

How to Cite:

Patel, R. S., Shukla, R., Solanki, N., & Chittora, G. (2022). The prevalence of psychiatric illness among cannabis users. *International Journal of Health Sciences*, 6(S5), 11091–11099. <https://doi.org/10.53730/ijhs.v6nS5.11390>

The prevalence of psychiatric illness among cannabis users

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Abstract---This study was conducted in a tertiary hospital's psychiatry unit. Legal edible cannabis (bhang) users for more than a year who attended the OPD and IPD during the study period and met the inclusion criteria (age 18 to 60, no history of physical or psychiatric illness) were included in the investigation with their informed consent. 171 patients were recruited after being assured of the study's confidentiality. Special tests evaluated cannabis dependence and psychiatric conditions. (1) CUDIT-R and (2) DSM-5 updated psychiatric morbidity criteria. Population demographics. Patients with CUDs ranged in age from 18 to 60. The majority were age 21 to 30 (49.7%), followed by 31 to 40 (29.8%), 41 to 50 (12.9%), 20 (5.8%), and 51 to 60. (1.8 percent). Male (93.1%) and female patients were roughly evenly split (7.0 percent). 103 of 171 study patients were married (60.2%), compared to 66 unmarried patients (38.6%) who used bhang more often. 1.2% were divorced. The study considered patients' education levels. Middle schoolers had the highest percentage (22.2%), followed by illiterates and graduates (17.5%), high school (12.9%), and postgraduates (0.6 percent). Lower middle class (40.9%) had the most participants, and upper class had the fewest (2.3 percent). The Cudit – R scoring 13 participant score less than 8 while only one scored between 8-12 and 157 participant shows score more than 12 similarly as per DSM -5 Criteria 11 participants shows no co-morbidity while 160 participant were also having other psychiatric illness. Our study concluded Cannabis and

psychiatric disorders are associated. Identifying and treating psychiatric comorbidities early can prevent relapses and improve treatment outcomes.

Keywords---psychiatric, cannabis users, education.

Introduction

Cannabis (bhang, marijuana, charas, hashish) was widely used as an analgesic, anticonvulsant, and hypnotic in the nineteenth century, despite being known and valued for centuries as a euphoriant. Recent research suggests that its derivatives could help treat glaucoma and nausea caused by cancer chemotherapy [1]. On the other hand, there have been clinical reports of cannabis causing mental illness since the end of the nineteenth century. A physician from British Guyana described the symptoms of cannabis psychosis in the following way as early as 1893. "Cannabis psychosis appears to be acute mania or melancholia. Most patients are in a state of mania, with delusions and visual and auditory hallucinations. He is constantly moving, waving his arms, throwing himself from side to side, running up and down the room, crying and singing. The psychosis may be linked to violent behaviour. Sometimes the patient refuses to eat, and other times he becomes extremely hungry. The patient's condition may rapidly change, and he or she will soon recover and appear normal again. However, after two or three relapses, the patient runs the risk of becoming apathetic and blunt. Cases of melancholia caused by cannabis use are more uncommon. Physicians in Greece, Egypt, Turkey, and India have been aware of the symptoms of chronic cannabis use and cannabis psychosis since the turn of the century [2,3]. Adverse effects may occur when used by various types of psychiatric patients. Depressed patients may experience severe anxiety, confusion, severe depersonalization, or outright psychosis. Marijuana can cause psychotic exacerbations in schizophrenics, necessitating hospitalisation. Patients with borderline personality disorder may experience brief psychotic regression after consuming marijuana. The link between cannabis abuse and prior or underlying psychiatric illness is thus established. However, the percentage of users who experience negative psychological reactions is unknown [4]. Cannabis use progresses from occasional or experimental use to regular use. The risk of associated psychiatric disorders is likely to increase as the level of involvement in the drug increases. According to the National Survey on the Extent, Pattern, and Trends of Drug Use in India[5], it is also the most commonly used illicit substance in the country. Cannabis use has been linked to an increased risk of psychiatric disorders. [6,7]. Cannabis use has been linked to a high risk of psychotic illness, including schizophrenia[8]. This co-occurrence, also known as dual disorder or dual diagnosis, has significant clinical implications because it is frequently associated with diagnostic challenges, poor treatment outcomes, severe illness course, and high service utilisation. As a result, it is critical to investigate co-occurring cannabis use disorders and psychiatric disorders. The current review's goal was to highlight key features of relevant Indian literature, discuss the findings of these studies, and highlight the strengths and limitations of existing work.

Material and Methods

This observational study was carried out in a tertiary care hospital's psychiatry ward. Users of legal edible cannabis (bhang) for more than a year who attended the OPD and IPD during the study period and met the inclusion criteria (age 18 to 60, users for more than a year without a history of physical or psychiatric illness) were included in the investigation with their informed consent. After assuring them of the study's strict confidentiality, 171 patients were chosen as participants. To evaluate cannabis dependence and comorbid psychiatric conditions, special tests were used. The updated (1)Cannabis Use Disorder Identification Test (CUDIT-R) and (2)DSM-5 criteria for determining psychiatric morbidity.

Results

The present study design is cross sectional and prevalence study. In our study, categorical variables were used the majority of the time. So, percentage and frequency were calculated.

Table 1 Shows Demographic characteristics of study population. The average age of patients with CUDs was 31.71 years, ranging from 18 to 60 years old. The majority were in the age range of 21 to 30 years (49.7%), followed by 31 to 40 years (29.8%), 41 to 50 years (12.9%), 20 years (5.8%), and 51 to 60 years (1.8 percent). As a result, patients were split roughly evenly between male (93.1%) and female (7.0 percent). Married patients made up about 103 of the 171 patients in the study population (or 60.2%), compared to 66 unmarried patients (or 38.6%), who consumed bhang more frequently. 1.2 percent of patients were divorced, too. The study also took into account the educational backgrounds of the patients with CUDs. Patients in middle school had the highest percentage (22.2%), followed by those who were illiterate and graduates (17.5%), higher sec. and primary school (14.6%), high school (12.9%), and postgraduates (0.6 percent). When it came to socioeconomic status, the lower middle class (40.9%) had the largest percentage of participants, and the upper class had the smallest (2.3 percent).

Table- 1

Demographic characteristics of Study Population			
Particulars	Sub-particulars	N	Percent
Age	<20 Years	10	5.8
	21-30 Years	85	49.7
	31-40 Years	51	29.8
	41-50 Years	22	12.9
	51-60 Years	3	1.8
	Gender	Male	159
Female		12	7%
Marital Status	Divorced	2	1.2
	Married	103	60.2

SES	Unmarried	66	38.6
	Lower	34	19.9
	Lower Middle	70	40.9
	Upper	4	2.3
	Upper Lower	46	26.9
Educational Status	Upper Middle	17	9.9
	Graduate and above	31	18.1
	High school or higher secondary	47	27.5
	Middle school or primary	63	36.8
	Illiterate	30	17.5

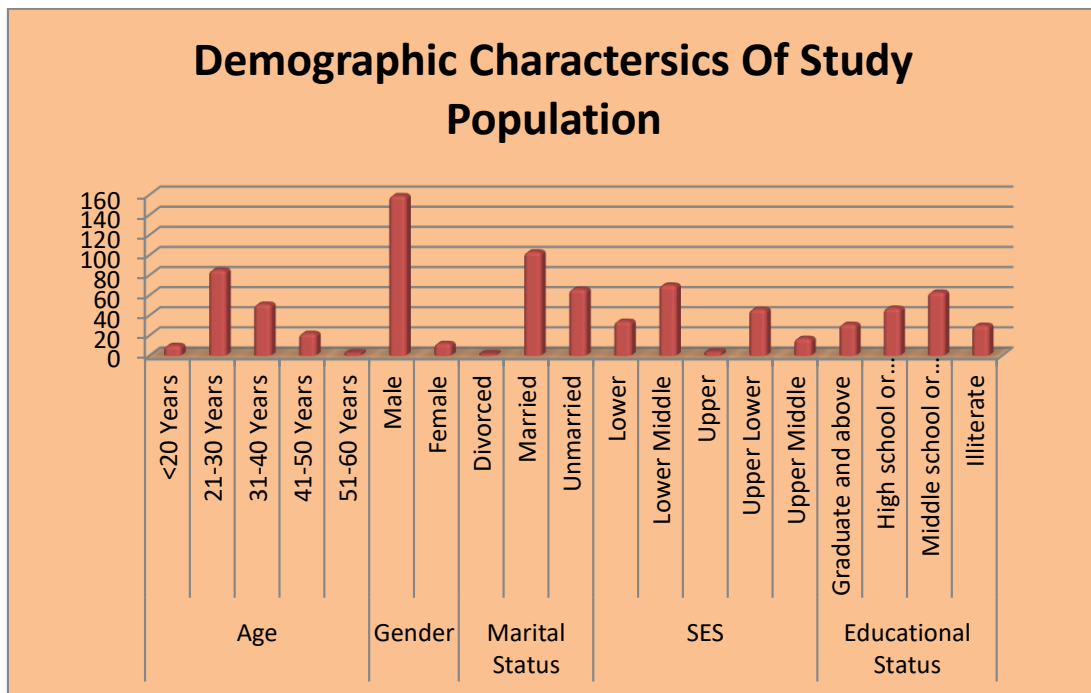


Figure-1

Table 2 shows Scoring of participant According to Cudit R scoring, the distributions of psychiatric comorbidity among cannabis-dependent people were calculated. Of the 171 participants, 157 obtained scores above 12 (the highest was 29 and the lowest was 2)13 participants scored below 8 and 1 participant between 8-12. The distribution of psychiatric co-morbidity among cannabis dependent individuals was also examined using DSM-5 Diagnosis. The following diagnosis was found using the DSM-5: Cyclothymia (0.6 percent), Dysthymia (0.6 percent), Anorexia Nervosa (1.2 percent), Panic Disorder (1.2 percent), Agarophobia (1.8 percent), Binge Eating Disorder (1.8 percent), MDD (1.8 percent), PTSD (1.8 percent), Social Phobia (1.8 percent), Schizo Affective (2.9 percent), Schizophreniform (2.9 percent), MDD with Psychotic Disorder (3.5

percent), Other Substance Use Disorder (21.6 percent). DSM-5 Spectrum was also used to evaluate the distribution of psychiatric comorbidity among cannabis dependent individuals. The highest percentage of diagnoses was for psychotic disorder (33%) and the lowest was for trauma and stressor-related disorder (1.8%).

Table-2

Prevalent Psychiatric Disorders in the Cannabis Users			
Particulars	Sub-particulars	N	Percent
Score as Per Cudit R	<8	13	7.6%
	8-12	1	.5%
	>12	157	91.7%
Diagnosis as Per DSM-5 Spectrum	Anxiety Disorder	31	18.1
	Depressive Disorder	11	6.4
	Feeding & Eating Disorder	5	2.9
	Mood Disorder	32	18.7
	Psychotic Disorder	57	33.3
	Substance Use Disorder	21	12.3
	Trauma & Stressor Related Disorder	3	1.8
	No Comorbidity	11	6.4

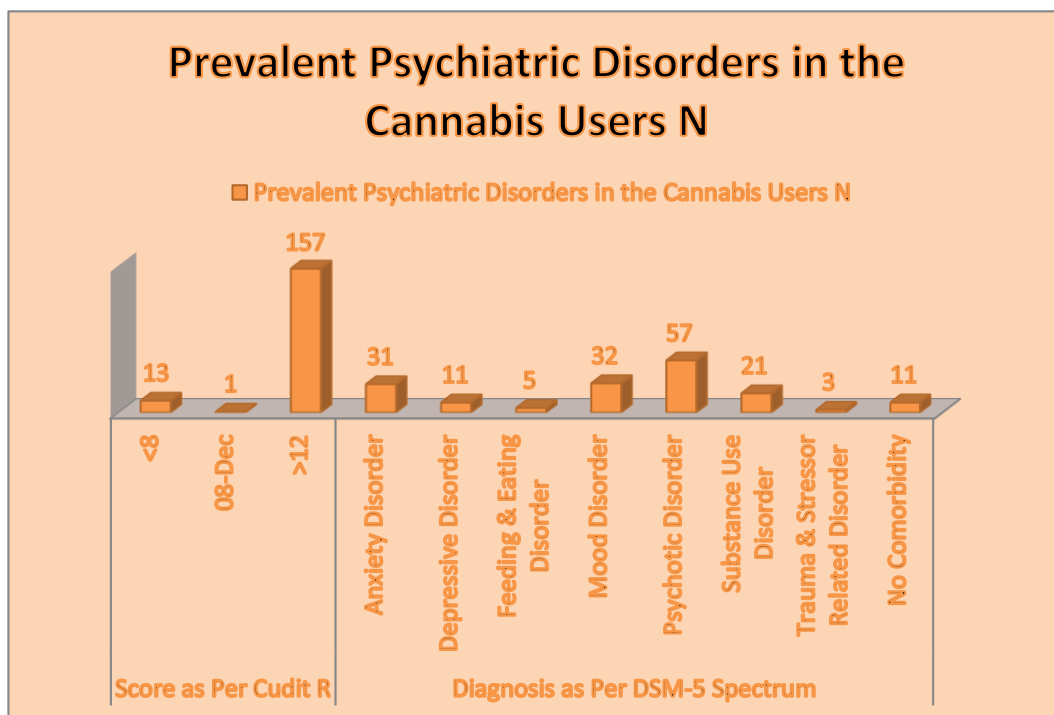


Figure-2

Discussion

According to the results of our study, certain sociodemographic characteristics were linked to cannabis use disorder. In males, CUDs are more prevalent. This agrees with a number of other studies. Despite this, a number of studies have found that female cannabis use is significantly more prevalent. In our study, we found a prevalence of 7.0%. A few studies also showed that men were more likely to develop a cannabis dependence early on after first using it. [9]

According to our research, men make up 60.2% of those who presented with cannabis-related issues. The average age at which cannabis use began was 31.71 years. This was roughly at odds with a related study conducted in 2013 by Hercilio et al., which found that those seeking treatment for CUD were 66% single, 62.5 percent employed, and 81 percent male. With a standard deviation of 4.66 years, the average age at which cannabis use began was 16.53 years. [10]

In terms of education, roughly 70% of people did not have a high school diploma. The risk of early dropout from school as a result of heavy, regular cannabis use is the main concern in previous literature that assesses the effects of cannabis on education. Hall et al. have specifically demonstrated that cannabis use results in slower reaction times, short-term memory problems, and looser associations, all of which affect one's ability to receive a proper education.[11] Our study discovered the following DSM-5 diagnosis: Cyclothymia (0.6 percent), Dysthymia (0.6 percent), Anorexia Nervosa (1.2 percent), Panic Disorder (1.2 percent), Agoraphobia (1.8 percent), Binge Eating Disorder (1.8 percent), MDD (1.8 percent), PTSD (1.8 percent), Social Phobia (1.8 percent), Schizo Affective (2.9 percent), Schizophreniform (2.9 percent), MDD with Psychotic Disorder (3.5 percent), Other Substance Use Disorder (21.6 percent). The highest percentage of DSM-5 Spectrum Psychotic Disorder (33%) and the lowest percentage of trauma & stressor-related disorder (1.8%) were discovered. This was somewhat similar to the study conducted by Sarkar et al., which discovered that 34% had substance dependence and 53% had psychotic illness[12]. According to a similar study conducted in Brazil in 2010, 22.5 percent of the population suffered from depression, 11% from generalised anxiety disorder, 8.8 percent from panic disorder, and 8.8 percent from schizophrenia, with the remaining 31 percent only having cannabis dependence. According to Hercilio et al study, 's [13].2 percent of cannabis addicts also had psychiatric comorbidity. 42 percent of participants in another study by Holscher et al. had co-occurring psychiatric disorders. They also came to the conclusion that generalised anxiety disorders and depression are the most common. However, our findings were in conflict with those findings because they showed that psychosis was the most common illness, with a comorbidity rate of around 79 percent.

The fact that we took the sample in a facility that primarily treats patients with serious mental illnesses may have resulted in sampling error. This can be changed if our study was conducted at the community or multicenter level. Transient psychosis brought on by cannabis would only last a few months. (DSM V) This demonstrated that cannabis use has a causal relationship with the emergence of psychotic symptoms. Similar to this, the Dutch study found that

cannabis users with no family history of psychosis are more likely to experience psychosis than non-users.

For the connections between cannabis and psychosis, various studies have developed four hypotheses.

1. Confounding hypothesis - By this, we mean that cannabis use is frequently combined with other drug use and a number of other factors that can result in psychosis.
2. Theoretical interaction - According to this, cannabis, as a component, causes psychosis in susceptible people.
3. The reverse causality hypothesis postulates that people use cannabis to deal with psychotic symptoms, particularly unpleasant ones.
4. Ethological hypothesis: According to this theory, cannabis use causes psychotic symptoms directly.[14]

Since no one experienced psychotic symptoms prior to using cannabis, our study categorically ruled out the reverse causality hypothesis. But since further research will be required to confirm a causal relationship between the two, we were unable to draw any conclusions or rule out other possibilities. Although cannabis use-induced mood disorders were not mentioned in the DSM 5, our study revealed that about 33.3% of cannabis users also have psychotic disorders. In a study by Gilbert et al., it was discovered that cannabis use was linked to an odds ratio of 51 that nearly tripled the likelihood of experiencing symptoms. Another Italian study found that people who are more spiritually inclined and less realistic in their thinking have a higher risk of becoming dependent on cannabis. Axis I comorbidity was also discovered to exist for the following psychiatric disorders: adjustment disorder, dysthymia, major depression, and GAD. They displayed borderline, histrionic, dependent, and unspecified personality disorders, which are all known to be specifically correlated with cannabis use.[15] These results are somewhat consistent with what we found. People who do not have co-occurring mental illnesses report using cannabis or other drugs due to outside pressures like peer pressure, social pressure, or work-related issues. In our study sample, only 6.4% of participants reported having depression. Numerous studies offer conflicting evidence regarding the relationship between cannabis use and depression. In a cohort study, Brook et al.[16] discovered that early cannabis use, or before the age of 20, was linked to a slight increase in the risk of MDD by the age of 27. However, after controlling for confounding variables like demographics, family history of depression, and childhood depression, the odds ratio was 1.7, meaning that cannabis users have a 1.7 times higher risk of developing MDD than non-users. However, by the age of 27, there is a significantly lower chance of developing depression.

Conclusion

Cannabis addiction and comorbid psychiatric disorders are closely attributed. In order to prevent additional relapses and achieve better treatment outcomes, it is critical to determine and treat psychiatric comorbidities as soon as they are identified.

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