

Drug Abuse - Misuse and Mental Illness in Uselu Psychiatric Hospital, Benin

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SUMMARY

A study of 785 cases of drug-related mental illness at Uselu Psychiatric Hospital, Benin City shows that the incidence increased from 1976 to 1978 and decreased from 1978 to 1980 independent of fluctuating hospital attendance. The abuse of marijuana (85.4%), alcohol (5.1%) and amphetamine (3.1%) contributed significantly to the incidence. Drug-related mental illness occurred largely in the age group of 18-24 years (41.7%), 24-30 (28.1%) and 12-18 (21.4%). There was a significant male (94.8%) preponderance over female. Occupational distribution shows the students (34.9%), artisans (15.8%) and the unemployed (15.3%) were the major culprits. Eight-two percent of the 785 patients were diagnosed as having toxic psychosis, 10.2% as anxiety states, 6.6% as personality disorder; and 1.2% who were diagnosed as schizophrenics were later found to be on amphetamines. The significance of chronic use of stimulants or depressants as possible determinants of subsequent mental illness is discussed.

INTRODUCTION

In our previous study (submitted for publication) at the University of Benin Teaching Hospital, Benin City, it was found that the incidence of drug-related psychosis was increasing annually (1976-1980). To study subject at a wider dimension, we reviewed all cases of drug-related psychiatric problems seen at Uselu Psychiatric Hospital Benin over the period January 1976 to December 1980.

METHOD

This study was carried out at Uselu Psychiatric Hospital (UPH) Benin. Aside from the psychiatric departments in the various University Teaching Hospitals, UPH is one of the six Psychiatric Hospitals established by the Federal Government of Nigeria and is solely devoted to treatment of mental illness. It has 175 in-patient beds, 48 at Uselu centre (heart of Benin City) and 127 at a centre 30 kilometres from the City. The later centre provides a more native environment to the patients. UPH caters majorly for Bendel State with a population of about 5 million; however people from the neighbouring states (Ondo and Kwara States) without such a facility also attend the hospital.

The case notes (medical and social records) of all patients seen at the out-patient clinic and admitted to the wards of Uselu Psychiatric Hospital, for period January 1976 to December 1980 were reviewed. Where possible patients who were still on admission were interviewed to extract missing information. Informants were either patients or their relations or both. Data concerning age, sex, occupation, level of education, socio-economic class, whether rural or urban dweller, religion and tribe of patients, nature and quantity of drugs taken, time of report to the hospital, duration of exposure, treatment received at home, diagnosis, treatment at hospital, outcome and duration of hospitalisation, were extracted. Diagnoses of drug related mental illness were based on medical history and examination. Only cases where it was crystal-clear that drug involvement could be a contributory factor were included.

Data were analysed using Pearson's correlation coefficient and chi square.

Incidence of Drug-Related Mental Illness

There were 910 cases of drug-related mental illness seen at the UPH between January 1976 and December 1980. Out of total number of cases 785 had all the information described under methods and these were the ones analysed. In the other 125 cases no conclusive diagnoses were made. 488 (62.2%) out of the 785 were treated as outpatients.

The survey shows that incidence of drug-induced mental illness increased from 1976 to 1978 then decreased (table 1). There were significant differences when the incidence in 1978 was compared with those of 1976, 1977 and 1980 respectively (P 0.01) but not when those of 1976 and 1977, 1979 and 1980 were

TABLE 1

Incidence, Age, and Sex Distribution of Drug-Related Mental Illness

Age Group in Years	1976		1977		1978		1979		1980		%
	M	F	M	F	M	F	M	F	M	F	
6-12	-	-	-	-	1	-	-	-	1	-	0.3
12-18	42	3	19	4	39	3	25	3	29	1	21.4
18-24	42	2	63	3	94	-	58	4	57	4	41.7
24-30	33	1	46	3	50	2	44	-	41	1	28.1
30-45	12	1	7	-	11	-	16	3	9	-	7.5
45	1	2	1	-	1	-	-	1	-	-	1.0
	130	9	136	10	196	5	145	11	138	6	100.0
Total Ill	1413		1413		1443		1282		1719		-
Total Atd.	12.2		10.3		13.9		12.0		8.4		-
Percent Incident											

M = Male, F = Female, Atd = Attendance

compared. No good correlation existed ($r = 0.134$) between number of patients with drug-related problems and total hospital attendance, thus suggesting that other factors contributed to the fall in incidence of drug-related mental illness in 1979 and 1980. The rise and fall in the incidence is majorly due to marijuana (*Cannabis sativa*). While alcohol cases seem to be on the increase amphetamines have remained fairly constant over the years under survey (figure 1).

Drugs Involved

The contributions of different drug are as follows: marijuana 670 (85.4%), alcohol 40 (5.1%), amphetamines 24 (3.1%), chinese capsules (composition still unknown) 9 (1.2%), methaqualone-diphenhydramine 10 (1.3%), chloroquine 5 (0.6%), phenthiazines 3 (0.4%), abortion pills 4 (0.5%), herbal concoction 2 (0.3%), ephedrine 1 (0.1%), meperidine 1 (0.1%), name of drug not known (0.6%). As expected some patients were on a combination of drugs: viz, marijuana/alcohol (29 cases), marijuana/butobarbitone (16 cases) and marijuana/amphetamine (6 cases). Of the 40 cases of alcohol 50% were due to locally brewed gin "ogogoro". Ninety eight percent of the 785 cases were due to drug abuse/misuse (marijuana, amphetamine, alcohol, meperidine, phenthiazines, unknown abortion pills, chinese capsules) while 2% were iatrogenic (chloroquine, herbal concoction chlorpromazine). There was no case of suicide attempt. The drugs were administered by inhalation (85%, marijuana) oral (13.4%) and parenteral routes (1.5%). There was a case where marijuana decoction was taken orally.

Age, Sex and Occupational Distribution

Drug-related mental illness occurred mostly in the age groups of 18-24 years, 327 cases (41.7%); 24-30 years, 221 cases (28.1%) and 12-18 years, 168 cases (21.4%), table 1). Sex distribution is also shown in table 1; there is significant male (94.8%) preponderance over female (5.2%). Occupational distribution of the patients shows that 274 students (34.9%), 124 artisans (15.8%) and 120 unemployed (15.3%) majority of whom were from the high school top the list. Other occupational categories involved were 55 motor drivers, 36 farmers, 31 clerks, 32 soldiers, 21 labourers, 19 traders, 13 policemen, 9 house wives, 8 musicians, and 6 each for hospital staff and office assistants.

Hospitalisation, Treatment and Outcome

Of the 785 patients 488 (62.2%) did not require admission and were treated as out-patients. The average hospitalization period was 4 months and the range was one day to 20 months. The duration of exposure to drugs before patients were brought to the hospital ranged from 3 hours to 13 years. About 377 (48%) of the patients were on the drugs for over one

year before they had psychiatric problems and majority of these were due to marijuana.

Eighty-two percent of the patients (644 cases) were diagnosed as having toxic psychosis, 10.2% (80 cases) as anxiety states, 6.6% (52 cases) as Personality disorder and 1.2% (9 cases) as primary schizophrenia were made before it was known that the patients were on drugs. Those diagnosed as schizophrenics were on amphetamines. The breakdown of clinical categories for each drug is as follows: Marijuana was associated with 568 cases of toxic psychosis (TS), 70 cases of anxiety states (AS) and 43 personality disorder (PD) cases. Alcohol had distribution of 25, 10 and 5 for TS, AS and PD respectively while amphetamine was associated with 15 cases of TS and 9 cases of schizophrenia. Only TS was elicited by chloroquine (5 cases) methaqualone-diphenhydramine (10), herbal concoction (2) abortion pill of unknown composition (4), undisclosed drug name (5); and ephedrine (1). Phenthiazine (3) and meperidine (1) were associated with PD.

Patients were treated with antipsychotic drugs, anxiolytics, electroconvulsive therapy (ECT) depending on type and severity of psychiatric problems. In some cases psychotherapy and group therapy were also employed. Extrapyramidal effects of antipsychotics were counteracted by use of drugs such as biperidin and bantzropine. Antibiotics were used to combat infection when indicated, while electrolyte and acid-base imbalances were corrected.

About 99% recovered and were discharged for a follow-up; mortality was 0.3% and the two patients died from pneumonia and head injury consequent of a fall respectively.

DISCUSSION

The finding that the incidence of marijuana-related mental illness peaked in 1978 and decreased from 1979 to 1980 seems to contradict our previous finding at University of Benin Teaching Hospital that the incidence of drug-related psychosis is on the increase annually. However, the data from the two studies are difficult to compare since the former study focussed only on drug-related psychoses and not on all spectra of drug-related mental illness. In addition there was no correlation between the drop in the incidence and total hospital attendance. This downward trend in the incidence of marijuana-related mental illness contrasts with the report of Boroffka (1961-1965)¹ who had an upward trend. Oviasu (1969-1972)² had upward trend from 1969-1971 then a drop in 1972. The varied reasons for the drops in both studies can only be speculative.

Getting 'high' on smoking marijuana depends on experience, expectations, mental milieu or setting. Even smoking what smells or tastes like marijuana can make one 'high' if that is the expectation.⁽³⁾ Since placebo smelling like marijuana can make some people 'high', it is doubtful if all cases confessed to be

marijuana-related are actually due to the content (tetrahydrocannabinol) of the 'wrap'. Unfortunately patients did not make what they smoked available for content analysis. Moreover some patients were on marijuana/alcohol or marijuana/amphetamines simultaneously.

A direct cause-effect relationship between marijuana and mental illness is controversial.¹ Psychotic reactions can occur in individuals with pre-existing psychiatric disorders of borderline type and acute toxic states can also occur with chronic use of marijuana.⁴ Panic reactions in inexperienced users are probably not related to the drug.⁴ The patients diagnosed as having personality disorder abused the drugs probably as a manifestation of an aspect of antisocial character^{4a} and not vice versa.

Most of the previous studies on drug abuse^{1,2,5,6,7,8}, had focussed majority on marijuana, alcohol and the amphetamines. Although these drugs contributed significantly to the incidence of drug abuse/misuse and the mental illness, in addition this study has recorded in our locality that drugs such as chloroquine and phenothiazines, ephedrine, herbal concoctions, methaqualone-diphenhydramine could be iatrogenic 'causes' of toxic psychosis.

Amphetamine psychosis has been proposed as the experimental model of paranoid schizophrenia^{9,10}. The argument in favour of this dictum is that many patients with amphetamine psychosis have been misdiagnosed as paranoid schizophrenics and responded to treatment with the phenothiazines^{11,12}. It is therefore noteworthy that all the patients with schizophrenic-like syndrome in this study were initially diagnosed as paranoid Schizophrenic before the patients confessed that they were amphetamine abusers.

Although 62% of the patients were treated on out-patient basis, 2.8% were sick enough to require admission for more than one year and 80% of the latter had schizophrenic-like syndrome. Thus this report re-emphasizes the findings of McLellan et. al.¹³ that the use of stimulants or depressants by drug abusers could lead to surfacing and determination of the nature of the subsequent mental illness. This is of a grave concern to the nation in view of the increasing number of young persons with mental illness (in our streets) some of which are probably associated with drug abuse/misuse.

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FIGURE LEGENDS:

Figure 1: Annual Incidence of marijuana, alcohol and amphetamine-related mental illness.

