

SUBSTANCE USE IN PATIENTS OF SCHIZOPHRENIA; LOCAL PERSPECTIVE

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ABSTRACT

Objective: This study is aimed at exploring the demographic pattern of substance use disorder among patients of schizophrenia and to find out the reasons of drug use among them.

Design: Cross-sectional study.

Place and duration of study: This study was conducted at Out-patient departments, of Psychiatry at Jinnah Post-Graduate Medical Centre Karachi and Sir Cowasjee Jehangir Institute of Psychiatry Hyderabad from July to December 2009.

Subjects and Methods: Approval from ethical research committee was taken, and a structured proforma was developed to record demographic details, reasons of substance use, pattern of use, and diagnoses of the patient after informed real consent from the patient or their attendants.

Results: Out of a total 100 patients 62 had substance use disorder. Males had 81% co morbidity. Niswar was the predominant substance of use (54%), followed by cigarette (24%). Alcohol and cannabis were not much found to be used. Most common cause, stated by schizophrenics for substance use was to alleviate anxiety (40%), followed by use to induce sleep (16%), and peer pressure(8%).

Conclusion: In contrast to the findings in western literature, pattern and reasons of substance use disorder are different in local perspectives.. Nicotine has been found to be used in different forms, which can be treated by reducing the perceived reasons of substance abuse by the patients.

Key words: Substance, Schizophrenia, Abuse, Dependence

INTRODUCTION

Severe mental illness, has been associated with high prevalence of substance use¹ Schizophrenics, in particular, are noted to be significantly more afflicted with this as compared to general population^{2,3}. Later studies have shown that substance misuse has been reported to be the most prevalent co-morbid condition associated with schizophrenia^{4,5,6}. The Scottish Co-Morbidity study group has highlighted greater use of drugs and alcohol especially tobacco among patients with schizophrenia⁷ Studies have pointed out that, between 60-90% of schizophrenics smoke cigarettes^{8,9}, which has substantial impact on morbidity and mortality of this population¹⁰. This fact led to the concept of "Mentally Ill Chemi-

cal Abusers (MICA)"¹¹. These cases with Dual Diagnosis are difficult to treat because of high relapse rates, and poor drug compliance¹²⁻¹⁴. In addition, they are likely to pose an immensely greater burden to their families and societies than when they possess single pathology¹⁵. Study by Clark et al pointed out the concept of formal and informal care of these patients¹⁶. Family burden has been studied, not only in terms of care-giving, but also with reference to economic loss¹⁷. Poor clinical and functional outcome has also been attributed to higher use of substances^{18,19}.

Studies, trying to explore the association of these co-morbidities, have suggested that there may be a possibility of causal effect of abused drug on the development of psychosis. Although there is evidence to suggest that cannabis may have a causal role in the development of psychopathology^{20,21}, but not for other substances^{22,23}.

The self report literature provides support for an 'alleviation of dysphoria' model of substance use but there is little empirical support for the self medication hypothesis, or for common factor models and bidirectional models of co morbidity.

It is likely that there are multiple risk factors involved in substance use in psychosis and more work to develop and test multiple risk factor models is required²⁴. Another study²⁵ finds three reasons;

- (1) those who predominantly used for social and enhancement reasons, to 'chill out and have a good time with others:'

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Table 1: Demographic variables

Demographic Variables	Substance use		
		Yes	No
Gender	Male	60	14
	Female	14	12
Marital status	Unmarried	26	24
	Married	36	14

- (2) those who used to regulate negative affect and alleviate positive symptoms, to 'cope with distressing emotions and symptoms:'
- (3) those who used substances to augment themselves and intensify their experiences, to 'feel bigger, better and inspired.'

There is a dearth of studies on the subjective reasons for substance use by schizophrenics, especially in Pakistan. Moreover, not much information has been gathered regarding the types of drugs and pattern of use disorder in local setup.

Our study aims to explore the pattern and subjective reasons of drug abuse among schizophrenics in our area of study so that after adequate collection of data from all over Pakistan; an effort may be made to prevent this co-morbidity and resources can be saved in terms of money and manpower.

SUBJECTS AND METHODS

This is a cross-sectional study on the cases of schizophrenia attending Out Patient at the Department, Psychiatry, Jinnah Postgraduate Medical Centre, Karachi, and Sir Cowasjee Jehangir Institute of psychiatry Hyderabad. This study was started on first July 2009 and continued till a total of fifty cases have been recruited at each center.

After approval from ethical committee of Sir CJIP, a detailed questionnaire was developed to record the demographic details, diagnoses, details of drug use and subjective reasons to use drugs. Data collection was

started simultaneously at both centers.. It was agreed that every fifth patient with schizophrenia would be selected to be included in the study. In cases where patient was repeated, next to come on was selected. In case of non consenting fifth schizophrenic, the very next one would be included in the study, But fortunately no one denied consent Each patient or his attendant(who was accompanied by the patient) was informed about the purpose of interview and asked for consent. with complete assurance of confidentiality of information. All the patient/attendant agreed to participate in the study

Diagnosis of schizophrenia was made according to ICD 10²⁶ (International Classification of Disease (10th revision) of WHO, using Present State Examination²⁷. A total of 100 (50 at each center) were recruited. Direct questions were asked from patients about the use of nicotine, type of nicotine, alcohol, cannabis, opioids, sedatives, and other drugs. if any. Substance use by the patients was confirmed by asking their family members and other informants.

The data was analyzed using Software Package for Social Sciences (SPSS) version 16 for windows. Frequencies of drug use disorder were calculated; gender-wise data analysis was done; and frequency of subjective reasons for substance use were computed and listed.

RESULTS

A total number of 100 cases comprising of 74 males and 26 females were evaluated. Male to female ratio was 3:1, mean age 31.7+8.9. Duration of illness ranged between 6 months to 360 months, mean being 108±74.2 Time from diagnosis was b/w 1 month to 360 months. Out of total patients 38% were not taking any substances as compared to 62% (n=62). Total of 50% were unmarried (n=50), married were 46% (n=46) and 4% either widowed/divorced n=4. Most commonly used substance was tobacco in form of "Niswar" (54%) followed by betel leaf and betel nut (26%) and cigarettes (24%). Cannabis 18% and alcohol at 3%. Family history of substance use was positive in 50 cases (50%) and of psychiatric illness was in 20 cases (40%). Different reasons stated for substance use were to relieve anxiety (40%), followed by feeling of well being (32%). Peer

Table 2: Gender versus Substance abuse

Substance	Male (n=74)	Female (n=26)	Total (n=100)
Alcohol use disorder	6(8.1%)	None	6(6%)
Cannabinoids use disorder	16(26.6%)	2(7.7%)	18(18%)
Cigarettes Smoking	22(30.6%)	2(7.7%)	24(24%)
Niswar	52(70.3%)	2(7.7%)	54(54%)
Ghutka	10(13.5%)	4(15.4%)	14(14%)
Pan (chewing tobacco)	18(24.3%)	8(13.8%)	26(26%)

Table 3: Reasons of substance Use (n=100)

Reasons of substance Use	Male (n=74)	Female (n=26)	Total
To decrease side effect	2(2.7%)	None	2(2%)
Feeling of well being	28(37.8%)	4(15.4%)	4(15.4%)
Peer pressure	8(10.8%)	None	8(8%)
Increased Excitement	2(2.7%)	None	2(2%)
Decrease pain	None	4(15.4%)	4(4%)
Induce sleep	16(21.6%)	None	16(16%)
To relieve Anxiety	34(45.9%)	6(23.1%)	40(40%)

pressure was a factor in 10% cases and to decrease pain in 2%. Others were about 8%

Off-course, males have out-numbered females. Out of 74 schizophrenics, 60(81%) had substance use disorder, while out of 26 females, fourteen(53.84%) were having co-morbidity of drug use. On the other hand, out of 50 un-married, 26(54%) had drug use, and out of 50 married 36(72%) had this co morbidity.

Table 2 clearly shows that Niswar is most commonly used substance by schizophrenics, followed by Paan and Cigarettes. Least common drug of abuse among patients are Alcohol. Niswar is made by fresh green tobacco leaves, and usually snuffed²⁸.

Columns' total is more than 100% in both genders, reflecting multiple substance use in both genders.

Maximum number of the patients state that they use drugs to relieve anxiety(40%). Second common stated reason is to induce sleep(16%), followed by peer pressure (8%). Noticeable among these are that peer pressure and sleep are not at all the causes among females, but females abuse drugs to alleviate the feelings of pain and to have feeling of well being.

Some of the males had more than one reason for substance use disorder.

DISCUSSION

Sixty two percent of schizophrenics were found to be with substance use disorder. More or less similar findings have been seen in earlier studies^{29,30,31}.

Strikingly, but not unexpectedly, males contributed to an overwhelming majority of substance using schizophrenics. This finding is in line with earlier studies in the west^{32,33}, and the one in Singapore. Prevalence of substance use disorder comes out of 50%, which again supports earlier findings³².

The proportion of males versus females among drug-abusing schizophrenics reflects our cultural and societal pattern that females are less reported for such

problems or is this the real state of affairs?, needs to be explored.

Pattern of use, in this study, has been consistent with local availability and social acceptance as Niswar, and cigarettes have predominated over alcohol, and cannabis, which is not the case with studies conducted elsewhere^{34,35}.

When compared to the studies done in Pakistan, especially in the city of Karachi, by Mazahir et al³⁶ et al; on general population, to estimate the prevalence of smokeless tobacco, all three types, viz, Niswar, Gutka and Paan; our sample population was found to abuse more smokeless tobacco. Same is the case with smoking; which is more prevalent in our sample, then has been studied in general population³⁷. On comparing with the statistics in general population³⁸, cannabinoid use disorders were also found to be more common among our sample. In case of Alcohol use disorder, it was found in six percent of our sample. Although there is no study in Pakistan and Karachi to compare, but one study, done in Karachi³⁹, on chemical samples have found to have 5.8% of samples to be positive for Alcohol, which is very close to our figure. This may be explained by either that Schizophrenics in our sample were not more abusing alcohol; or there is a tendency to hide for this particular substance.

This pattern is reflective of relatively easy-to-manage dependences and difficult to access alcohol and cannabis by schizophrenics, in this part of the world. This also shows a higher propensity of schizophrenics to get indulged in nicotine abuse and dependence, as Paan, Niswar, Gutka, and cigarettes, all are various forms in which major addictive substance is nicotine. This may be a phenomenon of religious nature, as nicotine is not so strongly prohibited in religious speeches as other substances including Alcohol or Cannabis.

Alleviation of anxiety and induction of sleep, are the two most stated reasons for drug use, followed by peer pressure. These are in contrast to the reasons stated in the study by⁴⁰ Dixon et al, where "to get high" was

predominant reason followed by, “to get rid of depression” and “to relax”. An interesting finding is that females (although very few), mainly use drugs to alleviate pain and to feel better; and that peer pressure, alleviation of anxiety are not the stated reasons by the females. This may mean that alleviation of pain is the major concern of females and that taking care of this symptom may prevent drug use by females to a great extent. On the other hand, anxiety among male schizophrenics is the main concern, and measures to reduce this in an appropriate way would greatly impede the substance use. This anxiety may be a side effect of antipsychotics, being given to them, or due to environmental factors, or a symptom of disease per se, needs to be understood and require further researches in local context.

Whatever the reasons are for substance abuse, but studies have shown that it costs them very heavy. All of the substances abused by schizophrenics in our study have serious health hazards. To coat a few, studies are found in literature showing evidence about physical and mental consequences of abusing Alcohol⁴¹, Cannabis^{42,43}, smoking⁴⁴, smokeless tobacco⁴⁵ (including Naswar, etc), and Paan⁴⁶.

LIMITATIONS

This study design may not reflect the true pattern and prevalence of drug abuse among schizophrenic patients, because sample population is from hospital OPD, and not from the community. In addition, patients or family may hide the substance abuse. But every effort was made to confirm and explore the informations and ICD-10 criteria, was fulfilled for diagnosing drug abuse, among patients.

CONCLUSION

This study depicts that quite a number of schizophrenics are using substances at an alarming rate, primarily to relieve anxiety and dysphoria. Peer pressure is one of the contributing factors. It also brings to notice that Nicotine has been the predominant substance of abuse or dependence among schizophrenics in local perspective, in a variety of forms. It requires measures involving a team of doctors, health care experts, policy makers, community members and family members to reduce the stated and perceived reasons for use.

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