

## Chosen Forms of Risk Behaviour in Adolescents

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### ABSTRACT

The main purpose of present study was to describe chosen types of risk behaviour in adolescents, as are alcohol consumption, smoking of cigarettes, marihuana and drug use. Acquisition of empiric data was realised questionnaire method in a sample 387 students from secondary school in middle and late adolescence. It was confirmed statistically significant relation between age of adolescent and cigarette smoking ( $p < 0,05$ ), alcohol drinking (beer, wine, hard liquors) ( $p < 0,05$ ). It was confirmed statistically significant difference between gender in alcohol drinking ( $p < 0,05$ ) and marihuana use ( $p < 0,05$ ). Nursing has a role in primary prevention of abuses psychoactive substances, where nurse realize screening their consumption and targeted interventions, as education.

### KEY WORDS

adolescent, risk behaviour, alcohol consumption, smoking, marihuana use, drug use

### INTRODUCTION

The period of adolescence is related to the issue of risky behavior. According to the authors Širůček, Širůčková, Macek (2007, p. 477) is the risky behavior a social construct comprising multiple behaviors. They are not always listed in full, but they cause health, social or psychological threat (actual and expected) for the individual himself or his social environment. Here we can include drinking beer, wine, liquors, spirits, cigarette smoking, drunk driving, drinking large amounts of alcohol at social occasions, smoking marijuana, car ride with a driver who is under the influence of alcohol/drugs, drug use, inhalation of volatile substances, sexual intercourse without a condom (Kvasová, 2003, p. 26–38). Labáth (2001, p. 11) talks about the three forms of risky behavior: passive (e.g. truancy, suicidal behavior), aggressive (e.g. delinquency) and compromise (e.g. fluctuations in work). Kabíček et al. (2010, p. 3) describes the area of risk behavior, which are represented by the abuse of drugs (nicotine, alcohol, drugs), disorders of social adaptation in the strict sense (e.g. delinquency, accidents) and disturbances in reproductive health (risky sexual behavior). Currently there are specifically included „new“ areas such as risk sports (adrenaline/extreme), e.g. bungee jumping, and playing computer games. Some of the

se, e.g. abuse of drugs represent a health risk factor of adolescents in all developed countries (Kabíček et al., 2010, p. 1; Liba, 2007, p. 17). Examples may include their use in relation to the pathology of the diet, as the risk of eating disorders (Krch, Csémy, 2003, p. 21; Croll et al., 2002, p. 171–174) and dieting (Crow et al., 2006, p. 569). Other examples may include their use in the context of serious injuries, with causing fatalities and the risk of suicide (Kabíček et al., 2010, p. 3), to formation of delinquent behavior (Peleq-Oren et al., 2009, p. 1966) and risky sexual behavior (Levy et al., 2009, p. 473).

There are several reasons to pay attention to adolescents in relation to drug use. In this developmental period, the risk of such behavior is the highest of all developmental stages. Adolescence is considered a key period for the prevention of given behavior, formation of attitudes and habits related to risk behavior (Krejčová, 2011, p. 145–146). In one type of risky behavior there is higher assumption that the adolescent chooses the other types, e.g. cigarette smoking is closely related to drinking alcohol and drug use (Myers, Kelly, 2006, p. 221) and smoking marijuana (Baška, Kolarčík (2009, p. 61, In Madarasová Gecková et al., 2009) states that marijuana is a „gateway“ to other drugs and is one of the indicators that can predict an increased risk

of further progression of substance use, or to the development of addiction later in life (Miovský et al., 2007, p. 109–118). Such conduction along with delinquency is described as a crisis phenomenon of the adolescence (Rovný et al., 2004, p. 31). Among the adolescents in the European region, the smoking, alcohol consumption and drug use is extended, what is clear from the results of international studies, e.g. Health Behaviour in School-aged Children (HBSC), European School Survey Project on Alcohol and Other Drugs (ESPAD). In the primary prevention of substance abuse there is a space for nursing, in which nurse in the current Slovak legislation may be helpful in screening their consumption and the implementation of preventive interventions, such as education.

### OBJECTIVE OF WORK

The aim of this work was to identify the consumption of addictive substances among adolescent respondents and to analyze the data obtained in relation to gender and grade.

### SUBJECTS AND METHODS

Set of respondents consisted of 387 students from five secondary schools in the district of Martin, of which 37% of first-year students (age 15–16 years) and 63% of fourth grade (age 18–20 years). There were 46.5% women and 53.5% men. Selection of respondents was intentionally set. The criteria for inclusion were: adolescent age, student of first/fourth grade, willing to cooperate (agrees with completing the questionnaire), those under age have informed consent (written form) for participation in research by parent.

To collect empirical data we used a self-assessment questionnaire titled Eating Among Teens (Project EAT Survey). For its use in the Slovak Republic a consent was obtained. Collection of empirical data was preceded by the process of linguistic validation of the instrument.

For statistical processing and data evaluation methods were used descriptive/narrative and inductive statistics. For each item there were developed frequency tables with absolute (*n*) and relative (%) frequencies, maximum (*max.*) and minimum (*min.*) scale values, arithmetic average (*x*), standard deviation (*s*). To determine the strength of the relationship between the row and column variable was used the Cramer contingency coefficient (Rimarčík, 2007, p. 73–74, 165–166). For determining the linear relationship between two random variables was used the Pearson correlation coefficient (*r*) (of linear relationship) showing how changing one variable acts

to amend the other (Zvárová, 2008, p. 178–179). Relationships between variables were calculated at 5% level of significance ( $p < 0.05$ ).

### RESULTS

Table 1 shows results of ingestion of drugs in adolescent respondents the time horizon of last 12 months.

In higher percentage of girls we recorded smoking in the last 12 months. A higher percentage of boys reported smoking cigarettes every day, daily drinking beer, wine and spirits and consumption of marijuana daily. Older respondents (4th year students) smoke more frequently ( $p = 0.021$ ) and drink beer, wine and spirits ( $p = 0.000$ ). A higher percentage of boys and 1st grade students (younger respondents) reported ingestion of other drugs, for example, LSD.

Table 2 shows the monitored features in columns and rows (consumption of addictive substances). The figures in the table are the values of the Pearson correlation coefficient (*r*) for a given pair of characters. The results of the research show that the strongest positive correlation is between smoking marijuana and use of other drug,  $r = 0.600$ .

### DISCUSSION

Tobacco and alcohol are the first addictive substance that adolescent uses (Myers, Kelly, 2006, p. 221). First experiences with tobacco use, especially in the form of cigarette smoking, can be found already in pupils in older school age (Baška, Kolarčík, 2009, p. 54, In Madarasová Gecková et al., 2009). In our research group, 46% of respondents reported smoking in the last 12 months (Tab. 1). Similar results were brought in the study of authors Shanklin et al. (2007, p. 4), where 48.7% of respondents reported smoking. A slightly lower percentage of respondents (31.6%), who reported smoking in a given period of time, was recorded in research study of authors Crow et al. (2006, p. 571) and Eisenberg et al. (2004, p. 793). 20.7% of our research group reported smoking daily, of which 18.9% were first-year students (15–16 years) and a slightly higher percentage (21.7%) of students in the fourth grade (18–20 years) (Tab. 1). In a study by Csémy, Chomynová, Sadílek (2007, p. 2) was smoking daily reported by 25% of respondents aged 16. Regarding smoking between the sexes, the results of the studies are different. Some studies, for example Holčík, Koupilová (2002, p. 659–662), Crow et al. (2006, p. 571), Eisenberg et al. (2004, p. 793) indicate a balancing number of smokers between boys and girls. Others report a higher percentage of boys, such as Miovský et al. (2013, p. 5), Hrubá (2004, p. 88–92),

**Table 1** Ingestion of drugs by adolescents in the last 12 months

n = 387	During the last 12 months, how often did you smoke cigarettes				
	sex		grade		together
	men	women	1 <sup>st</sup>	4 <sup>th</sup>	
never	55.1	52.8	64.3	48.0	54.0
several times	14.5	17.8	11.2	18.9	16.0
monthly	3.9	3.9	2.1	4.9	3.9
weekly	4.3	6.7	3.5	6.6	5.4
daily	22.2	18.9	18.9	21.7	20.7
	V = 0.076. p = 0.696		V = 0.173. p = 0.021		100.0
n = 387	During the last 12 months, how often did you ingest beer, wine, spirits				
	sex		grade		together
	men	women	1 <sup>st</sup>	4 <sup>th</sup>	
never	19.3	18.9	30.8	12.3	19.1
several times	32.4	43.3	38.5	36.9	37.5
monthly	15.9	18.3	14.0	18.9	17.1
weekly	24.6	17.2	13.3	25.8	21.2
daily	7.7	2.2	3.5	6.1	5.2
	V = 0.021. p = 0.173		V = 0.256. p = 0.000		100.0

n = 387	During the last 12 months, how often did you ingest marijuana				
	sex		grade		together
	men	women	1 <sup>st</sup>	4 <sup>th</sup>	
never	70.5	84.4	79.7	75.4	77.0
several times	17.4	9.4	11.9	14.8	13.7
monthly	5.8	3.9	4.2	5.3	4.9
weekly	1.9	0.6	0.7	1.6	1.3
daily	4.3	1.7	3.5	2.9	3.1
	V = 0.170. p = 0.024		V = 0.786. p = 0.067		100.0
n = 387	During the last 12 months, how often did you ingest other drugs, e.g. LSD, heroin				
	sex		grade		together
	men	women	1 <sup>st</sup>	4 <sup>th</sup>	
never	88.9	94.4	90.9	91.8	91.5
several times	5.3	3.3	4.2	4.5	4.4
monthly	1.4	0.0	0.7	0.8	0.8
weekly	2.4	1.1	2.1	1.6	1.8
daily	1.9	1.1	2.1	1.2	1.6
	V = 0.115. p = 0.275		V = 0.039. p = 0.964		100.0

Legend:  $p < 0.05$ , V – Kramer's contingency coefficient

**Table 2** Correlation matrix

Ingestion last 12 months	cigarettes	beer, wine, spirits	marijuana	other drugs, e.g. LSD, heroin
cigarettes	1			
beer, wine, spirits	0.502 **p < 0.001	1		
marijuana	0.307 **p < 0.001	0.482 **p < 0.001	1	
other drugs, e.g. LSD, heroin	0.087	0.263 **p < 0.001	0.600 **p < 0.001	1

Legend: \*\*p < 0.001 statistically highly significant correlation

Hrubá, Kachlík (2000, p. 3–9). In the future, however, smoking among girls is expected to increase (Baška, 2011, p. 43, In Madarasová Gecková, 2011; Csémy, Chomynová, Sadílek, 2007, p. 4; Sovinová, Csémy, 2004, p. 10). In our group of adolescent respondents, the indicated assumptions to the detriment of girls confirmed (smoking several times, monthly, weekly). Tobacco consumption increases with the age of the adolescent, as established in studies, e.g. Baška (2011, p. 43, In Madarasová Gecková et al., 2011); Baška, Kolarčík (2009, p. 55, In Madarasová Gecková et al., 2009), Sovinová, Csémy (2004, p. 11). This was confirmed in our study too, older respondents smoke more frequently ( $p = 0.021$ ) (Table 1).

Alcohol consumption among adolescents tends to increase (Csémy et al., 2007, p. 158–170; Blatný et al., 2005, p. 524–539). It is more commonly consumed by boys and older age adolescents, which is attested by the results of studies e.g. Baška (2011, p. 52, In Madarasová Gecková, 2011); Karsten (2006, p. 102). As for the preference of alcoholic beverage or popularity of different types of alcoholic beverages, beer is the most commonly consumed type of alcohol. Spirits are drunk more often than wine (Csémy, Chomynová, Sadílek, 2009, p. 22). The findings above confirmed in our group. From the 80.9% of respondents, who have ever consumed alcoholic beverages (beer, wine, spirits) in the last 12 months, there were more boys (Tab. 1). Similar conclusions were pointed in the study of authors Eisenberg et al. (2004, p. 793). In our research, we confirmed a statistically significant difference between the sexes in consumption of alcoholic beverages ( $p = 0.021$ ). Their more frequent ingestion was indicated in older age (87.7%) than in younger age (69.2%).

Abuse of drugs generally starts with smoking cigarettes and drinking alcohol, which is related to experience with other drugs, e.g. smoking marijuana. Marijuana is the most used drug among adolescents in developed countries (Csémy et al., 2007, p. 158). Modal age for the first experience of the adolescent with alcohol (and drunkenness) and tobacco smoking is at 13 years of age (Madarasová Gecková et al., 2011, p. 8; Peleq-Oren et al., 2009, p. 1966). Experience with marijuana is common in 15 years (Krch et al., 2004, p. 348). The authors of studies e.g. Myers, Kelly (2006, p. 221), Kabiček, Sulek, Mizerová (2010, p. 46), Krch, Csémy, Drábková (2004, p. 348–355), Kyasová (2003, p. 56–64) document that adolescents with one type of risky behavior is higher supposed to choose a different type. This is confirmed by the results of our research. In all observed characteristics is confirmed a positive dependence (Table 2). The strongest

positive correlation is between smoking marijuana and use of other drug,  $r = 0.600$  ( $p < 0.001$ ). Those who smoke are also taking alcoholic beverages ( $p < 0.001$ ) and smoke marijuana ( $p < 0.001$ ). Those who drink alcohol, smoke marijuana ( $p < 0.001$ ) and have experience with other drugs ( $p < 0.001$ ) (Table 2). 23% of our respondents reported experience with marijuana in the past 12 months, including more boys and older in age. Similar results to the detriment of the consumption of the boys brought results of authors Baška (2011, p. 60, In Madarasová Gecková, 2011), Baška; Kolarčík (2009, p. 53, 60, In Madarasová Gecková et al., 2009); Nociar (2007, p. 38); MacKay, Duran (2007, p. 67).

8.5% of respondents our group, of which were more boys, reported use of drugs, e.g. LSD in the last 12 months (Table 1). In the study of authors Csémy, Chomynová, Sadílek (2009, p. 24) 4.5% of respondents had used drugs with hallucinogenic effects, such as LSD. Similar results to the detriment of the drug use of the boys brought results of authors Csémy, Chomynová, Sadílek (2007, p. 2).

A research study has its limitations. One of the limitations is the fact that ingestion of drugs among respondents from the secondary schools of the second and third year and at age 17 was not unmonitored. The methodological limit of the research study is the sample size, which is too small to generalize the presented empirical data. Future research should be carried out on a representative sample of respondents, in order to give the results of research a stronger explanatory value. It would also be necessary to expand the number of secondary schools in the region, to engage in the research. Thus we should achieve the objective and comprehensive data about the ingestion of drugs among adolescents in secondary schools in the region. The research conducted in regional primary, secondary and higher education institutions, in this regard, would brought complexity, involving adolescent respondents in the age group from 15 to 20–22 years. Referred age group represents a limited period of adolescence from a psychological perspective, discussed by, e.g. Říčan (2009, p. 278) and Langmeier, Krejčířová (1998, p. 140).

## CONCLUSION

The aim of the research was to identify some forms of risk behavior in adolescents, such as cigarette smoking, alcohol consumption, use of marijuana and other drugs. According to the research results, the majority of respondents have at least one experience with smoking cigarettes, drinking beer, wine and spirits, using marijuana and other drugs, including more



boys and older respondents. In the current legislation of the Slovak Republic, the nurses working in outpatient units of physician for children and adolescents can participate in primary prevention of some forms of risk behavior in adolescents. They can be helpful in screening their use and implementing targeted interventions, such as an education implemented directly in the school environment of the adolescent, aimed at preventing risky behavior and acquisition of lifestyle.

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