

REVIEW ARTICLE

PSYCHOACTIVE SUBSTANCE DEPENDENCE IN FEMALES. A THREE YEAR REVIEW OF PATIENTS ON ADMISSION AT AN ADDICTION TREATMENT CENTRE IN NORTH CENTRAL NIGERIA.

^{1,2}Duwap. Makput, ^{1,2}Kingsley Okonoda, ¹Yusufu Maigari, ¹Christopher Piwuna, ²Dami Nantok, ¹Francis Davou, ¹Suwa Goar, ¹Friday Tungchama

¹Department of Psychiatry, Jos University Teaching Hospital, Jos, Nigeria.

²Centre for Addiction Treatment and Research, Vom, Plateau State.

ABSTRACT.

Background : Psychoactive Substance dependence is a chronic and relapsing brain disorder characterized by uncontrollable drug use despite negative physical, social and psychological consequences. Although regarded as a mainly male affair in the past, recent trends indicate that more females are becoming involved.

Materials and Method: Data was collected from the case notes of all patients admitted into Centre for Addiction treatment Vom between January 2014 and December 2016 . Data was analyzed using SPSS 16.0 .

Results. There was a progressive increase in the number of female admissions. Their ages range from 16 to 47 years and 88.9 % were multiple substance abusers. Psycho-stimulants were the commonest substance of abuse among the females with a high rate of abuse of prescription medications, the commonest being tramadol. Injecting drug use was uncommon.

Conclusion: Females are increasingly becoming involved in substance use.

Key words: Psychoactive substance dependence, females, admission, drug treatment centre, North central Nigeria.

All Correspondence to:

Dr Duwap. Makput;

Department of Psychiatry,

Jos University Teaching Hospital,

PMB 2076, Jos, Plateau State ,Nigeria.

Email:harrymakput@yahoo.co.uk

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INTRODUCTION

Psychoactive substance use, until recently, has largely been perceived as a male problem and research, as a result, has been largely androcentric and insensitive to gender variations. Historically, women using substance have always been frowned upon. Rules on acceptability dates back as far as laws of Hammurabi¹ in the west and the Manusmriti in India which states that, “*a wife who drinks wine ... may be abandoned at any time.*”²

In the past, many studies have consistently shown a gender difference among people who abuse psychoactive substances, those who develop dependence as well as those seeking and entering treatment for substance dependence with males having consistently higher rates than females³

More recently, epidemiologic surveys suggest that this gap between men and women has narrowed.⁴ For example, The epidemiological catchment area (ECA) surveys in the early 1980s estimated the male/female ratio of alcohol-use disorders as 5:1,⁵ whereas more recent surveys report a narrower gap between males and females with a ratio of approximately 3:1.⁶

The National Epidemiologic Survey on Alcohol and Related Conditions showed that men were more likely to have drug dependence.³ Other studies indicate that rates of nonmedical prescription drug use are higher among women than men, particularly for narcotic analgesics and tranquilizers,⁷ other studies report equivalent or higher rates among men.⁸

An accelerated progression from the initiation of substance use to the onset of dependence and first admission to treatment among women especially for opioids, cannabis, and alcohol, a phenomenon called “*telescoping*” have been reported by several studies⁹⁻¹¹. This phenomenon has been consistently observed in investigations of gender and substance-use disorders.

Substance abuse among females in Nigeria has been the focus of some studies. For instance, studies conducted on 725 students of nine randomly selected female senior secondary schools, 3 each from the three senatorial zones of Anambra state Nigeria on substance abuse among females by Egbuonu et al (2004)¹² found that 4.7% of the girls smoked tobacco (cigarette) while 9.5% indulged in alcohol and 15% took sedatives as a means of inducing sleep.

With regards to drug abuse, even pregnant women in Nigeria are no exception. Nyango et al (2012)¹³ studied 557 antenatal patients at Jos University Teaching Hospital, they found the prevalence rate of substance use among the pregnant women to be 43.8%. Furthermore, the prevalence rates for various substances were as follows: alcohol 8.6%, diazepam 4.5%, cigarettes/tobacco 2.9%, cocaine 2.5%, codeine 2.0%, and marijuana 1.6%.

There are rarely any studies specifically on female patients on admission for drug dependence treatment in our society. The objectives of this study is to determine the socio demographic profile of female patients on admission and assess substance abuse trends among them and also identify the types of substances used.

MATERIALS AND METHODS

The Centre for Addiction Treatment and Research (CATR) Vom is located within the premises of Vom Christian Hospital, Vom, Plateau State. It receives patients mainly from within plateau state but also from neighboring states such as Nassarawa, Bauchi, Kaduna, Gombe, Taraba, FCT as well as from other states.

This was a retrospective study of patients admitted in the Centre for Addiction treatment and research between January 2014 and December 2016. After obtaining

permission from management of CATR Vom, socio- demographic data was collected from case notes of all patients (males and females). Furthermore, additional data on psychoactive substance use was collected from case records of all female patients admitted to the centre within the period of the study i.e 2014 to 2016. Data on injecting drug use was also collected from case notes of all patients with a history of injecting drug use.

The data was analyzed using SPSS 16.0

RESULTS

There was a progressive increase in the number of females on admission although they were consistently fewer than the males throughout the three year period of the study with the highest proportion of 13.8% females recorded in 2015. Their ages range from 16 to 47 years old. An overwhelming majority (88.9 %) of them were multiple substance abusers. Among the various psychoactive substances used, psycho-stimulants were the commonest substance of abuse among the females. Duration of substance use ranged from 1 year to 30 years.

Majority of the females were single (73.3%) and unemployed (60%). The commonest route of drug use was the oral route (58%). There was no report of per rectal use of the drugs. Injecting drug use (IDU) was rare with only two female patients reporting they injected pentazocine. Age ($\chi^2 =6.73$. $p=0.001$) as well as educational status ($\chi^2 =74.8$. $p=0.0001$) were significantly associated with injecting drug use.

Although a few patients had a chaotic drug use history which made it difficult to determine the primary drug in their cases, Overall, in the three year period, the three most common primary drug of abuse in these patients was Tramadol (42.2%), marijuana(38.3%) and alcohol (14.9%).

Some of the patients had co-morbid mental disorders, others had co-morbid physical and mental disorders along with their substance use disorder. The most common co-morbid mental disorder was depression. Co-morbid physical disorders include hypertension, UTI, epilepsy, dyspepsia, and HIV/AIDS.

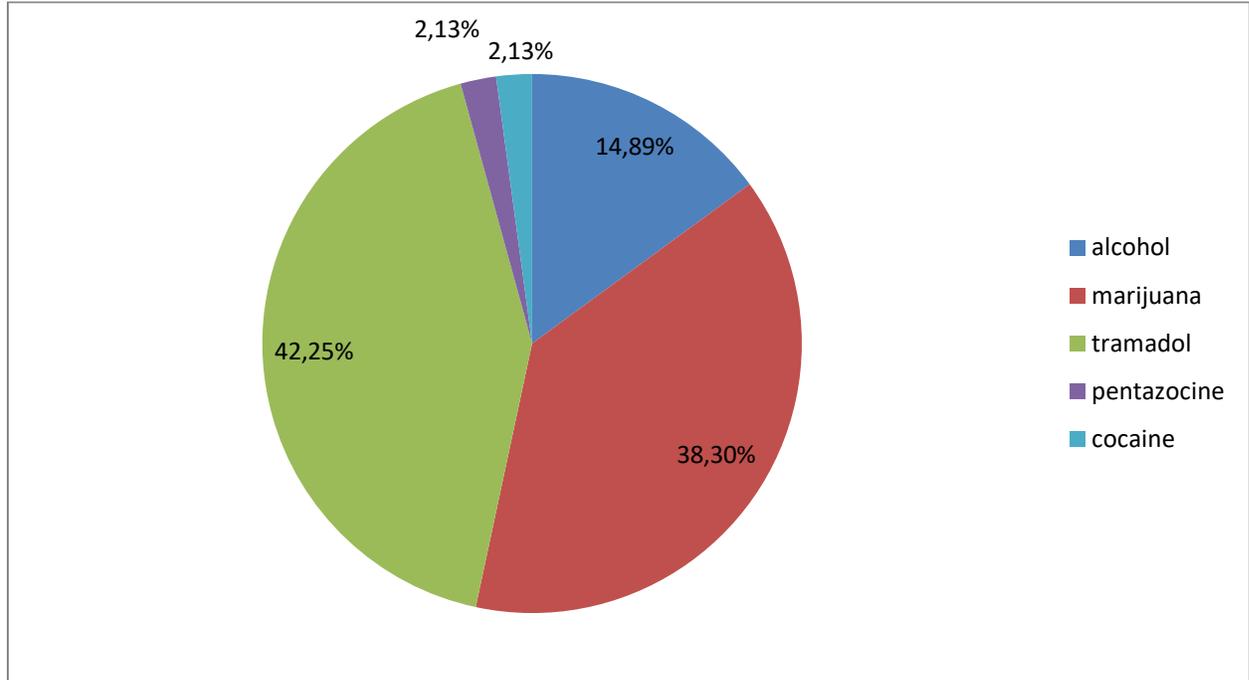
Table 1. Socio demographic profiles of the female patients.

Variable		N(%)
Age group	Below 15 years	0(0.0)
	15 -19	1(6.7)
	20-24	2(13.3)
	25-29	5(33.3)
	30-34	3(20.0)
	35-39	1(6.7)
	40-44	2(13.3)
	45-49	1(6.7)
50 and above	0(0.0)	
Marital status	Single	11(73.3)
	Married	1(6.7)
	Divorced	1(6.7)
	Separated	2(13.3)
	Widowed	0(0.0)
Occupation	Unemployed	9(60.0)
	Student	3(20.0)
	Civil servant	1(6.7)
	Private employment	2(13.3)
Religion	Christianity	13(86.7)
	Islam	2(13.3)
Highest educational status	No formal education	0(0.0)
	Primary education	1(6.7)
	Secondary education	5(33.3)
	Tertiary education	9(60.0)

Table 2. Comparison of socio demographic characteristics of injecting drug users (IDUs) and non injecting drug users (non IDUs) .

variable	Injecting drug users N=5 Total (%)	Non injecting drug users N=131 Total (%)	Total N=136 Total (%)	Test statistic (Chi square)	P- value
Gender					
Male	3(60)	118(90.1)	121(89.0)	2.224	0.136
female	2(40)	13(9.9)	15(11.0)		
Marital status				2.682	0.178
Single	3(60)	102(77.8)	105(77.2)		
Married	0(0)	18(13.7)	18(13.2)		
Divorced	1(20)	5(3.8)	6(4.4)		
Separated	1(20)	4(3.1)	5(3.7)		
Widow(er)	0(0)	2(1.5)	2(1.5)		
Occupation				1.765	0.623
Unemployed	2(40.0)	57(43.5)	59(43.4)		
Student	0(0.0)	36(27.5)	36(26.5)		
Civil servant	0(0.0)	14(10.7)	14(10.3)		
Private employ	3(60.0)	24(18.3)	27(19.8)		
Religion				1.860	0.458
Christianity	5(100.0)	113(86.3)	118(86.8)		
Islam	0(0.0)	18(13.7)	18(13.2)		
Education				74.8	0.001
No formal	0(0.0)	4(3.1)	4(2.9)		
Primary	0(0.0)	7(5.1)	7(5.1)		
Secondary	4(80.0)	89(68.4)	93(68.4)		
Tertiary	1(20.0)	31(23.7)	32(23.5)		
Age				6.74	0.001
Mean (s.d)	25.31(8.3)	30.16(9.2)	28.6(7.4)		

Figure 1. Primary drug of abuse in females. (2014-2016)



DISCUSSION

Females were consistently among patients on admission for drug addiction and in 2015, they constituted 13.8% of all patients on admission, the highest for the period of the study. McHugh and his colleagues in a recent 2012 study amongst 41.5 million illicit drug users, found more than 42% were women, suggesting a male/female ratio of 1.4:1 at the present time.¹⁴ In case of prescription drug abuse, several studies actually report their use to be higher in women than men, particularly for narcotic analgesics and tranquilizers.¹⁵

We found a low proportion of females among the patients on admission thus: 7.1% in 2014, 13.8% in 2015 and 11.7% in 2016. This is possibly an indication that not many females are involved in drug abuse in our environment but it may also indicate that fewer females get into treatment. Many studies have attested to this. Greenfield et al (2007)¹⁶ reviewed the literature between

1975 and 2005 and concluded that women are less likely to enter substance abuse treatment than men despite their increasing participation in drug abuse. Many western studies indicate that relatively low proportion of women enter substance abuse treatment programs.^{17,18} The ratio of treatment seeking men to women was found to be 3.3:1 in alcohol treatment facilities while, for that time-period, the male/female ratio of alcohol use disorders in the population was estimated to be 2.7:1^{19,20}.

This study found that the use of prescription medication was fairly common: Tramadol was the commonest and was abused by 75% of the patients admitted, diazepam 25% and pentazocine 8.3%. Our results, differ slightly from the findings of a study in India by Dayan and Balhara²¹ who studied Case records of all female patients admitted with substance use disorder at a national level drug dependence treatment centre in north

India between January 2008 and December 2012. They found that 39% of the women on admission used prescription opioids and 36% used prescription opioid along with benzodiazepines. The commonest prescription opioid was pentazocine used by 87 % of the women. Whereas the Indian study found pentazocine to be the commonest prescription opioid used by 87 % of their patients, in contrast, we found tramadol to be the commonest prescription opioid abused by 75% of the females in our study.

The primary drug refers to the drug causing the most problem in the patient or the drug responsible for the current admission. We found the commonest primary drugs for the three year period to be tramadol 42.2%, marijuana 38.3% and alcohol 14.9%. Data from the Nigerian epidemiological network on drug use (NENDU)²² show that the commonest primary drug for both males and females are cannabis 36%, opiates 28% and alcohol 17%.

Substance abuse is commonly co- morbid with other disorders²¹. Our study found that the commonest co morbid disorder among the females was depression. Other co-morbid disorders include UTI, hypertension, Tonic clonic generalized epilepsy, HIV/AIDS and dyspepsia .

CONCLUSION

There is an increasing number of females being involved in abuse of drugs with high rates of abuse of prescription medication (tramadol). Multiple drug use is common including injecting drug use with co-morbid conditions such as HIV/AIDS recorded in some patients. Drug treatment centers should endeavour to provide facilities for female clients as well.

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