Original article

EXTENT OF DRUG ABUSE IN THE NORTHERN REGION OF NIGERIA

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ABSTRACT

Drug abuse is a social problem globally, understanding the extent of abuse is important to tackle this problem. A population of more than 30 million people suffer from drug use disorder. Drugs of abuse can be classified into three category- illegal drugs (cannabis, cocaine, and heroin), prescription drugs (cough syrups, tramadol) and new psychoactive substances (madaransukudaye, volatile substances). This study was conducted between the period of February-July, 2017 to determine the frequency of intake, effects of abusing drugs, reasons for abusing drugs, family response and the cultural perception of drug abuse. Three hundred and fifty (350) questionnaires were administered to drug users on the major streets, psychiatric hospitals and rehabilitation centres of seven states (Kaduna, Sokoto, Borno, Niger, Kano, Katsina and Jigawa state) from Nigeria. All respondents admitted to daily intake of all the drug classes (traditional drugs, prescription drugs and new psychoactive substances) at a frequency of 1-2 times daily. Elevation of mood was generally reported to be the effect they encountered after abuse. The commonest reasons among others for abusing drugs was 'to stop worrying'. The family of the drug abusers were completely sad and culturally drug abuse is not acceptable in the society. There is need for more awareness and sensitization on the harmful effect of drugs in the society.

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INTRODUCTION

Drugs or substances of abuse have consistently become a major concern of every community in Nigeria with every state having a sub unit of National Drug Law Enforcement Agency (NDLEA), rehabilitation centres, mental health clinics or neuropsychiatric hospitals. All efforts put in place are still not enough to address the issue of drug abuse. According to the World Drug Report, more than 35 million people suffer from drug use disorder (1). According to United Nations Office on Drugs and Crime (UNODC), drug related deaths include drug overdoses, Acquired Immunodeficiency Syndrome (AIDS) from sharing of needles when injecting drugs,

self-poisoning, motor accident/other forms of accidents, violence from supply and trafficking of drugs. These drug related deaths were estimated to be 207,400 people worldwide relating to about 43.5 deaths per 1 million people (2).

In this study, drug of abuse was divided into three classes- Illegal drugs, Prescription drugs and New Psychoactive Substances (NPS). Illegal drugs of abuse are drugs that are well known to be abused and they are controlled, examples include cannabis, cocaine, heroin, amphetamine, and methamphetamine. Cannabis is the most abused illegal drug in Nigeria (3). Prescription drugs are drugs that are prescribed by a doctor but these drugs can be abused because of the psychoactive effect they produce. Popularly abused prescription drugs are codeine, tramadol, diazepam, pentazocine. Prescription drugs are abused globally and locally, particularly opioids (1). New psychoactive substances (NPS) are substances of abuse, either in a pure form or in a preparation that are not controlled by international drug conventions, but may pose a public health threat (4). Madaransukadaye, solution, toilet effluent, cow dung, lizard dung are examples of NPS in Nigeria (5, 6, 7, 8, 9). Most NPS encountered globally are in form of synthetic cannabinoid (10). The market of new psychoactive substances are increasing since they are not controlled, drug abusers have free access to them (3).

The prevalence of drugs of abuse in the six geopolitical zones of Nigeria presented by UNODC in 2017 is in the following order- South-West (22.4%), South-South (16.6%), South-East (13.8%), North-East (13.8), North-West (12.0%), North-Central (10.0%) (11). Drug abuse used to be at its highest in Northern Nigeria in terms of seizures and consumption. The states in the northwest that presented the highest were Jigawa and Kano state with a seizure of 3 million bottles of benylin cough syrup (12, 13) but from the data presented by UNODC (2017), the Southern region has the highest consumption rate. The extent and pattern of drug abuse is an important research especially because drug abuse is a social problem in every society, therefore understanding the types of drugs abused (traditional drugs, prescription drugs and NPS), age of first intake, frequency of intake, duration of exposure, mode of administration, effects of the drug, perception in the society should not be neglected as this will go a long way in tackling drug related problems. UNODC presents reports annually on the extent and pattern of drug abuse globally, this has been helpful in knowing the trends of drug abuse. There has been a lot of sociological research conducted in Nigeria to address drugs of abuse, pattern of alcohol abuse and socio-cultural effects of illegal and prescription drugs (14, 15, 16, 17) and little on the extent of abuse of NPS, hence the essence of this study. The study was conducted to determine the extent of abuse all the three classes of drugs of abuse, with more emphasis on NPS.

MATERIALS AND METHODS

This survey was conducted within the Northern region of Nigeria from February-July, 2017. The study area included major streets, psychiatric hospitals and rehabilitation centres of seven representative states- Kaduna (North West), Borno (North East), Sokoto (North West), Niger (North Central), Kano (North West), Katsina (North West) and Jigawa (North West) in the northern Nigeria. The choice of the seven (7) states was basically the states that had Neuro- psychiatric hospitals (Kaduna, Borno and Sokoto), Federal Medical Centre (Niger) and also the states that have previously been mentioned to have a high consumption rate in the North (Kano, Katsina and Jigawa). The survey included administration of questionnaires with brief interview, since some of the participant were not literate and so needed interpretation. The respondents in this study were individuals currently abusing drugs and those in rehabilitation. The population

consisted of both males and females. A total number of 350 participants/respondents were selected using simple random sampling. The questionnaire targeted the followings- frequency of intake, effects of abusing drugs, reasons for abusing drugs, family response and the cultural perception of drug abuse. The questionnaire consisted of five sections (A-E), which included-

- Section A- Frequency of intake- This was measured using the
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number of times the respondent took the drugs/substances daily or weekly or monthly or yearly (Table 1).

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- Section B- Effects of abusing drugs- This was measured using different effects of the different classes of drugs and there was a segment for other effects of the drug (Table 2).

Table 1: Frequency of Intake Questions

S/NO	Drugs	Daily/times				Weekly/days				Monthly/weeks				Yearly/monthly			
		1-2	3-4	5-6	6-7	1-2	3-4	4-5	4-6	1	2	3	4	1-3	4-6	6-9	10-12
1.	Cannabis																
2.	Cocaine																
3.	Heroin																
4.	Others (specify)																

Table 2: Questions for effects of abusing drugs

S/NO	Symptoms	Elevate your mood	Sleepy	Indifferent	Sexually active	Regrets	Reduce tension	Others (specify)
1.	Cannabis							
2.	Cocaine							
3.	Heroin							
4.	Others (specify)							

- Section C- Reasons for abusing drugs- This was measured by outlining different reasons why people take drugs (boredom, improve sex drive, increase energy, to build confidence, relaxation, to stop worrying, others).
- Section D- Family Response - This was measured using parameters that

portray if the family members were happy or sad or supportive.

- Section E- Cultural Perception – The level to which the drugs were cultural acceptable was measured.

Data Analysis
The data were subjected to descriptive statistics using excel and Power query.

Table 3: Details of all the streets, psychiatric hospitals, and rehabilitation centres visited

States	Psychiatric hospital	Rehabilitation centres	Streets
Kaduna	Federal neuropsychiatric hospital, Barnawa	- DATA, rehabilition center, Barnawa - NDLEA rehabilitation centre, Zaria	- Malile - Calaba custain - Damaturu - Obalande
Sokoto	Federal neuropsychiatric hospital, Kware	- NDLEA rehabilitation centre, Sokoto	-Minannata
Borno	Federal neuropsychiatric hospital, Maiduguri	- Bullunkutu Rehabilitation Home, Kano/ Jos Road Maiduguri	- Comari - Suwari - Baga road - Hausari - Gwange - Galadima - Gambori - G.R.A - Yam market
Niger	Federal Medical Centre, Bida	- Social rehabilitation centres - NDLEA rehabilitation centres	- Bosso - Limawa
Kano		-	- Dala - Gwale - Tarauni
Katsina		-	- Kurfi - Jibia
Jigawa		-	- Maje - Dutse - Shagari

RESULTS

Section A

Figure 1 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. All the three classes of drugs showed a remarkably high percentage of daily intake of drugs. The frequency of intake as shown in figure 1 present an exceptional high daily abuse of all drug classes, with prescription drug being the highest (89.3%). Prescription drug shots out too on the weekly level.
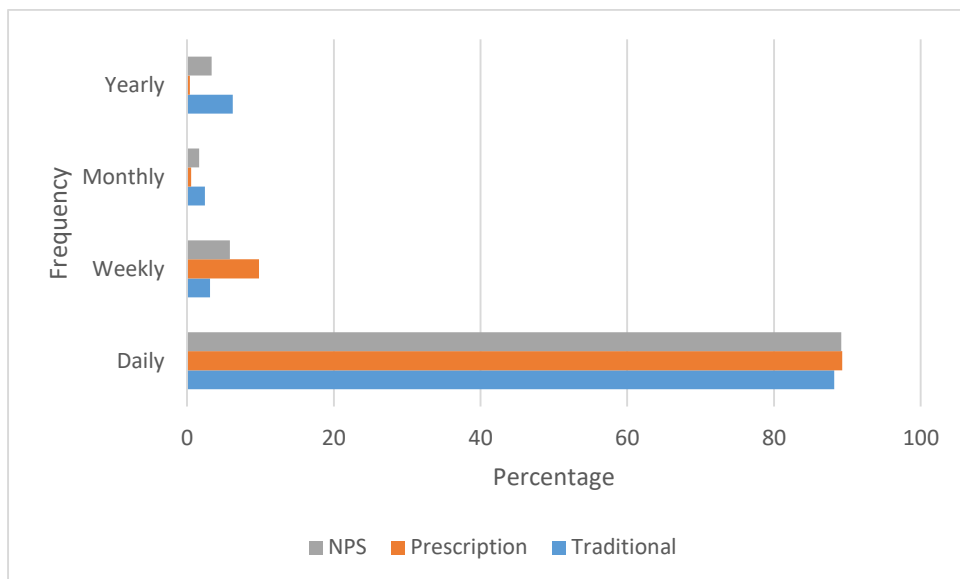
Figure 1: Frequency of intake

Section B

Table 3a,b,c shows the effects of all the drugs and substances of abuse as filled out by the respondents. The raw figures are shown on the table with their respective percentages in bracket. Generally, elevation of mood was most recorded to be the effects drug abusers feel when they consume the drugs/substances in all the three classes.

Table 3a: Effects of abuse of traditional drugs of abuse

How do you feel?	Ca%	Co %	He %
E	196 (35.1)	14 (4.24)	1 (25)
S	67 (12)	3 (9.09)	0 (0)
I	18 (3.22)	0 (0)	0 (0)
SA	59 (10.6)	1 (3.03)	1 (25)
R	40 (7.16)	2 (6.06)	1 (25)
RT	15 8 (28.3)	11 (33.3)	0 (0)
O	21 (3.76)	2 (6.06)	1 ()25

Keys: Horizontally: Ca- Cannabis; Co- Cocaine, He- Heroin. Vertically: E- Elevated; S- Sleepy, I- Indifferent; SA- Sexually active; R- Regrets; RT- Reduce Tension; O- Others.

Table 3b: Effects of abuse of prescription drugs of abuse

How do you feel?	Tr	Cs	Pe	Ro	Mo	Pa	Ot
E	79 (32.9)	92 (26.1)	7 (28)	37 (27.7)	1 (50)	9 (30)	14 (25)
S	24 (10)	90 (25.5)	3 (12)	16 (9.82)	0 (0)	1 (3.33)	12 (22)
I	14 (5.83)	11 (3.12)	1 (4)	2 (1.23)	0 (0)	0 (0)	0 (0)
SA	37 (15.4)	21 (5.95)	3 (12)	22 (13.5)	0 (0)	3 (10)	6 (11)
R	13 (5.42)	16 (4.53)	2 (8)	7 (4.29)	0 (0)	2 (6.67)	1 (1.8)
RT	68 (28.3)	114 (32.3)	7 (28)	71 (43.6)	0 (0)	13 (43.3)	14 (25)
O	5 (2.08)	9 (2.55)	2 (8)	8 (4.91)	1 (50)	2 (6.67)	8 (15)

Keys: Horizontally: Tr- Tramadol; Cs- Cough syrups, Pe- Pentazocine; Ro- Rohypnol; Mo- Morphine; Pa- Paracetamol, Ot- others. Vertically: E- Elevated; S- Sleepy, I- Indifferent; SA- Sexually active; R- Regrets; RT- Reduce Tension; O- Others.

Table 3c: Effects of abuse of New Psychoactive Substances

How do you feel?	Madara-sukudaye	glue	Zakami	Cow dung	solution	Petrol	Toilet	Kwana	Lizard dung	others
Elevated	3 (18.8)	0 (0)	4 (36)	13(18.3)	72 (85)	4 (57.1)	2 (50)	2 (25)	2 (66.7)	2 (25)
Sleepy	7 (43.8)	0 (0)	1 (9.1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Indifferent	0 (0)	0 (0)	0 (0)	0 (0)	2 (2.4)	0 (0)	0 (0)	2 (25)	1 (33.3)	2 (25)
Sexually active	0 (0)	0 (0)	2 (18)	0 (0)	1 (1.2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Regrets	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.2)	0 (0)	0 (0)	1 (13)	0 (0)	1 (13)
Reduce tension	4 (25)	22 (100)	1 (9.1)	3 (18.8)	3 (3.5)	0 (0)	0 (0)	1 (13)	0 (0)	1 (13)
Others	2 (12.5)	0 (0)	3 (27)	0 (0)	6 (7.1)	3 (42.9)	2 (50)	2 (25)	0 (0)	2 (25)

Keys: Horizontally: Tr- Tramadol; Cs- Cough syrups, Pe- Pentazocine; Ro- Rohypnol; Mo- Morphine; Pa- Paracetamol, Ot- others. Vertically: E- Elevated; S- Sleepy, I- Indifferent; SA- Sexually active; R- Regrets; RT- Reduce Tension; O- Others.

Section C   Section D

The response of the family were accessed based on different factors, which included- if they family were happy, sad, supportive, uninterested, disown, send to a rehab or others. The responses clearly showed that their families were unhappy about abuse of drugs (Figure 2).

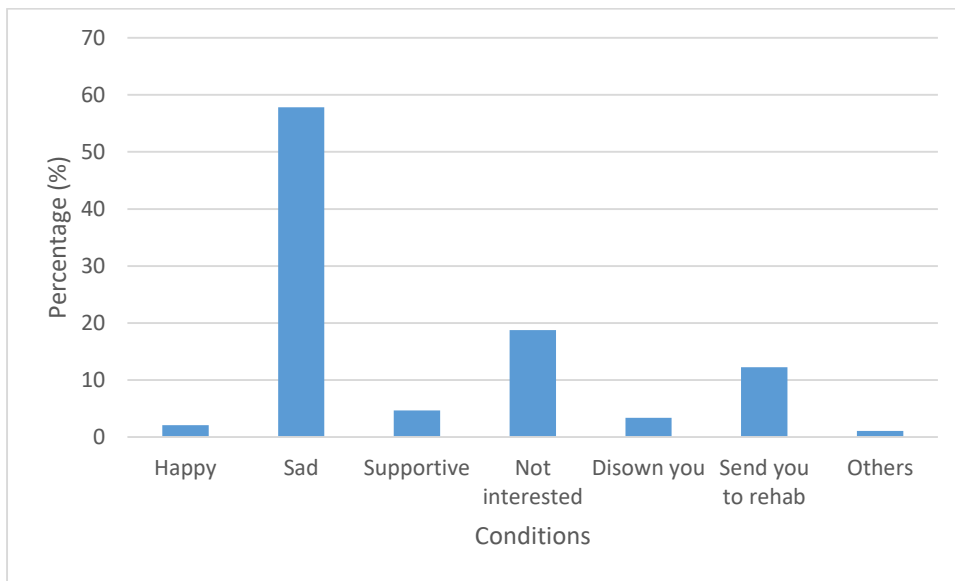The cultural perception was assessed based on acceptability as shown in figure 3. The respondent admitted to the fact that the abuse of drug is not acceptable in their community.

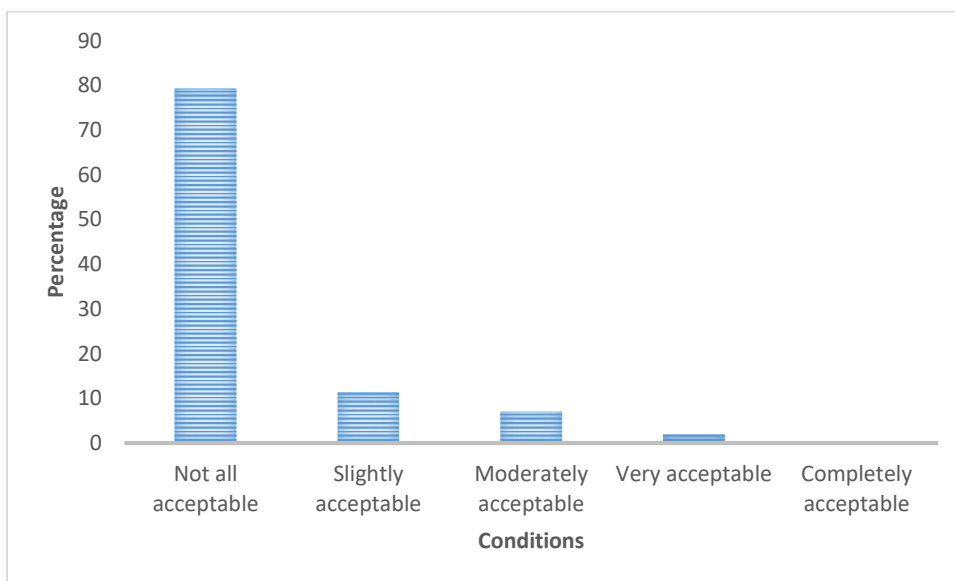Figure 2: Distribution on the Responses of the families to individual involved in substance abuse.

Figure 3: Distribution of the Cultural perception of substance abuse

Section E

Figure 4 shows the reasons why people abuse drugs and 'to stop worrying' presented the highest percentage, which was followed by other reasons.

Table 4 shows the other reasons why the participant abused drugs and this include-

friends/peer pressure, stimulant, to be happy, devil's influence, sleep, forget, enjoy one's life, for pleasure, to make intelligent, parental influence, reduce tension, to relief the brain. Amongst these reasons, friends or peer pressure had the highest percentage for why respondents take drugs.
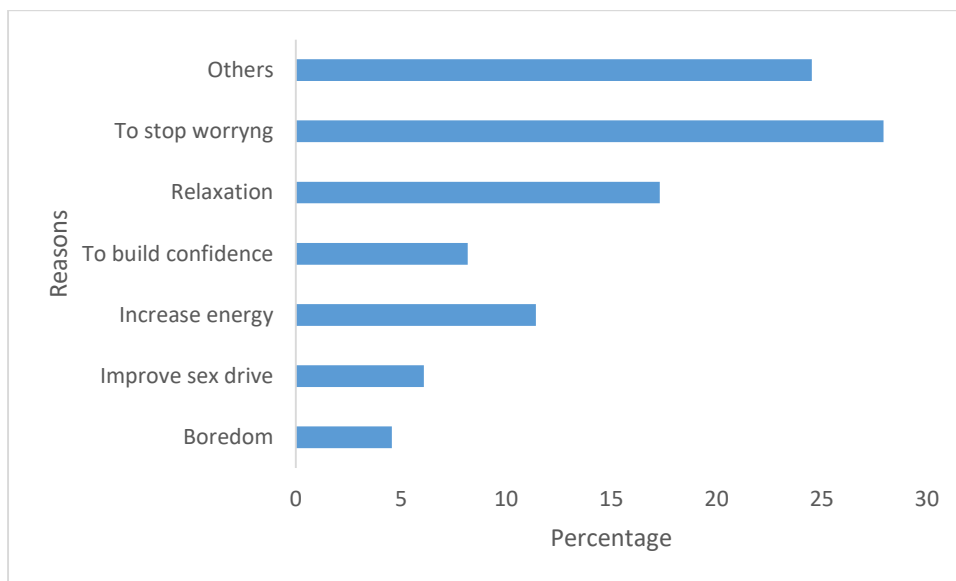

Figure 4: Reasons for abuse of drugs

Table 4: Other reasons for abuse of drugs.

Others	Total (%)
Friends/peer pressure	61(47.3)
Addiction	31(24)
Enjoy my life	14(10.9)
To be happy	7(5.4)
For pleasure	3(2.3)
Sleep	3(2.3)
Stimulant	2(1.6)
To make me intelligent	2(1.6)
Reduce tension	2(1.6)
Devil Influence	1(0.8)
Forget	1(0.8)
Parent	1(0.8)
To relief the brain	1(0.8)

DISCUSSION

A daily frequency intake of all drugs and substances of abuse was observed in this study and this correlated with a study conducted in 2018, where a high daily intake of 49% was recorded, followed by a weekly intake of 26.8% (18). This states a fact of the incessant level of abuse and the implication on the population. These implication includes the health and socio-economic impact. The health implication due to addictive usage of drugs of abuse or drug overdose includes loss of appetite, wakefulness, heart attack, psychosis, stroke, cancer, mental illness, HIV/AIDS, hepatitis etc. (19). Daily intake of drugs affects the normal functioning of the brain, which later leads to addiction. It is important to note that all the drug classes are 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 doctor's report, how abusers get free access to them. The likely explanation to this could be illegal transaction between the pharmacist and the abusers or illegal or unaccredited laboratory producing these drugs and thereby making it 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 their seizure and most of these NPS have not been identified, hence not documented. This is an area to be looked out effectively and more research should be tilted towards 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 was conducted to also draw the attention of the law enforcement agency on the prevalence of NPS and the need to take necessary actions.

In this study, the following were listed for effects of drugs abuse- elevation of mood, sleepy, indifferent, sexually active, regrets, reduce tension. For traditional drugs (Table 3a), elevation of mood was predominant for all the drugs (cannabis, cocaine and heroin), implying that they are all stimulants. For prescription drugs (Table 3b), majority of the respondents ticked elevation of moods for all drugs except for cough syrups, reduce tension was predominant, followed by sleepy and elevation of mood. That is to say, cough syrups with codeine are more of sedatives than stimulants. It is important to note that not all cough syrups cause psychoactive effects, only the ones with codeine present psychoactive effect. For NPS (Table 3c), substances like solution, cow dung produces mood elevation, glue reduces tension and madarasukudaye makes the respondents sleepy. The actual effects of these NPS should be confirmed through characterization of the active ingredient.

The reasons why people abuse drugs, family response and cultural perception of substance of abuse were also explored. The reasons why people are easily susceptible to drugs/substance abuse are numerous, this can be due to family history of abuse, mental health disorder, peer pressure, lack of family involvement (20). The widespread of poverty and hard living conditions has forced children to live on the street, where they are exposed to all sorts of habits including substance abuse (21). Most of the substances the street children are exposed to are NPS and their extent of abuse is not fully understood (UNODC, 21). There are so many reasons why drugs are abused, the reasons given by most respondents were to stop worrying, friends/peer pressure, relaxation and to increase energy.

If there is little or no involvement of family in the ward's life, then the family response to substance abuse will also show no interest. On the other hand, if the family are very involved, they will be unhappy about it. Therefore, to a larger extent the kind or state of family a drug abuser hails from will determine how they respond to drug abuse.

In this study, majority of the respondents said their families were sad about their abuse of drugs and showed disapproval, some families were not interested and others sent them to rehabilitation centres.

Drugs of abuse were generally not acceptable in the Northern culture as shown in figure 4.

The sociocultural factors that affect drug abuse has to do largely with the culture and norm of a society, that is, what is socially accepted or rejected, what drugs or substances are classified as drugs of abuse (22). The consumption of certain substances are accepted in some community, this is because some of them are produced easily or grow naturally in the locality, for examples the popular alcoholic beverage- palm wine is widely consumed in Enugu state, since they have a lot of palm trees for tapping wine (22, 8). Also, in regions where some psychoactive herb grow easily, they inhabitant can use such herbs for food unknowingly. Cocaine, obtained from coca plant was original considered medicinal plant and used to make soup until it started becoming abused (23).

CONCLUSION

The present study revealed the extent of abuse is dependent on factors which includes – frequency of intake, effects of drugs on the human body, reasons for abuse, family response, and cultural perception. The acceptance or rejection of substances of abuse in our culture plays a significant role in determining the extent of abuse. Therefore, there should be proper sensitization of all communities of the harmful effects of substance abuse.

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