

# Usporedba prekomjernog uživanja alkohola među učenicima u dvjema srednjim medicinskim školama

## Comparison of alcohol abuse between students of two secondary nursing schools

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### Sažetak

**Ishodišta:** Uživanje alkohola je rašireno i među učenicima srednjih medicinskih škola. Ovaj fenomen zahtijeva intenzivan rad na osvješćivanju učenika i angažiranje učitelja koji bi učenike trebali poučiti o opasnostima prekomjernog uživanja alkohola i njegovim štetnim posljedicama.

**Cilj:** Utvrditi visinu rizika uživanja alkohola i stupanj osviještenosti glede posljedica zloupotrebe alkohola među učenicima dviju srednjih medicinskih škola te usporedba rezultata.

**Uzorak i metode:** Za prikupljanje podataka korišten je nestandardizirani upitnik, koji je ispunilo 140 učenika četvrtoga razreda Srednje medicinske škole Slovenj Gradec (SNSG) i Srednje medicinske i kozmetičke škole Izola (SNCIZ). Upotrijebljena je deskriptivna statistika. Rezultati su testirani kontingentnim tablicama, Hi-kvadratnim testom i t-testom. Sve vrijednosti smatrane su statistički značajnim kad je  $p < 0,05$ .

**Rezultati:** U zadnja tri mjeseca omjer opijenjenih/intoksiciranih učenika bio je viši u SNSG, gdje je bilo opijenjenih 23 (40 %) učenika do tri puta, a u SNCIZ četiri (8 %), što je statistički znakovita razlika ( $p = 0.01$ ). Učenici se slažu da alkohol šteti zdravlju. S tom tvrdnjom složilo se 40 (69 %) učenika SNSG i 35 (74 %) u SNCIZ.

**Zaključak:** Učenici vrlo malo znaju o štetnosti alkohola, s obzirom na to da većina razlikuje znakove opijenosti, ali ne i štetne učinke dugotrajnog uživanja alkohola. U budućnosti je potrebno podignuti osviještenost učenika o štetnosti utjecaja alkohola primjenom različitih zdravstveno-obrazovnih aktivnosti.

**Ključne riječi:** učenici • alkohol • zloupotreba • osviještenost

**Kratki naslov:** alkohol i učenici

### Abstract

**Starting points:** Alcohol drinking is widespread among students in secondary schools of nursing. This phenomenon requires intensive work on students' awareness, and teachers' engagement to educate students on the danger of alcohol abuse and its harmful health effects.

**Aim:** To find out about risks of alcohol and awareness of its consequences among the students in two nursing schools, and to compare the findings.

**Samples and methods:** Non-standardized questionnaire was used for data collecting. A sample contained 140 students in the fourth grade of Secondary Nursing School in Slovenj Gradec (SNSG) and Secondary Nursing and Cosmetics School Izola (SNCIZ). Descriptive statistics was used. Results were tested by contingency tables, chi-squared test and t-test. In case of  $p < 0.05$ , all differences were valued as statistically significant.

**Results:** In the previous three months, the proportion of intoxication/drunkenness was higher among the SNSG students, since 23 (40 %) students were drunk to three times, and at SNCIZ there were 4 (8 %), what was proven as statistically significant difference ( $p = 0.01$ ). Students agree that alcohol is detrimental to health, as 40 (69 %) students at SNSG and 35 (74 %) at SNCIZ agreed with this statement.

**Conclusion:** Students' knowledge about harmfulness of alcohol is very low, since the vast majority distinguishes signs of intoxication but not the effects of long-term alcohol consumption. In the future, it is necessary to raise students' awareness about the harmful effects of alcohol throughout variety of health-education activities.

**Key words:** students • alcohol • abuse • awareness

**Running head:** alcohol abuse among students

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## Uvod / Introduction

In recent decades, the issue of alcohol (ab)use among young people has become a subject of numerous discussions and one of the most often topics on the agenda of political structures (1). Ule notes that in the last decade conditions of growing up have been changing and are significantly reflected in a series of conflicts which increase vulnerability and sensitivity of young people who are more often prone to alcohol abuse (2). Stigler, Neusel and Perry (3) indicate that secondary schools are important settings for inter-

ventions aimed at alcohol abuse prevention, but not all of them are equally effective.

Alcohol drinking in young people is significantly affected by large availability of alcohol and affection to drinking - drinking culture in society (4). The views, beliefs and myths about alcohol beverages affect the drinking habits of a particular population. Problems associated with alcohol drinking, in the population where it is widespread and socially

accepted, are easily overlooked (5). Kovše in Hočevar (6) indicate that lifestyle and main habits in adolescence leave marks for life. As stated by Šorn (7), young people are one social group, which is usually the most susceptible to various environmental pressures and has a smaller circumference of experience and self-control.

In Slovenia, since 2001, we have been enforcing the move "Party with your head"/"With head to the party", which propagates party preparing without alcohol and other drugs. A message of the foundation "Party with your head" is placed in the broader media context, informing also those young people who have not visited a pub yet, as well as their parents (8). Numerous studies reveal that young people experience their first alcohol drinking in domestic environment, which is not particularly unusual regarding the fact that home production of alcoholic beverages is extended, and presence of alcohol in the Slovene culture (9). The data show that the proportion of drinkers at the age of 16 is in increase in Slovenia, and it is above international average (10). Albrecht (11) draws attention to a new form of drinking, so called binge drinking. The earlier this intoxicating substance is consumed, the more likely it is that it will be anchored, as it happens with all other addictions.

Alcohol has become a complex public health problem (6). The law on alcohol does exist, but its purpose is, above all, to maintaining public peace or market policy, not to protect public health (12). Examples of good practice from other countries (e.g. USA) confirm that adopted legislation on alcohol consumption has given effective results, and reduced consumption of alcohol has been achieved among young people (13).

As an integral part of health promotion (14), health education as a planned process of gaining knowledge related to health or disease management, has an extremely important role (15). It is not only extended information, but an active process of learning, taking into account experience and socio-economic factors, with purpose to motivate an individual or a group to be responsible for their own health. A variety of programmes allows knowledge acquisition regarding behavior and attitudes to a healthy lifestyle (16).

The purpose of this study was to find out about students' awareness of alcohol drinking harmfulness and to compare risky alcohol drinking among the students of two secondary schools of nursing.

## Metode / Methods

Quantitative approach, descriptive method, and a questionnaire were used.

## Instrument

Non standardized questionnaire was created, based on the literature review. It contained 27 closed, open and combined types of questions. At the beginning of the questionnaire, general demographic questions about the respondents were asked (gender, age), followed by questions related to alcohol and awareness of students about its harmful effects. Some questions offered several possible answers.

## Population

There were 140 male and female students on average 18 years of age in the fourth grade of Secondary Nursing School Slovenj Gradec (SNSG) and Secondary Nursing and Cosmetics School Izola (SNCIZ), who took part in the study. Forty five male (43%) and 60 female students returned valid questionnaires. The total number of returned questionnaires was 105, which is 77.2 % sample realization.

## Research procedure and data processing

Research was carried out at Secondary Nursing School Slovenj Gradec and Secondary Nursing and Cosmetics School Izola. Both schools were asked for written consent. Research followed all the directions of the Helsinki Declaration and Oviedo List. Survey was conducted in the school year 2012/2013. Before the beginning of the survey, students had been given instructions how to fill in the questionnaire. Filling out the questionnaire took 20 minutes and respondents had to return the questionnaire in 15 days in the accompanying envelop, which they left in the special box in their class to ensure anonymity. Participation was voluntary, with informed consent of each respondent. Collected data were statistically analyzed by the SPSS 17.0 program. The results were tested with contingency tables, chi-square test, and t-test of independent variables. All differences were evaluated as statistically significant at  $p < 0.05$ .

## Rezultati / Results

Results showed that 17 (29 %) students at Secondary Nursing School Slovenj Gradec [SNSG] tried alcohol for the first time at the age of 15. Eleven of them (21 %) at Secondary Nursing and Cosmetics School Izola [SNCIZ] tried alcohol at the age of 14. Four students (5 %) at SNSG tried alcohol for the first time at the age of five. Students at SNSG were on average younger ( $PV = 12.75$  years of age) when they tried alcohol for the first time than the students at SNCIZ ( $PV = 13.57$  years of age). The t-test of independent variables showed they were different and there were no statistically significance at the 5-% confidence interval. Therefore, the average age was not statistically significant.

Twenty-four students (49 %) at SNCIZ and 23 (41 %) students at SNSG answered that they were offered alcohol - for the first time - by their friends. Students at both schools stated that the aim of the meetings was not to drink alcohol.

We verified if the statements were statistically significant and if the findings could be transferred to the entire studied population. Calculation of Pearson chi-square test showed significance of 0.160 ( $p > 0.05$ ). So, there was no statistically significant

correlation between socializing with friends for a purpose of drinking. In the last three months, 23 (40%) students were drunk one to three times at SNSG. The answer »only once« gave 14 (30%) students at SNCIZ. In the last three months, more than six times had been drunk 15 (26%) students at SNSG, and 4 (8%) at SNCIZ. The difference between the students' answers that they were not drunk in the last

three months stands out. At SNCIZ there were 13 (10%) and 6 (28 %) at SNSG of such students. Statement that "they were drunk 3-4 times in the last three months", was confirmed by almost the same number of student at both schools, 7 at SNSG (12%) and 7 at SNCIZ (15%). When checking the liaison between the intoxication and school which students were attending, we used contingency tables, and associated chi-square test. The variables were *drunkenness in the last three months* and *high school*. Variable »Drunkenness in the last three months« was remade so that those who had been drunk more than once were put together. Thus, we got following responses: never, once or more than once.

As depicted at table [Table 1] the students at SNCIZ largely expressed that they had never been drunk, or that they had been drunk only once in the last three months. Student at SNSG had more positive answers regarding alcohol consumption. Pearson chi-square test 0.01 ( $p < 0.05$ ) showed that students at both schools were under the influence of alcohol in the last three months. Almost the same number of students stated, 40 (69 %) at SNSG and 35 (74 %) at SNCIZ, that alcohol is harmful to health. Ten students (74%) at both schools believed that alcohol is not harmful, and the other 10 (15%) that alcohol is harmful for the sick and pregnant women. That alcohol is not harmful at young age thought 7 (11%) students, three students (3%) at both schools did not know if alcohol was harmful. Correlation of views on the harmfulness of alcohol at two schools was tested by contingency tables and chi-square test. Two variables were used: opinion on the *dangers of alcohol* and

*secondary school*. Four possible answers were transformed into dichotomous variable (yes and no). Answers »I do not know« were not taken into consideration in the contingency tables and chi-square test.

At table [Table 2] it is depicted that there is no relationship between the opinion of the harmfulness of alcohol and secondary school that student attend, since the most respondents at both school expressed the same opinion.

## Rasprava / Discussion

Our hypothesis that students at SNSG abused alcohol more than students at SNCIZ was confirmed. It was found that the majority of students at SNSG tried alcohol for the first time at the age 15, and at SNCIZ at the age of 14. Bajt (17) in her research notes worrying facts that in the last few years alcohol drinking by young people occurs very early (even at the age of 11 and before) in most countries of the European Union. She also notes that young people first encounter alcohol in their domestic environment, since drinking alcohol in Slovenia often seems perfectly acceptable. Disney, Lavalley and Hsiao (13) indicate positive effects of strict legislation in the space of the USA, which resulted in reduced alcohol abuse among adolescents, aged 14 to 15, from 15% to 11%, greatly in male adolescents.

It can be confirmed that the students at SNSG more frequently drink/abuse alcohol than the students at SNCIZ. According to their answers, students at SNSG more frequ-

**TABLE [1]** Drunkenness in the last three months at both secondary schools / Opijenost u zadnja tri mjeseca u obje srednje škole

		Secondary school/ Srednja škola		All together/ Ukupno
		SNSG	NCIZ	
		Number / Broj		19
Never / Nikada	Proportion of drunkenness in the last three months / Omjer opijenosti u zadnja tri mjeseca	31.6 %	68.4 %	100.0 %
	School pr proportion / Omjer po školi	10.3 %	27.7 %	18.1 %
	P Proportion / Omjer	5.7 %	12.4 %	18.1 %
		Number / Broj		21
Drunkless in the last three months / Opijenost u zadnja tri mjeseca	Only once / Samo jedanput	Proportion of drunkness in the last three months / Omjer opijenosti u zadnja tri mjeseca		100.0 %
	School proportion / Omjer po školi	12.1 %	29.8 %	20.0 %
	All together / Ukupno	6.7 %	13.3 %	20.0 %
		Number / Broj		65
More than once / Više od jedanput	Proportion of drunkness in the last three months / Omjer opijenosti u zadnja tri mjeseca	69.2 %	30.8 %	100.0 %
	School proportion / Omjer po školi	77.6 %	42.6 %	61.9 %
	All together / Ukupno	42.9 %	19.0 %	61.9 %
All together / Ukupno		Number / Broj		105
Proportion of drunkness in the last three months / Omjer opijenosti u zadnja tri mjeseca		55.2 %	44.8 %	100.0 %
School proportion Školski omjer		100.0 %	100.0 %	
All together / Ukupno		55.2 %	44.8 %	100.0 %

**TABLE [2]** Opinion on alcohol-related harm / Mišljenje o štetnosti alkohola.

		Secondary school / Srednja škola		All together / Ukupno	
		SNSG	SNCIZ		
Opinion on alcohol-related harm / Mišljenje o štetnosti alkohola	Yes	Number / Broj	45	40	85
		Proportion / Broj	52.9 %	47.1 %	100.0 %
		School proportion / Omjer po školi	80.4 %	87.0 %	83.3 %
		All together / Ukupno	44.1 %	39.2 %	83.3 %
	No	Number / Broj	11	6	17
		Proportion / Omjer	64.7 %	35.3 %	100.0 %
		School proportion / Omjer po školi	19.6 %	13.0 %	16.7 %
		All together / Ukupno	10.8 %	5.9 %	16.7 %
Proportion / Omjer	Number / Broj	56	46	102	
	54.9 %	45.1 %	100.0 %		
	School proportion / Omjer po školi	100.0 %	100.0 %		
	All together / Ukupno	54.9 %	45.1 %	100.0 %	

ently used alcohol in the last three months. Calculation of the chi-square test of 0.01 ( $p < 0.05$ ) showed significant correlation between SNSG and SNCIZ where students were more susceptible to the effects of alcohol and where a higher proportion of responses "that they were never drunk or not more than once in the last three months" was found. Griffin, Bang and Botvin (18) studied how alcohol abuse in adolescence influences psychosocial functioning in adulthood. The results showed that the negative effects of early alcohol use strongly influenced later social and occupational functioning. We assumed that testing and use of alcohol are linked with following factors: adults, peers, parents, environment, and habits.

This study does not confirm that students meet their friends with an intention to drink alcohol, as no statistical significance was found. The data shows that students at SNSG drink alcohol with their friends more often than with their peers at SNCIZ, but there is no statistically significant relationship between socializing with friends because of drinking alcohol and two secondary nursing schools. Jennison (19) in his national representative longitudinal study found out that parental alcohol abuse increases the risk for alcohol abuse in their offspring. Young people whose biological father is a heavy drinker have three times greater behavioral problems. They describe their family life as poor, with a lot of conflicts, ineffective parental supervision and low family cohesion. Toumbourou and colleagues (20) found that good effects are achieved by interventions based on the liaison of family and school environment in the prevention of alcohol abuse. The results show a decrease in alcohol abuse among young people in secondary schools.

Young people reach for alcohol due to the desire for relaxation, fun with friends, curiosity, trying to escape from problems and many other reasons (21). Very similar reasons were found in our study. Largest number of answers stated that the cause was relaxation (students at SNSG) and enter-

tainment. The same reasons are found among the students at SNCIZ. Among the cause of alcohol drinking were also mentioned »to forget about the problems«. There were also few answers »I like the taste of alcohol«, found at both schools.

Hypothesis is also confirmed by the high proportion of students' responses at SNSG, giving their intoxication high rate at Likert Scale. We assume that we are confronted with abuse and a new form of hazardous drinking among the students at two nursing schools. A new form of alcohol binge is defined as drinking large quantities of alcohol in a short time in order to become very drunk. This method of drinking is popular mainly among young people in Europe, mostly in the northern and eastern Europe, and least popular in Mediterranean countries. In our environment, binging with alcohol is considered when a person in the short time drinks at least five cups of alcohol. It usually happens in the large groups, and it can last from one to several days in a row (22). Mounteney, Haugland and Skutle (23) in the Norwegian study state that those students who are absent from school and have bad learning habits, earlier reach for alcohol. They report about more frequent alcohol consumption and a greater amount of alcohol consuming (6+units).

In the second hypothesis we assumed that the students at Secondary Nursing School Izola are more aware of harmful effects of alcohol consumption than the students at Secondary Nursing School Slovenj Gradec. This is not confirmed, as there is a very small difference in the responses regarding knowledge, signs of intoxication, and harmful effects of the alcohol abuse. Fairly high proportion of the students' responses at both schools indicated knowledge about harmful effects and consequences of alcohol consumption. Relatively low but significant proportion of the responses indicates lack of knowledge, because they responded that alcohol is not harmful. The same number of answers indi-

cated that alcohol is harmful only for the sick and pregnant women. Among future health professionals there were answers that alcohol is not harmful to youth, and some respondents did not know if alcohol is harmful. We agree with Ramovš and Ramovš (24) that this ignorance about alcohol consumption, blindness for biochemical power of alcohol is particularly dangerous, as it leads to alcohol abuse.

In recent years alcohol drinking among young people has become a worrying issue in Slovenia and countries in the EU. Many researchers have been carried out in Europe and Slovenia about alcohol consumption among the young and how jeopardized they are. ESPAD survey was carried out in Slovenia in the years 1995, 1999 and 2003. Data analyses showed that proportion of adolescents who are regularly intoxicated was in increase (17).

European Association for Alcohol Policy (25) indicates that the young drinkers are at increased risk for traffic accidents, injuries and death, suicides and depression, absenteeism, impaired memory, loss of memory, fights, rapes, and unprotected sexual intercourse. It is encouraging that a high proportion of students in our study do not drive under the influence of alcohol. However, there is still a small number of students who do that, indicating their (un)awareness that it is against regulations, and recommendations not to drive under the influence of alcohol. The fact that a few students stated that they had driven under the influence of alcohol, because they were never so drunk that they could not drive, is really concerning. The responses indicate that people live in persuasion that healthy or normal drinking, or to be drunk is not uncommon, as already stated Jelenko (21). O'Malley and Johnston (26) found out that the proportion of young people who drove after alcohol drinking decreased, but the proportion of young people driving under the influence of marijuana increased. In their opinion this is happening because of the changing lifestyle. Efforts are needed in terms of raising young people's awareness of illicit drugs and their effects.

It was assumed that the students at SNCIZ were more aware of the harmful effects of alcohol consumption on health than the students at SNSG. This assumption cannot be confirmed for sure, since the students described intoxication signs and not short-term or long-term adverse consequences of alcohol consumption. Students mentioned these harmful effects: liver cirrhosis, dehydration, falls, accidents, poisoning and addiction, as well as hangover, being hurt or objects damage, liver failure and family breakdown. Will and Sabo (27) developed a preventive program in cooperation with secondary schools to raise awareness of students about the consequences of alcohol intake. The program was prepared in the form of 90-minute lectures, videos and interactive activities. According to Jennison (19), all the activities raised students' awareness, confirming the fact that secondary school students need preventive and intervention programs for alcohol abuse decrease. Stigler, Neusel and Perry state that interventions are effective if they are linked with social norms of alcohol use, personal and social skills building, providing assistance to young people to resist temptation and pressure to drink alcohol. They should be involved into interactive learning; moderators/facilitators should be trained so that interventions

are culturally and developmentally appropriate. Additional researches are recommended aimed at the development of interventions for primary schools (3). Newton et al (28) found that prevention-based programs via the Internet can improve knowledge on adolescent alcohol and cannabis. During 12-month follow-up, the researchers found that adolescents in the intervention group demonstrated a significant improvement in knowledge about alcohol and cannabis consumption compared with the control group. They found that the Internet is an important tool for education on the prevention of alcohol and drug abuse.

## Zaključak / Conclusion

Alcohol abuse among young people has become very common. Students mentioned that they were influenced by their friends and parents, since the vast majority had seen their parents being drunk. It is worrying that a high proportion of parents does not detect their children's drunkenness and do not show their disapproval when they come home drunk. This indicates a high tolerance for drinking and acceptance of alcohol. We especially emphasize importance of health education programs and health programs aimed at prevention of early alcohol consumption among students at elementary and secondary schools. Particular attention should be given to the risk drinking programs for young people and health education programs for parents. Young people need to learn about skills how to ward off peer pressure and how to resist alcohol abuse. Parents must become aware of the harmful effects of alcohol and must be informed about alcohol consumption as not to be threat to themselves and the others. The most sensible approach would be to introduce health education as a separate subject in elementary and secondary schools, carried out by health education teachers or other competent experts.

## Conflict of interests

The authors declare no conflict of interest.

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