



Effects of social interactions on psychoactive substance use by medical students

Efekti socijalne interakcije na zloupotrebu psihoaktivnih supstanci među studentima medicine

To the Editor:

Psychoactive substance (PS) use is a wide-spread problem causing economic losses, ecologic damage, population and moral decline which makes it a major threat to social stability and development as well as national health and well-being. Russia is currently facing a serious and dramatic problem associated with PS use by young people which is characterized by high prevalence showing a tendency to increase, a significant number of people at risk, and a growing rate of PS use by females that has never been seen before¹.

Alcohol consumption by medical students remains a pressing issue affecting health, promoting risky sexual behavior, and impeding academic progress²⁻⁸. Higher education institutions often become environments that facilitate regular alcohol use and form a certain mode of behavior that leads to alcohol addiction⁹. Popular mentality and youth culture (including student culture) often form a strong social and psychological stereotype which either makes PS use an acceptable popular norm of behavior to be followed, or equates PS use to a normal aspect of everyday life, tradition or obligatory ritual¹⁰.

Compared to other educational institutions, medical schools are known for heavy study loads, increased stress levels, and specific psychological characteristics of students. Several researchers note three critical periods in higher education – during the first, third and fifth year¹¹. These aspects along with other predisposing factors may lead to heavy drinking in some students potentially triggering addiction^{12,13}.

Some researchers¹⁴⁻¹⁷ divide risk factors for PS use by young people into external (geopolitical, demographic, as well as social environment factors) and internal (personal and behavioral) ones.

The role of social interactions of young people in developing a habit of PS use merits closer inspection due to the fact that environment (both family and academic) may affect biological and individual factors in different ways^{14,18-22}.

We analyzed the results of 880 students who were asked to fill in a special questionnaire related to PS use.

The prevalence of smoking in students was $28.4\% \pm 1.5\%$. Smoking was more common in males ($39.0\% \pm 2.9\%$) than females ($23.4\% \pm 1.7\%$) ($p < 0.01$).

Alcohol use within the last 6 months was reported by $66.6\% \pm 1.6\%$ of respondents. About half of them (51.2%) consumed alcohol sporadically, less than a half (42.7%) several times a month, 5.8% several times a week and 0.3% reported daily use.

Wine and hard liquor were the most popular beverage types (24.6% and 20.9%, respectively) followed by champagne (17.8%), beer (16.0%), cocktails made of hard liquor (14.9%) and others.

Presented results indicate that $6.0\% \pm 0.8\%$ of students used drugs. Drug use over the period of 6 months was more prevalent in males ($10.6\% \pm 1.8\%$) than in females ($3.8\% \pm 0.8\%$) ($p < 0.01$). Marijuana and hashish were the most common drugs among medical students who used drugs with 78% reporting using these substances. Other PS types were much less common with tranquilizers, amphetamines, mushrooms and ecstasy used by 8.3%, 5.1%, 5.1% and 3.5% of respondents, respectively.

Among social interaction aspects influencing PS use by students, family environment is the first to draw attention. Living apart from parents was associated with a significantly higher prevalence of smoking and alcohol consumption in contrast to living with them ($p < 0.01$). Apart from that, students living in dormitories reported higher rates of smoking and drinking than those living in a flat or a house (Table 1).

Table 1

Smoking and alcohol consumption within the last 6 months in students living in different conditions

Living conditions	Smoking	Drinking
Flat	26.5 ± 1.7	65.8 ± 1.9
Room in communal apartments	28.2 ± 7.2	64.1 ± 7.7
House	22.8 ± 5.6	52.6 ± 6.6
Dormitory	$39.2 \pm 4.1^*$	$76.2 \pm 3.6^{**}$

Note: Results are given as mean \pm standard deviation in percentage of respondents.

* – $p < 0.05$; ** – $p < 0.01$.

The results indicate that PS use can be reliably predicted by PS use in high school. However, there are certain changes in PS use patterns that are caused by changes in living conditions. Young people who continued living with their parents had the lowest level of alcohol and marijuana use compared to those who had other living conditions. The biggest changes were observed in respondents who left home. The authors suggest that higher PS use is associated with lack of parents' control²³.

Married people consumed alcohol more frequently than single ones ($p < 0.05$). This factor may be associated with financial aspects and certain individual risk factors. The results indicate that respondents who have to impose limits on some aspects of their lives due to financial problems (having to eat away from home, refrain from purchasing desired devices or appliances or skip on entertainment with friends) consumed alcohol 17% more frequently than their peers who faced no financial issues ($p < 0.01$).

Students who had family members abusing PSs were more frequent smokers ($p < 0.05$), drinkers ($p < 0.01$) and drug users ($p < 0.01$). Therefore, living in a family with no history of PS abuse may be considered a protective factor.

Difficulty in socialization and interaction with fellow students contributed to more frequent alcohol consumption. Among students who had healthy relationships with their group mates, the prevalence of alcohol consumption was 65.5%, and among students who failed to have rapport with their peers – 77.9% ($p < 0.05$). Students who showed no in-

terest in socializing with group mates consumed alcohol 20% more frequently and used drugs 4 times more often than those who established good communication with peers ($p < 0.01$). Communication problems with peers including fellow students were previously studied by other researchers²⁴.

If student's self-esteem becomes too low, it may result in withdraw from the social group, stop attending classes and ignore social norms altogether as these factors are the reasons behind negative attitudes and critical feelings towards oneself. In that case, he/she starts to search a new social group which approves their deviant behavior. In cases such as this, PS use may become a means of improving self-esteem²⁵.

Therefore, it can be concluded that only a multifaceted approach to PS use incorporating social aspects (educational and family in particular) will effectively decrease the influence of negative factors on medical students' health and lifestyle.

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