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Substance use Disorders among Psychiatric Inpatients: Association with Sociodemographic Qualities and Psychiatric Disorders

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INTRODUCTION

Substance use disorders are disorders of global health concern as they are part of the NMDS group of disorders earmarked for attention by the World Health Organization through the mental health gap action programme (mhgap) and they contribute to the global burden of disease. The global annual prevalence of drug use among adult population of 15 – 64 years of age was reported as 5.6%, while in Nigeria, it was 14.4%. Apart from alcohol, cannabis was the most used substance, while cocaine was the least used in Nigeria.[1] In another report, the burden of substance use in Nigeria among students and youths was found to be about 20%.[2]

Sociodemographic qualities are important in the aetiology and course of substance use disorders. It has been reported in the literature that the rate of dependence and abuse for substances is highest among adults age 18-25 years.[3]In a case-control study on substance use among outpatients with mental illness in India, Srivastava and colleagues found that substance use was 2.5 times higher among cases when compared with their controls and that those that used substances were more likely to be unmarried, less educated, rural residents and of low socio-economic status.[4]In a similar study done on the determinants and prevalence of relapse among admitted patients with substance use disorders in Rwanda, Kabisa and colleagues found that majority of the respondents (84.1%) were males and that poly-substance use, living with peers and hospitalization of less than 3 months were associated with higher rates of relapse.[5] In a study among patients attending an emergency hospital in Egypt, cannabis was found to be the most abused drug, followed by tramadol. Predictors of substance abuse were: younger age (below 30 years), male and being single with unsatisfactory income.[6] In a study done among patients attending three primary care clinics in Benin, it was reported that males were more likely to use cannabis and tobacco regularly, while widowed respondents more likely to use sedatives and opioid analgesics regularly.[7]

Central to the disorders of substance use is the diagnosis of co-morbid psychiatric disorders. The association may be such that substance use precipitates psychiatric disorders or vice versa. They can also occur together without any causal relationship.[8] In a systematic review by Jatau and collegues in Nigeria, the predominant psychiatric disorders occuring co-morbidly with disorders of substance use are anxiety disorders, schizophrenia and other psychotic disorders.[2] In Zaria, Okpataku and collegues reported that schizophrenia was the commonest psychiatric disorder in patients with disorders of substance use.[9]

AIM AND OBJECTIVES

The study aimed to determine the association between substance use disorders and sociodemographic variables and psychiatric disorders among admitted patients at the Mental Health ward of Federal Teaching Hospital, Ido-Ekiti with the following objectives:

- To determine the association between substance use disorders and sociodemographic variables among the patients
- To determine the association between substance use disorders and psychiatric disorders

METHODOLOGY

The study was designed as a retrospective cross-sectional study among eighty-eight (88) patients admitted into the male and female mental health wards of Federal Teaching Hospital, Ido-Ekiti. Secondary data was collected through the patients' folders over a 12-month period. The diagnoses were made with the tenth edition of the International Classification of Diseases and Related Health Problems, which is a standardized diagnostic manual. Details of patients' socio-demographic qualities, clinical histories, and diagnosis were obtained. Two resident doctors were employed as research assistants who looked into the Nurses' records of admission for a back-dated period of 12 months starting from the time of ethical approval for the research. This enabled them to obtain the hospital numbers of the patients for adequate retrieval at the medical records unit. A spreadsheet was prepared with the hospital number, necessary sociodemographic qualities e.g age, occupation, average monthly income, clinical history and diagnosis set as columns to be filled. In all, the names of the patients were not recorded so as to maintain their confidentiality. Since the data used is secondary, no harm was done.

Ethical Approval:

An ethical consideration and approval was obtained from the Health Research and Ethics Committee of the Federal Teaching Hospital, Ido-Ekiti to proceed with the study.

Data Analysis:

Data will be analyzed using the Statistical Package for Social Sciences software (SPSS) version 23.

RESULTS

Association between Substance Use Disorder and Socio-Demographic Characteristics among Patients with Substance Use Disorder

Table 1: Shows the association between substance use disorders and the socio-demographic characteristics of the respondents. Substance use disorder was significantly associated with the age and occupation of the respondents. Those within the age range of 20-30 years were more likely to use single substances when compared with those in the 31-40 years bracket, who were more likely to use multiple substances. In terms of occupation, the unemployed were more likely to use multiple substances, while polytechnic students were more likely to use single substances.

Table 1: Association between substance use and socio-demographic characteristics among patients with substance use disorder (N=34)

Variable No of Substance use	Substance use disorder Single Use n (%)	 Multiple Use n (%)	Chi-Square(χ^2)	P-Value
Age			11.459	**0.001**
20-30	16 (80.0)	3 (21.4)		
31-40	4 (20.0)	11 (78.6)		
Sex			3.036	0.081
Male	20 (100.0)	12 (85.7)		
Female	0 (0.0)	2 (14.3)		
Occupation			20.238	**0.005**
Unemployed	5 (25.0)	10 (71.4)		
Artisan	2 (10.0)	0 (0.0)		
Public Servant	1 (5.0)	0 (0.0)		
Polytechnic Student	6 (30.0)	0 (0.0)		
University Student	1 (5.0)	0 (0.0)		
School Drop-out	0 (0.0)	2 (14.3)		
Internet Fraudster	5 (25.0)	0 (0.0)		
Social Worker	0 (0.0)	2 (14.3)		
Monthly Income			0.833	0.361
₦43000	1 (33.3)	0 (0.0)		
₦60000	2 (66.7)	2 (100.0)		

Source: Authors' computation

ASSOCIATION BETWEEN SUBSTANCE USE DISORDERS AND PSYCHIATRIC DISORDERS

Table 2: Shows the association between substance use disorders and psychiatric disorders. The association was significant as majority of those with single substance misuse were more likely to have psychotic disorder, while those with multiple substance misuse were more likely to have schizophrenia.

Table 2: Association between substance use disorders and psychiatric disorders (N=34)

Variable	Psychiatric Disorder				Chi-Square (χ^2)	P-Value
Substance Use disorder					14.537	**0.013**
No of Substance Use	**Nil n (%)**	**Schizophrenia n (%)**	**Psychotic Disorder n (%)**	**Seizure disorder n (%)**		
Single Use	0 (0.0)	7 (20.0)	25 (75.0)	2 (5.0)		
Multiple Use	5 (14.3)	19 (57.1)	10 (28.6)	0 (0.0)		

DISCUSSION

Association between Substance Use Disorder and Socio-Demographic Characteristics among Patients with Substance Use Disorder

Findings from this study reveal that substance use disorder was significantly associated with the age and occupation of the patients. Those within the age range of 20-30 years were more likely to use single substances when compared with those in the 31-40 years bracket, who were more likely to use multiple substances. This suggests that majority of these patients started taking the substances at about the mid teenage and early twenties of their lives. This is in line with evidence reported in the literature that the rate of dependence and abuse for substances is highest among adults age 18-25 years.[3] Also, that most of the patients that took multiple substances were in the 31-40 age group from this study may be the result of continued use of substances that eventually led to the addition of other substances to the ones their singly used initially.[8]

Besides, in terms of occupation, the unemployed were more likely to use multiple substances, while polytechnic students were more likely to use single substances. Students usually start taking substance as a means of experimentation or novelty-seeking which may end up being a maladaptive strategy of coping with stress. Studies have shown higher rates of substance use disorders among the unemployed and people who sleep roughly.[3] This may be due to the cause and effects of substance misuse. As a result of the continued and chronic use of a substance like cannabis, the users may develop amotivational syndrome that may make them uninterested in gainful employment or skill enhancement schemes.[8] Also, as a result of coping with work-related stress, people that were initially employed may use substance in a way to improve their motivation and if it becomes compulsive, they may exhibit absenteeism or presenteism at work. Consequently, this may lead to them being laid off from work.[3] However, Bakare and Isah in Sokoto reported higher proportion of those employed among patients with substance use disorders. This may also be due to the sociodemographic distribution of the respondents as the majority of patients in that study were in 28-37 age bracket, which is noted for high socioeconomic productivity.[10]

Interestingly, majority of patients that were employed in this study were into internet fraud. This is a psychosocial factor that has been found to perpetuate the habit of substance use and abuse in this enviornment.[8] Due to the variation in time zones in different regions of the world, such individuals usually take the substance to stay awake and alert, especially at night in order to communicate with their clients in other parts of the world. This practice, which sometimes starts as a positive reinforcement principle ends up as classical conditioning in which they engage in substance use even when not engaged with internet scam.[3]

ASSOCIATION BETWEEN SUBSTANCE USE DISORDERS AND PSYCHIATRIC DISORDERS

The association was significant as majority of those with single substance misuse were more likely to have psychotic disorder, while those with multiple substance misuse were more likely to have schizophrenia. Since cannabis was found to be the leading single substance of abuse in this study, it is not unexpected that majority of those who used single substances were found to have had substance-induced psychotic disorder.[8] This is because excess use of cannabis, either as intoxication or as dependence can increase the elaboration of dopamine in certain brain regions resulting in psychosis and aggression. Furthermore, patients with schizophrenia and other psychosis can use substance in reaction to their psychotic symptoms.[3]

Also, studies have shown that there's a tendency to add to the list of drug of abuse by individuals who misuse substances as they continue in the substance use behaviour. Therefore, that people who used multiple substances were more likely to be diagnosed with co-morbid schizophrenia were not farfetched.[3]Cannabis and nicotine use have been implicated as environmental risk factors for schizophrenia, especially among individuals that are already genetically predisposed to developing it.[8]

In addition, the use of synthetic cannabis in which other psychoactive substances like methamphetamine are added to the naturally-occuring substance has has been reported. Amphetamine has been implicated as supporting the dopamine hypothesis of schizophrenia as it elaborates the release of dopamine and inhibits its reuptake in the brain.[8] Okpataku and colleagues in Zaria, Nigeria reported that schizophrenia was the commonest co-morbid psychiatric diosrder among patients with substance use disorders, particularly among those with dependence syndrome.[9]

LIMITATION

This study is a cross-sectional hospital-based study and the findings may not totally reveal the real proportion and pattern of substance use and abuse in the community. Also, the study was done with secondary data from case notes, hence the possibility of some missing data.

CONCLUSION

Substance use disorder is of a great public health concern as it traverses the biological, psychological and social paradigms considered in the aetiology, management and prognosis of psychiatric disorders. Necessary public policies can help in curtaling its spread in the society.

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