

## Alcohol consumption among adolescents in the City of Zagreb and the presence of alcohol drinking among their parents

Mara Tripković, Tanja Frančišković<sup>1</sup>, Hrvoje Marković<sup>2</sup>,  
Ljubica Paradžik, Alen Andrić

*Psychiatric Hospital for Children and Youth, Zagreb, Croatia*

<sup>1</sup>*Clinic of Psychiatry and Psychological Medicine, Faculty of Medicine,  
University of Rijeka, Croatia*

<sup>2</sup>*Department of Psychiatry, General Hospital Dubrovnik, Dubrovnik, Croatia*

**Summary** – Daily clinical practice, as well as numerous studies, shows that the problem of auto-aggression, and with that the problem of alcohol consumption among youth, is increasing and at the present time, is very actual. The aim of this study was to determine the frequency of alcohol use among adolescents in the city of Zagreb, and if the presence of alcoholism in their families was a risk factor for the development of tendency for excessive alcohol consumption. The study was conducted on 701 subjects – both genders. Subjects were students of high schools in the city of Zagreb from the ages 14 to 19. For the data collection, we used a structured questionnaire which included questions about demographic and family information and a standardized questionnaire, Autodestruction Scale (ADS). ADS is an instrument that measures the self-destructive tendencies in the personality of the individual and consists of 107 statements (questions). According to the results of our study, from the total number of high school students 56.6% had consumed alcohol without the knowledge of their parents, 22.3% of them had experience in excessive alcohol consumption whereby boys were significantly more often inclined to do so compared to girls. In addition,

Correspondence to: **M. Tripković**, Psychiatric Hospital for Children and Youth, Zagreb, Croatia, e-mail: [mara.tripkovic@djecja-psihijatrija.hr](mailto:mara.tripkovic@djecja-psihijatrija.hr)

this study has shown that 21.8% of adolescents have fathers who drink alcohol often or very often, while alcohol consumption among mothers of adolescents is not statistically significant.

**Key words:** alcoholism, adolescents, family, addiction, urban population

## INTRODUCTION

Adolescence is a period in which majority of youth first come into contact with psychoactive substances. For some, this contact is ephemeral and without major consequences, while for others it can be fatal and lead to a complete change of lifestyle and development of addiction. Alcohol is a psychoactive substance that most adolescents consume. This is, besides its legality and availability, due to its eternal presence and incorporation into lifestyle and customs. Adolescents are not attracted by alcohol only because of the identification with the lifestyle of adults, but also as a means to temporarily take away the anxiety associated with feelings of being lost and confused in their current life phase. Alcohol consumption in adolescence is usually characterized with daily need for drinking, and often, intensive drinking on weekends. Experimenting with addictive substances among youth is usually motivated with curiosity, a desire for self-affirmation, imitation and self-assertion. As with adults, alcohol consumption among young people can stimulate and/or be accompanied by a number of other psychiatric disorders.<sup>1</sup> With adolescents prone to alcohol use and general psychoactive substances, we can frequently observe behavior disorders, origins of anti-social and borderline personality disorder and mood disorders. These disorders may induce the use of psychoactive substances and lead to a behavioral model characterized by impulsivity, self destructive tendencies and disregard for the consequences of their actions.<sup>2-5</sup>

Previous studies have suggested a number of factors that influence the use of psychoactive substances, such as the structure of adolescent personality, family dynamics, genetics and neurochemical and social factors. Due to the complex interaction of these factors it is difficult to determine the hierarchy of their importance in the development and preferences to alcohol consumption.<sup>6-9</sup> Considering the important, if not the most important role that family has in the formation of identity in adolescence<sup>10</sup> it is to be expected that the family functioning would be associated with general psychic adjustment of adolescents, their perception of self-esteem, a sense of competence, school achievement and behavioral disorders – delinquent behavior and use of addictive substances.<sup>11-13</sup>

Early psychoanalytic theories made reference to oral regression and the similarity of the phenomenon of addiction with the earliest stage of libidinal development, when the child demands gratification of its desires without any ability to give. Addictive behavior is understood as a narcissistic phenomenon of obsession with achieving personal satisfaction. Recent theories describe dysfunction of the ego, the inability of processing painful and unpleasant feelings related to early object relations, while the cognitive approach attempts to identify negative models of thought related with the experience of adolescent identity confusion, lifestyle, projections of their future, relationship with their parents and peers, with the inability to develop different cognitive schemes. Some studies have shown that, among adolescents who are prone to consuming psychoactive substances the traits of pessimism, impulsiveness, auto-aggression and low self-esteem are more accentuated.<sup>2,4</sup>

## SUBJECTS AND METHODS

This study was conducted on 701 high school students in Zagreb during the school year 2011/2012. Selection included 13 general secondary school classes and 18 vocational high school classes. In each school, students engaged in the study came from 1st to 4th grade or, for vocational schools, 1st to 3rd grade. After attaining a written permission of the Ministry of Science, Education and Sports, the directors of schools in which the study was conducted were informed on the implementation of research and parents of students in selected classes were sent a notification in which the objectives, methods and modus of research were briefly explained. With a signed parental consent and awareness of participants about the research, testing was conducted on all students on the given day of examination. Testing was conducted in groups within the class, during the regular school hours for 2 class hours. Data collection was anonymous and the participants filled two structured questionnaires: A structured questionnaire with demographic and family data contained 15 different questions, including the questions about alcoholism and the presence of mental illness in the family. The second questionnaire was a standardized Autodestruction Scale (ADS) questionnaire which consisted of 107 claims, some of which were related to alcohol consumption like »I've excessively drunk alcohol«, »I often drink alcohol to forget about my troubles.« Subjects' task was to respond to each statement with a positive or negative response, depending on whether the claim is true for him.<sup>14</sup>

For statistical and graphical data processing, standard methods of descriptive statistics<sup>15</sup> have been applied. All the calculations were made using SPSS program pack-

age (SPSS for Windows (2002) Release 11.5.0. Standard Version. SPSS inc.), except for path analysis for which the program Plug-in AMOS (Arbuckle, JL (2003). Amos user's guide. Chicago: SmallWaters) was used.

## RESULTS

From 701 subjects, 56.7% were boys and 43.3% were girls. Subjects in the sample were of average age of 16.5 years. Structure of the subjects reflects the actual ratio of 1/3 of general secondary schools and 2/3 of vocational schools in Zagreb. Demographic data: gender of subjects, representation of each class in the sample, and the representation of the type of school are shown in Table 1. From the total number of respondents, 99 of them (14.4%) said that they had the experience of alcohol consumption for suppression of concern (they answered »yes! to the statement *I often drink alcohol to forget my troubles*). With Chi-squared test, we found that there is no difference ( $\chi^2=1.86$ ,  $df=2$ ,  $p>0.01$ ) in different answers to this claim, depending on the gender of subjects, and that the same number of boys (15.6%) and girls (12.8%) had given the affirmative answers on the claim above (results are shown in Figure 1).

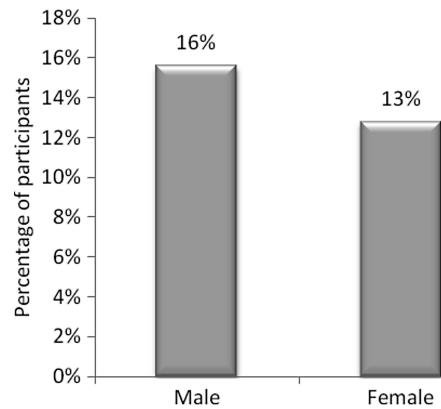
The answers of adolescent subjects on the claim *I'm consuming alcohol without parents knowledge* shows that 37.2% are doing it sometimes and 19.4% are doing it often or very often, are shown in Figure 2).

Chi-squared test showed a statistically significant difference ( $\chi^2=17:14$ ,  $df=4$ ,  $p<0.01$ ) in fathers of surveyed adolescents. It turned out that 27.6% of adolescents who gave an affirmative answer to the statement *I often drink alcohol to forget my*

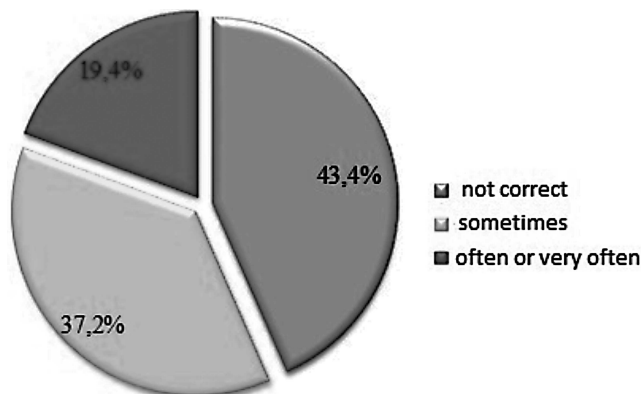
**Table 1.** Demographic data: gender of respondents, frequency of classes and school types

		N	%
Gender of respondents	Boys	395	56,7
	Girls	302	43,3
Class division	1st grade	227	33,4
	2nd grade	196	28,9
	3rd grade	181	26,7
	4th grade	75	11,0
School type	Vocational	458	65,6
	General	240	34,4

Alcohol consumption among adolescents in the  
City of Zagreb and the presence of alcohol drinking among their parents



**Figure 1.** The number of subjects who consume alcohol regarding the gender. Responses to the claim: *I often drink alcohol to forget my concerns.*

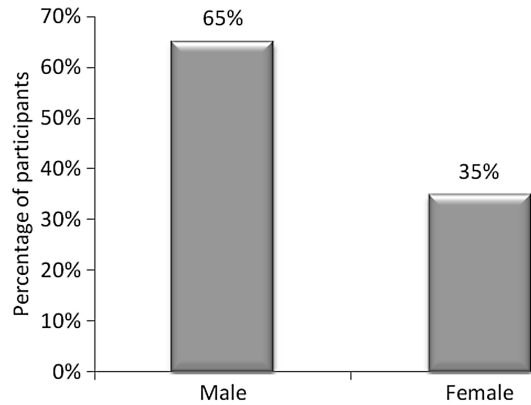


**Figure 2.** Responses to the statement *I consume alcohol without the parents knowledge* in the ADS questionnaire

*troubles* had fathers who never drank alcohol, 50.6% of them had fathers who rarely or sometimes drank alcohol and, finally, 21.8% have fathers who drank alcohol often or very often. Comparison with adolescents who did not respond affirmatively to the above argument shows that alcohol consumption of their fathers was as follows: 31.1% never, 60.5% rarely and 8.4% often.

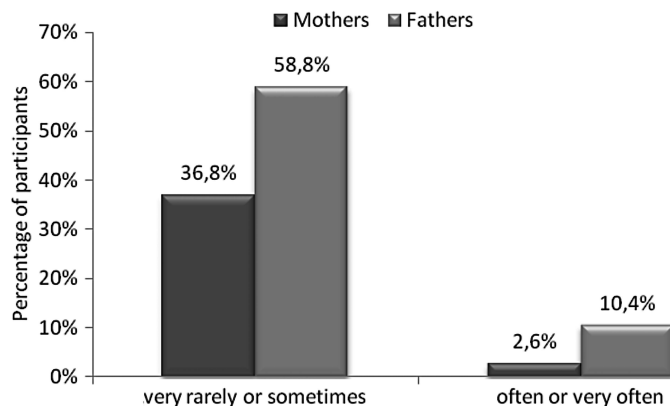
Additionally, observing the above claim, it was shown that there is no difference in the percentage of alcohol consumption among adolescents depending on the alcohol consumption of mothers their mothers. ( $\chi^2=0.78$ ,  $df=4$ ,  $p>0.01$ ).

From the total number of subjects, 153 (22.3%) said they had experience of excessive alcohol consumption (they answered »yes« to the statement *I drank alcohol excessively*) on the Autodestructive scale questionnaire (Figure 3).



**Figure 3.** Number of respondents regarding the gender in alcohol consumption *I drink alcohol excessively*

From 153 respondents, 99 (65.1%) were young men and 53 (34.9%) girls. When looking at all the boys in the sample, 25.4% of them stated that they had experience with excessive alcohol consumption, and 18.0% of the total number of girls stated the same. Chi-squared test ( $\chi^2=6.90$ ,  $df=2$ ,  $p<0.05$ ), indicated that the proportion of adolescents who drank alcohol excessively was significantly higher among boys than among girls.



**Figure 4.** Alcohol consumption of mothers and fathers of examined adolescents

Additionally, considering the above claim, it was shown that there was no difference in the percentage of alcohol consumption depending on the alcohol consumption of mothers ( $\chi^2=2.27$ ,  $df=4$ ,  $p>0.01$ ). The situation was different for fathers, where chi-squared test showed a statistically significant difference ( $\chi^2=4.13$ ,  $df=4$ ,  $p<0.02$ ). It turned out that 19.1% of adolescents who gave an affirmative answer to the statement *I drank alcohol excessively* have fathers who never drank alcohol and 66.9% of them have fathers who rarely or occasionally drank alcohol, and finally 14.0% had fathers who drank alcohol often or very often. (Figure 4)

## DISCUSSION

Research results provide an insight into dispersion of alcohol drinking habits among the secondary school students in Zagreb and some of the previously known family risk factors for the development of addictive behavior. It is known that parental alcoholism and general presence of alcoholism in the family environment may influence the later development of alcoholism in children. Family devastated by alcoholism of one or both parents, often burdened with existential problems, cannot be a positive corrective for the behavior of their younger members.<sup>8,16,17</sup> Reference research<sup>16</sup> of youth drinking in Croatia, which was conducted on a sample of three vocational schools in Zagreb during the year 2004 on 551 students with an average age of 17.2 years showed that 92% of students consumed alcohol several times, and school achievement of students who had been drinking alcohol was significantly weaker compared to those students who did not drink alcohol and did not smoke.<sup>12,16,18</sup> The main result of this study indicates that more than 22% of adolescents drank alcohol excessively, listing the suppression of concerns as the most important reason for drinking *I often drink alcohol to forget my affliction*, where an equal number of boys and girls gave an affirmative answer to this assertion, which confirmed that alcohol usually serves youth to reduce anxiety, but may indicate that in adolescence, anxiety is often just a side effect of some other accompanying psychiatric disorder. These findings are in accordance to similar studies conducted in neighboring countries.<sup>19,20</sup>

Based on the results of research on a number of risk factors that could affect the development of alcoholism it can be assumed that other variables that indicate the family functioning, as well as the variables that indicate the relationship of adolescents towards school and towards their peers are also significantly associated with alcoholism in young people. While in this study, nearly 59% of respondents said that their fathers sometimes consumed alcohol, and 10% often, some authors like Yang et al.

showed that fathers' alcoholism had no direct effect on alcohol consumption in children of both sexes, but that the drinking habits are shaped more by the habits of their peers. It turned out that the conflict in the family atmosphere may increase drinking in children, and that father's alcoholism has an indirect impact on children through disturbed family relationships.<sup>8</sup>

This study showed that the use of alcohol, as a form of auto-aggressive behavior in adolescence is spread among secondary school population, and that more than half of the respondents, or 56.6% of them sometimes, often or very often consume alcohol without their parents' knowledge, with the expressed factor of increased risk of alcohol consumption in subjects whose fathers consume alcohol.

Limitations of this study derive largely from the methodology. As for the participants, research should be conducted on an even greater number of young people and children of different ages. This study was aimed at adolescents, and the differences between them and younger children can be very significant. In addition, the sample of subjects on which the data was collected was the urban population because the research was conducted in Zagreb, which is why the generalization of research is only possible for a similar population. Survey does not include students who are expelled from schools, and a number of different psychological problems are more frequently found among them.<sup>21</sup>

Furthermore, the self-assessment techniques have been used and adolescents do not necessarily reflect the situation. A questionnaire that examines the tendency for auto-aggressiveness on the continuum was used. Information about specific procedures of consumption and the type of alcohol consumed, and their frequency were obtained by a relatively small number of particles, so for a more detailed examination of alcohol consumption among young people, research with some of the other measuring instruments for testing addiction should be conducted in order to gain a better insight into the complex interrelationships of emotional, social and family circumstances associated with the problem of addiction among youth.

#### KONZUMACIJA ALKOHOLA MEĐU ADOLESCENTIMA U GRADU ZAGREBU I UČESTALOST KONZUMACIJE ALKOHOLA MEĐU NJIHOVIM RODITELJIMA

**Sažetak** – Svakodnevna klinička praksa, kao i brojne studije, pokazuje da problem auto-agresije, a time i problem konzumacije alkohola među mladima raste i da je trenutno vrlo aktualan. Cilj ovog istraživanja bio je utvrditi učestalost konzumacije alkohola među adolescentima u gradu Zagrebu, te predstavlja li prisutnost alkoholizma u njihovim obiteljima čimbenik rizika



za razvoj tendencije za prekomjernu konzumaciju alkohola. Istraživanje je provedeno na 701 ispitaniku – oba spola. Ispitanici su bili učenici srednjih škola u gradu Zagrebu, stari 14–19 godina. Za prikupljanje podataka, koristili smo strukturirani upitnik, koji je uključivao pitanja o demografskim karakteristikama i informacije o obitelji i standardizirani upitnik, Skalu autodestrukcije (Autodestruction Scale (ADS)). ADS je sredstvo pomoću kojega se mjere autodestruktivne tendencije u osobnosti pojedinca i sastoji se od 107 izjava (pitanja). Prema rezultatima našeg istraživanja, od ukupnog broja srednjoškolaca, 56,5% su konzumirali alkohol bez znanja svojih roditelja, 22,3% su imali iskustvo prekomjerne konzumacije alkohola, pri čemu su dječaci bili češće skloni tome od djevojčica. Osim toga, ovo je istraživanje pokazalo da 21,8% adolescenata ima očeve koji piju alkohol često ili vrlo često, dok konzumacija alkohola među majkama nije značajna.

**Ključne riječi:** alkoholizam, adolescenti, obitelj, ovisnost, urbana populacija

#### REFERENCE

1. Donovan JE, Molina BS. Children's introduction to alcohol use: sips and tastes. *Alcohol Clin Exp Res* 2008;32:108–119.
2. Rutter's M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E et al. *Child and Adolescent Psychiatry*, 5<sup>th</sup> edition. Blackwell Publishing. 2008;648–662.
3. Lewiss M. *Lewis's Child and adolescent psychiatry: A comprehensive textbook* (3rd ed.). Philadelphia, US: Lippincott Williams & Wilkins Publishers; 2007.
4. Nikolić S, Marangunić M i sur. Dječja i adolescentna psihijatrija. Zagreb: Školska knjiga; 2004;359–375.
5. Zloković J, Vrcelj S. Rizična ponašanja djece i mladih. *Odgovorne znanosti* 2010;12:197–213.
6. Dube SR, Miller JW, Brown DW, Giles WH, Felitti VJ, Dong M. et al. Adverse childhood experience and the association with ever using alcohol and initiating alcohol use during adolescence. *J Adolescent Health*, 2006;38:1–444.
7. Hein K, Cohen MI, Litt JF. Illicit drug use among urban adolescents: A decade in retrospect. *Am J Dis Child* 1979;133:38–40.
8. Sakoman S, Kuzman M, Raboteg-Šarić Z. Čimbenici rizika i obilježja navika pijenja alkohola među srednjoškolcima. *Društvena istraživanja*, 1999;8:373–396.
9. Bašić J *Teorije prevencije: prevencija poremećaja u ponašanju i rizičnih ponašanja djece i mladih*. Zagreb: Školska knjiga; 2009.
10. Erikson E. *Childhood and Society*. New York: Norton; 1963.
11. Deković M, Janssens J, Nicole M. Family Predictors of Antisocial Behavior in Adolescence. *Fam Process*. 2003;42:223–235.
12. Harbach RL, Jones WP. Family beliefs among adolescents at risk for substance abuse. *J Drug Education*, 1995;25:1–9.
13. Ajduković M, Ručević S, Šincek D. Istraživanja rasprostranjenosti rizičnog i delikventnog ponašanja djece i mladih u urbanim sredinama – dodatni poticaj za ciljanu prevenciju. *Dijete i društvo* 2008;10:27–47.
14. Dautović M. *Priručnik za skalu autodestruktivnosti SAD*. Jastrebarsko: Naklada Slap; 2000.

15. Petz B. Osnovne statističke metode za nematematičare. Jastrebarsko: Naklada Slap; 2002.
16. Zoričić, Z. Problemi povezani s pijenjem alkohola u mladih ljudi u Republici Hrvatskoj. HSKLA 2012. Available at: [http://hskla.hr/OvisnostOalkoholu/problemiS\\_pijenjem.htm](http://hskla.hr/OvisnostOalkoholu/problemiS_pijenjem.htm)
17. Zoričić Z, Buljan D, Karlović D, Ivančić I, Katinić K. Correlation between depressiveness, suicidality and sociodemographic characteristics in the alcohol addicts. *Alcoholism: J Alcoholism*, 2005;41:3–15.
18. Beman DS. Risk factors leading to adolescent substance abuse. *Adolescence* 1995;30: 201–208.
19. Pavlović Z, Jakovljević B. Učestalost i faktori rizika od upotrebe psihoaktivnih supstancija kod mladih. *Vojnosanit Pregl.* 2008; 65:441–448.
20. Mandić-Gajić G. Psihoaktivne supstancije i mladi – da li smo svesni stvarne opasnosti? *Vojnosanit Pregl.* 2008; 65:421–423.
21. Laye-Gindhu A, Schonert-Reichl K. Non-suicidal self-harm among community adolescents: Understanding the »whats« and »whys« of self-harm. *J Youth Adolesc.* 2005;34: 447–457.