# Risk Assessment of Cannabis Use by Cannabis Abuse Screening Test among Medical Students

## Muhammad Umer<sup>1</sup>, Muhammad Mohsin Aftab<sup>2</sup>, Maham Farooq<sup>3</sup>

- <sup>1.</sup> Medical officer health bridge Hospital
- <sup>2</sup>. Training DGO Sheikh Zayed Hospital
- <sup>3</sup>. Demonstrator, Institute of Public Health

#### Abstract

**Objective:** To assess the risk of cannabis use among medical students of MBBS; identify the frequency regarding cannabis use among medical students and categorize those students according to Cannabis Abuse Screening Test (CAST).

**Method:** This cross-sectional study was conducted at Shalamar Medical and Dental College over a period of one month. A total of 207 MBBS students were selected through simple random sampling after obtaining informed consent. Data was collected using a structured questionnaire and the Cannabis Abuse Screening Test. Statistical analysis was performed using SPSS version 25.0. Chi-square test was applied to assess associations between study variables.

**Results:** The study results reveal that 51.7% (107) participants were female and 48.3% (100). 24.6% (51) participants belong to extended family type while 75.4% (156) were from nuclear family. Additionally, 57% (118) were day scholars while 43% (89) were residing in hostel. 9.7% were married and 90.3% were single.

**Conclusion:** Frequency of smoking cannabis is significantly high in age slab 21-24 years especially males who were single and whose parents have monthly income between PKR 10000 to 50000, with pocket money less than 20,000 per month.

Introduction

drug abuse.

methodological approach World Health Organization claims that around 2.5% of identification of cannabis users, but the validity of population of world consume cannabis. Substance DSM in detecting less severe cannabis related effects abuse is a global problem with its significant risks for has been criticized in the context of youth and young medical students. Medical students are at risk due to adults. CAST is accurate tool to differentiate between easy access to drug, work pressure, sleepless nights user with low, moderate and high risk of being affected and relative isolation from friends and family, by cannabis related problems. Cannabis are prescribed Researches shows that estimated prevalence rate of by general practitioners in health sector. For cannabis substance abuse among students is around 20 to 40% units as the Standard Joint Unit (SJU) helps in worldwide. Nepal shows dreadful conditions.<sup>1</sup>

Iran has conducted many studies on college students in order to find out the association of aggression and Different conclusions may be drawn from different addiction as they are of the view that less attention has populations, most importantly convenient sampling of been paid to effect of anger and incidence of drug volunteers. CAST contain continues variables, where as addiction in medical students. Long term damage in they are based on 5point scale. Robust estimators are the form of addiction in medical students can endanger currently implemented in structural equation model the health of general population.<sup>2</sup> Use of addictive software to find out the categorical nature of items.<sup>8</sup> materials like Alcohol, Tobacco, and Cannabis are major health issues for young generation now a day<sup>3</sup> Material & Method

with major health issues like cardiovascular disease, respiratory disorders, emphysema and cancer.<sup>4</sup> Sexual This cross-sectional study was conducted at Shalamar

Internationally Marijuana is the most commonly used line graphs, histograms, scatterplots, and boxplots. substance of abuse throughout the world.<sup>5</sup>

It is reported that around 200million people have used cannabis one in 2019. In some cases, use of cannabis can evolve into loss of control through the development of Cannabis Use Disorder (CUD), a condition that is associated with progressive social and were day scholars while 43% (89) were living in hostel. psychological outcomes. While global cannabis use 9.7% were married and 90.3% were single (table 1&2). has increase by 60% in past few years.<sup>6</sup> Majority of the researches concerning abusive cannabis use has 5.3% students out of 207 had smoked cannabis in last been limited to adult samples with major concern for 12 months (table 3). Stratification of CAST scoring is prevalence of CUD diagnosis as defined by given in table 3 and 4. Related to risk scoring, 93.7% International Classification of Disease or Diagnostic students were at low risk i.e. 0 score. 1% students were and Statistical Manual of Mental Health.<sup>7</sup> This

Pakistan Journal Of Health

homogenous registration of cannabis use, including quantities consumed.

has been

useful for

relationships are also a major contributing factor for Medical and Dental College, Lahore, over one month. A total of 207 MBBS students participated, selected

through simple random sampling after providing Cannabis is next to alcohol and tobacco in informed consent. Data was collected using the consumption throughout the world. Cannabis is a Cannabis Abuse Screening Test (CAST) and a generic term used to present different psychoactive structured questionnaire, filled manually by the preparations of the plant Cannabis sativa. More than researcher. The importance and public health impact of half of the drug seizures throughout the world are the study were explained to all participants. Data was cannabis seizures. Marijuana is extracted from plant entered and analyzed using SPSS version 25.0. Chi-Cannabis sativa with active compound. Cannabinoids. square test was applied to assess associations between Cannabinoids act through 2 different receptors present variables. Categorical data was presented using bar and on brain, lungs, immune system and kidneys. pie charts, while continuous data was illustrated with

#### Result

Study results revealed that 51.7% (107) participants were females while 48.3% (100) were males. 24.6% (51) participants belong to extended family structure while 754% (156) were from nuclear family. 57% (118) at moderate risk with 5 score. Rest of the students **Table 2: Frequency distribution of CAST questions** were at high risk with scores 7 and above.

The mean age of the study sample was  $22.07\pm1.853$  and mean score for risk was  $0.5459\pm2.349$ .

# Table 1: Descriptive statistics of age, family income and pocket money

CHARACTERISTICS	PARTICIPANTS (n=207)
Age (years)	22.07±1.853
17-20 years	47 (22.7%)
21-24 years	151 (73.0%)
25 years or above	9 (4.3%)
Family income (PKR)	430753.01±65589.81
Pocket money	24107.97±40528.52

		Frequency	Percent
Have u smoked cannabis in last 12 months?	no	196	94.7
	yes	11	5.3
Have u smoked cannabis before mid-day?	0	197	95.2
	1	3	1.4
	2	5	2.4
	3	1	0.5
	4	1	0.5
Have u smoked cannabis when u where alone?	0	196	94.7
	1	2	1.0
	2	4	1.9
	3	2	1.0
	4	3	1.4
Have u had memory problems when u smoked cannabis?	0	199	96.1
	1	4	1.9
	2	2	1.0
	3	1	0.5
	4	1	0.5
	0	200	96.6
Have friends or members of your family told you that you ought to reduce your cannabis use?	1	2	1.6
	2	3	1.4
	3	2	1.0
Have you tried to reduce or stop your cannabis use without succeeding?	0	200	96.6
	1	3	1.4
	2	1	0.5
	3	1	0.5
	4	2	1.0
	0	198	95.7
Have you had problems because of your use of cannabis?	1	4	1.9
	2	1	0.5
	3	2	1.0
	4	2	1.0

# Discussion

According to WHO, Marijuana usage affects around 147 million people per year. About 22.2 million Americans aged 12 or older admitted to using cannabis regularly in 2014, with 8.4% of them saying that they had done so in the preceding month.<sup>9</sup> Medical students are at risk of cannabis addiction due to easy access, sleepless nights and isolation from social life.

According to the office of Alcohol and drug or stop their cannabis use without succeeding, 1.4% education, one can divide addiction into two students rarely tried to reduce or stop their cannabis use categories; one is physical abuse and second is without succeeding, 0.5% students tried time to time to psychological abuse. In physical abuse, one's body reduce or stop their cannabis use without succeeding, needs the drug and in second type the user deliberately 0.5% students fairly often tried to reduce or stop their desires the drugs affects.<sup>10,11</sup> Cannabis consumption as cannabis use without succeeding, 1% students tried per age groups was reported by 3.7% in people with very often to reduce or stop their cannabis use without age below 20 years and 6.4% with age above twenty succeeding. Q6, 95% students never had problems vears.<sup>11</sup>

group, family income, residence, pocket money, their use of cannabis, 1% students had problems fairly gender and frequency of cannabis use. In this study because of their use of cannabis, 1% students had mean age of participants was 22.07±1.853 years. problems very often because of their use of cannabis. Frequency of cannabis smoking in study population they were alone. O3. 96.1% students never had value=0.004). memory problems when they smoked cannabis, 1.9%

students rarely had memory problems when they smoked cannabis, 1% students had memory problems from time to time when they smoked cannabis, 0.5% students of MBBS, frequency of cannabis consumption students fairly often had memory problems when they smoked cannabis while 0.5% had memory problems very often when they smoked cannabis. Q4, friends and members of 96.6% student's family never told month. Students of nuclear family structure are more them that they ought to reduce their cannabis use, prone to cannabis addiction. Most students were at low friends or members of 1% student's family rarely told risk of cannabis addiction. family fairly told them that they ought to reduce their community.

cannabis use. Q5, 96.6% students never tried to reduce

Pakistan Journal Of Health

because of their use of cannabis, 1.9% students rarely had problems because of their use of cannabis, 0.5% Following variables were studied in this study: age students had problems from time to time because of

was found to be 4.8%. Mean family income was high In a population based study, cannabis use was reported and median was 300000 with IQR of 350000. as 21.5 in overall out of which 13.9% were students. Previously in a study, cannabis abuse was reported to 12.5% of adults who reported using cannabis in the be11.1% and were highest in France (15.2) and were preceding year also reported using it regularly, lowest in Kosovo (2.5).<sup>12</sup> In this study, Q1 95.2% according to a condition probability. There was a students never smoked cannabis before mid-day, 1.4% substantial age dependent dose response gradient, with students rarely smoked cannabis before mid-day, 2.4% older pupils using cannabis more frequently than students smoked cannabis from time to time before younger ones. In multivariable analysis, grades 10 mid-day, 0.5% students fairly often smoked cannabis through 12 (OR arranged from 3.71 to 3.85), race (ORs before mid-day while 0.5% smoked cannabis very 2.67), cigarette use (OR 10.10) and alcohol use (OR often. O2, 94.7% students never smoked cannabis 5.35) or regular use (14.6) were all link to higher odds when they are alone, 1% students rarely smoked of cannabis use. Cannabis consumption was related cannabis when they are alone, 1.9% students smoked with a reduced likelihood of immigration (OR 0.55). cannabis from time to time when they were alone, 1% When data was stratified marital status versus low or students fairly often smoked cannabis when they were moderate/high risk, majority of the participants were in alone while 1.4% smoked cannabis very often when low risk category and the result was significant (p-

## Conclusion

From findings of the study, it is conducted that among is high in age of 21-24 years especially in males who are single and have parents with monthly income 10000 to 50000, with pocket money less than 20,000 per

them that they ought to reduce their cannabis use, There is need of special awareness program launch with friends and members of 1.4% of student's family told special focus on students belonging to above discussed them time to time that they ought to reduce their variables. In future there is also need to dig out causes cannabis use, friends and members of 1% student's which trigger consumption of cannabis in student's References

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