PATTERNS OF ALCOHOL USE AMONG FIRST GRADE HIGH SCHOOL STUDENTS IN NOVI SAD

OBRASCI UPOTREBE ALKOHOLA MEĐU UČENICIMA PRVIH RAZREDA SREDNJIH ŠKOLA U NOVOM SADU

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Summary

Introduction. Alcohol drinking habits are usually formed during adolescence. Adolescents most often drink alcohol to fit in with their peers, but genetics and social modeling are also of great importance. Adolescents who consume alcohol are more prone to mental disorders as well as risky and violent behavior. Material and Methods. A cross-sectional study was conducted among first grade high school students in Novi Sad in December 2017. The final sample included 1,067 participants. For the purpose of this study, the European School Survey Project on Alcohol and Other Drugs questionnaire was used. Data were analyzed using the Statistical Package for the Social Sciences program, version 11.0. Results. Beer is the easiest alcoholic beverage to obtain for young people in Novi Sad, followed by wine and spirits. A great number of participants have consumed alcohol at least once in their lifetime and more than half in the last 30 days, (83.5%) and (52.6%) respectively. More than a third of participants had an episode of excessive drinking during the last month. Early onset of drinking was found among one half of male and a third of female participants. Conclusion. These results indicate an unfavorable situation when it comes to alcohol consumption among young people in Novi Sad. Therefore, efforts of the society that encourage healthy development of adolescents are important, as well as taking preventive measures in order to reduce the risk of alcohol abuse among young people.

Key words: Alcohol Drinking; Underage Drinking; Adolescent; Surveys and Questionnaires; Binge Drinking; Health Risk Behaviors; Primary Prevention; Sex Characteristics

Introduction

The first contact with alcohol usually occurs during adolescence and this is the period when drinking habits are mostly formed [1]. According to a research conducted in Serbia in 2008, the results of the European School Survey Project on Alcohol and Other Drugs (ESPAD) survey showed that as much as 89.1% of first grade high school students have consumed alcohol at least once in their lifetime [2].

According to the Cox-Klinger model, there are four core drinking motives: mood enhancement, avoidance of unpleasant emotions, better social adjustment, and avoidance of social rejection [3]. Some of the unpleasant emotions that motivate alcohol consumption are anxiety and stress, which are common in this period of life [4]. Avoidance of unpleasant emotions is the most common reason for alcohol consumption among younger adolescents coming from problematic families, while older adolescents often drink to fit in with their peers [5]. Genetics and upbringing also play an important part: up to
82% of children whose parents consume alcohol consume it as well, while 72% of children whose parents do not consume alcohol follow their example [6]. Furthermore, children of alcoholics are 4 times more likely to become alcoholics themselves [7].

As for the consequences of alcohol consumption among adolescents, acute intoxications are the most common [8]. Moreover, alcohol abuse is the most prevalent cause of acute poisoning among adolescents, while younger children most frequently get intoxicated with medications [9]. Chronic illnesses related to alcohol consumption take longer to appear and they are not that common at younger age [8]. Adolescents who consume alcohol are at greater risk of mental disorders such as depression, anxiety, attention deficit hyperactivity disorder and schizophrenia [10]. Also, they are more prone to accidents related to drunk-driving, which are the main reason for injuries in this age group [11]. Young people who frequently consume alcohol are at greater risk for risky sexual behavior than those who do not consume alcohol and even of those who use marijuana frequently [12]. Heavy episodic drinking is related to violent behavior among young people, especially those from lower socioeconomic groups [13].

The aim of this study is to determine the availability of alcoholic beverages, the prevalence of alcohol use, and patterns of alcohol use among first grade high school students in Novi Sad.

Material and Methods

This cross-sectional study was conducted among 1,236 first grade high school students attending 18 high schools in Novi Sad in December 2017 using the ESPAD questionnaire. After the exclusion of questionnaires with missing data (gender, date of birth, those filled by participants not born in 2002), the final sample included 1,067 participants.

The survey was conducted on school premises during one class, as a self-administered questionnaire. The students were informed verbally and in writing that the survey was voluntary and anonymous. Signed consents were collected separately, to ensure anonymity of the participants.

Data were analyzed using the Statistical Package for the Social Sciences program, version 11.0 and presented with methods of descriptive statistics. Statistical significance between genders was tested with Pearson’s chi-square test and Fisher’s test. P-values < 0.05 were considered statistically significant.

Results

The final sample included 1,067 students (55% female and 45% male). Most of the first grade high school students thought that alcohol was easy to get, with beer being the easiest (85.8% of students answered they found it easy to buy beer if they wanted to), followed by wine (79%), alcopops (74.2%) and spirits (70.7%) (Graph 1).

A significant percentage of our participants have consumed alcohol at least once in their lifetime (83.5%). In the last year, 73.9% of the participants consumed alcohol and 52.6% of them in the last month (Graph 2).

In the last 30 days, beer was consumed by 40.8% of students, spirits by 37.7%, wine by 37.2%, and alcopops by 29% of students. There is a significant statistical difference between male and female students, more male students have consumed beer (50.5% of boys versus 32.9% of girls) and spirits (40.1% of boys versus 35.8% of girls), while more female students have consumed wine (39.9% of girls versus 33.8% of boys). Binge drinking (consumption of 5 or more alcoholic beverages on one occasion) in the last 30 days was experienced by 39.2% of students and significant percentage of surveyed students (15.3%) reported that they had alcohol induced imbalance, amnesia or vomiting in the last month.

Early onset of alcohol use (13 years or less) is significantly more common among boys (49.9%) than girls (34.8%). First alcohol intoxication at the age under 13 years was reported by 13.2% of boys and 3.5% of girls.
Most of our participants drink alcohol for mood enhancement and less often because it helps them avoid unpleasant emotions. Only a small percentage drink because it helps them fit in with peers, but this reason is significantly more common among male students (p < 0.05). The most common reasons for alcohol consumption among our participants are shown in Table 1.

In the last year, risky behaviors and accidents under the influence of alcohol were common among both genders resulting in injuries, serious fights, and damage or loss of property. Male participants are also significantly more prone to get into fights, having problems with the police, driving intoxicated, swimming intoxicated in deep water (pool, river or sea), having sexual intercourse without protection, and having sex that they regretted the day after (Table 2).

### Table 1. Reasons for alcohol consumption among first grade high school students

| Reasons for alcohol consumption | Never/Nikad (%) | Rarely/Retko (%) | Often/Cesto (%) |
|---------------------------------|-----------------|-----------------|---------------|
|                                  | M/M F/Ž          | M/M F/Ž         | M/M F/Ž       |
| Drinking alcohol helps me having fun. | 57.5 59.5 22.3 23.7 20.3 12.7 |                  |               |
| I love the feeling of drinking alcohol. | 65.5 66.4 19.6 21.1 14.9 12.5 |                  |               |
| Drinking alcohol makes parties better. | 64.0 67.7 19.2 22.7 16.8 8.6 |                  |               |
| Drinking alcohol cheers me up. | 69.1 66.2 19.6 21.6 11.3 12.1 |                  |               |
| Drinking alcohol helps me forget about my problems. | 74.2 75.9 13.7 14.5 12.1 9.6 |                  |               |
| Drinking alcohol helps me when I am depressed or nervous | 76.2 76.2 15.8 15.4 8.0 8.4 |                  |               |

*statistically significant differences between genders (p < 0.05)

### Table 2. Risky behaviors and accidents under the influence of alcohol in the last year among first grade high school students in Novi Sad

| Risky behaviours and accidents under the influence of alcohol | Males Muski pol (%) | Females Ženski pol (%) |
|-------------------------------------------------------------|---------------------|------------------------|
| Getting injured/Povreda                                   | 21.5 17.1           |                       |
| Getting into serious quarrels/Ozbiljna svada               | 19 17.4             |                       |
| Damage or loss of properties/Oštećenje ili gubitak stvari | 16.7 14.2           |                       |
| Getting into fights/Tuča*                                  | 19 7.4              |                       |
| Having problems with the police/Problemi sa policijom*     | 12.9 4.3            |                       |
| Driving intoxicated/Vožnja u pijanom stanju*              | 14 2.6              |                       |
| Swimming intoxicated in deep water/Plivanje u dubokoj vodi u pijanom stanju* | 19.9 6.2 |                       |
| Having sex without protection/Sексуални odnos bez zaštite* | 11 0.9              |                       |
| Having sex that they regret the day after/Sексуални odnos zbog kog si se pokajao/-la sutradan* | 6.8 0.9 |                       |
| Selfharming/Samopovredvanje                                | 6.2 5               |                       |
| Being hospitalized because of intoxication/Hospitalizacija zbog intoksikacije alkoholom | 3.6 0.9 |                       |
| Being robbed/Bio/-la žrtva pljačke                         | 3.1 1.6             |                       |
| Getting into car accident while driving intoxicated/Imao/-la saobraćajnu nesreću u pijanom stanju | 2.5 1.4 |                       |

*statistically significant differences between genders (p < 0.05)
Discussion

In Europe, trends in alcohol use seem to be slightly decreasing among young people in the last 10 years. However, the percentage of minors who consume alcohol is still considerably high. According to our study, the percentage of the first year high school students who have consumed alcohol at least once in their lifetime and in the last month, is similar to the average in European countries (83.5% compared to 80% and 52.6% compared to 48%) [14]. The trends are more favourable in the United States, where 33% of same-age students have consumed alcohol at least once in their lifetime (Monitoring the Future survey, 2007) [15]. It can be attributed to strict regulations regarding selling alcohol to persons under the age of 21. Binge drinking was experienced by 39.2% of our participants in the last month which is higher than European average in 2008, accounting for 35% (from 8% in Island to 56% in Denmark) [14]. Young people who start drinking before the age of 13 are at considerably greater risk of developing alcohol addiction later in life [16]. Our results show that approximately one half of boys and one third of girls started drinking before they turned 13 years old. Similar results were obtained in European countries in 2015, with some exceptions where the situation is more favourable (Island, Norway) [14].

According to ESPAD report from 2015, most young people associate alcohol with having fun (64%), while half of them drink to forget about their problems (48%) [17]. Our participants have also chosen having fun as the main reason for alcohol consumption.

Alcohol consumption is the leading cause of homicide, suicide and lethal accidents among adolescents and more adolescents lose their lives because of alcohol use than due to all the other psychoactive substances combined [18]. According to the World Health Organization, alcohol is the leading risk factor for increase of disability adjusted life years in the 10 – 24 years age group [19]. According to our survey, 21.5% of boys and 17.1% of girls got injured in the last year while being under the influence of alcohol.

Adolescents who consume alcohol are more prone to risky behavior, such as drunk driving, unprotected sexual activity, and use of illicit drugs [20]. Driving intoxicated in the last year was more common in our male participants (14% compared to 2.6% in females), as was unprotected sexual activity (11% of males and 0.9% of females).

Conclusion

The results of our study indicate that the prevalence of alcohol use among young people in Novi Sad is unfavorable. Therefore, efforts of the society that encourage healthy development of adolescents are important, as well as taking preventive measures in order to reduce the risk of alcohol abuse and its consequences among young people. The most effective way of prevention is education about the consequences of alcohol consumption and strict regulations on alcohol availability to minors.

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