

# Relaxation and Reducing Stress by Cannabinoids use among Medical Students in Bulgaria

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**Abstract:** *Substance abuse is one of the most important factor of today's social issues, with an estimated 4.7% of the global population over the age of 15 consuming illicit drugs annually. The aim of our study is to determine a frequency of cannabinoid use among medical students during the first year of education in Medical University, Pleven, Bulgaria. In our study included 300 randomly selected students at the Medical University, Pleven, Bulgaria in age between 18 – 20 years. All 300 students were screened with– DUDIT. Then included students were asked to provide urine test for use of cannabinoids. After they did urine test for use of cannabinoids is found that in the group of students 83 (27,7%) have used cannabis. Among the group of medical students 67 (80,7%) use cannabis for relax, to forget problems or to alleviate stress. The data from our study showed that there is a real problem among medical students who use marijuana for relaxation.*

**Keywords:** reducing stress, cannabinoids, medical student

## 1. Introduction

Substance abuse is one of the most important factor of today's social issues, with an estimated 4.7% of the global population over the age of 15 consuming illicit drugs annually. [1] Substance abuse refers to a maladaptive pattern of substance use leading to clinically significant impairment or distress, manifested by one or more of the following symptoms within a 12 month period: recurrent substance use in situations that cause physical danger to the user; recurrent substance use in the face of obvious impairment in school or work situation; recurrent substance use despite resulting in legal problems or recurrent substance use despite social or interpersonal problems. [2]

Family plays a key role in preventing tobacco, alcohol and illicit substance use and to promote health among teenagers. According to the National School of Health (NSH) survey, living with both parents is a protective factor for smoking, drinking and drug abuse and things as minor as sharing a meal with parents and the fact that the parents know what the adolescents do in their spare time are also protective factors. The most common deterrents against substance abuse include morality, religion and harmful effects of drugs.[3]

The stress of family life, student life, and living in a state of political and economic uncertainty are all contributing factors to the desire to use illicit substances. In a 2006 study conducted on Pakistani medical students belonging to a private institute, 96% of students attenuated peer pressure to be one of the major reasons for using drugs, with academic stress following at a close 90%, and curiosity at 88%. [4] Another study conducted among Norwegian adolescents gave similar results attributing curiosity and peer pressure to be the major reasons for students abusing drugs with family conflicts, school and mental problems following closely. [5] In a study carried out on a Thai population, male gender was associated with every untoward drug-related behaviour. Another important risk factor was poor self-esteem while

socio-environmental factors included being in a gang and loneliness. [6] Living away from home especially in a college male hostel predisposed one to substance abuse. [7,8] Even among medical students, who are expected to be aware of the harmful nature of illicit substances, there is a significant bout of illicit substance abuse, with the drug of choice usually being cannabis, also known as a "gateway drug" as it is the strongest predictor of future cocaine use.[9,10] The United Nations Office on Drugs And Crime (UNODC) 2008 estimates suggest that Asia contains the greatest number of cannabis users (51 million), almost a third of the estimated total, ahead of Africa (42 million) and America (41 million) which account for about a quarter each of the total number of cannabis consumers. The medical personnel are especially vulnerable to substance abuse and dependence due to their ready accessibility to the substance. Many studies have estimated this prevalence among medical students who have even been known to use methylphenidate in order to enhance their academic performance. [11] However, in this study the objective was to investigate students' perceptions of the cannabinoid derivative, hashish, which is a commonly known, illicit recreational substance that is particularly popular in Pakistan. The United Nation's Illicit Drug Trends Report on Pakistan, reveals that "cannabis is the most commonly abused substance and 'drug of choice' given its low price and easy availability." [12] It is understandable that knowledge about the desirable and undesirable effects of the drug may significantly alter the drug's usage. We, therefore, aimed at assessing the attitude and perception of professional students in medicine, business and law schools of Karachi, regarding the use of cannabis. The results of the study will be used to provide awareness to university students and faculty.

## Aim

The aim of our study is to determine a frequency of cannabinoid use among medical students during the first year of education in Medical University, Pleven, Bulgaria

## 2. Materials and Methods

In our study included 300 randomly selected students at the Medical University, Pleven, Bulgaria in age between 18 – 20 years. Circulated Drug Use Disorders Identification Test – DUDIT during the lecture and asked students if desired to participate in the study to record their telephone numbers. All 300 students were screened with– DUDIT. The study included men with  $\geq 6$  points DUIT and women  $\geq 2$  points DUDIT. These limits on both scales are methodologically consistent with our designs and other similar studies. Then included students were asked to provide urine test for use of cannabinoids.

## 3. Results

After they did urine test for use of cannabinoids is found that in the group of students 83 (27,7%) have used cannabis. Of students with a positive urine test for cannabinoids use are 26 (31,3%) women and 57 (68,7%) men. We have designed a questionnaire containing six closed questions. All 83 participants completed self-administered questionnaire. Among the group of medical students 67 (80,7%) use cannabis for relax, to forget problems or to alleviate stress ( $p < 0,001$ ), gender distribution was as follows 14 (53,8%) of women and 53 (93%) of men. 3 (3,6%) use cannabinoids for pleasure, to enjoy its psychoactive effects and 13 (15,7%) use cannabinoids to spend good time with friends, to have fun in parties

## 4. Discussion

Our research finds that the first years of medical education are related to a lot of new knowledge. Medical students looking for cannabinoids effect of relaxation and reducing stress

The data from our study showed that there is a real problem among medical students who use marijuana for relaxation. We believe that a possible solution to this problem is a medical psychologist who will helps to overcome the stress of the massive medical knowledge they have to learn in the first course. We believe that sports classes should be increased in order to better adapt to the university and reduce stress. It is possible to reconsider the education program and to replace some items from the first course in the second year.

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