

Research Article

A Survey on Substance Abuse in Northern Nigeria

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Abstract

The northern region of Nigeria has been repeatedly reported to have a high intake of drugs and hence the need to explicitly determine the pattern of abuse. Questionnaires were administered to 350 drug users across northern Nigeria with 85% estimated response rate. The questionnaire targeted the types of drugs abused (traditional drugs, prescription drugs and New Psychoactive Substances (NPS)), age of first intake, frequency of intake, duration of exposure, place of purchase, and mode of administration. About 100 drugs/substances were reported to be consumed by respondents 5.71% were traditional drugs, 35.71% were prescription drugs and 58.57% were NPS. The leading drugs in the three drug classes include cannabis (83.7%), cough syrups (30.1%), and solution (45.2%). Ages 20-24, 25-29 and 30-34 cohorts were the major consumers of drugs of abuse, all in the middle class. Traditional drugs and NPS were majorly purchased on the streets (78.9% and 74.6% respectively) while for prescription drugs, the purchase was done from the pharmacy (51%). For all drug classes, the majority of the respondents admitted to oral administration of the substances. This research has indicated the pattern of substance abuse to be prescription drugs and NPS.

Keywords: Prescription drugs; New psychoactive substance (NPS); Substance abuse; Traditional drugs; Cannabis

Introduction

Globally, abuse of drugs is prevalent in every part of the world and all drug agencies around the world have been embarking on a lot of research to combat the abuse of drugs. The latest drug report by United Nations Office on Drugs and Crime [1], states that about 35 million people suffer from drug use disorder worldwide. Also in their an-

nual report in 2018, an estimated rate of consumption of illicit drugs (use of drugs at least once in 2016) was given as 275 million, which is roughly equivalent to 5.6% of the world population in the age range of 15-64 years. The drug-related deaths in 2015 were estimated to be 450,000 people, with 167,750 people being directly associated with drug use disorders (mainly overdose).

In this study, drugs are classified into three categories-traditional drugs, prescription drugs and new psychoactive substances (NPS). Traditional drugs refer to drugs that have been long known to be abused and they include-cannabis, cocaine, heroin, benzodiazepines, amphetamine, methamphetamine, and methadone. Prescription drugs are drugs that are prescribed by the doctor but are abused, they are also known as 'over the counter drugs' e.g cough syrups, tramadol, pentazocine. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines New psychoactive substance as "a new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the United Nations drug conventions, but which may pose a public health threat comparable to that posed by illegal drugs" [2]. These NPS could be an imitation of a well-known traditional drug e.g synthetic cannabinoid or a concoction of different substances to produce a desirable effect. United Nations Office on Drugs and Crime reported that there have been inadequate data or information from African countries with regard to substance use. From the number of new psychoactive substances reported by countries between the periods of 2008-2015, there was no data available for most African countries, with Nigeria inclusive [1].

With the trend of emergence of NPS across northern Nigeria, this study was conducted. This will in turn give an insight into the pattern of substance abuse and a comprehensive report for proper documentation.

Method

The study area included psychiatric hospitals, rehabilitation centres and major streets of seven representative states (Kaduna, Borno, Sokoto, Niger, Kano, Katsina and Jigawa) in northern Nigeria. The states were selected to cover the three northern zones (north west, north east and north central) and previously reported states with the highest drug/substance intake. The questionnaire targeted-types of drugs abused (traditional drugs, prescription drugs and NPS) in the region, age of first intake, frequency of intake, duration of exposure, mode of administration, effects of the drug, and perception in the society.

The method of data collection involved administering questionnaires and a brief interview. Research assistants were employed in various states to help administer to respondents that were not literate. A total number of 350 questionnaires were administered across these states using simple random method of sampling. The sample size was obtained using sample size calculator software (<https://www.checkmarket.com/sample-size-calculator/>). The following was the information used: margin error=5%; Confidence limit=95%; Response rate=80%; Estimated population of northern Nigeria=19,000,000.

Results

Table 1 represents the demographic profile of participants. The demographics that were considered include occupational status, educational status, sex, age and marital status.

Table 1: Demographic profile.

Variables	Frequency
Personal Data	
Occupational Status	
Civil Servant	68 (19.4%)

Business man/woman	58 (16.6%)
Self employed	47 (13.4%)
Unemployed	64 (18.4%)
Private Organisation	19 (5.43%)
Student	94 (26.9%)
Educational Status	
Primary School	24 (6.86%)
Secondary School	117 (33.4%)
Degree/HND	83 (23.7%)
Diploma/COE	109 (31.1%)
No Formal Education	17 (4.86%)
Sex	
Female	87 (24.9%)
Male	263 (75.1%)
Age	
Oct-14	2 (0.57%)
15-19	25 (7.14%)
20-24	88 (25.1%)
25-29	108 (30.9%)
30-34	72 (20.6%)
35-39	37 (10.6%)
40-44	12 (3.43%)
45-49	3 (0.86%)
50- Above	3 (0.86%)
Marital Status	
Singles	223 (63.7%)
Widowed	12 (3.43%)
Married	93 (26.6%)
Divorced	22 (6.29%)

Table 2 represents all the drugs indicated by the participants to be abused in the study region. All the classes of drugs are captured here. Drugs in column 1 were listed in the questionnaire; the others were filled by the respondents. Note: LSD is not a common drug of abuse in Nigeria, only one respondent attested to its abuse.

Table 2: Drugs abused in the region.

All drugs	Others		
Cannabis	Kertermine	white	Olanza -5
Cocaine	Artame	Ciprosoft	Paili
Heroin	Madahi	Halopeupot	Diazepam
Tramadol	Exzol 5	Capital	Chalo
Cough Syrup	Gabatara	D5 - yellow	Chally
Pentazocine	X-candy	Dio	Janki
Morphine	Snipper	Bologe	Bramezapam
Paracetamol	Bula	Osama	Jamaica

Cow dung	Ancupa	Lizard bone	Gabajji
Lizard dung	Nitazepam	Chiwotara	Mugrit
Kwana tara	Magadon	cabamazepine	Benahert
Madarasukudaye	Katamine	Diazopone	Gwana
Solution	Skunk	Lofi	Sephanol
Mandrax	LSD	Shuta	Silver D5
Earth of toilet effluent	Lagatin	Swenol	Gutter
Glue	Valium 5	Lohi	Camera films
Petrol	Estacy	Cannabis +ermon	Flunatrazepane
Zakami	Arter	Nail +water	
Rolypnol	Bozol 5	Mosquito coil	
	Ghana smack	Corner twaksi	

Table 3 represents the types of drugs the participants admitted to abusing in the study region. There were quite a number of replicate or triplicate, which implies that a drug user could indicate abuse of all three cases of drugs or more than one type of drug.

Table 3: Types of drug consumed by participants.

Drugs of abuse	Total
Traditional drugs	
Cannabis	252 (83.7%)
Cocaine	25 (8.31%)
Heroin	23 (7.6%)
Others	1 (0.33%)
Prescription drugs	
Tramadol	142 (25.2%)
Cough syrups	170 (30.1%)
Pentazocine	17 (3.01%)
Rohypnol	134 (23.8%)
Morphine	10 (1.77%)

Paracetamol	54 (9.57%)
Others	37 (6.56%)
NPS	
Cow dung	21 (13.4%)
Lizard dung	4 (2.55%)
Kwana tara	3 (1.91%)
Madarasukudaye	22 (14%)
Solution	71 (45.2%)
Mandrax	5 (3.18%)
Earth of toilet effluent	6 (3.82%)
Glue	5 (3.18%)
Petrol	10 (6.37%)
Zakami	8 (5.1%)
Others	2 (1.27%)

The frequency of intake shown in **Figure 1** represents an exceptional high daily abuse of all drug classes, with prescription drug being the highest. Prescription drug shots up too on the weekly level

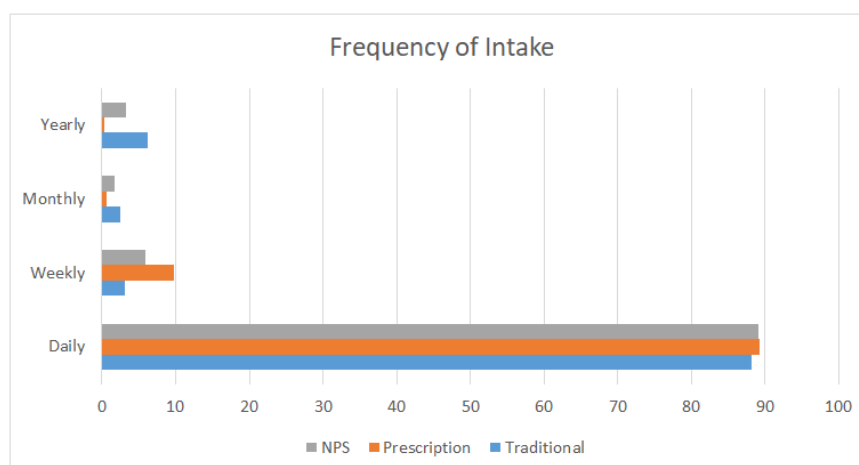


Figure 1: Frequency of intake

Table 4 shows the frequency of intake on a daily, weekly, monthly and yearly basis to measure the extent of intake of traditional drugs, prescription drugs and NPS.

Table 4: Frequency of Intake of all drugs

	Traditional (%)	Prescription (%)	NPS (%)
Daily	88.2	89.3	89.2
Weekly	3.13	9.8	5.83
Monthly	2.43	0.55	1.67
Yearly	6.25	0.37	3.33

Figure 2 gives the information of where drugs/substances are purchased. Traditional drugs and NPS are mostly purchased on the streets while prescription drugs are purchased from the pharmacy. Other places where drugs are purchased as indicated by the respondents includes barracks and markets.

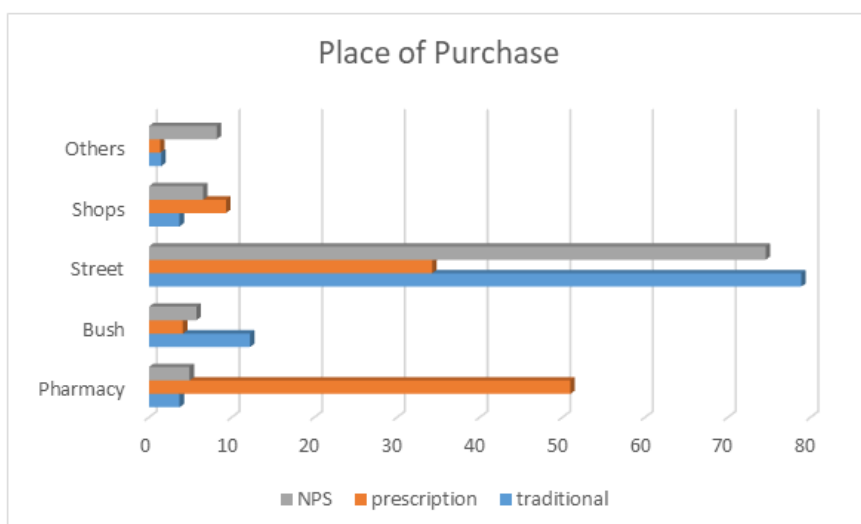


Figure 2: Place of purchase

Discussion

As earlier mentioned, the drug abusers were the target population for this study, therefore it was important to know their demographic profile to have a general knowledge of what is attainable. **Table 2** distinctively shows the demographic profile in terms of the occupational status, educational status, sex, age and marital status. In the occupational status section, the respondents were mostly students, which was followed by civil servants and unemployed. Majority of these students were educated to the secondary and diploma level. A great number of respondents were in the university or graduate. This explains why so much sociological research [3-5] have been conducted in schools since students are the most vulnerable groups in drug abuse. The male gender was more than the female (3:1), implying that in a population of drug abusers, there is a ratio of 3 males to 1 female actively abusing drug in the northern region from this study. This was previously observed in Borno state, where the involvement of females in drug abuse was referred to as a new phenomenon [6].

The rate of abuse of drugs amongst the population is not only restricted to the male gender, the females are abusing drugs too whether concealed or open. Stigmatization has made that of the female not be pronounced. During the administration of the questionnaire in some study areas, some female drug abusers declined by deliberate refusal or denying involvement with substances of abuse. In regions where the farm work are done by females, substance abuse is a norm. UNODC report on Nigeria in 2018, stated that out of every four person that abuse drug, one is a female. Ordinary, it would have been thought that males are the highest consumer of drugs of abuse because of the hard jobs they engage in but there are so many reasons why people abuse drugs, examples are: feeling an emotional void, to make high, boosting activity, e.tc. Respondents in the age classes 25-29 were the major substance consumers, followed by age class 20-24 and 30-34. All in the middle class, the young adults, and the labour force. A large number of respondents in these age classes were single and most of them were married. This calls for concern because this age range are the powerhouse of any nation. This also

agrees with UNODC report, that drug use was prevalent among age 25-39 [7].

A total number of 70 drugs and substances were reported in **Table 2**. Out of which 4 (5.71%) were traditional drugs, 25 (35.71%) were prescription drugs and 41 (58.57%) were NPS. This information is a clear indication of the gradual shift of substance abuse from traditional drugs to prescription drugs and then NPS. Once a well-known drug of abuse is banned, NPS emerges in the drug market to replace it. In the case of cannabis, synthetic cannabinoids under the disguised names 'spice and herbal drugs' were used as replacement [8,9]. These synthetic cannabinoids could have the same or even more psychoactive potential as cannabis. In 2014, UNODC (United Nations Office on Drugs and Crime) stated that the number of NPS controlled nationally was 234 but within a space of 18 months, NPS rose from 251 (July, 2012) to 348 (December, 2013) [10]. This implies that about 110 NPS were not controlled and drug users had free access to these drugs. In a recent research conducted on accessing the occurrence, pattern and effects of nonconventional use of substances, the following nonconventional substances were identified: whitish end of lizard dung, hydrogen sulphide gas (sewer gas) [11]. Also the following NPS and non-conventional substances have been previously identified-gutter water, monkey tail, lacasera drink mixed with 'tom-tom', whitish part of lizard dung, dry human feces, dry cassava and pawpaw leaves and many more [12].

The commonest abused traditional drug is cannabis (83.7%) as shown in **Table 3**. Cannabis remains the most abused and trafficked drug worldwide. This could be because it is cheap and easily cultivated as compared to other drugs [13]. A few respondents abuse cocaine (8.31%) and heroin (7.6%), these drugs are not readily available, and they are imported. For prescription drugs, cough syrup (30.1%) was the leading drug, followed by tramadol (25.2%) and rohypnol (23.8%). Three million bottles of benylin cough syrup were seized in two northwest states (Jigawa and Kano state) in 2008 [14]. Interestingly in this class, is the abuse of paracetamol, a pain reliever, 9.57% of respondent abuse paracetamol to get high and they do this by sniffing the powdered form. There has been no record of paracetamol by itself causing high, it is most likely the respondents adulterate paracetamol with stimulants in order to get high. Paracetamol has only been reported to be toxic when consumed in large quantity [15]. The ability to cause high could be attributed to the amount ingested or combination with other stimulant.

This study suggested that solution (45.2%) is the most abused NPS on the street in the northern region, followed by madaran sukudaye (14%) and cow dung (13.4%). These substances have been mentioned in a few literatures to be prevalent in the study area [16-20]. Madaran sukudaye is a local drink made with formalin. Solution is glue that is inhaled by drug abusers in order to get high. For cow dung, no documented report, but the abuse of lizard dung and tail, toilet effluent, gutter has been reported in the media. was

the observation made by Jatau et al. (2021) that most information about drugs of abuse in Nigeria is presented in the media (electronic and online) [21]. This makes it difficult to write about them since they are not peer-reviewed.

Drug abuse has several health implications. The addictive usage of drugs/substances of abuse leads to the following: cardiovascular disease, stroke, cancer, HIV/AIDS, hepatitis, lung disease and mental disorders [22]. Daily intake of drugs affects the normal functioning of the brain. Once this occurs, it is difficult to attain a reversal but in most cases, rehabilitation is applied. It is important to note that all the drug classes were taken on a daily frequency, most especially the prescription drugs. The question now is, if these drugs are prescription drugs and should only be sold with evidence of a doctor's report, how do abusers get free access to them? The likely explanation for this could be an illegal transaction between the pharmacist and the abuser or illegal or unaccredited laboratories producing these drugs and thereby making them available to the abusers.

In the case of traditional drugs, cannabis is consumed on a daily basis because it is cheap, easily assessed, cultivated and locally produced. Although these drugs are controlled, NPS are not controlled in Nigeria, as there is no national law enforcing its seizure and most of these NPS have not been identified, hence not documented. This is an area to be looked at effectively and more research should be tilted toward NPS in Nigeria, since its abuse is rapidly growing considering the number of NPS realized on the streets and the frequency of intake. This study is also to draw the attention of the law enforcement agency to the prevalence of NPS and the need to take necessary actions.

The streets are the harbour of traditional drugs and NPS while for prescription drugs, the pharmacy was the leading place of purchase. As earlier discussed, if the pharmacy, which is supposed to be restricted in its sales of drugs, is not, there is a need for reviewing their policies. Also for traditional drugs and NPS, apart from enforcing law and order, there should be sensitisation on the streets.

Conclusion

There is no end to research on drugs of abuse since new substances continue to surface and abusers are constantly looking for new thrills. The study has been able to present as much as possible the current state of drugs of abuse in the Northern region of Nigeria and this is a document that will be useful to drug agencies in combating substance abuse.

Declaration

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Conflicts of interest/Competing interests

All authors have no conflicts of interest that are directly

relevant to the contents of this article.

Ethical approval

Ethical approval was obtained from the psychiatric hospitals visited.

Consent to participate

Informed consent was obtained from all individuals who participated in the study.

Consent for publication

Availability of data and material

Not applicable.

Code availability

Not applicable.

Authors' contributions

HAM AND HLM supervised the work, FIO analysed the work, HKLM proofread and edited the work.

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