

ANTHROPO-MEDICAL CORRELATIONS REGARDING THE ALCOHOL CONSUMPTION AMONG TEENAGERS

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Objectives: to determine the debut age, the frequency, motivation and the habits of teen alcohol consumption, considering age and other population features, and to emphasize the necessity of an action program in order to prevent and reduce the alcohol consumption and its negative effects on public health. **Materials and methods:** The cross-sectional study was created in 2013 with the participation of 464 teenagers and young people (115 boys, 349 girls) from Romania and Serbia, aged 19-25. The subjects were medically and anthropometrically examined, and 48 items questionnaires were applied. The results were statistically processed with SPSS version 13. **Results:** approximately 90% of the students drank alcohol at least once in life; there is no significant statistic difference between boys and girls of both groups from the two countries. 19.20% of the students from Bucharest drank alcohol for the first time at 14 years old, while 28.00% of the students from Novi Sad drank alcohol for the first time at 15. The majority of students from both groups drank alcohol for the first time at a party or at home. The number of student girls from Novi Sad who drank alcohol for the first time in a café is bigger than the student girls from Bucharest; the difference is not statistically significant ($p=0.002$). The majority of students from both groups consume alcohol just during weekends, because, as they claim, it tastes good and it brings a good mood. **Conclusions:** Teenagers need to receive real information regarding the alcohol abuse’s consequences on health, family and society, in order to change their behavior into a healthy one.

Key words: alcohol, teenagers, anthropology, public health.

INTRODUCTION

Alcohol is the most common and acceptable abuse substance in society. According to World Health Organization (WHO), alcohol is the third in the top of the most important risk factors for premature death and unexpected illness in Europe, right after smoking and arterial hypertension. It is estimated that the products containing alcohol are responsible for approximately 9% of the existing diseases. Alcohol consumption leads to accidents and violence and is responsible for reducing the hope of life. Alcohol abuse has increased recently, both as volume and frequency, and the abuse starting age has decreased¹.

Steven H. Williams published in American Family Physician that *almost one third of Americans consume enough alcohol to be considered*

at risk for alcohol dependence, and alcohol abuse and dependence are associated with more than 100,000 deaths from alcohol-related diseases and injuries each year. The economic cost of alcohol abuse and dependence was estimated at more than \$184 billion for 1998². Use of screening tools and brief primary care interventions for alcohol problems significantly reduces drinking levels in “problem drinkers” who are not yet alcohol dependent³.

By activating the dopaminergic system of both the recognition and opioid system, alcohol generates a pleasure state, which rapidly grows into addiction. Through these effects, alcohol has gained its place among drugs⁴. “Alcohol, marijuana, and cocaine dependence and habitual smoking are all familial, and there is evidence of both common and specific addictive factors transmitted in families. This specificity suggests

independent causative factors in the development of each type of substance dependence”⁵.

*To identify specific genes affecting vulnerability or resistance, Long and colab. performed a whole-autosomal genome scan for genetic linkage to alcohol dependence in a Southwestern American Indian tribe. Highly suggestive evidence for linkage emerged for two genomic regions using two- and multipoint sib-pair regression methods; both regions harbored neurogenetic candidate genes. The best evidence is seen with D11S1984 on chromosome 11p, in close proximity to the DRD4 dopamine receptor and tyrosine hydroxylase (TH) genes. Good evidence is seen with D4S3242 on chromosome 4p, near the beta1 GABA receptor gene.*⁶

WHO studies show that the habit of alcohol abuse starts in teen age and the debut of adult age, but the pathologic consequences are only visible after many years. Teenagers are rarely chronic consumers of alcohol; they rather have the tendency of occasional abuse of alcohol. The alcohol addiction starts after more years and most of the persons that ask for medical assistance because of alcohol are 30 years or older¹. Teenagers are especially subject to temporary risks because of drunkenness. 25% of the deaths registered among young people aged 15-29 are linked to alcohol abuse (caused, for example, by accidents or violence)⁷. The late effects of a prolonged and abusive alcohol consumption are serious. The suffering produced by alcohol is variable depending on the person and the consumption itself (types of alcohol, the quantity consumed, the duration of alcoholism), genome (the genetic determinations are 40-50%), age, gender, social environment and the existing non-alcoholic pathology⁴. The socio-cultural factors play a considerable role, considering the economical level, the professional level, the attitude of acceptance or refusal of alcohol consumption, habits and specific tradition of each society⁸. In Controversies in the Addiction's Field Fingarette wrote that: *The idea of a single disease obscures the scientific consensus that no single cause has ever been established, nor has any biological causal factor ever been shown to be decisive. Heavy drinking has many causes which vary from drinker to drinker, from one drinking pattern to another. Character, motivation, family environment, personal history, ethnic and cultural*

*values, marital, occupational, and educational status all play a role. As these change, so do patterns of drinking, heavy drinking, and "alcoholism"*⁹.

The effects of alcohol abuse, as a product periodically or permanently consumed, are mostly negative because of the disintegration of the personality, the functional and organic consequences on some of the systems and organs of human body; alcohol destroys the human relationships, it has a social component and it perverts the base of society, family. It also reduces the spiritual and material base of human efforts, it being an aspect of subculture and sub-civilization¹⁰.

The negative effect of alcohol use in the study conducted by Welcome and co-authors was apparent even at a non-regular use of alcoholic beverages in small doses. They reported that alcohol use reduces academic performance by about 7-12%¹¹. According to Paschall et al. *regardless of the enormous epidemiological data on students' drinking behaviors, the fact that alcohol use reduces academic performance remains disputable*¹². The research conducted by Welcome is the first study to show that alcohol use, even in episodic moderate doses (28 ml/person with 1-2 times frequency per month) is accompanied by long-term glucose homeostasis disorders, leading to cognitive function disturbances and a decrease in the effectiveness of mental activities. Welcome et al. published that *these disorders in glucose homeostasis, cognitive functions were retained after 7-10 days of moderate alcohol use and might be the reason for the low academic performances among students who use alcoholic beverages. The psychophysiological model presented in this study defines the pathogenetic mechanisms of alcohol use on academic performance of students*¹³.

To be able to improve the quality of life it is necessary to reduce the negative effects of alcohol abuse, action which needs to be seen as a main public health problem. Similarly to other public policies, the actions done to prevent and reduce the alcohol consumption need to be based on real information. During the 90's, in the European countries, the three treaties (including the Declaration on young people and alcohol, adopted by the EU members in 2001) established the actions meant to reduce and prevent the alcohol

abuse. They emphasize the fact that the problems caused by the alcohol abuse, at international level, represent a public health issue. Also, they establish the main strategies of fighting the negative effects of alcohol consumption¹.

The objectives of this studies are:

- To bring additional information about the alcohol consumption among teenagers, especially among students;
- To determine the start age, the motivation and the habits of alcohol consumption, by gender and other population features;
- To bring in suggestions in order to create social policies, linked to the reality of alcohol consumption;
- To emphasize the necessity of an action program in order to prevent and reduce the alcohol abuse among teenagers and the negative effects of this behavior on the public health.

The purpose of this study is to inform teenagers on the negative consequences of alcohol abuse on health, on family and society and to suggest effective measures, which can be put in action to prevent and reduce them.

MATERIALS AND METHODS

This cross-sectional study from 2013 was created with the help of 464 young people, out of which 115 boys and 349 girls, aged 19-25 years. The 2 categories included 209 students from Bucharest (53 boys and 156 girls), 255 students from Novi Sad (62 boys and 193 girls), Romania and Serbia being the countries part of

“The European School Survey Project on Alcohol and Other Drugs”, usually recognized as ESPAD.

The project was initiated in 1993 by CAN-Swedish Council for Information on Alcohol and other Drugs, Stockholm and the Cooperation Group to Combat Drug Abuse and Ilicit Trafficking in Drugs (Pompidou Group). The subjects were medically and anthropometrically examined and there were created ordinal, nominal and binar questionnaires, including 48 items, to complete the data. The statistical analysis was performed with the help of SPSS version 13. The statistical instrument was represented by the nonparametric Chi-Square test. The statistics were developed through so called “non-parametric tests”, because the majority of variables we work with are qualitative. These tests do not need metric variables and are not based on the actual calculation of the measures of the variation’s central tendency. Chi Square is the most commonly utilized test for non-parametric significance in statistics and it extends the analysis area to more than two populations.

The study followed the ethical norms of scientific research, the participation of subjects to the study becoming possible only with their informed and free consent. During the research the principles of anonymity and confidentiality were respected.

RESULTS AND DISCUSSIONS

Table 1 and 2 shows the subjects investigated regarding the alcohol consumption and the statistical significance betwin analyzed groups.

The previous tables show that approximately 90% of the students that participated from both groups consumed alcohol throughout life; there is no significant difference of statistics.

Table 1

The features of the groups considering the place of investigation and the alcohol consumption during life

Crosstab

Count /%

| | | Have you tried an alcoholic beverage? | | Total |
|------------------------|-----------|---------------------------------------|-------------|---------------|
| | | Yes | No | |
| Place of investigation | Bucuresti | 173 (89.63%) | 20 (10.36%) | 193 (100.00%) |
| | Novi Sad | 225 (90.00%) | 25 (10.00%) | 250 (100.00%) |
| Total | | 398 | 45 | 443 |

Table 2

The statistical review of the groups by considering the place of investigation and the alcohol consumption throughout life

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------|---------|----|-----------------------|----------------------|----------------------|
| Pearson Chi-Square | .016(b) | 1 | .900 | | |
| Continuity Correction(a) | .000 | 1 | 1.000 | | |
| Likelihood Ratio | .016 | 1 | .900 | | |
| Fisher's Exact Test | | | | 1.000 | .511 |
| Linear-by-Linear Association | .016 | 1 | .900 | | |
| N of Valid Cases | 443 | | | | |

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 19,60.

Table 3

The features of groups considering the gender and the alcohol consumption throughout life.

Crosstab

Count /%

| | | Have you tried an alcoholic beverage? | | Total |
|--------|--------|---------------------------------------|-------------|---------------|
| | | Yes | No | |
| Gender | male | 98 (91.58%) | 9 (8.41%) | 107 (100.00%) |
| | female | 298 (89.22%) | 36 (10.77%) | 334 (100.00%) |
| Total | | 396 | 45 | 441 |

Table 4

The statistical review of groups considering the gender and the alcohol consumption throughout life.

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------|---------|----|-----------------------|----------------------|----------------------|
| Pearson Chi-Square | .496(b) | 1 | .481 | | |
| Continuity Correction(a) | .271 | 1 | .603 | | |
| Likelihood Ratio | .515 | 1 | .473 | | |
| Fisher's Exact Test | | | | .584 | .308 |
| Linear-by-Linear Association | .494 | 1 | .482 | | |
| N of Valid Cases | 441 | | | | |

a – Computed only for a 2x2 table

b – 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.92.

Tables 3 and Table 4 show that the percentage of students of both genders that drank alcohol at least once in life is approximately equal (90%);

there is no significant statistical difference between boys and girls from the groups of the two countries.

Table 5

The features of groups considering the place of investigation and the age when they firstly drank alcohol.
When did you first tried alcohol - at what age? * place of investigation Crosstabulation

Count

| | | Place of investigation | | Total |
|---|----|------------------------|-----------|-------|
| | | Bucuresti | Novi Sad | |
| when did you first tried alcohol - at what age? | 3 | 0 | 1 | 1 |
| | 4 | 2 | 2 | 4 |
| | 5 | 0 | 2 | 2 |
| | 6 | 2 | 2 | 4 |
| | 8 | 0 | 1 | 1 |
| | 10 | 7 | 5 | 12 |
| | 11 | 2 | 0 | 2 |
| | 12 | 12 | 12 | 24 |
| | 13 | 7 | 15 | 22 |
| | 14 | 29 | 26 | 55 |
| | 15 | 25 | 63 | 88 |
| | 16 | 15 | 42 | 57 |
| | 17 | 23 | 29 | 52 |
| | 18 | 23 | 19 | 42 |
| | 19 | 2 | 4 | 6 |
| | 20 | 2 | 0 | 2 |
| | 21 | 0 | 1 | 1 |
| 22 | 0 | 1 | 1 | |
| Total | | 151 | 225 | 376 |

Table 6

The statistical review of groups considering the place of investigation and the age when they firstly drank alcohol

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square | 30.981(a) | 17 | .020 |
| Likelihood Ratio | 34.712 | 17 | .007 |
| Linear-by-Linear Association | .029 | 1 | .866 |
| N of Valid Cases | 376 | | |

a – 21 cells (58.3%) have expected count less than 5. The minimum expected count is .40.

The tables 5 and 6 show that 29 of the students from Bucharest who participated to the study, representing 19.20% drank alcohol for the first time at 14 years old, while 63 of the students from Novi Sad, representing 28.00% drank alcohol for the first time at 15. In Romania, the annual average of alcohol consumption for the people older than 15, registered in 2003–2005, is approximately of 15.3 liters of pure alcohol per person, while in UE it's of only 12.2 liters¹⁴. The percentage of 16 years old teenagers who drank

any alcohol beverage throughout life is approximately of 79%, decreased comparing to 2007 (81%), 2003 (88%) and 1999 (85%) and below the ESPAD average, which is of 87%¹⁵. In many countries, the teenage alcohol abuse is considered a way of consolidating the men's image of virility and maturity¹.

Table 7 emphasizes that most of the students from both groups firstly drank alcohol at a party. Also, a high number of students firstly drank alcohol at home.

Table 7

The features of the groups considering the place of investigation, the gender and the place where they firstly drank alcohol

Crosstabulation

Count

| where did you first try alcohol? | | | gender | | Total |
|----------------------------------|------------------------|-----------|--------|--------|-------|
| | | | male | female | |
| at home | place of investigation | Bucuresti | 18 | 56 | 74 |
| | | Novi Sad | 23 | 66 | 89 |
| | Total | | 41 | 122 | 163 |
| in school | place of investigation | Novi Sad | 3 | 1 | 4 |
| | Total | | 3 | 1 | 4 |
| | | | | | |
| on excursion | place of investigation | Bucuresti | 6 | 10 | 16 |
| | | Novi Sad | 2 | 9 | 11 |
| | Total | | 8 | 19 | 27 |
| in a cafe' | place of investigation | Bucuresti | 5 | 1 | 6 |
| | | Novi Sad | 4 | 19 | 23 |
| | Total | | 9 | 20 | 29 |
| at a party | place of investigation | Bucuresti | 16 | 60 | 76 |
| | | Novi Sad | 26 | 83 | 109 |
| | Total | | 42 | 143 | 185 |

Table 8

The statistical review of groups considering the place of investigation, the gender and the place where they firstly drank alcohol

Chi-Square Tests

| where did you first try alcohol? | | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|----------------------------------|------------------------------|--------------------|----|-----------------------|----------------------|----------------------|
| at home | Pearson Chi-Square | ,049 ^b | 1 | ,824 | | |
| | Continuity Correction | ,002 | 1 | ,967 | | |
| | Likelihood Ratio | ,050 | 1 | ,824 | | |
| | Fisher's Exact Test | | | | ,858 | ,485 |
| | Linear-by-Linear Association | ,049 | 1 | ,825 | | |
| | N of Valid Cases | 163 | | | | |
| | | | | | | |
| in school | Pearson Chi-Square | . ^c | | | | |
| | N of Valid Cases | 4 | | | | |
| | | | | | | |
| on excursion | Pearson Chi-Square | 1,167 ^d | 1 | ,280 | | |
| | Continuity Correction | ,424 | 1 | ,515 | | |
| | Likelihood Ratio | 1,214 | 1 | ,270 | | |
| | Fisher's Exact Test | | | | ,405 | ,261 |
| | Linear-by-Linear Association | 1,124 | 1 | ,289 | | |
| | N of Valid Cases | 27 | | | | |
| | | | | | | |
| in a cafe' | Pearson Chi-Square | 9,668 ^e | 1 | ,002 | | |
| | Continuity Correction | 6,832 | 1 | ,009 | | |
| | Likelihood Ratio | 9,263 | 1 | ,002 | | |
| | Fisher's Exact Test | | | | ,005 | ,005 |
| | Linear-by-Linear Association | 9,334 | 1 | ,002 | | |
| | N of Valid Cases | 29 | | | | |
| | | | | | | |
| at a party | Pearson Chi-Square | ,200 ^f | 1 | ,655 | | |
| | Continuity Correction | ,072 | 1 | ,788 | | |
| | Likelihood Ratio | ,201 | 1 | ,654 | | |
| | Fisher's Exact Test | | | | ,723 | ,396 |
| | Linear-by-Linear Association | ,199 | 1 | ,655 | | |
| | N of Valid Cases | 185 | | | | |
| | | | | | | |

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18,61.

c. No statistics are computed because place of investigation is a constant.

d. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 3,26.

e. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,86.

f. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17,25.

Table 8 shows that there aren't significant statistical differences between the groups of the two countries, in what concerns the place of first consuming alcohol, except for the situation in which the alcohol abuse firstly took place in a café, a significant statistical difference ($p= 0.002$); the number of girls from Novi Sad who consumed alcohol for the first time in a café is bigger than the one of the Bucharest student girls.

Alcohol consumption offers the satisfaction of achieving profane rituals, which play an important role in the familial and social life⁴. "Drinking alcohol together creates a temporary ambience of oneness, fraternity and equality that does not exist

outside the bar. Drinking in bars is ritualized behaviour, that is, staged, ordered, stylized, evocative, and carrying a message"¹⁶. The percentage of teenagers who reported that they had drunk more than 5 drinks with an occasion, more than three times in the past 30 days, was of 10% in 2011, an increased percentage comparing to 2007 (8%), but decreased comparing to 1999 and 2004, when it was 11%. The national average is lower than the European one (14%)¹⁵.

Tables 9 and 10 show that most of the students from both groups drink alcohol in weekends only; there is no significant statistical difference between the groups.

Table 9

The features of the groups considering the place of investigation, the gender and the frequency of alcohol consumption

Crosstabulation

| Count | | | gender | | Total |
|-----------------------------------|------------------------|-----------|--------|--------|-------|
| how often do you consume alcohol? | | | male | female | |
| once a day | place of investigation | Bucuresti | 1 | | 1 |
| | | Novi Sad | 7 | | 7 |
| | Total | | 8 | | 8 |
| 2-3 time daily | place of investigation | Novi Sad | 1 | | 1 |
| | Total | | 1 | | 1 |
| occasionally | place of investigation | Bucuresti | 11 | 30 | 41 |
| | | Novi Sad | 22 | 81 | 103 |
| | Total | | 33 | 111 | 144 |
| weekends only | place of investigation | Bucuresti | 31 | 69 | 100 |
| | | Novi Sad | 24 | 86 | 110 |
| | Total | | 55 | 155 | 210 |

Table 10

The statistical review of groups considering the place of investigation, the gender and the frequent of alcohol consumption

Chi-Square Tests

| how often do you consume alcohol? | | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|-----------------------------------|------------------------------|--------------------|----|-----------------------|----------------------|----------------------|
| once a day | Pearson Chi-Square | . ^b | | | | |
| | N of Valid Cases | 8 | | | | |
| 2-3 time daily | Pearson Chi-Square | . ^c | | | | |
| | N of Valid Cases | 1 | | | | |
| occasionally | Pearson Chi-Square | .497 ^d | 1 | .481 | | |
| | Continuity Correction | .235 | 1 | .628 | | |
| | Likelihood Ratio | .486 | 1 | .486 | | |
| | Fisher's Exact Test | | | | .514 | .309 |
| | Linear-by-Linear Association | .493 | 1 | .482 | | |
| | N of Valid Cases | 144 | | | | |
| weekends only | Pearson Chi-Square | 2,284 ^e | 1 | .131 | | |
| | Continuity Correction | 1,834 | 1 | .176 | | |
| | Likelihood Ratio | 2,285 | 1 | .131 | | |
| | Fisher's Exact Test | | | | .158 | .088 |
| | Linear-by-Linear Association | 2,274 | 1 | .132 | | |
| | N of Valid Cases | 210 | | | | |

a. Computed only for a 2x2 table

b. No statistics are computed because gender is a constant.

c. No statistics are computed because place of investigation and gender are constants.

d. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9,40.

e. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26,19.

Gefou-Madianou wrote that *in most European societies men are the main consumers of alcoholic beverages while women form only a minority of consumers*¹⁷. The percentage of the teenagers who declared that they consumed minimum 5 drinks with a given occasion in the past 30 days was of 36% in 2011, slowly increasing comparing to 2007 (33%) and highly increasing comparing to 2003 and 1999 (24 and 27%). The average is 3 percentages lower than the European average of 39%¹⁵.

Tables 11 and 12 show that the majority of Serbian students prefer wine, while the strong

beverage is preferred by the majority of Romanians. Also, it is show that more of the students from Novi Sad who participated to the study prefer beer, comparing to the Bucharest students, but the difference is not statistically significant. Beer includes malt beers. Wine includes wine made from grapes. Spirits include all distilled beverages. Traditional and local beverages in Romania include *țuica*, *palinca* and *rachiu*. In 2005, it was registered that 39 % of the Romanians aged above 15 years old consumed strong drinks, 39% beer and 22% wine¹⁴.

Table 11

The features of the groups considering the place of investigation, the gender and the type of alcohol most frequently consumed

Crosstabulation

| Count | | | gender | | Total |
|--|------------------------|-----------|--------|--------|-------|
| what type of alcohol do you usually consume? | | | male | female | |
| beer | place of investigation | Bucuresti | 17 | 28 | 45 |
| | | Novi Sad | 30 | 42 | 72 |
| | Total | | 47 | 70 | 117 |
| wine | place of investigation | Bucuresti | 10 | 43 | 53 |
| | | Novi Sad | 13 | 76 | 89 |
| | Total | | 23 | 119 | 142 |
| other | place of investigation | Bucuresti | 18 | 56 | 74 |
| | | Novi Sad | 12 | 60 | 72 |
| | Total | | 30 | 116 | 146 |

Table 12

The statistical review of the groups considering the place of the investigation, the gender and the type of alcohol most frequently consumed

Chi-Square Tests

| what type of alcohol do you usually consume? | | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|--|------------------------------|--------------------|----|-----------------------|----------------------|----------------------|
| beer | Pearson Chi-Square | ,174 ^b | 1 | ,676 | | |
| | Continuity Correction | ,050 | 1 | ,823 | | |
| | Likelihood Ratio | ,175 | 1 | ,676 | | |
| | Fisher's Exact Test | | | | ,703 | ,413 |
| | Linear-by-Linear Association | ,173 | 1 | ,678 | | |
| | N of Valid Cases | 117 | | | | |
| wine | Pearson Chi-Square | ,444 ^c | 1 | ,505 | | |
| | Continuity Correction | ,186 | 1 | ,666 | | |
| | Likelihood Ratio | ,438 | 1 | ,508 | | |
| | Fisher's Exact Test | | | | ,638 | ,329 |
| | Linear-by-Linear Association | ,441 | 1 | ,507 | | |
| | N of Valid Cases | 142 | | | | |
| spirits | Pearson Chi-Square | 1,311 ^d | 1 | ,252 | | |
| | Continuity Correction | ,884 | 1 | ,347 | | |
| | Likelihood Ratio | 1,319 | 1 | ,251 | | |
| | Fisher's Exact Test | | | | ,307 | ,174 |
| | Linear-by-Linear Association | 1,302 | 1 | ,254 | | |
| | N of Valid Cases | 146 | | | | |

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18,08.

c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8,58.

d. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14,79.

The students from Novi Sad who participated to the study prefer beer in a bigger number than the students from Bucharest. *After water and tea, beer is currently considered to have the highest notoriety worldwide. This fact shouldn't surprise anyone, considering the fact that beer is at the same time the most complex and varied of drinks. It is hard to say whether there is or not a drink with an older recipe than that of beer, but surely, beer has been for two millennia a real social*

bond, the history of beer being closely connected to the history of the world. In Romania, in 2012 the beer consumption per capita reached the value of 90 liters¹⁸.

“Beer has become important in social drinking over the past three decades, first in bottles, and more recently tapped. Beer has become an acceptable drink for women, partly because it is less strong than [...] wine”¹⁷.

Table 13

The features of the groups considering the place of investigation, the gender and the motivation of alcohol consumption

Crosstabulation

| Count | | | gender | | Total |
|---|------------------------|-----------|--------|--------|-------|
| why do you drink alcohol? | | | male | female | |
| because it relaxes me | place of investigation | Bucuresti | 12 | 23 | 35 |
| | | Novi Sad | 24 | 59 | 83 |
| | Total | | 36 | 82 | 118 |
| because my friends drinks also | place of investigation | Bucuresti | 3 | 11 | 14 |
| | | Novi Sad | 3 | 21 | 24 |
| | Total | | 6 | 32 | 38 |
| because it is delicious and it feels good | place of investigation | Bucuresti | 27 | 76 | 103 |
| | | Novi Sad | 21 | 76 | 97 |
| | Total | | 48 | 152 | 200 |
| I drink out of habit | place of investigation | Bucuresti | 1 | 1 | 2 |
| | | Novi Sad | 5 | 10 | 15 |
| | Total | | 6 | 11 | 17 |

Table 14

The statistical review of the groups considering the place of investigation, the gender and the motivation of alcohol consumption

Chi-Square Tests

| why do you drink alcohol? | | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|---|--------------------------------|--------------------|-------------------|-----------------------|----------------------|----------------------|
| because it relaxes me | Pearson Chi-Square | ,335 ^b | 1 | ,563 | | |
| | Continuity Correction | ,129 | 1 | ,719 | | |
| | Likelihood Ratio | ,331 | 1 | ,565 | | |
| | Fisher's Exact Test | | | | ,662 | ,356 |
| | Linear-by-Linear Association | ,332 | 1 | ,564 | | |
| | N of Valid Cases | 118 | | | | |
| | because my friends drinks also | Pearson Chi-Square | ,530 ^c | 1 | ,467 | |
| Continuity Correction | | ,071 | 1 | ,789 | | |
| Likelihood Ratio | | ,515 | 1 | ,473 | | |
| Fisher's Exact Test | | | | | ,650 | ,385 |
| Linear-by-Linear Association | | ,516 | 1 | ,472 | | |
| N of Valid Cases | | 38 | | | | |
| because it is delicious and it feels good | | Pearson Chi-Square | ,571 ^d | 1 | ,450 | |
| | Continuity Correction | ,348 | 1 | ,555 | | |
| | Likelihood Ratio | ,572 | 1 | ,449 | | |
| | Fisher's Exact Test | | | | ,509 | ,278 |
| | Linear-by-Linear Association | ,568 | 1 | ,451 | | |
| | N of Valid Cases | 200 | | | | |
| | I drink out of habit | Pearson Chi-Square | ,215 ^e | 1 | ,643 | |
| Continuity Correction | | ,000 | 1 | 1,000 | | |
| Likelihood Ratio | | ,206 | 1 | ,650 | | |
| Fisher's Exact Test | | | | | 1,000 | ,596 |
| Linear-by-Linear Association | | ,202 | 1 | ,653 | | |
| N of Valid Cases | | 17 | | | | |

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10,68.

c. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,21.

d. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23,28.

e. 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,71.

Tables 13 and 14 emphasize the fact that the majority of the students from both groups drink alcohol because of the good taste and the good feeling it brings. A big number of participants to the study of both countries drink alcohol to relax.

The immediate playful (destructive) effects of alcohol abuse are multiple. First of all, there is a taste and olfactory satisfaction. The alcoholic beverages are consumed mostly because of their savor and flavor. There is a true culture and esthetic on this level, which can bring – mostly for wines – extraordinary refinement. Through the action on GABA receptors, the ingestion of alcohol can often produce a peaceful, sedation and relaxation mood, which is the objective of most consumers, mostly when they are affected by anxiety, stress or other emotional tensions⁴.

CONCLUSIONS

Young people need to receive real information on the negative consequences of the alcohol abuse on health, school performance, family and society, in order to change the life style into a healthy one. The information received after this study on the evolution of the alcohol consumption behavior and the students habits linked to alcohol abuse, can contribute to establishing a strategy in order to reduce the teenagers' alcohol consumption.

Teenagers have the right to live in a environment protected by the negative effects of alcohol abuse. Also, the young people who decided not to drink alcohol need to be protected and kept away as much as possible from the alcohol advertising materials and need to be supported in their anti-alcohol behavior, not to be pressed by the entourage to consume alcohol drinks.

The public health measures which are created to favorise a better health status for the Europe citizens do not chime with the objective of the alcohol industry, reason for which the teenagers' need to be educated from childhood to find out the negative effects of alcohol consumption. Hence, the promotion of a healthy life style among teenagers by some of the organizations, in order to diminish the negative effects of alcohol, needs to be encouraged.

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REFERENCES

1. http://www.snspsms.ro/UserFiles/File/ph_press/php_ps_ed_san.pdf. Accessed on March 25, 2014.
2. Harwood H.J., Updating estimates of the economic costs of alcohol abuse in the United States: estimates, update methods, and data. Bethesda, Md.: U.S. Department of Health and Human Services; National Institute on Alcohol Abuse and Alcoholism, 2000, apud. Steven H. Williams, Medications for Treating Alcohol Dependence, Am Fam Physician. 2005 Nov 1;72(9), 1775-1780.
3. Beich A.; Thorsen T.; Rollnick S., Screening in brief intervention trials targeting excessive drinkers in general practice: systematic review and meta-analysis. BMJ, 2003, 327, 536-42, apud. Steven H. Williams, Medications for Treating Alcohol Dependence, Am Fam Physician. 2005 Nov 1;72(9), 1775-1780.
4. Bălăceanu Stolnici C.; Papari C. A.; Papari A.; Cozaru Georgeta Camelia; Iamandescu I.-B., "Tentație și dependență", Editura Fundației "Andrei Șaguna", Constanța, 2012, pp. 192- 195.
5. Bierut L.J.; Dinwiddie S H.; Begleiter H.; Crowe R.R.; Hesselbrock V.; Nurnberger J.I. Jr.; Porjesz B.; Schuckit M.A.; Reich T., Familial transmission of substance dependence: alcohol, marijuana, cocaine, and habitual smoking: a report from the Collaborative Study on the Genetics of Alcoholism. Arch Gen Psychiatry, 1998, 55, 982-988.
6. Long J.C.; Knowler W.C.; Hanson R.L.; Robin R.W.; Urbanek M.; Moore E.; Bennett P.H.; Goldman D., Evidence for genetic linkage to alcohol dependence on chromosomes 4 and 11 from an autosome-wide scan in an American Indian population. Am J Med Genet, 1998, 81, 216-221.
7. http://ec.europa.eu/health/alcohol/policy/index_ro.htm. Accessed on March 25, 2014.
8. Beliș V., "Aspecte toxicologice și medico-legale în etilism", Editura Medicală, București, 1988.
9. Fingarette H., "Heavy Drinking: The Myth of Alcoholism as a Disease", University of California Press: Berkeley, 1989, apud. Engs, Ruth C. [Ed.], "Controversies in the Addiction's Field", Chapter 6: Herbert Fingarette. "Why We Should Reject The Disease Concept of Alcoholism", pp. 50.
10. <http://www.scritube.com/sociologie/ALCOOLISMUL84235.php>. Accessed on March 25, 2014.
11. Welcome M.O.; Razvodovsky Y.E., Dotsenko E.A., Pereverzev V.A., Prevalence of alcohol-linked problems among Nigerian students in Minsk, Belarus and their academic performance. Port Harcourt Med J., 2008, 3 (2), 120-129.
12. Paschall M.J.; Freisthler B., Does Heavy Drinking Affect Academic Performance in College? JSAD, 2003, 64 (4), 515-519.

13. Welcome M.O.; Pereverzeva Elena V.; Pereverzev V.A., A novel psychophysiological model of the effect of alcohol use on academic performance of male medical students of Belarusian State Medical University. *International Journal of Collaborative Research on Internal Medicine & Public Health*, 2010, Vol. 2 No. 6, 183-197.
14. http://ec.europa.eu/health/alcohol/policy/country_profiles/romania_country_profile.pdf. Accessed on March 25, 2014.
15. Studiul național în școli privind consumul de tutun, alcool și droguri (ESPAD 2011).
16. Moore S.F.; Myerhoff B.G., "Introduction. Secular ritual: forms and meanings" in S.F. Moore and B.G. Myerhoff (eds) *Secular ritual*, Assen: Van Gorcum, 1977.
17. Gefou-Madianou Dimitra (Edited by), "Alcohol, gender and culture", London and New York: Routledge, 1992, pp. 7, 72, 73.
18. http://www.berariromaniei.ro/ro/comunicate/Brosura_Asociatiei_Berarii_Romaniei_editia_2013.pdf. Accessed on March 26, 2014.