

THE PREVALENCE OF ALCOHOL CONSUMPTION AMONG STUDENTS AT THE UNIVERSITY OF BELGRADE

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SUMMARY

Introduction/Objective The objective of this study was to determine the prevalence of alcohol use in the student population of the University of Belgrade.

Methods The cross-sectional study was conducted in a population of 2,000 students of the Belgrade University. Four faculties (Medicine, Geography, Economics, Electrical Engineering) from which the students participating in this research were chosen by the method of random choice (by computer listing), conducted in the period April - June 2010.

Results Among our respondents, the highest amount of spirits is consumed by respondents from the Faculty of Electrical Engineering, with 22% of them consuming more than 6 shots on each occasion, while the smallest number of students who drink more than 6 shots on each occasion are from the Faculty of Economics, with 8%. Students from the Faculty of Electrical Engineering, who have the lowest prevalence of cigarette use, consume alcohol in a binge drinking pattern. The highest frequency of binge drinking in the past year and in the past month before the survey was among respondents from the Faculty of Geography.

Conclusion There is a need for developing a conscience about all the effects that alcohol has, especially physical ones which are not usually noticed immediately; taking responsibility for own actions; working on a healthy life style and educating people to enhance and improve their health control.

Keywords: Alcohol, University students, prevalence.

SRPSKI

PREVALENCIJA UPOTREBE ALKOHOLA MEĐU STUDENTIMA UNIVERZITETA U BEOGRADU

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SAŽETAK

Uvod/cilj Cilj ove studije je bio da se odredi prevalencija upotrebe alkohola u studentskoj populaciji Univerziteta u Beogradu.

Metode Sprovedena je studija preseka u populaciji od 2 000 studenata Univerziteta u Beogradu. Četiri fakulteta (Medicinski, Geografski, Ekonomski, Elektrotehnički), čiji su studenti učestvovali u ovom istraživanju u periodu april-jun 2010. godine, bila su izabrana metodom slučajnog izbora (preko kompjuterskog listinga).

Rezultati Među našim ispitanicima, najveću količinu žestokog pića konzumiraju ispitanici sa Elektrotehničkog fakulteta, pri čemu 22% njih konzumira više od 6 čašica u svakoj prilici, dok je najmanji broj studenata koji piju više od 6 čašica u svakoj prilici sa Ekonomskog fakulteta, njih 8%. Studenti Elektrotehničkog fakulteta, koji imaju najnižu prevalenciju upotrebe cigareta, konzumiraju alkohol po „binge“ obrascu. Najveća učestalost opijanja u poslednjih godinu dana i poslednjih mesec dana pre anketiranja bila je među ispitanicima sa Geografskog fakulteta.

Zaključak Postoji potreba za razvijanjem svesti o svim efektima koje alkohol ima, posebno fizičkim, koji se obično ne uočavaju odmah, preuzimanjem odgovornosti za vlastite postupke, radom na zdravom načinu života i edukacijom ljudi kako bi se poboljšala kontrola zdravlja.

Ključne reči: Alkohol, studenti, prevalencija.

INTRODUCTION

The World Health Organization (WHO) identified several factors that influence alcohol consumption, including gender, age, health status, economic wealth, lifestyle choices, religion, and cultural norms. In three regions, more than half of the population has consumed alcohol: 59.9% in the European Region, 54.1% in the Region of the Americas, and 53.8% in the Western Pacific Region (1). Alcohol is linked to more than 200 diseases and results in various negative social consequences. The global death toll from all causes increased from 53.5 million in 2010 to 56.4 million in 2016 (1). The results revealed that the majority of people preferred drinking beer (57.7%), followed by alcohol-based smoothies (22.2%). This may be because beer is easily accessible to students, offering a low price and a lighter taste and alcohol content compared to spirits. Additionally, alcohol smoothies, which combine liquor with sweetened drinks, are popular for their appealing flavor and the fact that drinkers don't feel overly intoxicated (2).

Unhealthy alcohol consumption is a significant public health issue, contributing to high rates of morbidity and mortality, and is the leading health risk factor for individuals aged 15-49 worldwide. Students' social environments and academic pressures often promote unhealthy behaviors, including excessive alcohol use; as a result, they typically consume more alcohol than their non-student peers of the same age (3).

Adolescence and youth are periods marked by significant changes in the formation, adoption, or abandonment of consumption habits and lifestyles. Studying the use of substances, such as alcohol, is essential at this stage because of the long-term effects this consumption can have in adulthood (4).

Personal maturation, transitioning to university or the workforce, and the family or social environment are key factors in reinforcing these habits. In particular, family socialization forms the foundation for the development of an individual's personality, attitudes, values, and self-concept (4). Several international studies have found that a family history of alcohol use, along with a background of family dysfunction, increases the likelihood of risky alcohol consumption among young people (5).

Numerous international studies have examined alcohol consumption patterns among university students [6,7,8]. While the prevalence of hazardous drinking and binge drinking varies across different regions, there is a noticeable increase in binge drinking within this population. Research consistently indicates that young people tend to drink more during late adolescence and early adulthood, with young adults being particularly susceptible to binge drinking (9). Therefore, beyond identifying alcohol consumption in this group, it is crucial to understand the pattern of consumption, as the type of alcohol intake plays a key role in the development of alcohol-related issues (9).

The aim of our study is to determine the prevalence of alcohol use in the student population of the University of Belgrade.

METHODS

A cross-sectional study was conducted with a sample of 2,000 students from the University of Belgrade. The participants were randomly selected (via computer listing) from four faculties—Medicine, Geography, Economics, and Electrical Engineering—during the period of April to June 2010. An equal number of students from each faculty, representing different academic years, were surveyed on the day they attended practical training.

The primary data collection tool was a standardized epidemiological questionnaire developed at the Institute of Epidemiology, Faculty of Medicine in Belgrade, which has been used in similar studies. The questionnaire covered demographic information (such as gender, age, faculty and year of study, place of residence, and parents' education) as well as behavioral characteristics (including reasons for starting the habit and attitudes towards its harmful effects). A specific section of the questionnaire focused on alcohol consumption.

To assess depression and anxiety, the Hamilton Depression Rating Scale (HAM-D) and the Hamilton Anxiety Rating Scale (HAM-A) were used, with evaluations conducted by a psychiatrist. Participation was voluntary and anonymous. The study was approved by the Institutional Review Board, and informed consent was obtained from all students who chose to participate.

RESULTS

A total of 2,000 students from the University of Belgrade participated in the study, consisting of 860 (43%) males and 1,140 (57%) females. The average age of the participants was 21.5 years. An equal number of students (500) from each faculty and academic year were included in the survey. The response rate was 99.8%.

Table 1 shows the distribution of respondents by faculty in relation to the frequency of alcohol consumption. It was observed that the highest number of students who never consume alcohol is from the Faculty of Medicine (26.5%). The largest proportion of students who drink once a month is also from this faculty, compared to the others (43.1%). The table further reveals that the highest frequency of alcohol consumption is among students of the Faculty of Electrical Engineering, while the lowest is among students of the Faculty of Medicine. A statistically significant difference in the frequency of alcohol consumption was found among the surveyed students, with a χ^2 test result of ($\chi^2=127.9$; $p=0.001$).

Table 1. Distribution of respondents by faculty in relation to alcohol consumption frequency

| Faculty | Frequency of alcohol consumption | | | | | | | | | | Total | |
|------------------------|----------------------------------|------|-------------|------|---------------------|------|--------------------|------|--------------------------|-----|-------|-----|
| | never | | 1 per month | | 2-4 times per month | | 2-3 times per week | | 4 or more times per week | | | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Medicine | 129 | 26.5 | 210 | 43.1 | 124 | 25.5 | 20 | 4.1 | 4 | 0.8 | 487 | 100 |
| Geography | 96 | 19.6 | 169 | 34.5 | 157 | 32.0 | 57 | 11.6 | 11 | 2.2 | 490 | 100 |
| Economics | 98 | 19.8 | 194 | 39.3 | 146 | 29.6 | 46 | 9.3 | 10 | 2.0 | 494 | 100 |
| Electrical Engineering | 50 | 10.1 | 149 | 30.2 | 173 | 35.1 | 104 | 21.1 | 17 | 3.4 | 493 | 100 |
| Total | 373 | 19.0 | 722 | 36.8 | 600 | 30.5 | 227 | 11.6 | 42 | 2.1 | 1964 | 100 |

Table 2 presents the quantity of strong alcohol consumed in relation to the surveyed faculties. It is observed that the highest number of shots of strong alcohol are consumed by respondents from the Faculty of Electrical Engineering, with 21.6% of them consuming more than 6 shots on each occasion. This amount is consumed by 9.2% of students from the Faculty of Medicine and 12.2% from the Faculty of Geography. The smallest proportion of students who drink more than 6 shots per occasion is from the Faculty of Economics, with 8.1%.

Analyzing the number of shots of strong alcohol among the surveyed students, a statistically significant difference was found using the χ^2 test ($\chi^2=23.7$; $p=0.005$).

Table 2. Amount of hard liquor consumed

| Faculty | Number of shots of hard liquor | | | | | | | | Total | |
|------------------------|--------------------------------|------|-----------|------|-----------|------|-------------------|------|-------|-----|
| | 1-2 shots | | 3-4 shots | | 5-6 shots | | more than 6 shots | | | |
| | N | % | N | % | N | % | N | % | N | % |
| Medicine | 77 | 54.2 | 36 | 25.4 | 16 | 11.3 | 13 | 9.2 | 142 | 100 |
| Geography | 92 | 48.9 | 54 | 28.7 | 19 | 10.1 | 23 | 12.2 | 188 | 100 |
| Economics | 97 | 52.4 | 53 | 28.6 | 20 | 10.8 | 15 | 8.1 | 185 | 100 |
| Electrical Engineering | 112 | 41.6 | 68 | 25.3 | 31 | 11.5 | 58 | 21.6 | 269 | 100 |
| Total | 378 | 48.2 | 211 | 26.9 | 86 | 11 | 109 | 13.9 | 784 | 100 |

Table 3 presents the quantity of wine consumed in relation to the surveyed faculties. It is observed that the highest number of students from the Faculty of Medicine drink 1-2 glasses of wine (72%), while the largest number of students from the Faculty of Geography consume 5-6 glasses of wine on one occasion. Additionally, the highest proportion of students from the Faculty of Electrical Engineering drink 7-9 glasses of wine, and even more than 10 glasses (4.8% and 6%, respectively).

Analyzing the number of glasses of wine among the surveyed students, a statistically significant difference was found using the χ^2 test ($\chi^2=49.1$; $p=0.001$).

Table 3. Amount of wine consumed

| Faculty | Number of glasses of wine | | | | | | | | | | Total | |
|------------------------|---------------------------|------|-------------|------|-------------|------|-------------|-----|--------------|-----|-------|-----|
| | 1-2 glasses | | 3-4 glasses | | 5-6 glasses | | 7-9 glasses | | more than 10 | | | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Medicine | 201 | 72.0 | 57 | 20.4 | 14 | 5.0 | 5 | 1.8 | 2 | 0.7 | 279 | 100 |
| Geography | 165 | 55.4 | 78 | 26.2 | 37 | 12.4 | 8 | 2.7 | 10 | 3.4 | 298 | 100 |
| Economics | 191 | 63.7 | 70 | 23.3 | 22 | 7.3 | 7 | 2.3 | 10 | 3.3 | 300 | 100 |
| Electrical Engineering | 154 | 48.9 | 89 | 28.3 | 38 | 12.1 | 15 | 4.8 | 19 | 6.0 | 315 | 100 |
| Total | 711 | 59.6 | 294 | 24.7 | 111 | 9.3 | 35 | 2.9 | 41 | 3.4 | 1192 | 100 |

The quantity of beer consumed in relation to the surveyed faculties is shown in Table 4. The results indicate that the highest number of students from the Faculty of Medicine drink 1-2 glasses of beer (54.2%), while the largest proportion of respondents from the Faculty of Geography consume 5-6 and 7-9 glasses of beer (17.4% and 10.3%, respectively). The highest number of students from the Faculty of Electrical Engineering drink more than 10 glasses of beer on one occasion.

Tabela 4. Amount of beer consumed

| Faculty | Number of glasses of beer | | | | | | | | | | Total | |
|------------------------|---------------------------|------|-------------|------|-------------|------|-------------|------|--------------|------|-------|-----|
| | 1-2 glasses | | 3-4 glasses | | 5-6 glasses | | 7-9 glasses | | more than 10 | | | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Medicine | 103 | 54.2 | 44 | 23.2 | 24 | 12.6 | 11 | 5.8 | 8 | 4.2 | 190 | 100 |
| Geography | 88 | 34.8 | 66 | 26.1 | 44 | 17.4 | 26 | 10.3 | 29 | 11.5 | 253 | 100 |
| Economics | 110 | 48.0 | 61 | 26.6 | 33 | 14.4 | 11 | 4.8 | 14 | 6.1 | 229 | 100 |
| Electrical Engineering | 108 | 29.7 | 108 | 29.7 | 61 | 16.8 | 36 | 9.9 | 51 | 14.0 | 364 | 100 |
| Total | 409 | 39.5 | 279 | 26.9 | 162 | 15.6 | 84 | 8.1 | 102 | 9.8 | 103 | 100 |

Analyzing the number of glasses of beer among students from these four faculties, a statistically significant difference was found using the χ^2 test ($\chi^2=52.9$; $p=0.001$).

The distribution of respondents by faculty in relation to the frequency of consuming 6 or more glasses of alcohol on one occasion is shown in Table 5. It is observed that the highest proportion of respondents who never drink 6 or more glasses of alcohol on one occasion is from the Faculty of Medicine (73.5%), while the highest number of respondents from the Faculty of Electrical Engineering consume alcohol once a month, 2-3 times a week, and 4 or more times a week (50.7%, 8.9%, and 1.7%, respectively). A statistically significant difference was found among the surveyed students regarding the frequency of consuming 6 or more glasses of alcohol on one occasion, as determined by the χ^2 test ($\chi^2=145.0$; $p=0.001$).

Table 5. Distribution of respondents by faculty based on the frequency of consuming 6 or more drinks in one occasion

| Faculty | Frequency of consuming 6 or more drinks in one occasion | | | | | | | | Total | |
|------------------------|---|------|---------------------|------|--------------------|-----|--------------------------|-----|-------|-----|
| | never | | 1 per month or less | | 2-3 times per week | | 4 or more times per week | | | |
| | N | % | N | % | N | % | N | % | N | % |
| Medicine | 352 | 73.5 | 120 | 25.1 | 5 | 1.0 | 2 | 0.4 | 479 | 100 |
| Geography | 273 | 58.0 | 171 | 36.3 | 23 | 4.9 | 4 | 0.8 | 471 | 100 |
| Economics | 301 | 64.5 | 151 | 32.3 | 15 | 3.2 | 0 | 0.0 | 467 | 100 |
| Electrical Engineering | 187 | 38.7 | 245 | 50.7 | 43 | 8.9 | 8 | 1.7 | 483 | 100 |
| Total | 111 | 58.6 | 687 | 36.2 | 86 | 4.5 | 14 | 0.7 | 1900 | 100 |

The distribution of respondents by faculty in relation to the frequency of drunkenness in the year prior to the study is shown in Table 6. It was observed that during this period, 67.5% of medical students did not get drunk at all. The highest number of respondents from the Faculty of Electrical Engineering reported getting drunk once a month and 2-3 times a week (53.8% and 10.4%, respectively). However, the largest proportion of students who got drunk 4 or more times a week in the past year were from the Faculty of Geography (1.5%), followed by the Faculty of Electrical Engineering (1.2%), the Faculty of Economics (0.8%), and the fewest were from the Faculty of Medicine (0.4%). A statistically significant difference was found among students from the selected faculties regarding the frequency of drunkenness in the past year, as determined by the χ^2 test ($\chi^2=126.0$; $p=0.001$).

Table 6. Distribution of respondents by faculty based on the frequency of binge drinking in the past year in relation to the survey

| Faculty | Frequency of binge drinking in the past year | | | | | | | | Total | |
|------------------------|--|------|---------------------|------|--------------------|------|--------------------------|-----|-------|-----|
| | never | | 1 per month or less | | 2-3 times per week | | 4 or more times per week | | | |
| | N | % | N | % | N | % | N | % | N | % |
| Medicine | 324 | 67.5 | 145 | 30.2 | 9 | 1.9 | 2 | 0.4 | 480 | 100 |
| Geography | 230 | 47.7 | 217 | 45.0 | 28 | 5.8 | 7 | 1.5 | 482 | 100 |
| Economics | 268 | 55.7 | 191 | 39.7 | 18 | 3.7 | 4 | 0.8 | 481 | 100 |
| Electrical Engineering | 166 | 34.5 | 259 | 53.8 | 50 | 10.4 | 6 | 1.2 | 481 | 100 |
| Total | 988 | 51.4 | 812 | 42.2 | 105 | 5.5 | 19 | 1.0 | 1924 | 100 |

Table 7 shows the distribution of respondents by faculty in relation to the frequency of drunkenness in the month prior to the survey. As seen from the table results, medical students are ranked last in terms of drunkenness in the past month, with 80.5% not getting drunk during that period. The highest number of respondents from the Faculty of Electrical Engineering reported getting drunk once a month and 2-3 times a week in the month prior to the study (29.4% and 9.5%, respectively). Students from the Faculty of Geography were the most likely to get drunk 4 or more times a week, with 1.5%, followed by students from the Faculty of Electrical Engineering (1.2%), and finally, an equal number of students from the Faculty of Economics and the Faculty of Medicine (0.4% each). A statistically significant difference was found among the surveyed students regarding the frequency of drunkenness in the past month, as determined by the χ^2 test ($\chi^2=67.1$; $p=0.001$).

Table 7. Distribution of respondents by faculty based on the frequency of binge drinking in the past month in relation to the survey

| Faculty | Frequency of binge drinking in the past month | | | | | | | | Total | |
|------------------------|---|------|---------------------|------|--------------------|-----|--------------------------|-----|-------|-----|
| | never | | 1 per month or less | | 2-3 times per week | | 4 or more times per week | | | |
| | N | % | N | % | N | % | N | % | N | % |
| Medicine | 389 | 80.5 | 78 | 16.1 | 14 | 2.9 | 2 | 0.4 | 483 | 100 |
| Geography | 301 | 63.1 | 134 | 28.1 | 35 | 7.3 | 7 | 1.5 | 477 | 100 |
| Economics | 350 | 73.1 | 106 | 22.1 | 21 | 4.4 | 2 | 0.4 | 479 | 100 |
| Electrical Engineering | 289 | 59.8 | 142 | 29.4 | 46 | 9.5 | 6 | 1.2 | 483 | 100 |
| Total | 1329 | 69.1 | 460 | 23.9 | 116 | 6.0 | 17 | 0.9 | 1922 | 100 |

In our study, according to HAMD, correlation was not found between this harmful habit and depression ($p=-0,028$; $p=0,219$). According to HAMA, correlation was found between alcohol consumption and anxiety ($p=-0,057$; $p=0,015$).

DISCUSSION

In our study, on average, 19% of students never consume alcohol. The largest group of students, approximately 37%, consumes alcohol once a month. It was noted that the highest percentage of respondents who never consume alcoholic beverages are students of the Faculty of Medicine (around 27%). At the Faculty of Medicine, University of Zagreb, this number is significantly lower, at around 17% (10). In our study, the largest number of students from the Faculty of Medicine (around 43%) drink alcohol once a month, compared to others. However, at the Faculty of Medicine in Calgary, Canada, the trend of alcohol consumption is higher than in our case. In this city, 86% of medical students currently consume alcoholic beverages (11). In a study conducted among student populations from seven European countries, based on questionnaire analysis, it was found that the highest proportion of students who do not consume alcohol at all or only occasionally are those living in Turkey (73% of men and 88% of women), while these proportions are highest among the Danes (8% of men and 15% of women) (12).

Among our respondents, an average of around 14% consume alcohol more than once a week, while this percentage is higher among Spanish (49%:64%, in favor of women) and Bulgarian students (46%:28%, in favor of male respondents) (12). However, our respondents have a higher frequency of alcohol consumption compared to Polish (13%) and Turkish students (11%) (12). In our study, among respondents from the Faculty of Medicine, more than 5% drink more than twice a week, while in Zagreb, nearly 14% of respondents from the Faculty of Medicine consume alcohol this frequently (10).

In our study, an average of around 48% of respondents consume one to two drinks of strong alcohol on each occasion, while 27% of students consume 3-4 drinks. On average, 11% of students drink five to six drinks, and about 14% consume more than six drinks on each occasion. Consuming six or more drinks in one sitting is considered excessive episodic alcohol consumption or "binge drinking," defined as consuming five or more drinks on one occasion for males and four or more drinks for females (13).

Among our respondents, the highest number of drinks of strong alcohol is consumed by students from the Faculty of Electrical Engineering, with 22% of them consuming more than 6 drinks on each occasion. The lowest percentage of students who drink more than 6 drinks per occasion is from the Faculty of Economics, with only 8% (a statistically significant difference, $p=0.005$). Interestingly, students from the Faculty of Electrical Engineering, who have the lowest prevalence of cigarette use, consume alcohol according to a "binge" drinking pattern. In Canada, at the Faculty of Medicine, among 86% of current drinkers, the majority (81%) consume fewer than 11 drinks per week, while 15% of men and 1% of women consume 11 or more drinks in the same period (11). In Zagreb, among students at the Faculty of Medicine, 70% reported consuming 3-4 drinks per month or less frequently (10). In Greece, male medical students consume an average of 92 milliliters of alcohol per week, while female students consume an average of 48 milliliters in the same period (14). In Orlando, a study conducted on a college student population found that the average number of drinks per week during the first three months of the study was 10, and 9 during the six-month period (15).

In a study conducted on a college student population in Fargo, North Dakota, male students consumed an average of 10 alcoholic drinks during the week prior to their 21st birthday, while female students consumed an average of 5 (16).

Alcohol consumption is also a common phenomenon among high school students, as evidenced by a study conducted in Georgia in 2007, where 38% of students reported current alcohol use, and 19% reported excessive consumption in the past month. Strong spirits were the most commonly consumed alcoholic beverages (44%) across all groups. Among those who reported current use, significantly more binge drinkers (54%) indicated that they typically consumed spirits, compared to non-binge drinkers (32%) ($p < 0.001$). Beer was the second most commonly consumed beverage among high school students (24%), while sweet drinks were the second most common among female students (24%) (17).

The findings of our study show that, on average, 60% of students consume one to two glasses of wine in one sitting, 25% consume three to four glasses, 9% consume five to six glasses, 3% consume seven to nine glasses, and 3.4% consume more than ten glasses.

In Germany, adolescents aged 16-17 consume an average of 2.5 bottles of wine per week, which is significantly higher than the consumption by female adolescents (13).

It is observed that the majority of students from the Faculty of Medicine (72%) drink one to two glasses of wine per sitting. The largest number of students from the Faculty of Geography consume five to six glasses of wine in one sitting, while the highest percentage of students from the Faculty of Electrical Engineering drink seven to nine glasses or even more than ten (4.8%, 6%).

In one sitting, around 40% of our respondents consume one to two glasses of beer, about 27% of students consume three to four glasses, around 16% consume five to six glasses, about 8% consume seven to nine glasses, and around 10% consume more than ten glasses.

The largest number of students from the Faculty of Medicine (about 54%) drink one to two glasses of beer in one sitting, while the highest number of respondents from the Faculty of Geography consume five to six and seven to nine glasses of beer (about 17% and 10%, respectively). The highest percentage of respondents from the Faculty of Electrical Engineering consume more than ten glasses of beer in one sitting. In Germany, in 2007, the average male adolescent aged 16-17 consumed this amount of beer weekly (11 glasses of 0.3 liters) (13). In Georgia, a study conducted on a sample of high school students found that among current drinkers, beer was the second most commonly consumed alcoholic beverage among male students (24%), right after spirits (17).

Our study revealed that about 36% of students consume alcohol according to a "binge" pattern once a month or less frequently, while 4.5% of students consume this amount 2-3 times per week, and 0.7% drink four or more times a week.

It is observed that the highest percentage of respondents who never drink 6 or more drinks in one sitting is at the Faculty of Medicine (around 74%), while the largest number of respondents from the Faculty of Electrical Engineering consume this amount of alcohol once a month, 2-3 times a week, and 4 or more times a week (around 51%, 9%, and 2%, respectively).

In a study conducted on the student population at the University of Central Florida in Orlando, 28% of students reported heavy drinking. It was found that, both in the three-month and six-month period, the maximum number of drinks consumed in one sitting was eight. On average, students experienced one episode of drunkenness per week during both the three-month and six-month periods (15). A study by Toumbourou et al. (2009) demonstrates that both elementary and high school students excessively consume alcohol. In Washington state, 0.5% of male and 0.3% of female 7th-grade students engage in binge drinking, while in the 1st year of high school, the ratio is 2.4% for boys and 2.2% for girls (18).

In Victoria, according to this pattern, 2.6% of boys and 1.5% of girls in Grade 7 drink alcohol, while in the first year of high school, the ratio is as follows: 6.5% boys and 6.6% girls (18).

In relation to the frequency of intoxication in the past year, a statistically significant difference was found between faculties ($p = 0.001$) in our study. Around 51% of respondents reported never getting drunk during this period (the highest percentage being at the Faculty of Medicine, around 68%). About 42% of respondents got drunk once a month or less frequently, 5.5% got drunk 2-3 times a week, and 1% got drunk four or more times a week.

The largest number of respondents from the Faculty of Electrical Engineering got drunk once a month and 2-3 times a week (54% and 10%, respectively). However, the highest percentage of respondents who got drunk four or more times a week in the past year were from the Faculty of Geography (1.5%), followed by the Faculty of Electrical

Engineering (1.2%), the Faculty of Economics (0.8%), and the smallest percentage were from the Faculty of Medicine (0.4%).

In other countries, the prevalence of this psychoactive substance use over the past year was also high.

In Washington, in the year prior to the study, the prevalence of alcohol consumption among boys in grade 5 was 10%, and among girls, it was 5%. In Victoria, Australia, the prevalence was 34% for boys and 21% for girls (18).

In relation to the frequency of intoxication in the past month, a statistically significant difference was found between faculties ($p = 0.001$) in this study. During this period, around 69% of students did not get drunk at all (the highest percentage being from the Faculty of Medicine, around 81%). About 24% of respondents got drunk once a month or less frequently, 6% of students got drunk 2-3 times a week, and around 1% got drunk four or more times a week.

The highest number of respondents from the Faculty of Electrical Engineering got drunk once a month and 2-3 times a week in the month prior to the study (around 29% and 10%, respectively). Students from the Faculty of Geography were the most likely to get drunk four or more times a week (1.5%), followed by students from the Faculty of Electrical Engineering (1.2%), and an equal number of students from the Faculty of Economics and the Faculty of Medicine, both at 0.4%.

In Orlando, during the month prior to the study conducted in 2005 and 2006, college students reported an average of 9 days of alcohol consumption, with 5 of those days involving heavy drinking (five or more drinks in one sitting for men, and four or more for women) (15). In Germany, in 2007, the monthly prevalence of excessive drinking among boys aged 15-16 was as follows: 25% of boys consumed alcohol according to a "binge" pattern once or twice a month, 21% drank 3-5 times, 8.5% drank 6-9 times, and 10% drank at least 10 times a month (13).

A high prevalence in the month prior to the study was observed in São Paulo, Brazil, among a sample of students aged 10 to over 18, where the alcohol consumption prevalence rate was 48% (19).

In Washington State, in the month prior to the study, higher prevalence rates of alcohol use were recorded among female students in both elementary and high school. In grade 7 of elementary school, the rates were 11.5% for boys and 13% for girls, in favor of girls, while in the first year of high school, the rates were 23% for boys and 26% for girls, again in favor of girls (18).

In Victoria, the prevalence of alcohol use in grade 7 in the month prior to the study was significantly higher compared to Washington, at 35% for boys and 27% for girls, in favor of boys, while in the first year of high school, the rates were 53% for boys and 55% for girls, in favor of girls (18).

CONCLUSION

In the summary, among our respondents, the highest quantity of spirits is consumed by students from the Faculty of Electrical Engineering, while the lowest number of students who drink more than 6 glasses on each occasion is from the Faculty of Economics.

Students from the Faculty of Electrical Engineering, who have the lowest prevalence of cigarette use, consume alcohol according to the "binge" drinking pattern.

The highest frequency of drunkenness in the last year and in the last month prior to the survey was observed among respondents from the Faculty of Geography.

This study highlighted the prevalence of alcohol consumption among Belgrade University students. Based on that, there is a need for developing a conscience about all the effects that alcohol has, especially physical ones which are not usually noticed immediately; taking responsibility for own actions, because alcohol harms not only the alcohol users, but also harm their families; working on a healthy life style and educating people to enhance and improve their health control.

As our students start with this habit earlier than students in other countries, alcohol-related preventive efforts, would be of vital impact in preventing exposure to alcohol or minimizing alcohol-related health hazards.

Declaration of interest

The authors report no conflicts of interest.

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