

# Abstract.

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**“Debunking myths - illegal substance use among Polish university students. Comparison of prevalence in medical and non-medical students. Determination of risk factors. “**

## **Introduction**

Studying medicine is for many, especially those not connected with healthcare, often synonymous with sleepless nights devoted to studying and with supposedly unmatched effort connected with finishing those studies. Such convictions are sometimes accompanied by a very harmful, usually supported only by anecdotal evidence, picture of a medical student who has to resort to narcotics in order to keep up with the pace of his studies. The following research was designed to provide objective data in this, apparently, not in-depth investigated topic.

## **Aim of the study**

The aim of the study was to investigate prevalence and factors associated with illegal substance use among Polish university students and to compare the extent of the phenomenon between different faculties.

## **Material and methods**

An internet questionnaire was distributed through social media. Data on age, gender, year of study, faculty, and use of certain psychoactive substances (both legal and illegal) during studying were collected. What is more, respondents were able to add custom responses to the multiple-choice question about the substances used (thus mentioned drugs were then manually classified as legal or illegal). Additionally, two 5-point Likert-like scale based questions were introduced in order to quantify actual interest taken in the subject of their studies and potential environmental pressure choose certain faculty or to take up higher education in general. Numerical variables are presented as the mean  $\pm$  standard deviation, The Shapiro-Wilk W test was used to test the normality of distribution; Mann-Whitney U test was used to compare outcomes between independent groups. Chi-Square test was used to compare distributions of binomial and interval variables. Logistic regression was used to determine the factors associated with illegal substance use. Analyses were performed using RStudio v.1.1.423. Database and scripts are available upon request.

## **Results**

In total, 792 university students from over a hundred different faculties responded to the survey, medical students comprised 34,34% (n=272) of the sample. Neither the age ( $21.60 \pm 2.41$ ), nor the years of study and ( $2.71 \pm 1.38$ ) were normally distributed values. In general, students who claimed to have used illegal substances during studying had experienced more pressure to take up their studies than those who claimed otherwise ( $2.34 \pm 1.52$  vs.  $1.83 \pm 1.17$ ,  $p=0.016$ ). Additionally, they were less interested in the subject they were studying ( $3.68 \pm 1.2$  vs.  $4.06 \pm 0.9$ ,  $p=0.039$ ). There were no significant differences in the age or year of study between these two groups ( $p=0.821$  and  $p=0.203$ , respectively). What is more, a smaller percentage of medical students, as compared to other students, claimed to have used illegal substances, however the difference was not statistically significant (5.51% vs. 7.78%,  $p=0.276$ ). Four independent factors associated with illegal substance use were identified by means of logistic regression: male sex (OR 2.13, 95%

CI 1.18-3.77), caffeine consumption during studying (OR 3.720, 95% CI 1.67- 9.94), higher degree of being pressured to study at a certain faculty (OR 1.30, 95% CI 1.05-1.60) and, most importantly, studying at a medical university (OR 0.42, 95% CI 0.23-0.76).

## **Conclusions**

Although the studied sample was only a small fraction of the Polish student community, it clearly shows that there is an association between the faculty and illegal substance use and it seems that the association is contrary to the popular belief. What is more, the outcomes of Likert-like scale based question suggest an inverse relationship between the overall motivation to study and the need to use illegal drugs while studying. Without doubt, more research is needed in the subject.