ZLOUPOTREBA PSIHOAKTIVNIH SUPSTANCI OD STRANE MLADIH UZRASTA 15-24 GODINE U REPUBLICI SRBIJI

Tanja Milićević¹, Ana Marinković¹, Snežana Radovanović², Danijela Gračić³, Sanja Krulj⁴, Jasna Milosavljević⁵, Gazdić Mirjana⁵, Divna Simović Šiljković⁶, Marija Mujković⁷, Slađana Radivojević⁸, Predrag Stanojlović⁹

¹ Dom zdravlja Kraljevo, Rpublika Srbija

² Katedra za socijalnu medicinu, Fakultet medicinskih nauka, Univerzitet u Kragujevcu, Rpublika Srbija

³ Privatna ordinacija „Medicina Familija“, Svilajnac, Rpublika Srbija

⁴ Zavod za zdravstvenu zaštitu radnika železnice Srbije, Beograd, Ambulanta Lapovo, Rpublika Srbija

⁵ Fakultet medicinskih nauka Univerziteta u Kragujevcu, Rpublika Srbija

⁶ Dom zdravlja Gornji Milanovac, Rpublika Srbija

⁷ Dom zdravlja Lapovo, Rpublika Srbija

⁸ Dom zdravlja Topola, Rpublika Srbija

⁹ Specijalna bolnica za hiperbaričnu medicinu, Vrnjačka Banja, Rpublika Srbija

SAŽETAK

Uvod/Cilj: Zloupotreba psihoaktivnih supstanci među mladima predstavlja globalni javnozdravstveni problem. Cilj studije je bio da se ispita učestalost korišćenja psihoaktivnih supstanci u populaciji mladih uzrasta 15-24 godine u Republici Srbiji.

Metode: U okviru ove sekundarne analize podataka korišćeni su podaci iz dela Istraživanja zdravlja stanovništva Srbije iz 2013. godine, koju su sprovedli Ministarstvo zdravlja Republike Srbije i Institut za javno zdravlje Srbije. Ovom studijom preseka, sprovedenom na reprezentativnom uzorku populacije Srbije, bilo je obuhvaćeno 1722 ispitanika (49% žena i 51% muškaraca) uzrasta 15 do 24 godine.

Rezultati: Od ukupnog broja mladih uzrasta 15-24 godine, ⅓ njih se izjasnila po pitanju konzumiranja cigareta na sledeći način: 52,1% da konzumira cigarete svakodnevno, a 20,8% povremeno. Među ispitanicima 41,3% je bilo izloženo duvanskom dimu jedan i više sati dnevno u zatvorenom prostoru, a 49,4% je bilo zabrinuto zbog štetnih posledica pušenja po svoje zdravlje. Samo se trećina mladih izjasnila da alkohol nikada nisu konzumirali ili da su popili samo nekoliko gutljaja alkohola u svom životu. Muškarci su nešto češće svakodnevno pušili (52,2%) i češće konzumirali alkohol (svaki dan ili skoro svaki dan 0,7%, 5-6 dana u nedelji 0,7%, 3-4 dana u nedelji 4,5%, 1-2 dana u nedelji 15,7%, kao i 2-3 dana mesečno 16,8%) nego žene (0,3%; 0,2%; 1,7%; 7,8%; 12%). Tokom poslednjih 12 meseci, oko ¼ adolescenata je koristilo 6 i više alkoholnih pića 1-3 dana mesečno, 20,2% samonicijativno je koristilo sredstva protiv bolova, 1,7% sredstva za umirenje i 2,3% sredstva za spavanje. Korisnika nedozvoljenih psihoaktivnih supstanci (kao što su kanabis, kokain i lepak) je bilo 0,7%.

Zaključak: Rezultati studije zloupotrebe psihoaktivnih supstanci među mladima uzrasta od 15 do 24 godine u Srbiji ukazuju na neophodnost rada na prevenciji rizičnog ponašanja.

Cljučne reči: zavisnost od psihoaktivnih supstanci, cigarete, alkohol, analgetici, sedativi, lekovi za spavanje, mladi, populaciono istraživanje

Uvod

Zloupotreba psihoaktivnih supstanci predstavlja značajan problem pojedinca, porodice i društva, jer kao posledicu ostavlja štetne efekte na mentalno i fizičko zdravlje (1), porodične odnose, radnu sposobnost i društvenu delatnost (2). Takođe, značajni su troškovi koje snosi društvo zbog direktnih i indirektnih posledica zavisnosti od određenih supstanci (3).

Problem zloupotrebe i zavisnosti od psihoaktivnih supstanci najčešće se posmatra sa individualnog aspekta problema ličnosti, dok je socijalni kontekst često zanemaren. Kako bi se preduzele mere prevencije koje bi dale zadovoljavajuće rezultate, neophodno je napraviti odgovarajuće strategije za borbu protiv zloupotrebe psihoaktivnih supstanci koje treba da budu u skladu sa demografskim i socioekonomskim karakteristikama

ABUSE OF PSYCHOACTIVE SUBSTANCES BY YOUNG PEOPLE AGED 15-24 IN SERBIA

Tanja Milicevic¹, Ana Marinkovic¹, Snezana Radovanovic², Danijela Gracic³, Sanja Krulj⁴, Jasna Milosavljevic⁵, Mirjana Gazdic⁵, Divna Simovic Siljkovic⁶, Marija Mujkovic⁷, Sladjana Radivojevic⁸, Predrag Stanojlovic⁹

¹Health Center Kraljevo, Republic of Serbia

²Department of Social Medicine, Faculty of Medical Sciences, University of Kragujevac, Republic of Serbia

³Private Practice "Medicina Familija", Svilajnac, Republic of Serbia

⁴Institute for Health Protection of Workers of the Serbian Railways, Infirmary Lapovo, Republic of Serbia

⁵Faculty of Medical Sciences, University of Kragujevac, Republic of Serbia

⁶Health Center Gornji Milanovac, Republic of Serbia

⁷Health Center Lapovo, Republic of Serbia

⁸Health Center Topola, Republic of Serbia

⁹Special hospital for hyperbaric medicine, Vrnjacka Banja, Republic of Serbia

SUMMARY

Introduction/Aim: The abuse of psychoactive substances among young people is a significant global public health problem. The aim of the study was to examine the prevalence of psychoactive substances use among adolescents in Republic of Serbia.

Methods: In this secondary analysis of data, we used data from the Serbian national survey of population health from 2013, which was conducted by the Ministry of Health of the Republic of Serbia and Institute of Public Health of Serbia. This cross-sectional study, which was conducted on a representative sample of the population of Serbia, included 1722 respondents aged 15 to 24 years (49% of women and 51% of men).

Results: Out of the total number of young people aged 15-24, 1/3 of them declared themselves on the issue of cigarette consumption in the following way: 52.1% consumed cigarettes daily and 20.8% occasionally. Among the respondents, 41.3% were exposed to the indoor tobacco smoke for 1 hour or more daily, while 49.4% were concerned about the harmful effects of smoking on their health. Only a third said that they had never consumed alcohol or had only taken a few sips of alcohol in their lifetime. Men smoked slightly more often (52.2%) and consumed alcohol more often (every day or almost every day 0.7%, 5-6 days a week 0.7%, 3-4 days a week 4.5%, 1-2 days a week 15.7%, as well as 2-3 days a month 16.8%) than women (0.3%; 0.2%; 1.7%; 7.8%; 12%). About 1/4 adolescents used 6 or more alcoholic beverages 1-3 days a month for the last 12 months. During the last 12 months, the respondents most often consumed painkillers (20.2%), sedatives (1.7%) and sleeping aids (2.3%) on their own initiative. There were 0.7% of users of illicit psychoactive substances (cannabis, cocaine, and glue).

Conclusion: The results of the study of psychoactive substances abuse among young people in Serbia point to the necessity to work on the prevention of risky behavior.

Key words: addiction to psychoactive substances, cigarettes, alcohol, painkillers, sedatives, sleeping aids, young people, population survey

Introduction

The abuse of psychoactive substances presents a significant problem of the individual, family, and society, because it has harmful effects on mental and physical health (1), family relations, work ability and social activity (2). Also, costs which are paid by the society are significant, due to direct and indirect consequences of the addiction caused by certain substances (3).

The problem of abuse and addiction caused by psychoactive substances is often perceived from the individual perspective of personality-related problems, while the social context is often neglected. In order to take preventive measures, which would give satisfactory results, adequate strategies should necessarily be made for the fight against the abuse of psychoactive substances, which should be in accordance with the demo-

zajednice. Psihoaktivne supstance predstavljaju veliki javnozdravstveni izazov širom sveta, posebno u pogledu ugroženosti adolescenta (4).

Upotreba psihoaktivnih supstanci od strane adolescenata predstavlja ozbiljan zdravstveni problem, jer ih izlaže riziku i opasnosti po zdravlje i može ih na kraju dovesti do zavisnosti. To nije problem samo jedne zemlje ili jednog segmenta društva, nego je globalni problem i tiče se adolescenata širom sveta (5).

Cilj ove sekundarne analize podataka je bio da se ispita učestalost korišćenja različitih psihoaktivnih supstanci u populaciji mladih uzrasta 15 do 24 godine u Srbiji.

Metode

Ovom sekundarnom analizom podataka bilo je obuhvaćeno 1722 ispitanika (49% žena i 51% muškaraca) uzrasta 15 do 24 godine u Republici Srbiji. Kao osnova za analizu učestalosti korišćenja psihoaktivnih supstanci među mladima uzrasta 15 do 24 godine u Republici Srbiji korišćeni su podaci iz trećeg nacionalnog Istraživanja zdravlja stanovništva, sprovedenog od 7. oktobra do 30. decembra 2013. godine, na reprezentativnom uzorku stanovništva Republike Srbije. Nacionalno istraživanje je urađeno po tipu studije preseka i njime nije bila obuhvaćena populacija koja živi na teritoriji Autonomne pokrajine Kosovo i Metohija. Istraživanje je sprovedeno u skladu sa metodologijom i instrumentima Evropskog istraživanja zdravlja – drugi talas (engl. *EHIS-wave 2*) (6). Realizovali su ga Ministarstvo zdravlja Republike Srbije i Institut za javno zdravlje Srbije, u 2013. godini.

Za potrebe ovog istraživanja korišćeni su podaci o domaćinstvima i stanovništvu starosti od 15 do 24 godine, ukupno 1722 ispitanika. Podaci o konzumiranju cigareta, alkohola, psihoaktivnih supstanci i drugih lekova, dobijeni su putem upitnika za samopopunjavanje, a u skladu sa metodologijom i instrumentima Evropskog istraživanja zdravlja – drugi talas (engl. *EHIS-wave 2*). Na pitanje „Da li sada pušite?“ ispitanici su odgovarali sa: da, svakodnevno; da, povremeno, ne i bez odgovora. Na pitanje da li su izloženi duvanskom dimu u zatvorenom prostoru, ispitanici su imali ponuđene sledeće odgovore: nikad ili skoro nikad; manje od jedan sat dnevno; jedan sat i više dnevno; bez odgovora. Na pitanje koje se odnosilo na zabrinutost zbog štetnih posledica pušenja po svoje zdravlje, ponuđeni

odgovori su bili: da, veoma; da, po malo; ne previše; ne, nimalo; bez odgovora. Na pitanje „Da li Vam je tokom prethodnih 12 meseci lekar ili drugi zdravstveni radnik savetovao da prestanete da pušite?“, mogući odgovori su bili: da i ne. Ispitanici su, takođe, pitani o vrsti cigareta koje konzumiraju, kao i o pokušaju da prestanu sa pušenjem. Unos alkohola je procenjen na osnovu odgovora na pitanje: „Koliko često ste tokom prethodnih 12 meseci pili alkoholna pića (pivo, vino, žestoka pića, koktele, likere, alkoholna pića iz kućne/domaće proizvodnje i dr.)?“ Ponuđeni odgovori su bili sledeći: svaki dan ili skoro svaki dan; 5-6 dana u nedelji; 3-4 dana u nedelji; 1-2 dana u nedelji; 2-3 dana mesečno; jednom mesečno; ne u proteklih 12 meseci jer više ne pijem; nikad ili nekoliko gutljaja u svom životu; bez odgovora. Na pitanje „Da li konzumirate 6 i više alkoholnih pića po jednoj prilici?“, mogući odgovori su bili: 5-6 dana u nedelji; 3-4 dana u nedelji; 1-2 dana u nedelji; 2-3 dana u mesecu; jednom mesečno; manje od jednom mesečno; ne u prethodnih 12 meseci; nikada u životu; bez odgovora. Učestalost korišćenja drugih psihoaktivnih supstanci (lekova i ilegalnih droga) tokom prethodnih 12 meseci odnosila se na sredstva za spavanje, sredstva za umirenje, sredstva protiv bolova, kanabis (marihuana ili hašiš), kokain, isparljive supstance (lepak), ništa od navedenog i bez odgovora.

Hi-kvadrat (χ^2) test je korišćen za upoređivanje razlika u učestalosti kategorijskih varijabli. Statistički značajnim smatrali su se svi rezultati gde je verovatnoća greške tipa I (alfa-nivo značajnosti) bila manja od 5% ($p < 0,05$). Statistička analiza podataka urađena je korišćenjem komercijalnog, standardnog programskog paketa SPSS, verzija 20.0.

Rezultati

Od ukupnog broja mladih uzrasta 15-24 godine, $\frac{1}{3}$ njih se izjasnila po pitanju konzumiranja cigareta na sledeći način: da konzumira cigarete svakodnevno 52,1% i povremeno 20,8%, dok se svaki peti izjasnio da to ne čini (19,4%). Odgovor na ovo pitanje izbeglo je 7,7% mladih (Tabela 1). Ne postoji statistički značajna razlika u pušačkim navikama između muškaraca i žena ($p > 0,05$). Među ispitanicima koji su se izjasnili da konzumiraju cigarete svakodnevno više je bilo muškaraca (52,2%) nego žena (51,9%), dok je među onima koji puše povre-

graphic and socioeconomic characteristics of one society. Psychoactive substances present a global public health challenge across the world, especially as far as adolescents are concerned (4).

The use of psychoactive substances by adolescents presents a serious health problem, because they are exposed to the risk which is harmful for their health, and it can finally lead them to addiction. It is not only a problem of one country or one segment of society; it is a global problem which concerns adolescents across the globe (5).

The aim of this secondary analysis of data was to examine the frequency of use of different psychoactive substances in the population of young people aged 15 to 24 in Serbia.

Methods

The secondary analysis of data included 1722 respondents (49% of women and 51% of men) aged 15 to 24 in The Republic of Serbia. Data from the third National survey of population health, which was conducted from 7th October to 30th December, 2013 on the representative sample of the population of The Republic of Serbia, were used as the base for the analysis of frequency of psychoactive substances use among young people aged 15 to 24 in The Republic of Serbia. The Serbian national survey was a cross-sectional study and it did not include population that lived in the territory of the Autonomous Province of Kosovo and Metohija. The survey was conducted in accordance with the methodology and instruments of the European Health Interview Survey (EHIS – wave 2) (6). It was realized by the Ministry of Health of The Republic of Serbia and the Institute of Public Health of Serbia in 2013. Data about households and population aged 15 to 24, that is 1722 respondents in total, were used for the needs of this survey. Data about cigarettes and alcohol consumption, psychoactive substances and other drugs were gained with the help of a Self-Assessment Questionnaire, in accordance with the methodology and instruments of The European Health Interview Survey - wave 2 (EHIS – wave 2). In answer to the question “Are you smoking now?” the respondents replied with: yes, every day; yes, occasionally, no, and no answer. The respondents could opt for one of the following answers to the question that related their exposure to the indoor tobacco smoke: never or almost never; less than one hour a day; 1

hour and more per day; no answer. The question regarding the concerns about harmful effects of smoking on their health included the following answers: yes, very; yes, a little bit; not too much; no, not at all; no answer. Possible answers to the question “Have you been advised by your doctor or any other health care worker to stop smoking during the last 12 months?” were: yes and no. Respondents were also asked about the type of cigarettes they consumed, as well as whether they tried to stop smoking. The alcohol intake was estimated according to the answer to the question: “How often have you consumed alcoholic drinks during the last 12 months (beer, wine, strong drinks, cocktails, liqueurs, homemade alcoholic drinks, and drinks from domestic production, etc.)?” The listed answers were the following: every day or almost every day; 5-6 days a week; 3-4 days a week; 1-2 days a week; 2-3 days a month; once a month; not in the past 12 months because I don’t drink alcohol anymore; never or a few sips in my life; no answer. The listed answers to the question “Do you consume 6 or more alcoholic drinks per occasion?” were the following: 5-6 days a week; 3-4 days a week; 1-2 days a week; 2-3 days a month; once a month; less than once a month; not during the past 12 months; never in my life; no answer. The frequency of use of psychoactive substances (drugs and illegal drugs) during the last 12 months related to sleep agents, soothing agents, painkillers, cannabis (marijuana and hashish), cocaine, volatile substances (adhesive), none of the above and no answer.

A chi-square (χ^2) test was used to compare the difference in the frequency of categorical variables. All results, where the probability of error type I (alpha-level of significance) was less than 5% ($p < 0.05$), were deemed to be statistically significant. The statistical analysis of data was done with the help of commercial, standard, program package SPSS, version 20.0.

Results

Out of the total number of young people aged 15 to 24, 1/3 declared themselves on the issue of cigarette consumption in the following way: 52.1% consumed cigarettes every day, while 20.8% consumed cigarettes occasionally and every fifth respondent stated that they did not consume cigarettes (19.4%). 7.7% of young people avoided to

Tabela 1. Distribucija mladih 15-24 godine (N=582) prema pušačkom statusu, Srbija, 2013. godine

Konзумiranje cigareta	Da, svakodnevno Broj (%)	Da, povremeno Broj (%)	Ne Broj (%)	Bez odgovora Broj (%)
Muškarci (N=295)	154 (52.2)	60 (20.3)	60 (20.3)	21 (7.2)
Žene (N=287)	149 (51.9)	61 (21.3)	53 (18.5)	24 (8.3)
Ukupno (N=582)	303 (52.1)	121 (20.8)	113 (19.4)	45 (7.7)

p vrednost prema $\chi^2 < 0,001$

meno bilo neznatno više žena (21,3%) nego muškaraca (20,3%).

Posmatrano prema vrsti cigareta koje konzumiraju, 84,2% se izjasnilo da konzumira cigarete (fabrički proizvedene ili samostalno zavijene), a od njih jedna trećina je pokušala da prestane da puši. Svaki peti korisnik duvana (19,4%) se izjasnio da je dobio savet od lekara ili drugog zdravstvenog radnika da prestane sa pušenjem.

Najveći procenat ispitanika (41,3%) je bio izložen duvanskom dimu u zatvorenom prostoru sat i više vremena dnevno, a samo 17% nikada ili skoro nikada (Grafikon 1).

Svaki drugi ispitanik je bio pomalo ili ne previše zabrinut zbog štetnih posledica pušenja po svoje zdravlje, a čak svaki peti bio je veoma zabrinut (Grafikon 2). Ni malo nije bilo zabrinuto 13,7% ispitanika. Trećina anketiranih se izjasnila da nikada nije konzumirala alkohol ili da je svega nekoliko gutljaja alkohola popila u svom životu (Tabela 2). Analiza po polu pokazala je da su muškarci češće konzumirali alkohol od žena u situacijama kada su to činili svaki dan, i više puta nedeljno, dok su žene ređe konzumirale alkohol (i to jednom mesečno 13,7% ili skoro nikada 40,6%). Razlika je bila statis-

tički značajna ($p < 0,001$).

Svaki dan ili skoro svaki dan 6 i više alkoholnih pića po jednoj prilici je konzumiralo 0,3% ispitanika, 4,9% 1-2 dana u nedelji, 1,8% 3-4 dana, a 0,1% 5-6 dana u nedelji (Grafikon 3). Nikada u životu to nije činilo 18,4% ispitanika.

Među ispitanicima koji su samoinicijativno konzumirali lekove najviše je onih koji su konzumirali sredstva protiv bolova (20,2%), sredstva za spavanje (2,3%) i sredstva za umirenje (1,7%), dok je među korisnicima ilegalne droge 0,5% onih koji su konzumirali kanabis, marihuanu ili hašiš, 0,1% isparljive supstance (lepak) i 0,1% kokain (Grafikon 4).

Diskusija

U našem istraživanju čak 73% mladih uzrasta 15-24 godina je svakodnevno ili povremeno pušilo cigarete. Zabrinjava podatak da je svaki drugi ispitanik našeg istraživanja tek pomalo ili osrednje bio zabrinut, a da je tek svaki peti bio veoma zabrinut, zbog štetnih posledica pušenja po svoje zdravlje.

Prema podacima Svetske zdravstvene organizacije (SZO), alkohol i duvan su najčešće korišćene psihoaktivne supstance (7).

Grafikon 1. Distribucija mladih 15-24 godine (N=1682) prema izloženosti duvanskom dimu u zatvorenom prostoru, Srbija, 2013. godine

Table1. Distribution of young people aged 15-24 (N=582) by cigarette consumption, Serbia, 2013

Cigarette consumption	Yes, every day No (%)	Yes, occasionally No (%)	No No (%)	No answer No (%)
Men (N=295)	154 (52.2)	60 (20.3)	60 (20.3)	21 (7.1)
Women (N=287)	149 (51.9)	61 (21.3)	53 (18.5)	24 (8.4)
Total (N=287)	303 (52.1)	121 (20.8)	113 (19.4)	45 (7.7)

p vrednost prema $\chi^2 < 0,001$

give answer to this question (Table 1). There was no statistically significant difference regarding smoking habits between men and women ($p > 0.05$). There were more men (52.2%) than women (51.9%) among respondents who stated that they did not consume cigarettes every day, while there were slightly more women (21.3%) than men (20.3%) among those respondents who smoked occasionally.

According to the type of cigarettes, 84.2% stated that they consumed cigarettes (manufactured in factories or rolled cigarettes), while 1/3 of them tried to stop smoking. Every fifth respondent (19.4%), who consumed cigarettes, stated that he was advised by his doctor or other health care worker to stop smoking.

The greatest percentage of respondents (41.3%) was exposed to indoor tobacco smoke one hour or more a day, and only 17% never or almost never (Figure 1).

Every other respondent was a little bit concerned, but not too much about the harmful effects of smoking on their health, and every fifth was very concerned (Figure 2). 13.7% of respondents did not worry at all. One third of respon-

dents stated that they never consumed alcohol or that they had a few sips in their lifetime (Table 2). Gender-related analysis showed that men consumed alcohol more often than women in situations when they did it every day, or more times a week, whereas women consumed alcohol less frequently (once in a month 13.7% or almost never 40.6%). The difference was statistically significant ($p < 0.001$).

Six or more alcoholic drinks per one occasion were consumed every day or almost every day by 0.3% respondents, 1-2 days a week by 4.9%, 3-4 days by 1.8%, 5-6 days a week by 0.1% (Figure 3). 18.4% respondents had never done it.

Among the respondents, who consumed drugs on their own initiative, most of them used painkillers (20.2%), sleep agents (2.3%) and soothing agents (1.7%), while among the respondents, who used illegal drugs, 0.5% consumed cannabis, marijuana and hashish, 0.1% consumed volatile substances (glue) and 0.1% cocaine (Graph 4).

Discussion

In our research, even 73% of young people aged 15-24 smoked cigarettes every day or occa-

■ Never or almost never ■ Less than 1 hour a day ■ 1 hour and more per day ■ No answer

Figure 1. Distribution of young people aged 15-24 (N=1682) by exposure to indoor smoke, Serbia, 2013

Grafikon 2. Distribucija mladih 15-24 godine (N=1682) prema zabrinutosti zbog štetnih posledica pušenja po svoje zdravlje, Srbija, 2013. godine

Pušenje je najčešći pojedinačni uzrok prerane smrti za ljude savremenog sveta. Prema podacima SZO, od posledica pušenja oko pet miliona ljudi umre svake godine (8). Pušenje je takođe značajan faktor rizika za mnoge bolesti: respiratorne, maligne, gastrointestinalne, genitourinarne i hematološke (9).

Aktivno pušenje mladih je povezano sa značajnim zdravstvenim problemima u detinjstvu i adolescenciji i sa povećanim faktorima rizika za zdravstvene probleme u odraslom dobu (10).

Naši rezultati pokazuju da je 56,4% mladih uzrasta 15-24 godine konzumiralo alkohol u poslednjih 12 meseci, bilo da su to činili svakodnevno, nekoliko puta mesečno, ili pak nekoliko dana u nedelji.

Studije potrošnje alkohola među evropskim adolescentima (ESPAD) ukazuju na to da je upotreba alkohola među mladima u skoro svim evropskim zemljama u porastu (7,8), uprkos činjenici da su srednjoškolci dobro informisani o zdravstvenim rizicima koji proizilaze iz konzumiranja alkohola (9).

Alkohol je psihoaktivna supstanca koja se najčešće koristi i zloupotrebljava od strane adolescenata (6). To potvrđuju rezultati istraživanja o učestalosti konzumiranja alkohola među adolescentima koja su sprovedena u mnogim zemalja sveta: Rumunija i Švedska (71-74%), Crna Gora, Norveška, Albanija i Island (43-65%), Italija (63,3%), Nemačka (52,3%) i Sjedinjene Američke Države (71%) (11).

Istraživanje u Velikoj Britaniji je pokazalo da je upotreba alkohola među adolescentima češća u domaćinstvima sa većim primanjima (12).

Istraživanje u Velikoj Britaniji je pokazalo da je upotreba alkohola među adolescentima češća u domaćinstvima sa većim primanjima (12).

Tabela 2. Distribucija mladih 15-24 godine (N=1682) prema učestalosti korišćenja alkohola tokom poslednjih 12 meseci, Srbija, 2013. godine

Konzumiranje alkohola	Broj (%)	Svaki dan ili skoro svaki dan	5-6 dana u nedelji	3-4 dana u nedelji	1-2 dana u nedelji	2-3 dana mesečno	Jednom mesečno	Manje od jednom mesečno	Ne u proteklih 12 meseci. jer više ne pijem alkohol	Nikad ili nekoliko gutljaja u svom životu	Bez odgovora
Muškarci		6 (0.7)	6 (0.7)	37 (4.5)	129 (15.7)	138 (16.8)	114 (13.9)	94 (11.4)	29 (3.5)	224 (27.3)	45 (5.5)
Žene		3 (0.3)	2 (0.2)	15 (1.7)	67 (7.8)	103 (12.0)	118 (13.7)	118 (13.7)	38 (4.4)	349 (40.6)	47 (5.5)
Ukupno		9 (0.5)	8 (0.5)	52 (3.1)	196 (11.7)	241 (14.3)	232 (13.8)	212 (12.6)	67 (4.0)	573 (34.1)	92 (5.5)

p vrednost prema $\chi^2 < 0,001$

Figure 2. Distribution of young people aged 15-24 (N=1682) according to concerns about the harmful effects of smoking on their health, Serbia, 2013

sionally. It is very worrying that every other respondent was concerned only a little bit or not too much, and that only every fifth was very concerned because of harmful effects on their health.

According to the data of the World Health Organization (WHO), alcohol and tobacco are the most frequently used psychoactive substances (7).

Smoking is the most frequent individual cause of early death for the people living in the contemporary world. According to the WHO data, around five million people die of consequences of smoking every year (8). Smoking is also a significant risk factor for numerous diseases: respiratory, malign, gastrointestinal, genitourinary and hematological (9).

Active smoking among young people is connected with the significant health problems during childhood and adolescence, as well as with in-

creased risk factors relating to health problems during adulthood (10).

Our results showed that 56.4% of young people aged 15-24 consumed alcohol during the last 12 months, no matter whether they consumed it every day, a few times a month or a few times a week.

Studies dealing with alcohol consumption among European adolescents pointed to the fact that alcohol consumption among adolescents in almost all European countries was on the increase (7,8), although high school students were well informed about health risks which were caused by alcohol consumption (9).

Alcohol is a psychoactive substance which is most often used and abused by adolescents (6). This is confirmed by the results of studies on the frequency of alcohol consumption among ad-

Table 2. Frequency of alcohol use among young people aged 15-24 (N=1682) during the last 12 months, Serbia, 2013

Alcohol use No (%)	Every day or almost every day	5-6 days a week	3-4 days a week	1-2 days a week	2-3 days a month	Once a month	Less than once a month	Not in the past 12 months because don't drink alcohol anymore	Never or a few sips in my life	No answer
Men	6 (0.7)	6 (0.7)	37 (4.5)	129 (15.7)	138 (16.8)	114 (13.9)	94 (11.4)	29 (3.5)	224 (27.3)	45 (5.5)
Women	3 (0.3)	2 (0.2)	15 (1.7)	67 (7.8)	103 (12.0)	118 (13.7)	118 (13.7)	38 (4.4)	349 (40.6)	47 (5.5)
Total	9 (0.5)	8 (0.5)	52 (3.1)	196 (11.7)	241 (14.3)	232 (13.8)	212 (12.6)	67 (4.0)	573 (34.1)	92 (5.5)

p vrednost prema $\chi^2 < 0,001$

Grafikon 3. Distribucija mladih 15-24 godine (N=1042) prema korišćenju 6 i više alkoholnih pića po jednoj prilici tokom poslednjih 12 meseci, Srbija, 2013. godina

Adolescenti koji konzumiraju alkohol su više skloni drugim oblicima zdravstveno rizičnih ponašanja, kao što su vožnja sa vozačem koji je konzumirao alkohol, rizična seksualna aktivnost, pušenje cigareta, sklonost ka nasilju, samoubistava i upotreba opojnih droga. Takođe je primećeno da su adolescenti koji konzumiraju alkohol češće pušači i da su skloniji psihičkom maltretiranju, uvredama i fizičkom nasilju (tučama) (13).

Rezultati pojedinih istraživanja pokazuju da su adolescenti koji su koristili alkohol više od pet puta u životu, doživeli bar jedan problem u vezi sa upotrebom alkohola (npr. problem sa zakonom, zdravstveni problemi, izostanak iz škole, itd.) (14,15).

Rezultati našeg istraživanja ukazuju da 0,5% mladih koristi kanabis, marihuanu i hašiš, 0,1% isparljive supstance, a 0,1% kokain. Poljska studija koja je istraživala prevalenciju i faktore povezane sa upotrebom psihoaktivnih supstanci kod adolescenata pokazuje da kanabis, kokain i amfetamin zloupotrebljava 13,9% adolescenata, a da čak 16,6% konzumira dve ili tri psihoaktivne supstance istovremeno (16).

Anksioznost, nizak nivo samopoštovanja i samokontrole, kao i nizak nivo roditeljske kontrole, takođe predstavljaju rizik za zloupotrebu psihoaktivnih supstanci (17). Verovatnije je da mladi ljudi koji zloupotrebljavaju psihoaktivne supstance imaju viši nivo psihološkog stresa i obično nisu u

Grafikon 4. Distribucija mladih 15-24 godine (N=1682) prema korišćenju psihoaktivnih supstanci (lekova i ilegalnih droga) tokom poslednjih 12 meseci, Srbija, 2013. godine

Figure 3. Distribution of young people aged 15-24 (N=1042) by using 6 or more alcoholic drinks alcohol per occasion over the last 12 months, Serbia, 2013

olescents that were conducted in many countries: Romania and Sweden (71-74%), Montenegro, Norway, Albania and Iceland (43-65%), Italy (63.35), Germany (52.35) and the United States of America (71%) (11).

The study in Great Britain showed that alcohol consumption among adolescents was more frequent in households with higher incomes (12). Adolescents who consumed alcohol were inclined to other forms of risky behavior related to health, such as driving with a driver who consumed alcohol, risky sexual activity, smoking cigarettes, tendency to violence, suicide, and use of narcotics. Also, it was noticed that adolescents who consumed alcohol smoked more often and were more

inclined to psychological harassment, insults and physical violence (fights) (13).

Results of some studies showed that adolescents who used alcohol experienced at least one problem regarding alcohol consumption more than five times in life (problems with law, problems related to health, absence from school, etc.) (14,15).

The results of our research indicate that 0.5% of young people use cannabis, marijuana and hashish, 0.1% volatile substances, and 0.1% cocaine. A study from Poland that dealt with prevalence and factors related to the use of psychoactive substances in adolescents showed that cannabis, cocaine and amphetamines were abused by 13.9%

Figure 4. Distribution of young people aged 15-24 (N=1682) by using other psychoactive substances (drugs and illicit drugs) during the last 12 months, Serbia, 2013

mogućnosti da se odupru pritisku vršnjaka (18).

Primarna socijalizacija i vaspitanje u porodici imaju najvažniji uticaj na zdravstveno ponašanje adolescenata, jer su roditelji ključni za ugrađivanje ispravnih socijalnih i zdravstvenih obrazaca ponašanja kod mladih. Stavovi roditelja, koji direktno odobravaju ili indirektno podržavaju zloupotrebu psihoaktivnih supstanci, imaju veliki značaj za formiranje stavova adolescenata, posebno ako postoji slučaj zloupotrebe psihoaktivnih supstanci unutar porodice (19).

Zaključak

Rezultati ovog istraživanja o korišćenju psihoaktivnih supstanci u populaciji mladih uzrasta 15-24 godine, govore da je zloupotreba psihoaktivnih supstanci veliki javnozdravstveni problem uprkos poznavanju njihovih štetnih efekata. Koliko će mladi eksperimentisati sa psihoaktivnim supstancama zavisi, između ostalog, od njihove dostupnosti, zakonske regulative, brige i stavova roditelja, školske uprave, kao i od mogućnosti koje pruža lokalna zajednica. Važno je istaći da je i samo probanje psihoaktivnih supstanci kod mladih vrlo rizično, iako se često smatra bezazlenim neretko je osnov za kasniju zloupotrebu.

Svi podaci ukazuju da je neophodno kreirati nove promotivne intervencije i programe za suzbijanje ovog problema.

Literatura

- Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al. The 2011 ESPAD Report - Substance Use Among Students in 36 European Countries. Stockholm, Sweden: The Swedish Council for Information on Alcohol and Other Drugs (CAN), 2012.
- Beck F, Legleye S. Sociology and epidemiology of consumption of psychoactive substances in adolescents. *Encephale* 2009; 35(6):190-201.
- Penney J, Dargan PI, Padmore J, Wood DM, Norman IJ. Epidemiology of adolescent substance use in London schools. *QJM* 2015; (26):171.
- Medina-Pérez ÓA, Rubio LA. Psychoactive Drug Abuse in Adolescent Addicts of a Colombian Rehabilitation Foundation. Descriptive Study. *Rev Colomb Psiquiatr* 2012; 41(3):550-61.
- Adamek R, Zysnarska M, Gromadecka-Sutkiewicz M, Kraśniewska B, Jagielska J. The prevalence of tobacco smoking and psychoactive substances use among students from High School of Country Economy in Kutno. *Przegl Lek* 2010; 67(10):976-8.
- European Health Interview Survey (EHIS wave 2) Methodological manual 2013. Available online at: <http://ec.europa.eu/eurostat/documents/3859598/5926729/KS-RA-13->
- JulRichter M, Pfortner TK, Lampert T. Changes in tobacco, alcohol and cannabis use by adolescents from 2002 to 2010 in Germany. *Gesundheitswesen* 2012; 74:42-8.
- World Health Organization. WHO report on the global tobacco epidemic, 2017: monitoring tobacco use and prevention policies. Geneva: World Health Organization, 2017.
- Jiang N, Wang MP, Ho SY, Leung LT, Lam TH. Electronic cigarette use among adolescents: a cross-sectional study in Hong Kong. *BMC Public Health* 2016; 16(1):202.
- Malta DC, Oliveira-Campos M, do Prado RR, Andrade SS, de Mello FC, Dias AJ, et al. Psychoactive substance use, family context and mental health among Brazilian adolescents, National Adolescent School-based Health Survey (PeNSE 2012). *Rev Bras Epidemiol* 2014; 17(1):46-61.
- Can G, Topbas M, Oztuna F, Ozgun S, Can E, Yavuzylmaz A. Factors contributing to regular smoking in adolescents in Turkey. *J Sch Health* 2009; 79(3): 93-7.
- Rerksuppaphol L, Rerksuppaphol S. Prevalence of Cigarette Smoking and Associated Risk Factors amongst Middle-School Students in Ongkharak District, Thailand. *J Med Assoc Thai* 2015; 98(9):1-8.
- Ogwell AE, Aström AN, Haugejorden O. Socio-demographic factors of pupils who use tobacco in randomly-selected primary schools in Nairobi province, Kenya. *East Afr Med J* 2003; 80(5): 235-41.
- Madu SN, Matla MQ. Illicit drug use, cigarette smoking and alcohol drinking behaviour among a sample of high school adolescents in the Pietersburg area of the Northern Province, South Africa. *J Adolesc* 2003; 26(1):121-36.
- Mikolajczyk RT, Sebens R, Warich J, Naydenova V, Dudziak U, Orosova O. Alcohol Drinking in University Students Matters for Their Self-Rated Health Status: A Cross-sectional Study in Three European Countries. *Front Public Health* 2016; 4:210.
- Modrzejewska R, Bomba J. Prevalence of mental disorders and psychoactive substance use in metropolitan 17-year old youth population. *Psychiatr Pol* 2010; 44(4): 579-92.
- Roy É, Nolin MA, Traoré I, Leclerc P, Vasiliadis HM. Nonmedical use of prescription medication among adolescents using drugs in Quebec. *Can J Psychiatry* 2015; 60(12):556-63.
- Champion KE, Teesson M, Newton NC. Patterns and correlates of new psychoactive substance use in a sample of Australian high school students. *Drug Alcohol Rev* 2016; 35(3):338-44.
- Melotti R, Lewis G, Hickman M, Heron J, Araya R, Macleod J. Early life socio-economic position and later alcohol use: birth cohort study. *Addiction* 2013; 108(3):516-525.

of adolescents, and that even 16.6% of them consumed two or more psychoactive substances simultaneously (16).

Anxiety, low level of self-respect and self-control, as well as the low level of parental control also represent a risk for psychoactive substances abuse (17). It is more likely that young people who abuse psychoactive substances have a higher level of psychological stress and they are usually not able to resist the peers' influence (18).

Primary socialization and education in family have the most significant influence on health-related behavior of adolescents, because parents are key figures for creating correct social and health-related patterns of behavior in young people. Attitudes of parents, who directly permit or indirectly support the abuse of psychoactive substances, are significant for adolescents' attitude formation, especially if the abuse of psychoactive substances is present within the family (19).

Conclusion

Results of this research on the use of psychoactive substances in the population of young people aged 15-24 point to the fact that the abuse of psychoactive substances is a great public-health problem although its harmful effects are well-known. Whether young people will experiment with psychoactive substances and to what extent depends on, among other things, their availability, legal regulations, parents' care and attitudes, school system, as well as on the possibilities offered by the local community. It is important to emphasize that it is risky even to try psychoactive substances as far as young people are concerned. Although it is usually deemed to be harmless, it often becomes the basis for further abuse.

All data show that it is necessary to create new promotional interventions and programs for the eradication of this problem.

Literature

- Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al. The 2011 ESPAD Report - Substance Use Among Students in 36 European Countries. Stockholm, Sweden: The Swedish Council for Information on Alcohol and Other Drugs (CAN), 2012.
- Beck F, Legleye S. Sociology and epidemiology of consumption of psychoactive substances in adolescents. *Encephale* 2009; 35(6):190-201.
- Penney J, Dargan PI, Padmore J, Wood DM, Norman IJ. Epidemiology of adolescent substance use in London schools. *QJM* 2015; (26):171.
- Medina-Pérez ÓA, Rubio LA. Psychoactive Drug Abuse in Adolescent Addicts of a Colombian Rehabilitation Foundation. Descriptive Study. *Rev Colomb Psiquiatr* 2012; 41(3):550-61.
- Adamek R, Zysnarska M, Gromadecka-Sutkiewicz M, Kraśniewska B, Jagielska J. The prevalence of tobacco smoking and psychoactive substances use among students from High School of Country Economy in Kutno. *Przegl Lek* 2010; 67(10):976-8.
- European Health Interview Survey (EHIS wave 2) Methodological manual 2013. Available online at: <http://ec.europa.eu/eurostat/documents/3859598/5926729/KS-RA-13->
- JulRichter M, Pförtner TK, Lampert T. Changes in tobacco, alcohol and cannabis use by adolescents from 2002 to 2010 in Germany. *Gesundheitswesen* 2012; 74:42-8.
- World Health Organization. WHO report on the global tobacco epidemic, 2017: monitoring tobacco use and prevention policies. Geneva: World Health Organization, 2017.
- Jiang N, Wang MP, Ho SY, Leung LT, Lam TH. Electronic cigarette use among adolescents: a cross-sectional study in Hong Kong. *BMC Public Health* 2016; 16(1):202.
- Malta DC, Oliveira-Campos M, do Prado RR, Andrade SS, de Mello FC, Dias AJ, et al. Psychoactive substance use, family context and mental health among Brazilian adolescents, National Adolescent School-based Health Survey (PeNSE 2012). *Rev Bras Epidemiol* 2014; 17(1):46-61.
- Can G, Topbas M, Oztuna F, Ozgun S, Can E, Yavuzylmaz A. Factors contributing to regular smoking in adolescents in Turkey. *J Sch Health* 2009; 79(3): 93-7.
- Rerksupphol L, Rerksupphol S. Prevalence of Cigarette Smoking and Associated Risk Factors amongst Middle-School Students in Ongkharak District, Thailand. *J Med Assoc Thai* 2015; 98(9):1-8.
- Ogwell AE, Aström AN, Haugejorden O. Socio-demographic factors of pupils who use tobacco in randomly-selected primary schools in Nairobi province, Kenya. *East Afr Med J* 2003; 80(5): 235-41.
- Madu SN, Matla MQ. Illicit drug use, cigarette smoking and alcohol drinking behaviour among a sample of high school adolescents in the Pietersburg area of the Northern Province, South Africa. *J Adolesc* 2003; 26(1):121-36.
- Mikolajczyk RT, Sebens R, Warich J, Naydenova V, Dudziak U, Orosova O. Alcohol Drinking in University Students Matters for Their Self-Rated Health Status: A Cross-sectional Study in Three European Countries. *Front Public Health* 2016; 4:210.
- Modrzejewska R, Bomba J. Prevalence of mental disorders and psychoactive substance use in metropolitan 17-year old youth population. *Psychiatr Pol* 2010; 44(4): 579-92.

Sukob interesa: Nije prijavljen.

Primljen: 08.10.2020.

Revizija: 08.02.2021.

Prihvaćen: 17.02.2021.

Autor za korespondenciju: doc. dr Snežana Radovanović, Katedra za socijalnu medicinu, Fakultet medicinskih nauka, Univerzitet u Kragujevcu, Svetozara Markovića 69, 34000 Kragujevac, Srbija; e-mail: jovanarad@yahoo.com

17. Roy É, Nolin MA, Traoré I, Leclerc P, Vasiliadis HM. Nonmedical use of prescription medication among adolescents using drugs in Quebec. *Can J Psychiatry* 2015; 60(12):556-63.
18. Champion KE, Teesson M, Newton NC. Patterns and correlates of new psychoactive substance use in a sample of Australian high school students. *Drug Alcohol Rev* 2016; 35(3):338-44.
19. Melotti R, Lewis G, Hickman M, Heron J, Araya R, Macleod J. Early life socio-economic position and later alcohol use: birth cohort study. *Addiction* 2013; 108(3):516-525.

Conflict of interest: None declared.

Received: 10/08/2020

Revised: 02/08/2021

Accepted: 02/17/2021

Corresponding author: Asst Prof Snezana Radovanovic, Department of Social Medicine, Faculty of Medical Sciences, University of Kragujevac, Svetozara Markovica 69, 34000 Kragujevac, Serbia; e-mail: jovanarad@yahoo.com