

Prevalence of Drug-Induced Psychosis Among Youths Aged (15-30) Years in Maiduguri Metropolitan Council, Admitted in Federal Neuro-Psychiatric Hospital Maiduguri

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Abstract

Drug abuse is a common cause of major mental health problem in many countries of the world including Nigeria. The study is non-experimental design and retrospective in nature which aimed at assessment of prevalence of drug-induced psychosis among youths aged (15-30) years in Maiduguri metropolitan council, admitted in federal neuro-psychiatric hospital Maiduguri from January 2010-December 2014. The specific objectives were: to identify which age group is at higher risk of developing drug-induced psychosis, to identify which year under study with the highest prevalence and to identify the occupations of patients mostly affected by drug-induced psychosis. Self-developed checklist was used to obtain data from the patients' files for the months under study. Descriptive statistics was used to summarize and analysed the collected data from medical records of patients. The collected data were analysed using frequency, percentages and presented in tables. The stated hypotheses were tested using chi-square and ANOVA statistic. The result showed that the year 2011 had the highest number of admitted cases of drug-induced psychosis with 105 patients admitted with drug-induced psychosis 22.69% were students. The findings also showed that the prevalence of drug-induced psychosis among the youths in Maiduguri Metropolitan council is on the increase. The researchers made the following recommendations: public health awareness campaign should be carried out from time to time on the dangers of illicit drug or substances use using mass media, government should re-empower agencies by reviewing constitutions to make agencies prosecute offender, and, government should formulate national policies and guidance that will address cases of illicit drugs or substances use among youths.

Keywords: Prevalence, Drug-induced, Psychosis, Youths

Introduction

Drug-induced psychosis also known as substance induced psychosis is a form of substance related disorder, where psychosis can be attributed to illicit substance use. Various psychoactive substance (both legal and illegal) have been implicated in causing, exacerbating and/or precipitating psychotic states and/or disorder to users. According to Suzanne et al Substance abuse, which includes alcohol and street drugs, is common among first-episode psychosis (FEP) patients, but the prevalence of cannabis abuse is particularly high [1]. Cannabis is the most recreationally used illicit substance across the globe and has a long standing history in many cultures for its euphoric and psychotropic effects. Epidemiological evidence suggests that cannabis use is a risk factor for schizophrenia, while cannabis use in individuals with a predisposition for schizophrenia results in an exacerbation of symptoms and worsening of the schizophrenic prognosis. The neurodevelopmental characteristic of adolescence probably creates a more vulnerable circumstance for cannabis to produce psychotic-like symptoms and possibly cause schizophrenia [2].

Drug abuse is a common cause of major mental health problem in many countries of the world including Nigeria. In fact, it has made a considerable number of youths hopeless [3]. According to Giade, Nigeria is making significant contribution to the fight against illicit drugs [4]. Over 3.4 million kilograms of drugs has been taken from our society and 21,871 drug offenders convicted since the Agency began operations in 1990. He disclosed the statistics as he officially flagged off a weeklong programme of activities in commemoration of the 2013 international day against drug abuse and illicit drug trafficking in Abuja. The NDLEA boss further disclosed that 33.1 billion naira worth of drugs were seized from drug barons in 2012. "The estimated monetary value of seized drugs in 2012 hit 33.1 billion naira and the agency is glad to have dispossessed drug syndicates of such a huge amount of money because the financial empowerment of criminals is an open invitation to chaos with its associated security implications".

In 2012, the Agency adopted various measures that led to the destruction of 1,404.27 hectares of cannabis farms. A total of 8,052 suspected drug traffickers were investigated within the period under review. This comprises of 7,510 males and 542 females. "We successfully intercepted a total of 233,699.875 kg of narcotics. The seizures include 228,794.13 kg of cannabis, 3,905.447 kg of psychotropic substances, 461.15 kg of ephedrine, 211.325 kg of heroin, 176.55 kg of methamphetamine, 131.888 kg of cocaine and 19.385 kg of amphetamine". In 2012, Edo State led in the table of drug seizures with 81,541.71 kg. This was closely followed by Ondo State with 61,246.35 kg. Delta State occupied the third position with 23,418.48 kg while Ogun, Oyo and Ekiti States followed closely in the 4th, 5th and 6th positions with 8,469.99 kg, 7,232.08 kg and 6,685.23 kg respectively.

Borno state is uniquely bordering 3 countries namely; Cameroun, Chad and Niger. This makes the flow of Drugs/Substances within and through the state easy. Kaka who is Borno State Attorney General and Commissioner for Justice and also the chairman of the state committee on control of illicit drugs, lamented that despite several constraints, the committee in the last one year has been able to record modest achievements within its approved framework [5]. He disclosed that between June 2013 to December 2013, his committee seized over 7,089.575 kg of assorted illicit drugs made up of cannabis, psycho and cocaine as well as arrest of over 70 persons in connection with illicit drugs, adding that 13 persons were also charged to court and convicted to various jail terms. He also disclosed that from January to June 2014, the committee witnessed huge successes through the arrest of 38 suspects and seizure of 4,120.049 kg of various illicit drugs brought into the state. He however said that, one suspect has so far been convicted to jail term while 72 drug addicts were also counseled and rehabilitated in the first half of the year.

Based on field observations, drug/substance abuse in Borno state is fast becoming epidemic, because it is still under-recognized, not given attention and under-prioritized. This is the context within which drug/substance-induced psychosis in Maiduguri metropolitan council should be viewed. Watson reported the ever increasing health; social and economic cost related to drinking alcohol, smoking tobacco and use of illicit drugs have become a major public health concern [6]. Drug misuse remains the largest cause of preventable morbidity in the U.K and targeted intervention is required to reduce the high cause. The harm associated with the misuse of Drugs constitutes a major health problem in the developed and developing countries. Statistically, record showed 750,000 drug related death each year. Alcohol related disease and injuries account for 3-4% of the annual global burden of disease and injuries [7].

Objectives of the Study

- To identify which age group is at higher risk of developing drug-induced psychosis
- To identify which year under study with the highest prevalence.
- To identify the occupations of patients mostly affected by drug-induced psychosis.

Research Questions

- What age group is at risk of developing drug-induced psychosis among youths?
- Which year under study had the highest prevalence?
- What is the occupation of people affected by drug-induced psychosis?

Hypotheses

1. Ho1 There is no significant relationship between age and drug-induced psychosis
2. Ho2 There is no significant relationship between occupation and drug-induced psychosis.

Significance of the study

The information gathered from the study would be of paramount importance to youths, parents and the entire country at large. It is also expected to provide additional knowledge to health care providers and policy makers. It will also serve as a reference point to interested researchers, government and non-governmental organizations to formulate and implement some drug misuse policies among youths with a view to minimizing arbitrary use of drugs to the barest or lowest minimum.

Methodology

Research design

The research design was non-experimental design and retrospective in nature, taking into consideration the topic of the research.

Research setting

The research setting used for the study was Federal Neuro-psychiatric Hospital (FNPH). Federal Neuropsychiatric Hospital (FHPH) which is located along Baga road within federal low-cost area of Maiduguri metropolis. The hospital is divided into different departments comprising the pharmaceutical department, General outpatient department (G.O.P.D), occupational therapy. The wards are separated in to: female wards having 23 bed capacity, male ward i and ii having 42 bed capacity with 2 side rooms each and the drug abuse ward having 48 beds capacity and two sides rooms. The hospital came in to existence in 1995, when federal government approved the establishment of psychiatric hospital to north-eastern part of Nigeria. The hospital was initially conceived as an urban comprehensive health centre and was later converted to a psychiatric hospital. The hospital provides the following services; Out-patient services, in-patient services, community services, occupational therapy services, rehabilitation services among others. The hospital has consultant psychiatrist, psychiatric nurses, psychologist, and sociologist among others for provision of expert care for client.

Target population

The study population was patients (15-30) years in federal Neuro-psychiatric hospital Maiduguri with diagnosis of drug-induced psychosis from January 2010-December 2014.

Sample size

All patients admitted within the period under study constitute the sample for the study. The total number of folders retrieved from the record department was 472 for patients aged 15-30 years with diagnosis of drug induced psychosis in FNPH.

Instrument for data collection

A self-developed checklist was used for data collection, the checklist was divided into sections (A-D) which sought information as follows: Section A; monthly occurrence of admitted patients within the period under review Section B; Age groups (15-30yrs) of patients from 2010-2014. Section C; occupation of patients affected.

Method of data collection

The researchers presented the acceptance letter to the head of medical record after which permission was granted for the data collection. The researchers also used self-developed checklist to obtained data from patients' files from January 2010 to December 2014.

Method of data analysis

Descriptive statistics was used to summarize and analyse the data collected from medical records of patients. The collected data were analyzed using frequency, percentages and presented in tables. Hypotheses were tested using Chi- square and ANOVA statistic.

Data Analysis and Presentation

Table 1: Showing monthly Occurrence of Drug-Induced Psychosis from January 2010 to December 2014.

Month	Year					Total (Percentage)
	2010	2011	2012	2013	2014	
Jan	5	8	9	9	8	39(8.3%)
Feb	7	9	7	7	9	39(8.3%)
Mar	8	13	4	8	10	43(9.1%)
Apr	5	7	8	7	5	32(6.8%)
May	6	9	8	8	10	41(8.7%)
Jun	7	10	10	6	11	44(9.3%)
Jul	6	5	9	8	8	36(7.6%)
Aug	7	8	9	7	10	41(8.7%)
Sep	8	9	8	6	5	36(7.6%)
Oct	9	8	7	8	9	41(8.7%)
Nov	11	10	8	7	8	44(9.3%)
Dec	7	9	6	6	8	36(7.6%)
Total	86(18.22%)	105(22.25 %)	93(19.70 %)	87(18.43 %)	101(21.40 %)	472(100 %)

Table 1 shows that the year 2011 had the highest number of patients with 105 (22.25%) admitted with drug-induced psychosis while 101 (21.40%) in 2014, 93 (19.70%) in 2013, 87 (18.43%) in 2012, and 86 (18.22%) in 2010.

Table 2: Showing the age groups of patients (youths) admitted in FNPH. Maiduguri from January 2010 to December 2014.

Variable	Frequency					Total	Percentage (%)
	2010	2011	2012	2013	2014		
Age(yrs)							
15-20	9	8	5	7	15	44	9.32
21-25	41	59	51	47	46	244	51.69
26-30	36	38	37	33	40	184	38.98

Total	86	105	93	87	101	472	100
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Table 2 Showed that majority of the patients 244(51.69%) were between the ages of (21-25) years while 184 (38.98%) were between the ages of (26-30) years and 44(9.32%) were between the age of 15-20 years.

Table 3: Showing occupations of the patients affected in FNPH. Maiduguri from January 2010 to December 2014.

Variable	Frequency					Total	Percentage (%)
Occupation	2010	2011	2012	2013	2014		
Students	24	30	24	16	26	120	25.43
Farmers	21	22	18	23	25	109	23.03
Drivers	12	17	17	18	20	84	17.8
Civil servants	12	18	13	12	12	67	14.19
Trader	17	18	21	18	18	92	19.49
Total	86	105	93	87	101	472	100

Hypothesis of table 1: (χ^2_c (7.58) < χ^2_T (16.51), df = 8, p = 0.050).

Variable	Frequency					Total
Age(yrs)	2010	2011	2012	2013	2014	
15-20	9(8.02)	8(9.79)	5(8.67)	7(8.11)	15(9.42)	44
21-25	41(44.46)	59(54.28)	51(48.08)	47(44.98)	46(52.21)	244
26-30	36(33.53)	38(40.93)	37(36.25)	33(33.91)	40(39.37)	184
Total	86	105	93	87	101	472

The calculated χ^2 is 7.58 while the tabulated value of χ^2 16.51, df = 8, p = 0.050. Since the calculated value of χ^2 is less than tabulated value of χ^2 , the null hypothesis is accepted. By accepting the null hypothesis, we therefore, conclude that there is no significant relationship between age and drug-induced psychosis.

Hypothesis table 2: ANOVA Summary.

Source	SS	df	MS	F-ratio	Remarks
Between	346.64	4	86.66	8.58	Rejected
Within	302	20	10.1		
Total	648.64	24			

From the computations, the calculated value of (F_{cal}) is 8.58 while the critical table value (F_{crit}) at Alpha =0.05 and df of $F_{4, 20}$, is 2.87. Since the calculated value is greater than the critical table

value, the null hypothesis is hereby rejected. Therefore, we conclude that there is significant relationship between occupation and drug-induced psychosis.

Discussion of Findings

Research question 1: Which age group is at risk of developing drug-induced psychosis among youth?

From the research findings majority of the patients 51.69% were between the ages of 21-25, this was in agreement with the findings of Shafiq et al who in his findings reported that the ages ranged from (18-25) years as the majority with a mean of 21.3 years [8]. It is also in agreement with the findings of SAMHSA where the rate of illicit drug use among youth aged (18-25) years increased with 19.6% [9].

Research question 2: Which year understudy had the highest prevalence?

The result showed that the year 2011 had the highest prevalence in which a total of 105 (22.25%) patients with drug-induced psychosis were admitted. This is consistent with the findings of [9] in which the incidence increased with 19.6% in 2008 to 21.2% in 2009 and 21.5% in 2010 driven largely by increase in marijuana use from 16.5% in 2008 to 18.1% in 2009 and 18.55 in 2010. This finding is also supported by that of Mathew et al whose study on "Prevalence of Psychotic Symptoms in Substance Users: A Comparison Across Substances" showed that the prevalence of psychotic symptoms associated with each specific substance use ranged from users with no diagnosis to users with severe dependence as follows: amphetamines (5.2% to 100%), cannabis (12.4% to 80.0%), cocaine (6.7% to 80.7%), and opiates (6.7% to 58.2%). The risk of psychotic symptoms increased for respondents who abused (OR=12.2) or had mild (OR=17.1), moderate (OR=47.0), or severe dependence (OR=114.0) on cocaine when compared to those who were users with no diagnosis [2]. A similar pattern was evident in cannabis, opiate, and amphetamine users.

Research question 3: Which occupation of patients was affected?

Research findings showed that the occupation of patients admitted with Drug-induced psychosis in which students were the majority with 120 (25.43%). This finding is in agreement with Duxbury who reported that anyone can be at risk; however, the occupation of the person (high stressed jobs) has a high incidence of substance use [10]. Awake also in his findings started that factors such as cost and availability of substances students' peer pressure are influential in the development Drug-induced psychosis [11]. This finding is also in agreement with that of Guillem et al whose study on "Socio-demographic Profiles, Addictive and Mental Comorbidity in Cannabis Users in an Outpatient Specific Setting" showed that the study population had the following characteristics: 67% male, mean age 27.5 (S.D.=8.4) years and 59% single or divorced [12]. Approximately, two-thirds of the users (67%) were students or

currently working and 32% were unemployed. Twenty-two percent of the cannabis users received unemployment, welfare or disability benefits and 11% declared no source of revenue. Most of the users (63%) decided on their own to seek care at the setting. Seventy-three percent of the subjects had seen a psychologist or a psychiatrist in the past, with or without relation to cannabis use.

Summary

Drug-induced psychosis also known as substance disorder can be attributed to illicit substance use. Various psychoactive substances have been implicated in causing, exacerbating or precipitating psychotic state or disorders to users. Drug abuse is a common cause of major mental health problem in many countries of the world including Nigeria. Major findings of the study revealed that majority of the patients 51.69% were between the age group of (21-25) years. This has shown that appropriate intervention must be undertaken with special attention to this age group. The year 2011 had the highest number of admitted cases of drug-induced psychosis with 105 patient admitted with drug-induced psychosis 22.69% of the admitted patients were students.

Conclusion

The findings of the study showed that the prevalence of drug-induced psychosis among youths in Maiduguri metropolitan council is on the increase. This is evident by the location of Maiduguri, as it is bordered by 3 neighboring countries namely: Cameroun, Chad and Niger making the flow of drugs or substances within and through the state easy.

Recommendation

Public health awareness campaign should be carried out from time to time on the dangers of illicit drug or substances use using mass media. The government should re-empower agencies by reviewing constitutions to make agencies prosecute offenders and should formulate national policies and guidance

that will address cases of illicit drugs or substances use among youths.

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