

# Psychosocial Aspect, Frequency and Intercorrelation of Students' Health Risk Behaviours

Mia Marić and Sanja Šumonja

Faculty of Education in Sombor, University of Novi Sad

## Abstract

*The aim of this study was to determine the frequency and intercorrelation of health risk behaviours and their relationship with personal and social factors. The sample consisted of 268 students from the Faculty of Education in Vojvodina. The data was collected by means of the Health Risk Behavior Scale, the inventory "Big Five" and questions about the sources of information and health behaviour models. The most frequent health risk behaviour among students was alcohol consumption. Certain health risk behaviours were rather frequent among boys, younger students and students from urban environments. Students who thought that their family and friends took care of their health did not portray many risk behaviours related to diet. Extraverted students had a greater tendency to use illegal substances and students with low agreeableness were more prone to risky sexual behaviours. Students with low levels of extraversion, agreeableness, conscientiousness, and openness were less physically active. There is an evident need to monitor health risk behaviours among students and take the appropriate preventive measures.*

**Key words:** health; personality; social factors; youth.

## Introduction

Health-risk behaviours among youth represent all forms of activities that are quite common in this phase of their development, but carry an inevitable and significant risk to their physiological, psychological and social functioning. Throughout different time periods and cultural contexts, potentially risky behaviours have always been fairly common in young populations and it may be suggested that they partly belong to the normal developmental path towards achieving full maturity. Their adaptive function is reflected, among other important processes, in trying out different social roles and

identity formation of the youth (Mitrović, Smederevac, Grujičić, & Čolović, 2006; Petrović, Mihić, & Zotović, 2007).

The most common forms of health-risk behaviours of the youth are: the use of psychoactive substances-cigarettes, alcohol and illegal substances, risky sexual behaviour, risky driving, inadequate nutrition and physical inactivity (Marić, 2011; Petrović et al., 2007; Centers for Disease Control and Prevention, 2005). These risky behaviours are marked as the “new morbidity of the young” in the literature, because today the health of young people is jeopardized by the increase in these behaviours (Petrović et al., 2007; Stanković, 2002). Long exposure to risk factors such as inadequate nutrition, smoking, alcohol consumption and physical inactivity, which begins in childhood and adolescence, is responsible for the current trend of the dominance of chronic non-communicable diseases in adulthood (Institute of Public Health of Serbia, 2008).

If we intend to change the health risk behaviours among youth, it is not enough simply to acknowledge that they exist; we need to find out what causes them. There are a number of theoretical models that attempt to account for the origins of health-risk behaviours among the youth (Donovan, Jessor, & Costa, 1991). Depending on the type of the model, the emphasis is on the crucial influence of the biological, developmental, psychological or social factors on the occurrence of the health-risk behaviours among youth. Given the perceived shortcomings of these models, which emphasize certain individual and social factors, integrative theoretical models have been most influential so far (Donovan et al., 1991). Different integrative theoretical models take into account a relatively similar combination of psychological (personal characteristics, emotional state, etc.) and social variables (influence of family, school, peers, support and providing information to young people, etc.), which may affect the occurrence of behaviours that threaten the health of this population.

Many of these models discuss the influence of the factors which have a protective effect against the occurrence of the health-risk behaviours among young people. Thus, a reformulated theory of Jessor and colleagues (Jessor, Donovan, & Costa, 1991; Jessor, Van Den Bos, Vanderryn, Costa, & Turbin 1995) is extended to include an explanation of the behaviour related to the health of young people in general. This refers to such behaviour which threatens the health of young people in this phase of their development as well as the behaviour which promotes and nurtures it, e.g. proper diet, adequate sleep and regular exercise (Donovan et al., 1991; Turbin, Jessor, & Costa et al., 2006).

The findings show that personality variables, social environment and behavioural variables, originally constructed in order to account for individual differences in the occurrence of risky behaviours (conscientiousness, positive orientation to school, intolerance to deviance, parental support, friends as models for conventional behaviour, etc.), also affect the occurrence of behaviours that promote adolescent

health (exercise, healthy eating, adequate sleep, proper hygiene and general health behaviour that protects one's safety and immunity) (Donovan et al., 1991; Turbin et al., 2006). Because of their comprehensiveness, integrative models of health-risk behaviours are the theoretical basis of this study of the risk factors that contribute to health-risk behaviours in the youth.

The general aim of this study was to determine the frequencies of health-risk behaviours and their relations to personal and social factors of the students attending the Faculty of Education.

Specific aim 1 was to define the differences in the frequencies of health-risk behaviours according to the socio-demographic characteristics of the students. To test these differences, the following hypotheses have been set:

- Health-risk behaviours are more frequent among male students.

This hypothesis is based on Jessor's problem behaviour theory and research of health-risk behaviour among the youth (Jessor et al., 1991; American College Health Association, 2011; Marić, 2011; Raynor & Levine, 2009).

- Health-risk behaviours are more frequent among younger students.

This hypothesis is based on Jessor's problem behaviour theory according to which health risk behaviours show a tendency to decrease with age (Jessor et al., 1991; Turbin et al., 2006).

Specific aim 2 was to determine relations between the frequencies of health-risk behaviours and internal factors – personality traits. To test these relations, the following hypothesis has been set:

- Health-risk behaviours are more frequent among the students with low conscientiousness, agreeableness and high neuroticism, extraversion and openness.

This hypothesis is based on the results of the studies which used the "Big Five" inventory and showed that young people with low conscientiousness, agreeableness and high neuroticism, extraversion and openness are more prone to health-risk behaviours (John, Donahue, & Kentle, 1991; John & Srivastava, 1999).

Specific aim 3 was to determine the interrelations of different health-risk behaviours among the student population. To test these relations, the following hypothesis has been set:

- Health-risk behaviours show the tendency to occur together among students.

This hypothesis is based on Jessor's problem behaviour theory which says that one risk-behaviour leads to another as a result of unique factors that contribute to their occurrence (Jessor et al., 1991; Turbin et al., 2006).

## **Methods**

The study was conducted as a cross-sectional study. The sample consisted of 268 students from the Faculty of Education in Sombor, of which 81% were female and

19% male. The sample comprised students from all majors: teacher (60.8 %), kindergarten teacher (14.6 %), educational media designer (15.3 %) and librarian (4.5 %), and all years of study: first (28.7 %), second (34.3 %), third (22.0 %) and fourth (13.8 %). Most respondents lived in the city (63.4 %) and declared that their material status was average (86.9%). When it comes to partnership status, 54.6% of respondents reported that they were in a relationship. After obtaining approval by the Faculty Council, the study involved all students who attended classes in the academic year 2011/12 and who gave their verbal consent to participate in the research. The data was collected by interviewing students in the period from October to December 2011. A scale was designed for the purposes of the research and used to estimate the frequencies of health-risk behaviours among students. It consisted of 30 items divided into seven subscales that measured the following forms of health-risk behaviours: tobacco use, alcohol and illegal psychoactive substances, risky driving, risky sexual behaviour, inadequate nutrition and physical inactivity. The respondents were asked to indicate the frequency of each type of health-risk behaviour on the Likert scales, where 0 was no/never, 1 was sometimes, 2 was often and 3 was very often.

The participants' personalities were described by means of five variables: Neuroticism, Extraversion, Openness, Conscientiousness, and Agreeableness, which were obtained by the questionnaire "Big Five Inventory" (BFI) (John & Srivastava, 1999). BFI consists of 44 items in which short phrases are used to describe personality. Participants were asked to assess the degree of their agreement with every statement provided and mark it on the Likert scale. The questionnaire had satisfactory psychometric properties in this sample, with alpha ranging from 0.73 (extraversion) to 0.80 (openness).

Social factors were examined by a set of questions related to the demographic characteristics, the dominant sources of information about health and social behaviour models (family, friends).

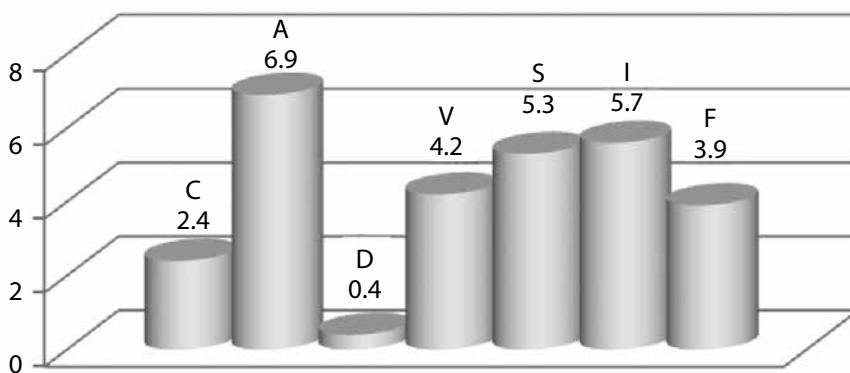
The SPSS Statistics Base 19.0 for Windows program was used for statistical analysis. The demographic data of the sample, the dominant sources of information and social behaviour models and frequencies of health-risk behaviours are presented by means of descriptive statistics. Pearson correlations were used to examine interrelations between health-risk behaviours. T-test and one-way ANOVA were used to examine the relation between health-risk behaviours, socio-demographic factors and social behaviour models. The relationship between personality traits and health-risk behaviours was examined by means of a multiple regression analysis, where predictors were personality dimensions, and the criteria were health-risk behaviours. *p* values lower than 0.05 were taken to be statistically significant ( $p < 0.05$ ).

## Results

Sources of information about health and models of health-related behaviour (family, friends) are shown in Table 1.

**Table 1.** Sources of information and health-related behaviour models

Sources of information and health-related behaviour models		N	%
Sources of information	Family	85	31.7
	Friends	11	4.1
	Media	24	9.0
	Professionals	117	43.7
<b>Total</b>		<b>137</b>	<b>88.5</b>
Do you think that the members of your family take care of their health?	Yes	221	82.5
	No	45	16.8
<b>Total</b>		<b>266</b>	<b>99.3</b>
Do you think that your friends take care of their health?	Yes	196	73.1
	No	69	25.7
<b>Total</b>		<b>265</b>	<b>98.9</b>



**Figure 1.** Mean scores on each subscale of the Health Behaviour Risk Scale: C-cigarettes; A-alcohol; D-illegal substances; V-risky driving; S-sexual behaviour, N-Nutrition, F-physical activity

As can be seen in figure 1, the most dominant risk behaviour among students was alcohol use. While 96.6% stated that they sometimes drank alcohol, more than half of them (56.7%) stated that they did it often. More than half of the participants (61.6%) had been under the strong influence of alcohol, so that they wobbled while walking, had difficulties speaking, vomited, or did not even remember what had happened. About half of the respondents (56.7%) drove or were driven by someone who was under the influence of alcohol and one third of them (32.1%) had sexual intercourse under the influence of alcohol or other psychoactive substances. The frequencies of other health-risk behaviours are shown in Table 2.

**Table 2.** Frequencies of certain health-risk behaviours among students

Risk behaviours	Never (%)	Sometimes (%)	Often (%)	Very often (%)
Do you smoke?	65.7	11.2	8.2	14.6
Have you been drinking alcohol during the past month?	20.5	36.2	20.1	23.1
Have you ever used marijuana?	80.6	13.1	3.7	2.2
Do you enjoy fast driving?	34.7	40.3	16.4	8.6
Do you wear a seat belt?	4.9	10.8	12.3	71.9
Do you have sexual intercourse?	22.0	19.8	26.5	30.2
Do you use protection during sexual intercourses?	41.4	16.0	17.2	19.4
Have you ever had a sexually transmitted disease?	94.8	3.4	0.4	0.4
Do you visit gynaecologist/urologist regularly?	15.7	11.2	28.0	44.0
How often do you eat fruits and vegetables?	0.7	10.1	43.7	43.7
Do you have five meals a day?	3.8	22.8	36.3	25.4
How often do you eat fast food?	3.7	41.4	41.0	12.7
How often do you take physical exercise?	3.7	35.1	27.6	32.5
Do you spend more than an hour a day watching TV or sitting in front of computer?	4.5	22.8	35.4	36.2

Pearson's coefficients of correlation showed statistically significant relations among the health-risk behaviours (Table 3).

**Table 3.** Pearson intercorrelation coefficients (*r*) for the health-risk behaviours.

		Cigarette	Alcohol	Illegal sub.	Risky driving	Sexual behave.	Nutrition	Physi. activ.
<i>r</i>	<b>Cigarettes</b>	1.000	.455	.431	.212	.202	-.020	.051
	Alcohol	.455	1.000	.455	.388	.341	.069	.150
	Illegal substances	.431	.455	1.000	.193	.213	-.128	.083
	Risky driving	.212	.388	.193	1.000	.300	.129	.053
	Sexual behaviour	.202	.341	.213	.300	1.000	.093	.079
	Nutrition	-.020	.069	-.128	.129	.093	1.000	.140
	Physical activities	.051	.150	.083	.053	.079	.140	1.000
<i>p</i>	<b>Cigarettes</b>	.	<b>.000</b>	<b>.000</b>	<b>.002</b>	<b>.003</b>	.392	.249
	Alcohol	.000	.	<b>.000</b>	<b>.000</b>	<b>.000</b>	.176	<b>.021</b>
	Illegal substances	<b>.000</b>	<b>.000</b>	.	<b>.004</b>	<b>.002</b>	<b>.040</b>	.129
	Risky driving	.002	.000	.004	.	<b>.000</b>	<b>.038</b>	.236
	Sexual behaviour	<b>.003</b>	<b>.000</b>	<b>.002</b>	<b>.000</b>	.	.105	.146
	Nutrition	.392	.176	<b>.040</b>	<b>.038</b>	.105	.	<b>.029</b>
	Physical activities	.249	<b>.021</b>	.129	.236	.146	<b>.029</b>	.

*r* = Pearson correlations; *p* = significance;

Examining the intercorrelations of individual behaviour within the scale of risky sexual behaviour, significant correlations were determined between:

- having sexual relations outside the relationship and with more than one person at a time ( $r = 0.385, p = 0.00$ ) and starting sexual activities before the age of 16 ( $r = 0.304, p = 0.00$ ),
- having one-night stand sexual relations and sexual relations outside the relationship ( $r = 0.147, p = 0.023$ ), and sexual relations under the influence of alcohol ( $r = 0.103, p = 0.047$ )
- having one-night stand sexual relations and the occurrence of sexually transmitted infections ( $r = 0.338, p = 0.00$ ).

In analyzing correlations between social behaviour models and health-risk behaviours, it was found that students who thought that their family ( $r = 0.138, p = 0.014$ ) and friends ( $r = 0.017, p = 0.03$ ) take care of their health showed less risk behaviours related to diet.

Significant differences in health-risk behaviours according to relevant socio demographic characteristics of the respondents are presented in Tables 4, 5 and 6.

**Table 4.** Significant differences in health-risk behaviours according to gender

	Gender	N	Mean	SD	SE	t	Sig.	df	Confi. Interval	
									Lower	Upper
Risky sexual behaviour	Male	42	6.2857	2.6437	.407	2.157	0.03	182	0.078	1.747
	Female	142	5.3732	2.3356	.196					
Physical activity	Male	44	4.2955	1.2682	.191	2.782	0.00	187	0.166	0.976
	Female	145	3.7241	1.1695	.097					

**Table 5.** Significant differences in health-risk behaviours according to the year of study

	Year of study	N	Mean	Std. Deviation	df	F	Sig.
Risky driving	1 <sup>st</sup>	76	2.644	1.718	3	4.135	0.00
	2 <sup>nd</sup>	22	2.227	1.716			
	3 <sup>rd</sup>	59	1.779	1.608			
	4 <sup>th</sup>	37	1.729	1.465			
Total		194					

**Table 6.** Significant differences in health-risk behaviours according to the place of living

	Place of living	N	Mean	SD	SE	t	Sig.	df	Confi. Interval	
									Lower	Upper
Dietary habits	City	69	4.1014	1.601	.192	-2.312	0.02	187	-0.954	-0.767
	Village	120	4.6167	1.397	.127					

Significant correlations between certain personality dimensions as predictor variables and health-risk behaviours of subjects as criteria were found by means of the multiple regression analysis and Pearson correlation (Table 7).

**Table 7.** Significant associations between certain personality dimensions as predictor variables, and health-risk behaviours of subjects as criteria

Predictor: personality dimension		Criteria: Subject health-risk behaviour	$\beta$	Sig.
Extraversion	high	Use of illegal substances	0.139	0.03
	low	Physical inactivity	-0.158	0.03
Agreeableness	low	Risky sexual behaviour	-0.199	0.01
	low	Physical inactivity	-0.172	0.03
Openness	low	Physical inactivity	-0.202	0.00
Conscientiousness	low	Physical inactivity	-0.163	0.03

## Discussion

Although the occurrence of health-risk behaviours is expected in the transition from adolescence to adulthood, the results of this study showed significant occurrences of some health-risk behaviours among students. The most prominent risk behaviour among students was the use of alcohol. This was indicated by the finding that almost all respondents consumed this substance, with the majority stating that they drank often. The use of alcohol was common among young men as well as women, which is especially worrying given that this behaviour is more common in males in all other age categories (Marić, 2011). However, regular examinations at the physician, as the only available data of the frequency of alcohol use in the student population in Serbia, indicate a significantly lower representation of this behaviour among students, most likely due to the specific methods of collecting data that do not allow participants to remain anonymous (Ilić, 2011; Ćeranić, Ćeranić, & Detanac, 2009). High frequency of alcohol use is also present among young people in the neighboring countries (Sakoman, Raboteg-Šarić, & Kuzman 2002). Despite the cultural differences, the results obtained in this study correspond to the findings of an American study from 2008, according to which the majority of American students also had the opportunity to use alcohol (American College Health Association, 2011). A slightly higher prevalence of alcohol use in our country is expected, given that the use of alcohol is more socially tolerated in the represented area than in the western countries. The gravity of this issue was indicated by fact that more than half of the respondents had experienced heavy drunkenness and had driven or had been driven by a person under the influence of alcohol. Risky driving was also confirmed by the fact that about a third of the respondents did not fasten their seatbelt regularly when driving and most of them enjoyed driving fast, which is particularly disconcerting when we consider that the road traffic injuries are the leading causes of death in the youth (Institute of Public Health of Serbia, 2008).

When it comes to cigarette smoking, this survey showed that about one third of the students declared that they were smokers, which is consistent with the results of the mentioned American study (American College Health Association, 2011). A smaller percentage of students who were recorded as smokers in their regular physical



examinations can also be attributed to the conditions of data collection (Ilić, 2011; Čeranić et al., 2009). Despite the measures taken in reducing the incidence of smoking, there is still a large number of young people who use tobacco and become predisposed to the development of chronic non-communicable diseases in adulthood.

This research showed that the abuse of illegal psychoactive substances was also present in the student population. Marijuana was the most commonly used illegal psychoactive substance among students, which is consistent with the findings of other studies conducted in our country and the world (American College Health Association, 2011; Petrović et al., 2007). Around one fifth of the students declared that they used marijuana, which was slightly less than the results of the surveys conducted among female students in Novi Sad showed (Petrović et al., 2007). This difference can be attributed to the differences in the environments in which studies were conducted. A higher frequency of marijuana abuse among American students could also be explained by the differences in cultural contexts (American College Health Association, 2011). Comparing the frequencies of alcohol use and abuse of illegal substances among different countries, it was concluded that the Eastern European countries had high frequency of alcohol abuse and Western European countries and the United States high frequency of marijuana abuse among the youth (Andersson et al., 2007). In the moment of their transition to adulthood, student population still has many characteristics of the adolescent developmental stage and to them the abuse of illegal psychoactive substances serves for experimenting, trying out different roles and finding answers to the question of their identity (Jessor et al., 1991). Such behaviour of students must not be ignored as it presents risk to their mental and physical health, but it also causes the accompanying social problems.

In the tested student population risky sexual behaviours were also very frequent. It was expected that most respondents had had sexual intercourse and were in an intimate relationship at the moment the research was conducted. However, some patterns of these behaviours were disturbing. Only one fifth of the respondents used protection during sexual intercourse on a regular basis, and about a third of them had intercourse under the influence of alcohol. Also, one fifth of the students said that they were in relationships with several people at the same time, practiced one-night stand sexual relationships and sexual intercourses outside their regular relationships. The data indicate that students in Serbia practice more risky sexual behaviours than students from the American sample which can be attributed to a more intensive implementation of the preventive measures in America (American College Health Association, 2011, Kwan, Arbour-Nicitopoulos, Lowe, Taman, & Faulkner, 2010). The results showed significant relations between some forms of risky sexual behaviours. Thus, students who were prone to sexual relations outside the relationship were also more prone to one-night sexual relationships and relationships with multiple partners simultaneously. These behaviours were associated with earlier beginning of their sexual activities (before 16 years of age). Students who had one-night sexual

relationships, often also had sexual intercourse under the influence of alcohol, and had a sexually transmitted disease. Mutual relations of certain behaviours indicated the existence of a characteristic pattern of risky sexual behaviour among student population, which is especially worrying given all the possible consequences of such behaviours for the reproductive health of the youth. According to the data from 2008, the incidence of the genital Chlamydia, the most frequent sexually transmitted infection, is six times higher in the age group of 20 to 24 than in the general population (Institute of Public Health of Serbia, 2009). In our study, very few respondents said that they had a sexually transmitted infection, despite the fact that more than a half of them reported that they frequented a gynaecologist or urologist regularly. Taking into account the data collected during regular physician examinations, according to which only 2% of the students performed a gynaecological examination, it can be concluded that the respondents were inclined to give socially desirable responses (Ilić, 2011). In accordance with the findings of previous studies, a high prevalence and association of certain patterns of sexual behaviour of students indicate the need for intensifying prevention programs in the field of reproductive health (Dimitrijević, 2009).

In the transitional period from adolescence to adulthood, which the student population is in, there are significant changes in the psychological and social domains of a person. When separating from their parents and gaining many new tasks and responsibilities, students get a chance to independently create their own lifestyle. Therefore, they change their habits related to nutrition and physical activity (Von Post-Skagegard, Samuelson, Karlström, Mohsen, Berglund, & Bratteby 2002). Our research showed that only one-quarter of students regularly had five meals a day, which confirmed the absence of regular dietary patterns. The fact that one third of them used different methods without medical advice (diet, pills, laxatives, vomiting) to regulate body weight, showed insufficient awareness about the proper ways to maintain adequate body weight. Most students said that they often ate fruits and vegetables. However, it was particularly worrying that almost all of them ate fast food. The trend of consuming fast food at this age is consistent with the findings of other studies (Von Post-Skagegard et al., 2002). When it comes to the frequency of consumption of fruits and vegetables, the results of this study must be interpreted with caution, given the potential impact of the subjective assessment of the respondents when answering. In support of this, American studies showed that less than 10% of students take the recommended amount of fruits and vegetables (American College Health Association, 2011). Regarding the students' physical activity, our research showed that about a half of the students were not regularly physically active and a great majority of them often spent more than one hour sitting at the computer. This finding is consistent with other studies, student life and the fact that the level of physical activity declines with age (Von Post-Skagegard et al., 2002). It should be noted that these problems have not yet been tested in our environment, and there are no data with which it would be possible to compare our results.

The analysis confirmed the hypothesis that health-risk behaviours occur together indicating the existence of two distinctive patterns of risk behaviour among student population. The first pattern involved the abuse of psychoactive substances, risky driving and risky sexual behaviour, and the other was related to improper diet and inadequate physical activity. It can be concluded that students who used alcohol and cigarettes were more prone to the abuse of illegal psychoactive substances, risky driving and risky sexual behaviours. Also, students who had improper nutrition were also less physically active. In the reformulated model of the problem behaviour theory, which covers all the behaviours examined in this study, it is pointed out that these behaviours tend to appear together, that one behaviour presents a risk to the other. According to this theory, the intercorrelation of the health-risk behaviour among young people is explained by the unique factors belonging to personal and social domains which affect their appearance (Donovan et al., 1991; Turbin et al., 2006).

The results of this study confirmed that health-risk behaviours are more frequent among male students who engage more frequently in risky sexual behaviours and are less physically active. This result is consistent with the results of other studies which indicate that males are generally more prone to health risk behaviours than females (American College Health Association, 2011; Marić, 2011; Raynor & Levine, 2009). It was found that risky driving decreased with age, as was expected in our hypothesis. This indicates that students, as they gradually mature, leave the patterns of behaviour that serve them in experimenting and searching for excitement, and which are typical of adolescent age (Jessor et al., 1991). Among the demographic characteristics, the place of living also influenced the frequency of certain health risk behaviours. So it was determined that students who lived in the city had more unhealthy dietary habits than the students who lived in the rural areas. This may be explained by more environmental influences which contribute to creating an unhealthy diet in the cities than in the villages (Han, Lawlor, & Kimm, 2010).

Most respondents in this study said that they obtained health-related information from health professionals. This was surprising regarding different studies in which most students reported that they received health information primarily through the media, despite the availability of health services at their universities (Kwan et al., 2010; Dimitrijević, 2009). Our results, therefore, can be attributed to the way the respondents understood the concept of health information, or the tendency to give socially desirable answers. One third of the respondents declared that they usually received health information from family and friends. This is particularly significant because nearly quarter of them believed that their family members and friends do not take care of their health. However, this study did not confirm a significant association between health-risk behaviours and sources of information and social behaviour models. This could be explained by the formulation of questions or the respondents' tendency to give socially desirable answers.

This study has demonstrated the existence of significant associations between health-risk behaviours and the examined personality dimensions, which was expected

in our hypothesis and given in the findings of previous research (Obradović, 2010; Raynor & Levine, 2009). The finding that extraverted students were more prone to the abuse of illegal substances was expected because those persons have many social contacts which make them more prone to the possible negative influences (Jessor et al., 1991; Marić, 2011). Students with low agreeableness were more prone to risky sexual behaviours which could be explained by the fact that those students are more aggressive and impulsive in social relations (John & Srivastava, 1999; Raynor et al., 2009). Almost all examined personality traits were associated with the level of physical activity. So, low extraversion, agreeableness, conscientiousness and openness predicted low physical activity. Persons with low extraversion, agreeableness and openness are introverted and passive and are therefore more prone to a sedentary lifestyle and physical inactivity (John et al., 1991; John & Srivastava, 1999). Low conscientiousness is expectedly related to physical inactivity regarding that those persons take less responsibility for their health (Jessor et al., 1991; Obradović, 2010; Raynor et al., 2009).

In drawing conclusions, several limitations of this study should be taken into account. For practical reasons, the study sample consisted of students from one faculty, which must be taken into account when trying to generalize the results. However, it is the only Faculty of Education on the territory of the whole province of Vojvodina which gathers young people from all parts of the country. The nature and sensitivity of the examined problems could have prompted students to give socially desirable answers. Therefore, there is a possibility that the actual prevalence of health risk behaviours among the student population was underestimated. Despite the limitations, this study showed an overall picture of students' health-risk behaviours, as well as of personal and social factors that contribute to their occurrence and which should be paid particular attention to in future research.

## **Conclusion**

The wide distribution and intercorrelation of various health-risk behaviours indicate the existence of a unique form of risky behaviour characteristic for student population. Within the general pattern of students' health-risk behaviour, two patterns of health-risk behaviour were identified. The first had to do with the use of psychoactive substances, risky sexual behaviour and risky driving, and other included unhealthy diet and insufficient physical activity. Alcohol abuse proved to be the most prominent health-risk behaviour among the student population. It was confirmed that health-risk behaviours were more frequent among male and younger students. Conscientiousness, agreeableness, extraversion and openness were confirmed as significant predictors of certain health-risk behaviours. The findings of this study suggest the need for ongoing monitoring of health-risk behaviours of students at the international level, as well as planning and implementation of preventive measures in accordance with the current situation.

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**Mia Marić**

Faculty of Education in Sombor, University of Novi Sad  
Podgoricka 4, 25 000 Sombor, Serbia  
mia\_maric@yahoo.com

**Sanja Šumonja**

Faculty of Education in Sombor, University of Novi Sad  
Podgoricka 4, 25 000 Sombor, Serbia  
sanjasumonja@gmail.com

# Psihosocijalni aspekt, čestotnost i međupovezanost rizičnih zdravstvenih ponašanja studenata

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## Sažetak

*Cilj ovoga istraživanja bio je utvrditi čestotnost i međupovezanost rizičnih zdravstvenih ponašanja i njihovu povezanost s osobnim i društvenim čimbenicima. Uzorak se sastojao od 268 studenata s Učiteljskog fakulteta u Vojvodini. Podatci su prikupljeni uz pomoć Health Risk Behavior skale, inventara "Big Five" i pitanja o izvorima informacija o modelima zdravstvenog ponašanja. Najčešći oblik rizičnog zdravstvenog ponašanja među studentskom populacijom bila je konzumacija alkohola. Određena rizična zdravstvena ponašanja bila su prilično česta među mladićima, mlađim studentima i studentima iz urbanih sredina. Studenti koji su smatrali da se članovi njihove obitelji i prijatelji brinu za svoje zdravlje, nisu pokazivali puno rizičnih zdravstvenih ponašanja vezanih uz prehranu. Ekstrovertirani studenti imali su veću tendenciju upotrebi ilegalnih supstanci, a studenti s niskim stupnjem ugodnosti bili su skloniji rizičnim spolnim ponašanjima. Studenti s niskim razinama ekstrovertnosti, savjesnosti i otvorenosti bili su i manje tjelesno aktivni. Vidljiva je potreba za praćenjem rizičnih zdravstvenih ponašanja među studentima i za poduzimanjem primjerenih preventivnih mjera.*

**Ključne riječi:** društveni čimbenici; mladi; osobnost; zdravlje.

## Uvod

Rizična zdravstvena ponašanja među mladima predstavljaju razne oblike aktivnosti koji su prilično česti u toj fazi njihova razvoja, no nose neizbježan i značajan rizik za njihovo fiziološko, psihološko i društveno djelovanje. Tijekom različitih vremenskih razdoblja i kulturoloških konteksta potencijalno rizična ponašanja uvijek su bila prilično česta u mladim populacija pa se može reći da ona djelomično pripadaju njihovu normalnom razvojnom putu prema postizanju potpune zrelosti. Njihova funkcija prilagodbe odražava se, među ostalim važnim procesima, u iskušavanju različitih društvenih uloga i izgradnji identiteta mladih (Mitrović, Smederevac, Grujičić i Čolović, 2006; Petrović, Mihić i Zotović, 2007).

Najčešći oblici rizičnih zdravstvenih ponašanja mladih su: upotreba psihoaktivnih supstanci – cigareta, alkohola i ilegalnih supstanci, rizično spolno ponašanje, rizično upravljanje vozilima, nedovoljna prehrana i tjelesna neaktivnost (Marić, 2011; Petrović i dr., 2007, Centres for Disease Control and Prevention, 2005). Ta rizična ponašanja u literaturi su poznata pod pojmom „nova morbidnost mladih“ (Petrović i dr., 2007; Stanković, 2002). Dugotrajna izloženost rizičnim čimbenicima i tjelesna neaktivnost, koje započinju već u djetinjstvu i adolescentskoj dobi, uzrokuju moderan trend dominacije kroničnih neprijenosnih bolesti u kasnijoj odrasloj dobi (Institute of Public Health of Serbia, 2008).

Želimo li promijeniti rizična zdravstvena ponašanja među mladima, nije dovoljno samo objaviti da ona postoje. Trebamo utvrditi što im je uzrok. Postoji velik broj teorijskih modela kojima je cilj objasniti začetke rizičnih zdravstvenih ponašanja mladih (Donovan, Jessor, i Costa, 1991). Ovisno o vrsti modela naglasak je na ključnom utjecaju bioloških, razvojnih, psiholoških ili društvenih čimbenika na pojavu rizičnih zdravstvenih ponašanja mladih. S obzirom na nedostatke modela koji naglašavaju određene individualne i društvene čimbenike, integrativni teorijski modeli dosad su bili najutjecajniji (Donovan i dr., 1991). Različiti integrativni teorijski modeli uzimaju u obzir poprilično sličnu kombinaciju psiholoških (osobne karakteristike, emocionalno stanje itd.) i društvenih čimbenika (utjecaj obitelji, vršnjaka, podrška i pružanje informacije mladim ljudima itd.) koji mogu utjecati na pojavu ponašanja koja prijete zdravlju promatrane populacije.

Mnogi od tih modela bave se utjecajem čimbenika koji imaju obramben utjecaj protiv pojave rizičnih zdravstvenih ponašanja mladih ljudi. Stoga je proširena prerađena teorija Jessora i suradnika, kako bi uključila objašnjenje ponašanja vezanog uz zdravlje mladih u toj fazi njihova razvoja te ponašanja koje ga promiče, npr. prikladna prehrana, dovoljna količina sna i redovita vježba (Donovan i dr., 1991; Turbin, Jessor, & Costa i dr., 2006).

Rezultati pokazuju da osobne varijable, društveno okruženje i varijable ponašanja, koje su originalno postavljene kako bi ponudile objašnjenje za individualne razlike u pojavi rizičnih ponašanja (savjesnost, pozitivna orijentacija prema školi, netolerancija prema udaljavanju s pravog puta, roditeljska podrška, prijatelji kao primjer konvencionalnog ponašanja itd.) također imaju utjecaja na pojavu ponašanja koja promoviraju zdravlje adolescenata (vježba, zdrava prehrana, dovoljna količina sna, primjerena higijena i opće zdravstveno ponašanje koje štiti sigurnost i imunitet pojedinca) (Donovan i dr., 1991; Turbin i dr., 2006). Zbog njihove sveobuhvatnosti integrativni modeli rizičnog zdravstvenog ponašanja predstavljaju teorijski temelj ovoga istraživanja rizičnih čimbenika koji doprinose rizičnim zdravstvenom ponašanjima mladih.

Opći cilj ovoga istraživanja bio je utvrditi čestotnost rizičnih zdravstvenih ponašanja i njihovih odnosa prema osobnim i društvenim čimbenicima studenata Učiteljskog fakulteta.



Specifičan cilj 1 bio je utvrditi razlike između čestotnosti rizičnih zdravstvenih ponašanja i njihovih odnosa prema osobnim i društvenim čimbenicima studenata Učiteljskog fakulteta.

Specifičan cilj 2 bio je definirati razlike u čestotnosti rizičnih zdravstvenih ponašanja prema socio-demografskim karakteristikama studenata. Kako bi se testirale te razlike, postavljene su sljedeće hipoteze:

– Rizično zdravstveno ponašanje češće je među muškim studentima.

Ta je hipoteza utemeljena na Jessorovoj teoriji problematičnog ponašanja i istraživanjima rizičnog zdravstvenog ponašanja među mladima (Jessor i dr., 1991; American College Health Association, 2011; Marić, 2011; Raynor & Levine, 2009).

– Rizična zdravstvena ponašanja češća su među mlađim studentima.

Ta je hipoteza utemeljena na Jessorovoj teoriji problematičnog ponašanja prema kojoj se rizična zdravstvena ponašanja s godinama umanjuju (Jessor i dr., 1991; Turbin i dr., 2006).

Specifičan cilj 2 bio je utvrditi odnose između čestotnosti rizičnih zdravstvenih ponašanja i unutarnjih čimbenika – karakteristike osobnosti. Kako bi se testirali ti odnosi, postavljena je sljedeća hipoteza:

– Rizična zdravstvena ponašanja češća su među studentima s niskom savjesnosti, ugodnosti i visokom neurotičnošću, ekstrovertnošću i otvorenosću.

Ta je hipoteza utemeljena na rezultatima studija koje koriste „Big Five“ inventar i koje su pokazale da su mladi ljudi niske savjesnosti, ugodnosti i visoke neurotičnosti, ekstrovertnosti i otvorenosti skloniji rizičnim zdravstvenim ponašanjima (John, Donahue, i Kentle, 1991; John i Srivastava, 1999).

Specifičan cilj 3 bio je utvrditi međupovezanost različitih rizičnih zdravstvenih ponašanja među studentskom populacijom. Kako bi se testirale te veze, postavljena je sljedeća hipoteza:

– Rizična zdravstvena ponašanja studenata imaju tendenciju pojavljivanja zajedno.

Ta je hipoteza utemeljena na Jessorovoj teoriji problematičnog ponašanja u kojoj se navodi da jedno rizično ponašanje vodi drugom kao rezultat jedinstvenih čimbenika koji doprinose njihovu pojavljivanju (Jessor i dr., 1991; Turbin i dr., 2006).

## Metode

Istraživanje je provedeno kao presječno istraživanje. Uzorak je činilo 268 studenata s Učiteljskog fakulteta u Somboru, od čega su 81% bile studentice, a 19% studenti. U uzorak su uvršteni studenti svih usmjerenja: učiteljski (60,8%), predškolski (14,6%), obrazovni medijski dizajn (15,3%) i bibliotekarstvo (4,5%) i sve godine studija: prva (28,7%), druga (34,3%), treća (22,0%) i četvrta (13,8%). Većina ispitanika bila je iz grada (63,4%) i prosječnog materijalnog statusa (86,9%). Što se tiče privatnog života, 54,6% ispitanika izjavilo je da su u vezi. Nakon što smo dobili dopuštenje Fakultetskog vijeća, u istraživanje smo uključili sve studente koji su pohađali nastavu u akademskoj godini 2011./2012. i koji su dali svoj usmeni pristanak za sudjelovanje u

istraživanju. Podatci su prikupljeni intervjuiranjem studenata u razdoblju od listopada do prosinca 2011. Za potrebe istraživanja izrađena je skala koja je upotrijebljena kako bi se procijenila čestotnost rizičnih zdravstvenih ponašanja među studentima. Sastojala se od 30 elemenata podijeljenih u sedam podskala koje su mjerile sljedeće oblike rizičnih zdravstvenih ponašanja: uporaba duhana, nedovoljna prehrana i tjelesna neaktivnost. Ispitanici su upućeni da odrede čestotnost svakog tipa rizičnog zdravstvenog ponašanja na skalama Likertova tipa, na kojima je 0 značilo ne / nikad, 1 ponekad, 2 često, a 3 vrlo često.

Osobnosti ispitanika opisane su s pomoću pet varijabli: neurotičnost, ekstrovertnost, otvorenost, savjesnost i ugodnost, koje su dobivene upitnikom „Big Five Inventory” (John i Srivastava, 1999). BFI se sastoji od 44 pojma u kojima se kratkim frazama opisuje osobnost. Ispitanici su trebali ocijeniti stupanj svojega slaganja sa svakom danom tvrdnjom i označiti ga na skali Likertova tipa. Upitnik je imao zadovoljavajuće psihometrijske karakteristike u ovom uzorku s alfa između 0,73 (ekstrovertnost) i 0,80 (otvorenost).

Društveni čimbenici istraženi su nizom pitanja koja su se odnosila na demografske karakteristike, dominantne izvore informacija o zdravstvenim i društvenim modelima ponašanja (obitelj, prijatelji).

Za statističku analizu korišten je SPSS Statistics Base 19.0 program za Windows. Demografski podatci uzorka, dominantni izvori informacija i modeli društvenog ponašanja i čestotnost rizičnih zdravstvenih ponašanja prezentirani su deskriptivnom statistikom. Pearsonove korelacije upotrijebljene su kako bi se istražile međupovezanosti između rizičnih zdravstvenih ponašanja, socio-demografskih čimbenika i modela društvenog ponašanja. Odnos između karakteristika osobnosti i rizičnih zdravstvenih ponašanja istražen je višestrukom regresijskom analizom, u kojoj su ulazne varijable bile dimenzije osobnosti, a kriteriji su bili rizična zdravstvena ponašanja. P vrijednosti manje od 0,05 uzete su za statističku značajnost ( $p < 0,05$ ).

## **Rezultati**

Izvori informacija o zdravlju i modelima ponašanja vezanog uz zdravlje (obitelj, prijatelji) prikazani su u tablici 1.

Tablica 1.

Slika 1.

Kao što se vidi na slici 1., najdominantnije rizično ponašanje među studentima je konzumacija alkohola. Dok je 96,6% ispitanika izjavilo da povremeno pije alkohol, više od pola (56,7%) ispitanika izjavilo je da ga često pije. Više od polova ispitanika (61,6%) već su u životu bili pod snažnim utjecajem alkohola, tako da su se ljuljali dok su hodali, jedva su govorili, povraćali su ili čak nisu upamtili što se dogodilo. Otprilike je pola ispitanika (56,7%) upravljala vozilom ili je bila u autu s nekim tko je vozio pod utjecajem alkohola, a jedna trećina ih je imala spolni odnos pod utjecajem

psihoaktivnih supstanci. Čestotnosti ostalih rizičnih zdravstvenih ponašanja prikazane su u tablici 2.

Tablica 2.

Pearsonovi koeficijenti korelacija pokazali su statistički značajne odnose među rizičnim zdravstvenim ponašanjima (tablica 3).

Tablica 3.

Istraživanjem korelacija individualnog ponašanja sa skalom rizičnog spolnog ponašanja, utvrđene su značajne korelacije između:

- spolnih odnosa izvan veze i spolnih odnosa s više od jedne osobe u isto vrijeme ( $r = 0,385$ ,  $p = 0,00$ ) te započinjanje sa spolnim aktivnostima prije 16. godine života ( $r = 0,304$ ,  $p = 0,00$ ),
- prakticiranje spolnih odnosa za jednu noć i spolnih odnosa izvan stalne veze ( $r = 0,147$ ,  $p = 0,023$ ), kao i spolnih odnosa pod utjecajem alkohola ( $r = 0,103$ ,  $p = 0,047$ )
- prakticiranje spolnih odnosa za jednu noć i pojavljivanje spolno prenosivih infekcija ( $r = 0,338$ ,  $p = 0,00$ ).

Pri analizi korelacija između modela društvenih ponašanja i rizičnih zdravstvenih ponašanja utvrđeno je da su studenti koji su smatrali da članovi njihove obitelji ( $r = 0,138$ ,  $p = 0,014$ ) i prijatelji ( $r = 0,017$ ,  $p = 0,03$ ) brinu o svojem zdravlju pokazivali manje rizičnih zdravstvenih ponašanja vezanih uz prehranu.

Značajne razlike u rizičnim zdravstvenim ponašanjima s obzirom na relevantne socio-demografske karakteristike ispitanika prikazane su u tablicama 4., 5. i 6.

Tablica 4., 5. i 6.

Značajne korelacije među nekim dimenzijama osobnosti kao ulazne varijable (prediktori) i rizična zdravstvena ponašanja ispitanika kao kriteriji utvrđeni su uz pomoć višestruke regresijske analize i Pearsonove korelacije (tablica 7).

Tablica 7.

## **Rasprava**

Iako je pojavljivanje rizičnih zdravstvenih ponašanja očekivano u prijelazu iz adolescentskog doba u zrelost, rezultati ovoga istraživanja pokazali su značajne pojave nekih rizičnih zdravstvenih ponašanja među studentima. Najizraženije rizično ponašanje među studentima bilo je konzumacija alkohola. To je naznačeno u rezultatima prema kojima su gotovo svi ispitanici konzumirali alkohol, dok je većina izjavila da piju često. Konzumacija alkohola bila je česta među mladim muškarcima i ženama, što je osobito zabrinjavajuće s obzirom na to da je takvo ponašanje češće u muškaraca nego u žena svih dobnih skupina (Marić, 2011). Međutim, redovni liječnički pregledi, kao jedini raspoloživi podatci o čestotnosti konzumacije alkohola

među studentskom populacijom u Srbiji, pokazuju značajno nižu zastupljenost takva ponašanja među studentima. To je vjerojatno rezultat specifične metode prikupljanja podataka kojom ispitanicima nije dopušteno da ostanu anonimni (Ilić, 2011; Ćeranić, Ćeranić, i Detanac, 2009). Visoka čestotnost konzumacije alkohola također je prisutna među mladim ljudima u susjednim zemljama (Sakoman, Raboteg-Šarić, i Kuzman 2002). Uspirkos kulturološkim razlikama, rezultati ove studije usporedivi su s rezultatima jedne američke studije iz 2008. godine, prema kojoj je većina američkih studenata također imala priliku konzumirati alkohol (American College Health Association, 2011). Alkohol je ipak učestaliji u našoj zemlji, što je i očekivano s obzirom na to da se na prikazanim prostorima konzumacija alkohola više društveno tolerira nego što je to slučaj u zapadnim zemljama. Ozbiljnost ovoga pitanja prikazana je činjenicom da je više od pola ispitanika imala iskustva s teškim pijanstvom i da je upravljala motornim vozilom ili bila u vozilu kojim je upravljala osoba pod utjecajem alkohola. Rizično ponašanje u prometu potvrđeno je činjenicom da otprilike trećina ispitanika ne veže redovito pojas pri vožnji te da većina njih uživa u brzom vožnji, što je osobito uznemirujuće s obzirom na podatak o tome da su povrede zadobivene u prometnim nesrećama vodeći uzrok smrti među mladima (Institute of Public Health of Serbia, 2008).

Što se tiče pušenja cigareta, ovo je istraživanje pokazalo da je otprilike jedna trećina ispitanika izjavila da su pušači. Takvi podatci odgovaraju rezultatima spomenute američke studije (American College Health Association, 2011). Manji postotak studenata koji su zabilježeni kao pušači pri redovitim liječničkim pregledima može se pripisati uvjetima prikupljanja podataka (Ilić, 2011; Ćeranić i dr., 2009). Unatoč mjerama koje su poduzete kako bi se pušenje smanjilo, velik broj mladih ljudi još uvijek puši i tako razvija predispozicije za razvoj kroničnih i neprenosivih bolesti u zreloj dobi.

Ovo je istraživanje pokazalo da je zlouporaba ilegalnih psihoaktivnih supstanci također bila prisutna u studentskoj populaciji. Marihuana je bila najučestalija ilegalna psihoaktivna supstanca među studentima, što je u skladu s nalazima ostalih studija koje su provedene u našoj zemlji i u svijetu (American College Health Association, 2011; Petrović i dr., 2007). Oko jedne petine studenata ispitanika u ovome istraživanju izjavilo je da koristi marihuanu. To je ipak bio malo manji broj korisnika marihuane nego što su to pokazala istraživanja koja su provedena sa studenticama u Novom Sadu (Petrović i dr., 2007). Ta se razlika može pripisati razlikama u okolinama u kojima su istraživanja provedena. Viša čestotnost zlouporabe marihuane među američkim studentima može se također objasniti razlikama u kulturološkim kontekstima (American College Health Association, 2011). Usporedbom čestotnosti zlouporabe alkohola i ilegalnih supstanci u različitim zemljama zaključeno je da su zemlje istočne Europe imale visoku učestalost zlouporabe alkohola, a da su zemlje zapadne Europe i Sjedinjenih Američkih Država imale visoku učestalost zlouporabe marihuane među mladima (Andersson i dr., 2007). U trenutku njihova prijelaza u zrelo doba, studentska

populacija još uvijek zadržava mnoge karakteristike adolescentskog stupnja razvoja pa njima zlouporaba ilegalnih psihoaktivnih supstanci služi za eksperimentiranje, isprobavanje različitih uloga i pronalaženje odgovora s ciljem propitkivanja vlastitog identiteta (Jessor i dr., 1991). Takvo ponašanje studenata ne smije se ignorirati jer predstavlja rizik za njihovo mentalno i tjelesno zdravlje i istovremeno uzrokuje društvene probleme.

U proučavanoj skupini studentske populacije rizična spolna ponašanja također su bila vrlo česta. Očekivalo se da je većina ispitanika već imala spolni odnos i da su bili u stalnoj intimnoj vezi u trenutku provođenja istraživanja. No, neki uzorci tog ponašanja bili su uznemirujući. Samo je jedna petina ispitanika redovito koristila zaštitu pri spolnom odnosu, a otprilike trećina ispitanika imala je spolni odnos pod utjecajem alkohola. Jedna petina studenata je također rekla da su bili u vezi s nekoliko osoba u isto vrijeme i da su prakticirali spolne odnose na jednu noć i spolne odnose izvan njihovih redovitih intimnih veza. Podatci pokazuju da studenti u Srbiji prakticiraju više rizičnih spolnih ponašanja od studenata iz američkog uzorka, što se može pripisati intenzivnijoj implementaciji preventivnih mjera u Americi (American College Health Association, 2011, Kwan, Arbour-Nicitopoulos, Lowe, Taman, i Faulkner, 2010). Rezultati su pokazali značajnu povezanost između nekih oblika rizičnih spolnih ponašanja. Dakle, studenti koji su bili skloni spolnim odnosima izvan redovitih intimnih veza bili su također skloniji spolnim odnosima na jednu noć i odnosima s većim brojem partnera. Ta su ponašanja povezana s ranijim započinjanjem spolnih aktivnosti (prije 16. godine života). Studenti koji su imali spolne odnose na jednu noć, često su imali i spolni odnos pod utjecajem alkohola i spolno prenosivu bolest. Zajednički razlozi nekih ponašanja ukazali su na postojanje karakterističnog uzorka rizičnog spolnog ponašanja među studentskom populacijom. To osobito zabrinjava s obzirom na sve moguće posljedice takvih ponašanja na reproduktivno zdravlje mladih. Prema podacima iz 2008., slučajevi genitalne klamidijske infekcije, najčešće spolno prenosive bolesti, porasli su šest puta u dobnoj skupini od 20 do 24 godine, nego što je to slučaju u općoj populaciji (Institute of Public Health of Serbia, 2009). U našem je istraživanju vrlo malo ispitanika reklo da imaju spolno prenosivu bolest, unatoč tome što ih je više od polovine odgovorilo da redovito idu ginekologu ili urologu. Pogledaju li se podatci prikupljeni prilikom redovitih liječničkih pregleda, prema kojima je samo 2% studenata bilo na ginekološkom pregledu, može se zaključiti da su ispitanici bili skloni dati društveno poželjne odgovore (Ilić, 2011). U skladu s nalazima prethodnih istraživanja, prevladavajući i povezani određeni uzorci spolnog ponašanja studenata upućuju na potrebu za intenzivnijim preventivskim programima u području reproduktivnog zdravlja (Dimitrijević, 2009).

U tranzicijskom periodu iz adolescencije u zrelu dob, u kojem se nalazi studentska populacija, postoje značajne promjene u psihološkoj i društvenoj domeni osobe. Pri odvajanju od roditelja i prihvaćanju mnogih novih zadataka i odgovornosti, studenti dobivaju priliku da samostalno izgrade svoj stil života. Stoga mijenjaju navike vezane

uz prehranu i tjelesne aktivnosti (Von Post-Skagegard, Samuelson, Karlström, Mohsen, Berglund, i Bratteby 2002). Naše je istraživanje pokazalo da je samo jedna četvrtina studenata redovito unosila pet obroka dnevno, što je potvrdilo nedostatak redovitih prehrambenih navika. To što je jedna trećina ispitanika koristila različite metode reguliranja tjelesne težine bez savjeta liječnika (dijete, tablete, laksative, povraćanje) pokazalo je nedovoljnu svijest o prikladnim načinima održavanja primjerene tjelesne težine. Većina je studenata rekla da često jedu voće i povrće. No, osobito je zabrinjavajuće bilo to što svi oni jedu brzo hranu. Trend konzumiranja brze hrane u tim godinama u skladu je s rezultatima ostalih studija (Von Post-Skagegard i dr., 2002). Što se tiče čestotnosti konzumacije voća i povrća, rezultati ove studije moraju se interpretirati sa zadržkom, s obzirom na potencijalni utjecaj metode na ispitanika pri odgovaranju. Primjerice, američke su studije pokazale da manje od 10% studenata uzima propisanu količinu voća i povrća (American College Health Association, 2011). Što se tiče tjelesne aktivnosti studenata, naše je istraživanje pokazalo da otprilike polovina studenata nisu redovito tjelesno aktivni, dok velika većina njih često provodi više od jednog sata sjedeći ispred računala. Ti su rezultati u skladu s rezultatima istraživanja drugih studenata, studentskog života i činjenice da razina tjelesne aktivnosti pada s godinama (Von Post-Skagegard i dr., 2002). Potrebno je napomenuti da navedeni problemi još nisu ispitani u našoj sredini, pa nemamo s čime usporediti svoje podatke.

Analiza je potvrdila hipotezu u kojoj je bilo navedeno da rizična zdravstvena ponašanja nastaju zajedno i upućuju na postojanje dvaju različitih uzoraka rizičnog ponašanja među populacijom studenata. Prvi uzorak obuhvaćao je zlouporabu psihoaktivnih supstanci, rizično ponašanje u prometu, a drugi se odnosio na neprimjerenu prehranu i neadekvatnu tjelesnu aktivnost. Može se zaključiti da su studenti koji su konzumirali alkohol i cigarete bili skloniji zlouporabi ilegalnih psihoaktivnih supstanci, rizičnom ponašanju u prometu i rizičnom spolnom ponašanju. Također su studenti koji se nisu pravilno hranili bili i manje tjelesno aktivni. U preoblikovanom modelu teorije problematičnog ponašanja, koja uključuje sva ponašanja istražena u ovome radu, ističe se da se ta ponašanja imaju tendenciju pojavljivati se zajedno i da jedno ponašanje predstavlja rizik za pojavljivanje drugoga. Prema toj teoriji, korelacija između rizičnog zdravstvenog ponašanja među mladima objašnjava se unikatnim rizičnim faktorima koji pripadaju osobnim i društvenim domenama, a koje se odražavaju na njihovu izgledu (Donovan i dr., 1991; Turbin i dr., 2006).

Rezultati ovoga istraživanja potvrdili su da su rizična zdravstvena ponašanja češća među studentima koji češće prakticiraju rizična spolna ponašanja i manje su tjelesno aktivni. Taj je rezultat u skladu s rezultatima ostalih studija koje upućuju na to da su muškarci općenito skloniji rizičnim zdravstvenim ponašanjima od žena (American College Health Association, 2011; Marić, 2011; Raynor i Levine, 2009). Utvrđeno je da rizično upravljanje vozilima opada s godinama, kao što je i bilo predviđeno

našom hipotezom. To znači da studenti, kako postupno postaju zreliji, napuštaju uzorke eksperimentiranja kojima se služe u potrazi za zabavom i koji su tipični za adolescentsko doba (Jessor i dr., 1991). Među demografskim karakteristikama, mjesto prebivanja također je utjecalo na čestotnost određenih rizičnih ponašanja. Tako je utvrđeno da studenti koji žive u gradu imaju nezdravije prehrambene navike od studenata koji žive u ruralnim sredinama. To se može objasniti okolišnim čimbenicima koji doprinose stvaranju nezdrave prehrane u gradovima, za razliku od sela (Han, Lawlor, i Kimm, 2010).

Većina ispitanika u ovome istraživanju izjavila je da su dobili informacije vezane uz zdravlje od profesionalaca koji rade u zdravstvu. To je bilo iznenađujuće s obzirom na različita istraživanja u kojima je većina studenata rekla da su informaciju vezanu uz zdravlje dobili primarno putem medija, unatoč postojanju zdravstvenih službi na njihovim sveučilištima (Kwan i dr., 2010; Dimitrijević, 2009). Naši se rezultati stoga mogu pripisati načinu na koji su ispitanici razumjeli koncept informacije vezane uz zdravlje, ili tendenciji da daju društveno poželjne odgovore. Jedna trećina ispitanika izjavila je da uglavnom dobivaju zdravstvene informacije od obitelji i prijatelja. To je osobito važno jer je gotovo četvrtina ispitanika izjavila kako vjeruje da se članovi njihovih obitelji i prijatelji ne brinu za vlastito zdravlje. No, ovo istraživanje nije potvrdilo značajnu vezu između rizičnih zdravstvenih ponašanja i izvora informacija i modela društvenog ponašanja. To se može objasniti oblikovanjem pitanja ili tendencijom ispitanika da daju društveno poželjne odgovore.

Istraživanje je pokazalo postojanje značajnih veza između rizičnih zdravstvenih ponašanja i istraženih dimenzija osobnosti, što se očekivalo u našoj hipotezi i navedeno je u rezultatima prijašnjih istraživanja (Obradović, 2010; Raynor i Levine, 2009). Rezultati koji upućuju na to da su ekstrovertirani studenti bili skloniji zlouporabi ilegalnih supstanci bili su očekivani jer su te osobe imale puno društvenih kontakata koji su ih učinili podložnijim mogućim negativnim utjecajima (Jessor i dr., 1991; Marić, 2011). Studenti niske ugodnosti bili su skloniji rizičnim spolnim ponašanjima koja su se mogla objasniti činjenicom da su ti studenti agresivniji i impulzivni u društvenim odnosima (John i Srivastava, 1999; Raynor i dr., 2009). Gotovo sve proučavane karakteristike osobnosti bile su povezane s razinom tjelesne aktivnosti. Tako su niska ekstrovertiranost, ugodnost i otvorenost predviđale nisku razinu tjelesne aktivnosti. Osobe s visokom razinom ekstrovertiranosti, ugodnosti i otvorenosti introvertirane su i pasivne pa su stoga sklonije sjedilačkom stilu života i tjelesnoj neaktivnosti (John i dr., 1991; John i Srivastava, 1999). Niska razina savjesnosti očekivano je povezana s tjelesnom neaktivnosti, s obzirom na to da te osobe preuzimaju manje odgovornosti za svoje zdravlje (Jessor i dr., 1991; Obradović, 2010; Raynor i dr., 2009).

U izvođenju zaključaka mora se uzeti u obzir nekoliko ograničenja ovoga istraživanja. Iz praktičnih se razloga uzorak istraživanja sastojao od studenata jednoga fakulteta, što se mora uzeti u obzir pokušaju li se rezultati poopćiti. Međutim, radi se o jedinom Učiteljskom fakultetu na teritoriju cijele pokrajine Vojvodine, a koji

okuplja mlade iz svih dijelova zemlje. Priroda i osjetljivost istraženih problema mogle su potaknuti studente da daju društveno poželjne odgovore. Stoga postoji mogućnost da je stvarna prevladavajuća razina rizičnih zdravstvenih ponašanja u studentskoj populaciji umanjena. Usprkos ograničenjima, ovo je istraživanje pokazalo jednu opću sliku studentskih rizičnih zdravstvenih ponašanja i osobnih i društvenih čimbenika koji doprinose takvom ponašanju te na koje bi trebalo obratiti osobitu pažnju u budućem istraživanju.

## **Zaključak**

Široka rasprostranjenost i povezanost različitih rizičnih zdravstvenih ponašanja upućuju na postojanje jedinstvenog oblika rizičnoga ponašanja karakterističnog za studentsku populaciju. U okviru općega uzorka rizičnog zdravstvenog ponašanja studenata, utvrđena su dva uzorka zdravstvenog ponašanja studenata. Prvi je imao veze s korištenjem psihoaktivnih supstanci, rizičnim spolnim ponašanjem i rizičnim upravljanjem motornim vozilima, a drugi je obuhvaćao nezdravu prehranu i nedovoljnu tjelesnu aktivnost. Pretjerana konzumacija alkohola pokazala se najistaknutijim rizičnim zdravstvenim ponašanjem među studentskom populacijom. Potvrđeno je da su rizična zdravstvena ponašanja bila češća među muškim i mlađim studentima. Savjesnost, ugodnost, ekstrovertiranost i otvorenost potvrđeni su kao značajni prediktori određenih rizičnih zdravstvenih ponašanja. Rezultati ovoga istraživanja upućuju na potrebu stalnog nadziranja rizičnih zdravstvenih ponašanja studenata na međunarodnoj razini, kao i planiranje te primjenu preventivnih mjera koje bi bile u skladu s trenutnom situacijom.