

# CANNABIS USE PATTERN, DEPENDENCE AND WITHDRAWAL IN PATIENTS FROM AN ADDICTION CENTRE: A QUESTIONARE BASED SURVEY

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**ABSTRACT**--Cannabis use in previous researches has been linked with a increased incidence of various psychiatric disorders. Even withdrawal symptoms of cannabis use disorder are another aspect that has received attention in the past. To investigate use of cannabis and its dependence along with withdrawal symptoms associated within a study sample obtained from treatment-seeking substance users at an addiction treatment centre. The study population is primarily those patients who have opioid dependence and/or alcohol dependence. Treatment is also provided at this centre in the form of medications, psychotherapy, and rehabilitation services. We included 80 subjects from the outpatient services and they were thoroughly assessed by a trained psychiatrists using questionnaires. All the data regarding demographic characteristic and details of substances of use were collected for each subject. The majority of our patients came for seeking treatment for opioid use related disorders. Substance dependence with tobacco was the commonest thing encountered in almost 95% of the cases. Cannabis related disorder showed craving (75%) as the most common feature. Overall we reported 62 subjects (75%) with cannabis use disorder in our study. Most common withdrawal features as appetite loss, weight loss, sleep related problems, anger, anxiety. The distress criteria was observed in only 31 subjects as having cannabis withdrawal according to this assessment. It is important to focus on cannabis and its related use disorders and further more such studies with a multicentric approach should be conducted to overcome the hindrances in treatment of cannabis use disorder patients.

**KEY WORDS**--Cannabis, psychiatric disorders, withdrawal, treatment seeking

## I. INTRODUCTION

Cannabis is the most regularly used illicit psychoactive substance which is used all over the world. Recent studies focused on increasing worldwide trends with increased incidence of cannabis use and related hospitalizations specially with young and adolescents. In 2012, it was reported that about 125 to 227 million people use cannabis<sup>1</sup>. In a report by WHO, It is suggested that cannabis dependence can be seen in about 11% of users with an greater among those who started this habit during adolescence and those who use it daily<sup>2</sup>.

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In year 2004, a National Survey in India also found it to be the most common illicit substance within country<sup>3</sup>. Also, it has been accounted as the 2<sup>nd</sup> most commonly used psychoactive substance by the subjects who undertake treatment at de-addiction centers within the country.<sup>4</sup>

Cannabis use in previous researches has been linked with a increased incidence of various psychiatric disorders. Even withdrawal symptoms of cannabis use disorder is another aspect that has received attention in the past.<sup>5</sup>

Withdrawal symptoms of cannabis cessation as reported are said to be nonspecific However, emerging literature recommended as consistent withdrawal syndrome for cannabis use disorder although the pattern symptoms is not uniform across all heavy users who quit cannabis.<sup>6</sup>

In recent decades, there has been a move toward decriminalization and legalization of cannabis.<sup>7,8,9</sup> . It has been ethnically used in India for a long time, into the ambit of Narcotic Drugs and Psychotropic Substances Act of 1985 (except the cannabis form of bhang).<sup>10</sup>

Therefore, the present study was undertaken with a prime objective to investigate use of cannabis and its dependence along with withdrawal symptoms associated within a study sample obtained from treatment-seeking substance users at an addiction treatment centre.

## **II. MATERIAL AND METHODS**

The present study is an observational cross sectional study which is carried out using questionnaires. The study population is primarily those patients who have opioid dependence and/or alcohol dependence. Treatment is also provided at this centre in the form of medications, psychotherapy, and rehabilitation services. Institutional ethical committee approval was taken in the beginning of our study.

All those subjects who registered themselves at the treatment facility and had used cannabis at least once in the past 6 months were recruited. All those subjects who were not willing to participate or had some symptomatic medical or psychiatric illness were excluded from our study.

Based on our selection criteria, we included 80 subjects from the outpatient services and they were thoroughly assessed by a trained psychiatrists using questionnaires. All the data regarding demographic characteristic and details of substances of use were collected for each subject. The DSM-5 criteria for cannabis withdrawal were utilized. Data were collected from the participants in a single sitting.

## **III. STATISTICAL ANALYSIS**

In the present study data was recorded in the Microsoft Excel sheets. And Mean, standard deviation and percentages were used for the representation of the data.

## **IV. RESULTS**

A total sample of 80 study subjects was enrolled in the study. The demographic details of the patients are tabulated in table 1. The mean age of the study subjects came to 29.4 years. All the participants were males.

Considering the marital status, majority were unmarried comprising of 44 (55%) cases while 34 (42.5%) were married and 2 (2.5%) were widower.

Maximum of the study subjects belonged to urban background. The majority of our patients came for seeking treatment for opiod use related disorders i.e 74 (92.5%), 4 (5%) for cannabis related and 2 (2.5%) for only alcohol use related disorders. Substance dependence with tobacco was the commonest thing encountered in almost 95% of the cases while rest 5 cases were opiod and alcohol dependent.

**TABLE 1:** demographic profile and clinical findings in study population

VARIABLES	NUMBER OF CASES	PERCENTAGE
TOTAL SAMPLE	80	100%
MEAN AGE (yrs)	29.4	
GENDER: MALE	100	100%
MARITAL STATUS:		
UNMARRIED	44	55%
MARRIED	34	42.5%
WIDOWER	2	2.5%
PRIMARY SUBSTANCE FOR UNDERGOING TREATMENT:		
OPIOD	74	92.5%
CANNABIS	4	5%
ALCOHOL	2	2.5%
SUBSTANCE USE DISORDER:		
TOBACCO	76	95%
OPIOD	3	3.8%
ALCOHOL	2	2.5%

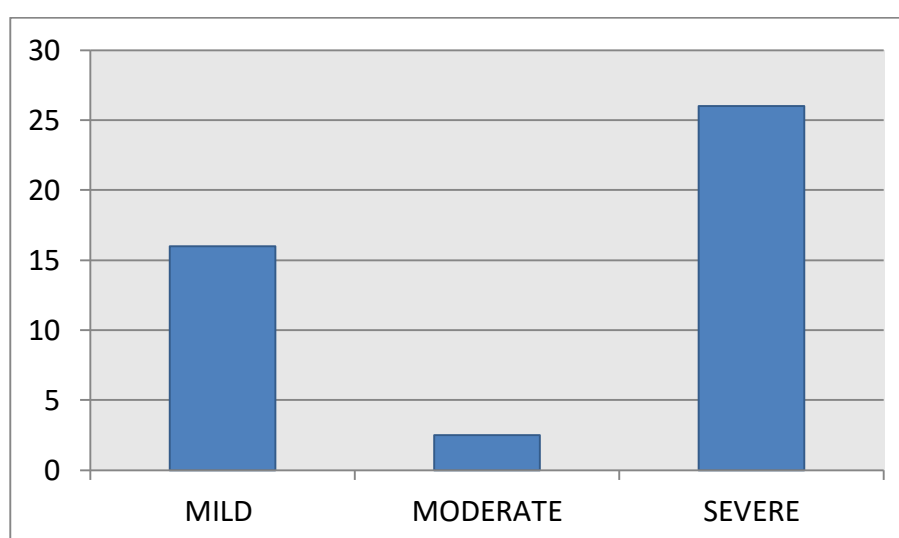
Most common and preferred form of cannabis use was smoking form (78.7%), followed by both smoked and oral forms (21.3%). 51.25% subjects fulfilled the ICD-10 criteria for cannabis dependence in this study. Characteristics of patients with cannabis related disorder (ICD 10 criteria) are tabulated in table 2 showing craving (75%) as the most common feature.

**TABLE 2:** characteristics of patients with cannabis related disorder (icd 10 criteria)

VARIABLE	PERCENTAGE
Craving	75%
Withdrawal	52.5%
Tolerance	70%

Progressive neglect of alternative pleasures	12.5%
Persisting despite harmful consequences	6.25%
Diagnosis	51.25%

Further based on cannabis use disorder, 16 subjects were categorised as mild, 20 subjects as moderate, and 26 subjects as severe having cannabis use disorder. Thus overall we reported 62 subjects (75%) with cannabis use disorder in our study. (Figure 1)



**FIGURE 1:** categories of subjects with cannabis related disorder.

Most common withdrawal features as observed including various symptoms are listed in table 2. The distress criteria were observed in only 31 subjects as having cannabis withdrawal according to this assessment.

**TABLE 2:** observed cannabis withdrawal features (dsm 5 criteria)

WITHDRAWAL FEATURES	PERCENTAGE OF CASES
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<b>SYMPTOMS:</b>	
Apatite loss	68.75%
Weight loss	61.25%
Sleep related problems	57.5%
Anger	40%
Irritability	27.5%
Nervousness	22.5%
Restlessness	18.5%
Depression	18.5%
Discomfort (Abdominal pain ,Tremors, fever, chills or headache)	15%
<b>CLINICAL DISTRESS</b>	<b>38.75%</b>

49 subjects reported of quitting cannabis for atleast a period of 1 month and the most common reason being replacing it by the use of other new substances like opioids. More than 50% subjects knew that cannabis use is harmful. The most common reasons for reuse of cannabis after quitting was reported to be craving.

## V. DISCUSSION

Till date there is paucity in published literature relating to cannabis use disorders and dependence in India. Therefore, the present study was undertaken with a prime objective to investigate use of cannabis and its dependence along with withdrawal symptoms associated within a study sample obtained from treatment-seeking substance users at an addiction treatment centre.

National Drug Dependence Treatment Centre (NDDTC) of the All India Institute of Medical Sciences (AIIMS), New Delhi submitted its Report on “Magnitude of Substance Use in India”. Its Major findings regarding Cannabis (Bhang and Ganja/Charas). **were** as follows: About 2.8% of Indians were reported having used any cannabis product within past 12 months (Bhang – 2% or 2.2 crore people; Ganja/Charas – 1.2% or 1.3 Crore people). Out of these 0.66% of Indian needs help for their cannabis use problems. They reported that bhang use is more common than ganja/charas, but it was seen that prevalence of harmful/dependent use was relatively high for ganja/charas users. Most common states with higher than national prevalence of cannabis use are Uttar Pradesh, Punjab, Sikkim, Chhattisgarh and Delhi. While states like Sikkim and Punjab had relatively high prevalence as high as more than three times the national average for cannabis use disorders.<sup>11</sup>

In the present study, most common and preferred form of cannabis use was smoking form (78.7%), followed by both smoked and oral forms (21.3%). 51.25% subjects fulfilled the ICD-10 criteria for cannabis dependence in this study. Craving (75%) was the most common characteristic feature.

Further in our study 16 subjects were categorised as mild, 20 subjects as moderate, and 26 subjects as severe having cannabis use disorder. Thus overall we reported 62 subjects (75%) with cannabis use disorder in our study. Venkatesan *et al.* in their study observed cannabis use in 28% of the polysubstance users, second only to alcohol.<sup>12</sup> Aich et al reported a prevalence rate of 54.3 per cent. Sixty per cent of them were using cannabis along with tobacco while 42 and 5 per cent were using alcohol and opioids, respectively.<sup>13</sup>

We reported, most common withdrawal features as apatite loss, weight loss, sleep related problems, anger, anxiety. The distress criteria were observed in only 31 subjects as having cannabis withdrawal according to this assessment. In similarity with ours Sarkar S et al also reported such findings but in their study sleep related disorders were most common symptoms<sup>10</sup>. Various Previous studies have shown that regular cannabis users also presented with hyperactivity, mood changes, delusions and hallucinations.<sup>14-16</sup>

Our results showed that 49 subjects reported of quitting cannabis for atleast a period of 1 month and the most common reason being replacing it by the use of other new substances like opioids. More than 50% subjects knew that cannabis use is harmful. The most common reasons for reuse of cannabis after quitting was reported to be craving.

## VI. CONCLUSION

We can conclude from our findings that cannabis is a common companion drug among treatment seekers at de-addiction centers in our study population. Hence, it is important to focus on cannabis and its related use disorders and further more such studies with a multicentric approach should be conducted to overcome the hindrances in treatment of cannabis use disorder patients.

## REFERENCES

1. New York: United Nations Publication; 2014. United Nations Office on Drugs and Crime. World Drug Report 2014.
2. WHO: The Health and Social Effects of Nonmedical Cannabis Use. 2016. [http://who.int/substance\\_abuse/publications/msbcannabis.pdf?ua=1](http://who.int/substance_abuse/publications/msbcannabis.pdf?ua=1).
3. Ray R, editor. The Extent, Pattern and Trends of Drug Abuse in India - National Survey: New Delhi. Ministry of Social Justice and Empowerment, Government of India and United Nations Office on Drugs and Crime. 2004
4. Balhara YP, Mishra A, Sethi H, Singh S, Khandelwal SK. Time Trends of Cannabis Use Among Treatment-seeking Individuals at Government De-Addiction Centers Across India Over a Period of 7 Years. Indian J Psychol Med. 2016;38(4):331–335. doi:10.4103/0253-7176.185961
5. Budney AJ, Hughes JR, Moore BA, Vandrey R. Review of the validity and significance of cannabis withdrawal syndrome. Am J Psychiatry 2004; 161:1967-77.
6. Budney AJ, Novy PL, Hughes JR. Marijuana withdrawal among adults seeking treatment for marijuana dependence. Addiction 1999; 94:1311-22.

7. Imtiaz S, Shield KD, Roerecke M, Cheng J, Popova S, Kurdyak P, *et al.* The burden of disease attributable to cannabis use in Canada in 2012. *Addiction* 2016; 111:653-62
8. Rella JG. Recreational cannabis use: Pleasures and pitfalls. *Cleve Clin J Med* 2015; 82:765-72
9. Sznitman SR, Zolotov Y. Cannabis for therapeutic purposes and public health and safety: A systematic and critical review. *Int J Drug Policy* 2015; 26:20-9.
10. Kilmer B. Policy designs for cannabis legalization: Starting with the eight Ps. *Am J Drug Alcohol Abuse* 2014; 40:259-61.
11. Sarkar S, Parmar A, Singh A. An exploratory study of cannabis use pattern and treatment seeking in patients attending an addiction treatment facility. *Indian J Psychiatry* [serial online] 2020 [cited 2020 Apr 23]; 62:145-51.
12. Obtained from: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=188688&fbclid=IwAR1RxwrAqyF440zHF0XxvJ4Jc6TW5Un539iB4NDMIBha4pQF4RQHbuRydPw>
13. Venkatesan J, Suresh SS. Substance dependence: Decades apart in a teaching hospital. *Indian J Psychiatry*. 2008; 50:100–5.
14. Aich TK, Sinha VK, Khess CR, Singh S. Demographic and clinical correlates of substance abuse comorbidity in schizophrenia. *Indian J Psychiatry*. 2004; 46:135–9.
15. Goel D, Netto D. Cannabis: The habit and psychosis. *Indian J Psychiatry*. 1975; 17:238–43.
16. Thacore VR, Shukla SR. Cannabis psychosis and paranoid schizophrenia. *Arch Gen Psychiatry*. 1976; 33:383–6
17. Bagadia V, Copalani J, Pradhan P, Shah L. Habitual use of Cannabis indica in psychiatric patients. *Indian J Psychiatry*. 1976; 18:141–6.