

Substance Abuse in a Sample of Egyptian Schizophrenic Patients

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Abstract

100 Schizophrenic patients followed up in the outpatient clinic during one year starting from April 1993 to April 1994, were studied for the presence of a primary or secondary diagnosis of substance abuse. The correlation between the different types of schizophrenic disorders and the pattern of substance abuse were discussed. Also, the cause-effect hypothesis of substance abuse in relation to the production of schizophrenic symptoms or vice versa, were discussed. The possible effect of co-existence of substance abuse on the prognosis and relapse in those patients is clarified.

Introduction:

Comorbidity of schizophrenia and substance related disorders is common, although the implications of substance abuse in schizophrenic patients are unclear. In general, such comorbidity is an indicator of poor prognosis in schizophrenia (Kaplan & Sadok, 1994).

It has been estimated that about 30-50% of schizophrenic patients may meet the diagnostic criteria for alcohol abuse or dependence. Schizophrenic patients have a 3-fold risk of developing alcohol dependence, which may lead to worsening of positive symptoms, out of non compliance with medication (Miller et al, 1994). Also, in schizophrenia, there may be an increased family history of alcoholism (Noordsy et al, 1994).

Apart from alcohol, stimulant abuse appears also to be common in schizophrenia (Brady et al, 1990). Among the most commonly abused drugs are cannabis and cocaine (Baigent et al, 1995).

Although not formally considered as "substance abuse", cigarettes smoking appears to be much more common in schizophrenic patients than in any other mental disorder, with a prevalence reaching up to 75%. It is usually associated with the use of high doses of neuroleptics, probably due

to enhanced metabolic rate and at the same time associated with decrease in drug related parkinsonian side effects, possibly because of nicotine-dependent activation of dopamine neurons (Kaplan and Sadok, 1994).

Several theories have been put to explain such comorbidity of schizophrenia and substance abuse, including the "self-medication hypothesis" and the "vulnerability hypothesis" (Crawford, 1996).

Diagnosing substance abuse in psychiatric patients and diagnosing psychiatric disorder in patients with substance abuse, both are not easy clinical task. Adding elements of structured interviews to clinical assessment may be of some benefit (Krangler et al, 1995).

Aim of the work:

The present study is meant to highlight the problem of substance abuse in patients with schizophrenia in an Egyptian sample, trying to identify the types of abusable drugs and the clinical profile that tends to be associated with substance abuse in those patients, with the ultimate hope of early recognition and intervention.

Subjects and Method:

The study included 100 schizophrenic pa-

tients selected randomly from those attending the outpatient clinic at Ain Shams University Psychiatric Institute during the period from April 1993 to April 1994. The diagnosis of schizophrenia and its subtypes was confirmed using the structured clinical interview based on DSM-III-R (SCID-I) (Patient version) (1990).

Selected patients were further interviewed for the associated presence of the diagnosis of "substance abuse" using the same structured clinical interview (SCID-I) (Non patient version) (1990).

All patients were studied for the following:

- Premorbid personality disorder, using the structured clinical interview for DSM-III-R (SCID-II) (1990)
- Presence and severity of depressive

symptoms, using Beck inventory for depression.

c) Assessment of positive and negative symptoms using the positive and negative symptoms (P.A.N.S.S.).

d) Sociodemographic data and drug treatment history.

Only patients with comorbid substance abuse were given a questionnaire concerning the underlying reasons for their indulgence in substance abuse.

- Statistical analysis was done using the mean, standard deviation, and chi-square testing.

Results

- 26 out of the 100 patients studied were found to fulfill the diagnostic criteria for "substance abuse" in addition to schizophrenia (26%)

Table (1)

Differences between the two groups (with and without substance abuse), regarding demographic, and clinical characteristics.

	Schizophrenic patients with comorbid substance abuse	Schizophrenic patients without comorbid substance abuse	Level of statistical significance P-value
Male / Female ratio	26 patients (26%) 24 male: 2 female	74 patients (74%) 40 male: 34 female	* $p < 0.001$ ($X^2 = 12.2$)
Age	mean=30.59+7.15ys	mean=28.93+6.9ys	* $p > 0.005$
Associated personality disorder	17 patients (65.38%)	29 patients (39.18%)	* $p < 0.005$ ($X^2 = 5.3$)
Type of schizophrenia	10 pts (38.46%)	25 pts (33.78%)	$p > 0.005$
- Paranoid	03 pts (11.53%)	21 pts (28.78%)	$p > 0.005$
- Disorganized	04 pts (15.38%)	09 pts (12.16%)	$p > 0.005$
- Undifferentiated	05 pts (19.23%)	09 pts (12.16%)	$p > 0.005$
- Residual	04 pts (15.38%)	07 pts (9.45%)	$p > 0.005$
- Schizoaffective	00 pts (00.00%)	03 pts (04.05%)	----
- Catatonic			
Negative versus positive symptoms	7pts (negative) (26.92%): 19 patients (positive) (73.08%)	25pts (negative) (33.78%): 49 patients (positive) (66.22%)	$p > 0.005$
Associated depression	16 pts (61.53%)	24 pts (32.43%)	$p > 0.005$ ($X^2 = 6.79$)
High neuroleptic dose	13 pts (50%)	43 pts (58.1%)	$p > 0.005$
Associated cigarette smoking	all patients (100%)	50 pts (67.56%)	* $p < 0.001$ ($X^2 = 15.02$)

* = Statistically significant

Table (2)**The types of abused substances and their prevalence.**

Abused substance	Number of patients
Antiparkinsonian drugs	10 patients (38.46%)
Cannabinoids	3 patients (11.53%)
Narcotic (opioids)	3 Patients (11.53%)
Benzodiazepines (Hyposedatives)	3 patients (11.53%)
Alcohol	2 patients (7.69%)
Mixed (antiparkinsonian, cough syrups, glue, benzodiazepines)	5 patients (19.23%)

Table (3)**The reason of substance intake in the 26 patients were given as follows**

Possible reasons	Number of patients
- More relief of psychotic symptoms (half.delusions)	8(30.76%)
- More relief of depressive feelings i.e. better mood	5(19.23%)
- Better sociability	2(7.69%)
- More relief of drug side effects	3(11.53%)
- Influence of other bears	2(7.69%)
- For pleasure	2(7.69%)
- Curiosity at first	2(7.69%)
- Cannot give a possible reason.	2(7.69%)

Discussion:

Findings in the present study confirm what had been found by other authors about the high prevalence of substance abuse in schizophrenic patients. However, alcohol abuse was found to be much lower compared to the high prevalence found in other Western studies (Miller et al, 1994 and Noordsy et al, 1994). Such a difference might be attributed to the fact that alcohol is not socially or religiously accepted in our culture.

The most commonly found of the abusable substances was the group of antiparkinsonian

nian drugs followed by cannabis. This findings goes, in some sense, with what had been observed by other investigators who found that schizophrenic patients prefer to abuse substances with stimulant effects (Brady et al, 1990 and Baigent et al, 1995).

The high prevalence of antiparkinsonian drug abuse in our sample could be explained by the more availability and acquaintance with these drugs in schizophrenic patients i.e. the patients tend to "abuse" drugs, which they normally "use". In some of these patients , it is a matter of "misuse"

than "abuse", and this finding is in support of the "self-medication" hypothesis. Also, the significant correlation between abuse and high depression level is in favor of this hypothesis.

The absence of other stimulant abuse, like cocaine, in our sample, unlike what has been found in Western studies (Brady et al, 1990), could be due to the lack of availability of cocaine in Egypt. In the present study, narcotic abuse is much lower than stimulant abuse. Two factors could stand behind such a finding: the first is related to the mood elevating effect caused by the stimulant and the second is related to financial issues. It seems that schizophrenic patients, influenced by their illness, usually have decreased income. Subsequently, they are not capable of obtaining substances like heroin which, of course, have higher cost than cannabis and stimulant. This may be also the reason why some of them abused cough sedatives, which contains codeine derivatives or related compounds and can be obtained at a much lower cost and is more available than heroin and opium.

In the present study, the following risk factors have been found to be significantly associated with substance abuse in schizophrenia: male gender, high level of depression, smoking as well as the presence of premorbid personality disorder. Of course, some of these risk factors are not only restricted to schizophrenics. Substance abuse is extremely common in patients with personality disorders especially with antisocial and borderline types (Dulit et al, 1990). The significant presence of personality disorders premorbidly in patients with comorbid substance abuse and schizophrenia may be a factor in favor of the common vulnerability hypothesis to explain such comorbidity. However, the significant association with high level of depression is more in favor of self-medication hypothesis.

No significant association has been found

between substance abuse in schizophrenic patients and either the type of schizophrenia, nature of symptoms or drug dosage. This findings may indirectly imply that substance abuse is not necessarily associated with worsening of the positive symptoms, as what appears to be theoretically expected and as what has been found by some investigators (e.g. Miller et al, 1994). However, a similar finding had been shown by other authors, like Brady et al (1990), who reported that positive symptoms of schizophrenia were not worsened by cocaine abuse in their study, but unlike the present study, they found more association between cocaine abuse and the diagnosis of "paranoid" subtype of schizophrenia.

Finally, findings in the present study do suggest that substance abuse is a common problem among schizophrenics. As such a problem may have its influence on either the clinical picture, prognosis or treatment strategy. It is, therefore, recommended that more focusing and search for substance abuse should be an important step in evaluation of schizophrenic patients.

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عينة مصرية لسوء استعمال المواد فى مرضى الفصام

تم مراجعة مائة حالة فصام من العيادة الخارجية فى خلال عام ابتداء ابريل ١٩٩٣ الى ابريل ١٩٩٤ لبيان وجود سوء استعمال للمواد سواء اولى او ثانوى.

تم فيها بحث الصلة بين مرض الفصام و الاستعمال السيئ للدوية و هل لها صلة بمرض الفصام او العكس و تأثير الاستعمال السيئ للمواد على تحسن الحالة او حدوثها.