004), pp. 17–26.
6. The United Nations Office on Drugs and Crime provided support for research, including logistics for data collection from 24 judicial divisions of the Federal High Court across Nigeria. The divisions covered are Lokoja, Bauchi, Maiduguri, Ilorin, Sokoto, Kano, Minna, Awka, Enugu, Uyo, Katsina, Jos, Makurdi, Yola, Lafia,

Umuahia, Osogbo, Benin, Akure, Asaba, Owerri, Lagos, Abuja and Port Harcourt. The researcher sourced other funding to cover the additional four Federal High Court judicial divisions: Damaturu, Ibadan, Gombe and Jalingo.

7. At the time of writing the present article, court documents had not been obtained from 7 out of the 28 Federal High Court divisions covered in this research.
8. All court records analysed are on file with the author.
9. For example, at a particular division of the Federal High Court, a non-judicial staff member responsible for authorizing the release of requested documents asserted that the cases should not be made available because the staff member felt that it would be an embarrassment to the convicted persons to make their names or details known to the researcher. The staff member refused the explanation that personal details would be redacted or excluded from any research report. Arguments pointing out that the court documents are public documents also did not persuade the said staff member.
10. Second schedule, part I, item 21, to the 1999 Constitution.
11. Section 315 (1) of the 1999 Constitution provides that a law that existed when the 1999 Constitution came into force is to be deemed to be a law of the National Assembly if it falls within the legislative jurisdiction of the National Assembly. This is without prejudice to the adjudicatory function of determining the validity of laws, including existing laws that are deemed to have been made by the National Assembly.
12. See, for example, Cheluchi Onyemelukwe, "Access to experimental drugs, fundamental rights and clinical trials regulation in Nigeria", *Asia Pacific Journal of Health Law and Ethics*, vol. 10, No. 2 (March 2017), pp. 81–114, chap. IV, where the author examines the regulation of experimental drugs which may be neither narcotic nor psychotropic.
13. See the National Drug Law Enforcement Agency Act, section 52.
14. Section 31 of the National Agency for Food and Drug Agency Control Act. The Act, according to this definition, deals with all drugs, including narcotic and psychotropic substances.
15. See Osahon O. Guobadia, "The relevance of the judiciary in a democratic Nigeria", *African Journal of International and Comparative Law*, vol. 20, No. 2 (June 2012), pp. 301–317. See also, Okechukwu Oko, "Seeking justice in transitional societies: an analysis of the problems and failures of the judiciary in Nigeria", *Brooklyn Journal of International Law*, vol. 31, No. 1 (2005).

16. See, for example, Oye Olley and Dapo Gureje, "Alcohol and drug abuse in Nigeria: a review of the literature", *Contemporary Drugs Problems*, vol. 19, No. 3 (September 1992), pp. 491–504.
17. See, for example, Nigeria, National Drug Law Enforcement Agency, *2016/2017 Annual Report* (Lagos, 2016).
18. See, United Nations Office on Drugs and Crime, *Drug Use in Nigeria 2018* (Vienna, 2019).
19. Brand name for a metadoxine preparation.
20. This is probably a brand name for a diazepam preparation, but the Court records do not state that that was the case.
21. Axel Klein, "Trapped in the traffic: growing problems of drug consumption in Lagos", *Journal of Modern African Studies*, vol. 32, No. 4 (December 1994), pp. 657–677.
22. For example, in December 2018, the Senate organized a round table on the drug use crisis in Nigeria. Participants in the round table discussion included the President of the Senate, the Deputy Governor of Kano State, senior representatives of law enforcement agencies, including the Chief Executive Officer of the National Drug Law Enforcement Agency, civil society organizations, development agencies, professional bodies, including, among others, the Nigerian Medical Association and the Pharmaceutical Society of Nigeria. The discussions at the round table focused on tramadol and codeine use. The same fervour of engagement at the highest levels of law- and policy-making is not seen in relation to older-generation drugs such as cannabis.
23. High Court (West), *Aoko v. Fagbemi*, Case No. M/12/1961, 1 All NLR 400, 28 September 1961.
24. Case No. (2018) LPELR-44713(CA).
25. Case No. (2016) LPELR-40795(CA).
26. Case No. (2017) LPELR-42513(CA).
27. Cf. section 2 of the United Kingdom Misuse of Drugs Act 1971.
28. Some of the cases reviewed involved multiple narcotic substances.
29. The Federal Republic of Nigeria consists of 36 states and a Federal Capital Territory. Each state has a capital.
30. Section 251 (1) (m) of the 1999 Constitution.
31. See section 18 of the Foods and Drugs Act; section 9 of the Food, Drugs and Related Products (Registration, etc.) Act; section 25 of the National Drug Law Enforcement Agency Act; and section 4 of the Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Act.

32. Case No. (2018) LPELR-43908 (SC).
33. See also, section 18 of the Foods and Drugs Act; section 9 of the Food, Drugs and Related Products (Registration, etc.) Act; section 25 of the National Drug Law Enforcement Agency Act; and section 4 of the Counterfeit and Fake Drugs and Unwholesome Processed Foods Act.
34. Case No. (2012) LPELR-781 (SC).
35. Section 93, paragraph 2, of the Administration of Criminal Justice Act, 2015.
36. Supreme Court of Nigeria, *Samuel Ayo Omoju v. Federal Republic of Nigeria*, (2008), Case No. LPELR-SC.167/2007, 15 February 2008.
37. Court of Appeal, Ibadan Judicial Division, *Emmanuel Olabode v. State*, (2009) LCN/3698 (SC), Case No. SC.29/2008, 22 May 2009.
38. Case No. (2017) LPELR-42774 (CA).
39. Case No. FHC/OW/03C/2012, on file with the author.
40. Klantschnig, "The politics of law enforcement in Nigeria", p. 539.
41. Section 11, subparagraphs (a), (b) and (c), of the National Drug Law Enforcement Agency (NDLEA) Act.
42. Section 11 (d) of the NDLEA Act.
43. Section 12 of the NDLEA Act.
44. Case No. (2013) LPELR-20165 (CA).
45. Court of Appeal, Lagos Judicial Division, *Aliagwu Lawrence v. Federal Republic of Nigeria* (2018) LPELR-44510 (CA), Case No. CA/L/279/2016, 9 March 2018.
46. Court of Appeal of Nigeria, *Onyemachi Remigus Chibuzor v. Federal Republic of Nigeria* (2017) LPELR-41852 (CA), Case No. CA/L/745/15, 1 February 2017.
47. Axel Klein, "Nigeria and the drugs war", *Review of African Political Economy*, vol. 26, No. 79 (February 2007), p. 60.
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49. Section 416 of the Administration of Criminal Justice Act.
50. *World Drug Report 2013* (United Nations publication, Sales No. E.13.XI.1). See also Joanne Csete and Constanza Sánchez, *Telling the Story of Drugs in West Africa: The Newest Front in a Losing War?*, Policy Brief No. 1 (Swansea, United Kingdom, Global Drug Policy Observatory, Swansea University, November 2013).







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