Consumption of alcohol among students of the University of Novi Sad

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ABSTRACT

Aim To determine the extent of alcohol consumption among students in Novi Sad.

Method This research was conducted among students of the University of Novi Sad in the period from October 2010 until April 2011. The study involved 800 students from the first and final study years (age from 20 to 24), both sexes were equally represented. A special questionnaire was designed for this study.

Results As many as 728 (91%) respondents consumed alcohol at least once in a lifetime (p<0.001), there was a high prevalence of occasionally and everyday alcohol usage among students in 653 (81.6%) cases. Male students, 351 of them (87.7%), consumed alcohol more frequently as compared to females (p<0.06). In most cases students of both sexes had the first contact with alcohol at the age of 15 (p>0.05). There was a large percentage of female respondents who consumed alcohol once a month 210 (52.5%) as compared to male respondents 137 (34.3%) (p<0.01). There was a statistically significant correlation between alcohol consumption and achieved academic performance (p<0.01).

Conclusion These results indicate the necessity of primary prevention and organization, comprehensive and preventive activities with adolescents.

Keywords: psychoactive substance, young adults, questionnaire, risk factor.
INTRODUCTION

In the last century, particularly in recent decades, there has been an increased consumption of alcoholic beverages, particularly strong alcohol drinks. Among consumers there is an increasing number of women, and youth (1). It is estimated that alcohol consumption among young people in the world is twice as large as in their parents’ generation (2). Alcoholism is more likely to occur in men than in women, but women have more health problems related to alcohol consumption, even when consuming small amounts (3).

The most common diseases that are entirely or partially caused by alcohol consumption include malignant diseases (4), diabetes, neuropsychiatric diseases, cardiovascular diseases (5), liver diseases, pancreatic (6), and accidental and intentional injuries (7). Alcohol products are responsible for 9% of all diseases in the European Region (8).

Alcohol is associated with many serious social and development issues, including violence, neglect and absenteeism from work (9). Between 40-60% of injuries occur in a state of intoxication (8). Each year the excessive use of alcohol kills 2.5 million people, including 320,000 young people between 15 and 29 years of age, and is responsible for nearly 4% of all deaths in the world (9,10).

In the United States (U.S.) the frequency of alcohol consumption among young people is regularly monitored, and every two years a report is submitted to the National Center for Education Statistics, CDC. According to these data, a half of the adult population in the United States had consumed alcohol in the last 30 days. Approximately 5% amounts to daily alcohol consumption, whereas in 15% of cases alcohol is consumed in nightlife (11). The European project ESPAD (European School Survey Project on Alcohol and Other Drugs) studied alcohol use among young people in 35 countries in Europe and is repeated every four years, showed that alcohol use is increasing, especially in developing countries. Our country participated in this study for the first time in 2005 (12).

The Yugoslav study of atherosclerosis precur-sors in children (YUSAD study) showed a significant increase in the prevalence of alcohol consumption among students in Novi Sad (8). The studies have shown that age when people start drinking is decreasing (12). It is therefore very important to conduct a comprehensive epidemiological study with adequate training to lead to effective prevention. Unfortunately, researches conducted in Serbia have not fully displayed the true epidemiological picture of alcohol abuse, which prompted us to investigate its prevalence among students of the University of Novi Sad, which defined the objectives of the testing.

The aim of this study was to determine the prevalence of alcohol consumption among students in Novi Sad.

EXAMINEES AND METHODS

The research was a cross-sectional study, and was conducted in the period from October 2010 until April 2011.

The sample was randomly selected, and study included 800 students, of which 400 in the first year (born in 1991), and 400 students in the last year at the University (born in 1988 and 1987). The sample represents 5% of all students of the University of Novi Sad, mostly students of the Schools of Medicine, Mathematics, Agriculture, School of Economics, School of Engineering, and the School of Sport and Physical Education. In both age groups there were 200 males and 200 females.

The original questionnaire was designed for collecting the research data. The research was approved by the Ethical Committee of the School of Medicine in Novi Sad. All participants read and signed informed consents about the purpose of the study (participation was voluntary and anonymous).

Each survey respondent was approached with a possibility of voluntary withdrawal at any time. Improper and under-staffed polls were not taken into account. Each survey had an identification number, from 1 to 800.

The survey contained the following questions: year of birth, gender, academic performance, and consumption of alcohol.

The survey was conducted by using personal
contacts with respondents thus avoiding occurrence of logical errors. Then the data were computer processed.

For the statistical analyses absolute numbers and percentages, measures of central tendency (arithmetic mean, median, standard deviation and minimum and maximum distance values), Pearson Chi-Square test and correlation test were used (p<0.05 was statistically significant).

RESULTS

There was a large percentage of students who tried alcohol during their lifetime 728 (91%), and the difference compared to subjects who have never tried alcohol 72 (9%) was statistically significant (p<0.001) (Figure 1).

Some of the students had the first contact with alcohol at the age of 10 - in 8 (1%) cases, and the highest percentage of males, in 108 (27%) cases and female students in 87 (21.8%) cases, had the first contact with alcohol at the age of 15 (p>0.05) (Figure 2).

A larger number of male respondents 351 (87.7%) consumed alcohol as compared to female respondents 302 (75.5%) (p <0.06) (Figure 3).

Female students have a greater percentage of alcohol consumption once a month, in 210 (52.5%) cases, as compared to male students, 137 (34.3%) cases (p <0.001) (Figure 4).

<table>
<thead>
<tr>
<th>Year of study</th>
<th>Not consumed*</th>
<th>Once a month</th>
<th>1-2 times a week</th>
<th>3-4 times a week</th>
<th>Everyday*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>60 (15.0%)</td>
<td>173 (43.3%)</td>
<td>140 (35.0%)</td>
<td>22 (5.5%)</td>
<td>5 (1.3%)</td>
<td>400</td>
</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>First</td>
<td>87 (21.8%)</td>
<td>174 (43.5%)</td>
<td>119 (29.8%)</td>
<td>7 (1.8%)</td>
<td>13 (3.3%)</td>
<td>400</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>147 (18.4%)</td>
<td>347 (43.4%)</td>
<td>259 (32.4%)</td>
<td>29 (3.6%)</td>
<td>18 (2.3%)</td>
<td>800</td>
</tr>
</tbody>
</table>

* statistically significant difference

Female students have a greater percentage of alcohol consumption once a month, in 210 (52.5%) cases, as compared to male students, 137 (34.3%) cases (p <0.001) (Figure 4).

Older students 341 (85.2%) had higher per-
percentage of alcohol consumption in relation to younger students 313 (79.2%) (p> 0.05) (Figure 5).

Twenty two (5.5%) older students consumed alcohol three to four times a week, while the younger ones did it in a much smaller percentage in 7 (1.8%) cases (p <0.01) (Table 1).

There was a correlation between alcohol consumption and the results achieved in the studies of students’ final year (Figure 6).

DISCUSSION

Drinking alcohol is the most common form of addiction among adolescents (2). According to WHO recommendations, by 2020 young people in the European Region should be healthier and better able to fulfill their roles in society, and the percentage of youth who drink alcohol should be reduced considerably (9). Children under 15 should not drink alcohol, and total alcohol consumption at the age of 15 should not exceed 6 liters per resident per year (9).

According to the YRBS study conducted in 2009 the percentage of adolescents who have tried alcohol during their lifetime amounts to 72.5% (11). Once a month alcohol was consumed by 41.8% of respondents, which is similar to the results of this study (11). The results of the ESPAD study of 35 participating countries, Austria, Czech Republic and Latvia are the countries with the highest prevalence of alcohol use during their lifetime (95%) in Europe, which is similar to the results of this study (12). The countries with the lowest prevalence of alcohol use during the life are Armenia, Iceland and Norway (under 80%) (12). The results of YUSAD study have shown that 80% of young people in Novi Sad have tried alcohol (8), which is significantly lower as compared with the results of this study. The disturbing fact is that there was a significant increase in the prevalence of students over 15 who occasionally consumed alcohol in the period 1995-2008, from 65% to 74% (8).

In all European countries included in the ESPAD study, girls consumed less alcohol than boys, which coincides with results obtained from this study, but differs from a study in America, where girls consumed alcohol more frequently than boys (11,13).

Comparing the use of alcohol in the region, we found nearly identical results in Hungary (84%) and Bulgaria (83%) (12). In the period 1995-2007 in Croatia and Slovenia an increased trend of alcohol use has been recorded (12,14). Comparative analysis of our European research and the use of alcohol indicates the approximate rate of alcohol use in our country and in Europe (12), which is very important to implement integrated prevention and control. The decreasing trend of alcohol use was reported in Romania and the United States (11,12).

The results of this study have shown a significantly higher proportion of respondents who consumed alcohol as compared with the results of research among adolescents in Kragujevac (2007) (2). According to the Institute of Public Health in Serbia in 2006, 3.4% of the population consumed alcohol daily (15), which is higher than in our study.

A large percentage of adolescents under the influence of alcohol was associated with aggressive behavior, and also serious problems in learning (16,17). College student surveys have indicated that the younger students were during their first intoxication, the greater the likelihood was that, while in college, they wo-
uld experience alcohol dependence, drive after drinking (18), ride with drinking drivers, have alcohol-related injuries, and have unplanned and unprotected sex after drinking (19).

Raising awareness about the harmful effects of alcohol among adolescents is a significant factor in reducing the possibility of mass non-infectious diseases associated with alcohol consumption (20).

In conclusion, only every tenth student at the University of Novi Sad has never tried alcohol, while eight out of ten students surveyed drink occasionally or daily. Male students more frequently consume alcohol. Female students drink once a month, more than male students, which further speaks of the seriousness of this problem. There is a correlation of alcohol use with their performance during the studies. The results indicate the need for intensified implementation of primary prevention of organized, comprehensive, preventive activities among youth.

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TRANSPARENCY DECLARATIONS

Competing interests: none to declare.

REFERENCES

Konzumiranje alkohola među studentima Univerziteta u Novom Sadu

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SAŽETAK

Cilj Istražiti rasprostranjenost upotrebe alkohola među studentima Univerziteta u Novom Sadu.


Rezultati Čak 728 (91%) ispitanika konzumiralo je alkohol najmanje jedanput u životu (p<0,001), a velika je učestalost povremenog i svakodnevnog konzumiranja među studentima, odnosno u 653 (81,6%) slučaj. Muški studenti 351 (87,7%) češće konzumiraju alkohol u poređenju sa studenticama (p>0,05). Studenti oba pola prvi kontakt s alkoholom najčešće su imali s 15 godina (>0,05). Takođe, postoji veliki procenat ženskih ispitanika koji konzumiraju alkohol jednom mesečno, 210 (52,5%), porađci s muškim ispitanicima, 137 (34,3%) (p<0,01). Postoji statistički značajna povezanost između upotrebe alkohola i postignutog uspeha na studijama (p<0,01).

Zaključak Rezultati istraživanja ukazuju na neophodnost intenzivnijeg sprovođenja primarne pre-vencije organizovanim, sveobuhvatnim, preventivnim aktivnostima kod mladih.

Ključne reči: psychoaktivna supstanca, mladi, upitnik, faktor rizika
