

ORIGINAL ARTICLE

ASSESSMENT OF THE PROFILE OF PSYCHIATRIC MANIFESTATIONS IN CANNABIS USERS: A CROSS SECTIONAL STUDY

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ABSTRACT

Background: Cannabis is the world's most commonly used illicit drug, with approximately 200 to 300 million regular users. It occupies fourth place in worldwide popularity among psychoactive drugs, after caffeine, nicotine and alcohol. Nowadays, cannabis is widely used by young people and, the prevalence of lifetime use of cannabis by young adults has increased in many developed countries over the past several decades.

Methods: It was a one year cross-sectional observational study. The study included 60 patients, who had been taking cannabis for at least previous six months with a frequency of minimum 20 days/month. The eligible patients fulfilling inclusion and exclusion criteria and giving written informed consent were enrolled in the study.

Results: Most common co-morbid psychiatric disorders were bipolar affective disorders, current manic episode with or without psychotic features (25.0%). Second most common co-morbid disorder was cannabis induced psychosis which was present in thirteen patients (21.7%). Seven patients (11.7%) had acute and transient psychosis; six patients (10.0%) were diagnosed as schizophrenia, whereas three patients (5.0%) had Psychosis Not Otherwise Specified (NOS). Anxiety disorder and depressive disorder accounted for 10% and 3.4% of comorbidity, respectively. Two patients (3.3%) were having cannabis dependence syndrome with withdrawal state and three patients (5.0%) were having cannabis dependence syndrome only without any associated psychiatric comorbidity.

Conclusion: Among the various psychiatric disorders, bipolar affective disorder, current episode mania with or without psychotic features was the most prevalent disorder. Most of cannabis users seeking treatment suffer from various psychiatric comorbid disorders particularly psychotic disorders (38.4%).

Key words: Cannabis, Bipolar affective disorder, Psychiatric comorbidity.

INTRODUCTION

Cannabis is associated with a significant psychiatric comorbidity.¹ The effects of cannabis use on the aetiology and course of psychiatric disorders such as psychotic or mood disorders have been examined by the researchers. Cannabis users experience euphoria and changes in thought processes with thoughts being experienced as fragmented or more accurate. In addition, changes occur in visual and auditory perception and in the perception of time as well as changes in short term memory and attention. The use of high doses of cannabis may even result in psychotic symptoms like delusions and hallucinations; the latter phenomena are sometimes described as cannabis psychosis.²⁻⁶ However, the incidence and prevalence of such cannabis psychosis is not well-known because the concept of cannabis psychosis is

poorly defined and the specificity and existence of such a nosological entity remains controversial.⁷⁻⁸

Both DSM-IV-TR⁹ and ICD-10¹⁰ have given various categories of disorders associated with the use of cannabis, with ICD-10 having a wider approach. The most important thing which is apparent from the classification is that cannabis is implicated as the causative agent for all the categories, but on the contrary, research has shown that it may not act as a causative agent, but may worsen the pre-existing mental illness or may unmask the mental illness in predisposed subjects.⁹

The association between cannabis use and psychotic symptoms and/or disorders has also been explained by the hypothesis that patients use cannabis as a form of self-medication. Within the framework of the self-medication hypothesis, several sub hypotheses can be considered.¹¹⁻¹³

Considering the fact that India remains a traditional cannabis use country, the importance of research from our country cannot be overestimated. Furthermore, in view of the paucity of literature from our state, the present study was planned to assess the profile of psychiatric manifestations in cannabis users.

METHODOLOGY

Set up and study design: The study was conducted at Indira Gandhi Medical College, Shimla, which is a tertiary care centre of Himachal Pradesh from July-2014 to June-2015, located in North India and caters to the majority of population of the state. It was a Cross-sectional observational study. The study protocol was approved by IGMC ethical committee.

Study population and selection process: Patients attending out-patient department (OPD) and in-patient department (IPD) services of psychiatry department were the patient population screened for enrolment in the study. The study included 60 patients, who had been taking cannabis for at least previous 6-months with a frequency of minimum 20 days/month. The eligible patients fulfilling following inclusion and exclusion criteria and giving informed consent were enrolled in the study. Inclusion criteria included patients within the age group of 18-65 years, consuming cannabis for the last >6 months with a frequency of 20 days/month or more, and having willingness to participate in the study. An exclusion criterion included patients fulfilling the criteria for abuse/dependence for other substances except nicotine and evidence of an organic mental disorder.

Baseline data collection: Demographic and clinical data was obtained from the patients or relatives and recorded using structured formats. Psychiatric symptoms were assessed using Mini-International Neuropsychiatric Interview 6.0 (M.I.N.I.6.0)¹⁴. Diagnosis of psychiatric disorders was made according to ICD-10¹⁰. If the patient was found to have some psychiatric syndrome, the severity of the same was assessed using appropriate scales such as: Young Mania Rating Scale, Brief Psychiatric Rating Scale, Hamilton Depression Rating Scale or Hamilton Anxiety Rating Scale as per the psychiatric diagnosis. Assessments were done when the patients were in sober state.

Statistical analysis: In the study various sociodemographic and drug related variables were compared by using appropriate statistical methods. The categorical and continuous variables were reported as percentages and mean \pm standard deviation respectively. 2 tailed value of <0.05 was taken as statistically significant. Data was analysed using statistical software Epi Info version 3.4.3.

RESULTS

Baseline clinical characteristics of the study groups: Table 1 describes the distribution of clinical characteristics of the study population under observation

Table 1: Socio-Demographic characteristics of the patients

Characteristics	Patients (%)
Age (yrs)(Mean \pm SD)	31.63 \pm 10.86
Sex	100% (male)
Rural/Urban:	
Rural	43 (71.7)
Urban	17 (28.3)
Marital status:	
Single	30 (50.0)
Married	27 (45.0)
Divorced/Widowed	3 (5.0)
Type of family:	
Nuclear	44 (73.3)
Joint	16 (26.7)
Socioeconomic status*:	
Upper	0
Upper middle	11 (18.3)
Lower middle	20 (33.3)
Upper lower	17 (28.3)
Lower	12 (20.0)

*Modified Kuppuswamy's scale

Age of initiating cannabis use: Most of the patients (38.3%) initiated cannabis consumption before the age of 20 years. Only four patients (6.7%) had initiated cannabis consumption after the age of >40 years. The mean age of initiating cannabis use was 23.98 \pm 8.30.

Duration of cannabis use: Majority of the patients (58.3%) were consuming cannabis for 6-10 years. Only one patient (1.7%) had history of cannabis consumption for more than 20 years. Mean duration of cannabis use was 8.08 \pm 3.83.

Patients with History of past abstinence attempts: Out of sixty patients, 28 patients (46.6%) had made abstinence attempts in the past. 20 patients had one abstinence attempt and 8 patients had made two abstinence attempts. Among the patients who made one or two abstinence attempts in the past, the duration of abstinence attempt was less than three months in majority of cases (20 out of 28 patients). None of the patients had made >2 abstinence attempts and in none of the cases, the duration of abstinence was more than 9 months.

Total Psychiatric co-morbidities: Vast majority of the patients (91.7%) had psychiatric co-morbidities.

Table-2: Psychiatric co-morbid disorder in cannabis dependent patients

Psychiatric co-morbid disorder	Cases (%)
Cannabis dependence syndrome with psychiatric co-morbidities	
Schizophrenia	6 (10.0)
Acute and transient psychosis	7 (11.7)
Psychosis NOS	3 (5.0)
Cannabis induced psychosis	13 (21.7)
Manic episode without psychotic features	1 (1.7)
Manic episode with psychotic features	2 (3.3)
Bipolar affective disorder, current episode mania without psychotic features	7 (11.7)
Bipolar affective disorder, current episode mania with psychotic features	8 (13.3)
Severe depressive disorder without psychotic features	1 (1.7)
Recurrent depressive disorder	1 (1.7)
Generalized anxiety disorder	3 (5.0)
Mixed anxiety and depression	2 (3.3)
Panic disorder	1 (1.7)
Cannabis dependence syndrome with withdrawal state	2 (3.3)
Cannabis dependence syndrome	3 (5.0)

Types of Psychiatric co-morbidities: Most common co-morbid psychiatric disorder was bipolar affective disorders, current manic episode with or without psychotic features (25.0%). Additional three patients (5.0%) were diagnosed having first episode mania with or without psychotic features. Second most common co-morbid disorder was cannabis induced psychosis which was present in thirteen patients (21.7%). Seven patients (11.7%) had acute and transient psychosis; six patients (10.0%) were diagnosed as schizophrenia, whereas three patients (5.0%) had Psychosis Not Otherwise Specified (NOS). Anxiety disorder and depressive disorder accounted for 10% and 3.4% of comorbidity, respectively. Out of sixty patients observed, two patients (3.3%) were having cannabis dependence syndrome with withdrawal state and three patients (5.0%) were having cannabis dependence syndrome only without any associated psychiatric comorbidity.

DISCUSSION

In the present study, mean age of the patients was 31.63 ± 10.86 years and 78.3% of the patients were more than 20 years old. There was no female patient. This probably reflects that consumption of cannabis by females is less prevalent in this region and it may be culturally unacceptable also.^{15,16,17} 38.3% of the patients initiating cannabis consumption were within the age range of 18-25 years which is comparable to the study by Arias et al.¹⁶ where 42% of the patients started consuming cannabis between 16-25 years. Mean age of initiating cannabis consumption was 23.98 ± 8.30 years. In most of the Western studies, the age of cannabis initiation was lower in comparison to that of the Indian studies suggesting that the cannabis use begins at younger age in Western population.^{18,19} The mean duration of cannabis use in our study was 8.08 ± 3.83 years and 50.0% patients were consuming cannabis for 6-9 years. Only 1.7% pa-

tients had history of cannabis consumption for more than 20 years. In the present study, 46.6% patients had history of abstinence attempts in the past. Sarkar et al.²⁰ has found almost similar percentage of patients (45.3%) had attempted abstinence in the past. A vast majority of our patients had comorbid psychiatric disorders.²¹ In our study, 25.0% (15) patients were suffering from bipolar affective disorder, out of which 13.3% (8) had current manic episode with psychotic features and 11.7% (7) had current manic episode without psychotic features. Our findings were in coherence with some studies where 15.4% (10) patients had current manic episode with psychotic features and 13.4% (9) patients had current manic episode without psychotic features.^{16,21} In the present study, second most common psychiatric comorbid illness found was cannabis induced psychosis which was present in 21.7% patients. The prevalence of cannabis induced psychosis was more or less similar to that of the previous studies where it ranged from 11.5% to 34.5%.^{16,19,20,21} Clinical research has shown that high proportions of persons with schizophrenia report regular cannabis use and meet criteria for cannabis use disorders.^{22,23} In the present study, 11.7% of patients had acute and transient psychosis and 10.0% of patients qualified for a diagnosis of schizophrenia. 5.0% patients had Psychosis Not Otherwise Specified (NOS). Chen et al.¹⁹ noted that 13.7% of patients had acute and transient psychosis and 8.0% of patients had schizophrenia. Arseneault L et al.²⁴ however have observed a lesser number of patients (23.4%) with features of schizophrenia. In our study, 5.0% patients were diagnosed as having first episode mania, out of which, 3.3% patients were labelled as manic episode with psychotic features while another 1.7% as manic episode without psychotic features. Previous studies have reported variable frequency of manic episode in cannabis users.^{23,25} Like our observations, Arias et al.¹⁶ have also

found almost similar frequency of first manic episode in their sample.

CONCLUSION

Many patients were suffering from various comorbid and cannabis induced psychiatric disorders and such patients were associated with high cannabis use. Among the psychiatric disorders, bipolar affective disorder, current episode mania with or without psychotic features was the most prevalent disorder. It was seen in around 25% of patients. So, in the present study we may conclude that most of cannabis users seeking treatment suffer from various psychiatric comorbid disorders particularly psychotic disorders (38.4%).

LIMITATIONS

It was a hospital based cross sectional study and sample size was relatively small. History of cannabis use was based as reported by patient/family member. No body fluid test for cannabinoids was done.

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