

ALCOHOL CONSUMPTION HABITS AMONG YOUNG ADULTS WITH SEDENTARY AND ACTIVE LIFE STYLE

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Abstract

Physical activities, as part of good life habits, are associated with lower alcohol intake, and therefore people who exercise regularly are assumed to consume less alcohol. The aim of this research was to determine the level of alcohol consumption among young respondents, aged 13-30 years, in relation to sex and physical activity. This investigation was conducted on 68 respondents divided in two groups regarding the gender, and these groups were divided into two additional subgroups in terms of level of physical activity: active and sedentary individuals. The information about alcohol consumption habits were obtained through a questionnaire. Our results on the habits of young people on alcohol consumption show that the percentage of male respondents as alcohol consumers is slightly but insignificantly larger than in female. On the questions related to the frequency of drinking, a significantly bigger number of male respondents drink 1-2 a week, while the female respondents drink 1-2 monthly. A significant number of female respondents tasted alcohol for the first time two years after the male respondents, which is between the ages of 14-16. Male respondents started consuming alcohol earlier than female respondents. Men drink more often than women. Women with a sedentary lifestyle started consuming alcohol earlier in their life, and drink more often than women who have an active lifestyle. Men with active and sedentary lifestyles have similar alcohol consuming habits considering the frequency and the amount. The main difference in alcohol consumption in men was that those with sedentary lifestyle started consuming alcohol earlier in their life.

Key words: alcohol, consumption, physical activity, sedentary,

Introduction

Alcohol is the most consumed substance which causes addiction among people throughout the world. According to the National Council for Alcoholism and Drug Addiction in USA, 17.6 million people are diagnosed as alcohol addicts, or every twelfth adult citizen. Numerous epidemiology studies show a high level of alcohol abuse among different groups of population (1-3). More than a half of the adult population in USA have a history with alcoholism in their family. Alcoholism and alcohol abuse can have serious effects on the health of an individual, it can adversely affect their emotional stability, their financial state, their career, and it has an ill effect on family, on relationships with friends, and on the community. Besides the physical inactivity and excessive food intake, alcoholism is on the third place among the factors connected with life style which contribute to increase in mortality. In the countries of the European Union, which are a region with the highest rate of alcohol consumption per capita, it is estimated that alcohol is responsible for 10% of mortality (4).

Some researchers believe that physical activity can have a positive impact on people who are trying to reduce their alcohol intake (5). It is believed that good life habits are associated with lower alcohol intake, and therefore people who exercise regularly consume less alcohol. Physical activity is considered as prevention for alcohol consumption, but some researchers suggest that men with high PA-levels reported more alcohol consumption in comparison to men with moderate PA-levels (6).

The aim of this research was to determine the level of alcohol consumption among young respondents, aged 18-30 years, in relation to sex and level of physical activity.

Material and methods

The survey was conducted on 68 respondents from both sexes. Respondents were divided in two groups, 38 women and 30 men, age span 19 to 30 years (mean age 24 ± 3.6 years). These groups were divided into two additional subgroups in terms of level of physical activity: active and sedentary individuals. The respondents who practiced physical activities were recruited from the Atletika fitness club, while the respondents who didn't practice physical activity were second year students from the faculty of medicine.

The information about alcohol consumption habits were obtained through a questionnaire, which consisted of 8 questions. The first five questions were about the frequency of alcohol consumption and the respondents were given the option to answer with a yes or no. The rest of the questions were about the type of alcohol, the amount, and when they began with alcohol consumption, and they were offered to choose one of several given answers. The obtained results were presented as percentage representation and difference between the groups.

Results

The frequency and chi quadrat test analysis are presented regarding the gender, and within the same gender regarding the presence of physical activity. Table 1 shows the results of frequency analysis in whole investigated population (68 subjects) regarding the gender.

Table 1. Distribution of the alcohol consumption habits regarding the gender

Questions		Women (N= 38) Number / %	Men (N= 30) Number / %	X ² test	P
1. Do you consume alcohol?	yes	30 (79%)	25 (83%)	X ² =2.8	0.09
	no	8 (21%)	5 (17%)		
2. How often do you consume alcohol? Once or twice monthly?	yes	26 (68%)	25 (83%)	X ² =9.84	0.001
	no	12 (32%)	5 (17%)		
3. More than twice monthly?	yes	18 (47%)	18 (60%)	X ² =1.286	0.25
	no	10 (26%)	7 (23%)		
4. Once or twice weekly?	yes	8 (21%)	15 (50%)	X ² =18.267	0.00001
	no	30 (79%)	15 (50%)		
5. Everyday?	yes	0	1 (3%)	X ² =3.793	0.05
	no	38 (100%)	29 (97%)		
6. When did you consume alcohol for first time?	before 12 y.	0	1 (3%)	31,7	0,0001
	12-14 y.	0	11 (33%)		
	14-16 y.	18 (47%)	8 (24%)		
	after 16 y.	11 (29%)	5 (17%)		

Our results on the habits of young people on alcohol consumption show that the percentage of male respondents as alcohol consumers is slightly but insignificantly larger. On the questions related to the frequency of drinking, a significantly bigger number of male respondents drink 1-2 a week, while the female respondents drink 1-2 a month. Only one male reported drinking alcohol every day. The male respondents started drinking earlier; most of them had their first taste of alcohol between the age of 12-14. A significant number of female respondents tasted alcohol for the first time two years after the male respondents, which is between the ages of 14-16.

When comparing alcohol drinking habits among our female respondents divided into two subgroups, active and sedentary individuals, we noticed that the percentage of alcohol consumption is far greater among the female respondents who are not physically active than the ones who are. Among the women who exercise, even as much as one third of them (34%) do not consume alcohol at all. Considering the frequency of drinking, the ones who do not exercise, drink more frequently than the ones who do, however none of them consumes alcohol on a daily basis. According to the statements of the female respondents who do not exercise, they started drinking earlier than the ones who exercise.

Among the male respondents, the percentage of those who do not drink alcohol is similar regardless of whether they exercise or not. In terms of frequency of alcohol consumption, the percentage is slightly bigger for the ones who do not exercise. The biggest percentage (70%) of the ones who do not exercise reported

that they first tasted alcohol around the age of 12 to 14, while among the respondents who exercise; a similar number reported that they began drinking around the age of 14 to 16 and after 16.

Table 2: Distribution of the alcohol consumption habits in women with active and sedentary lifestyle

Questions		Active woman (N= 21) Number / %	Sedentary woman (N= 17) Number / %	X2 test	P
1. Do you consume alcohol?	yes	14 (66%)	16 (94%)	X ² = 36.25	0
	no	7(34%)	1 (6%)		
2. How often do you consume alcohol? Once or twice monthly?	yes	11(52%)	15 (88%)	X ² = 33,067	1e-8
	no	10(48%)	2 (12%)		
3. More than twice monthly?	yes	8 (38%)	10 (58%)	X ² = 5.543	0.01
	no	13 (62%)	7 (42%)		
4. Once or twice weekly?	yes	6 (28%)	2 (12%)	X ² = 8	0.004
	no	15 (72%)	15 (88%)		
5. Everyday?	yes	0	0	X ² = 0.941	0.33
	no	21 (100%)	17 (100%)		
6. When did you consume alcohol for first time?	before12 y.		0	6,75	0,08
	12-14 y.		4 (23%)	4.941	0.026
	14-16 y.	10 (48%)	8 (46%)	1.441 3.191	0.229 0.074

Table 3. Distribution of the alcohol consumption habits in men with active and sedentary lifestyle

Questions		Active men (N= 15) Number / %	Sedentary men (N= 15) Number / %		
1. Do you consume alcohol?	yes	12(80%)	13 (86%)	X ² = 0.577	0,447
	no	3 (20%)	2 (14%)		
2. How often do you consume alcohol? Once or twice monthly?	yes	12 (80%)	13 (86%)	X ² = 0.577	0,447
	no	3 (20%)	2 (14%)		
3. More than twice monthly?	yes	8 (53%)	10 (70%)	X ² = 1,2	0,27
	no	7 (47%)	5 (30%)		
4. Once or twice weekly?	yes	6 (40%)	9 (60%)	X ² = 2,5	0,11
	no	9 (60%)	6 (40%)		
5. Everyday?	yes	1 (6%)	0	X ² = 0,067	0,79
	no	14 (94%)	15 (100%)		
6. When did you consume alcohol for first time?	before12 y.	1 (6%)	0	15,65	0,0013
	12-14 y.	2 (12%)	10 (70%)	19.2	0.0000117
	14-16 y.	5 (30%)	4 (24%)	0.341	00.001
	after 16 y.	4 (24%)	1 (6%)	10.067	0.0015
		7 (34%)	4 (23%)		

Discussion

Alcohol consumption is a complex behavior arising within the frames of the overall lifestyle of an individual. The definition of alcoholism doesn't have much to do with the type of alcohol which is being consumed and even with the amount and the duration of the consumption of alcohol. An important fact is the uncontrolled desire of an individual to consume alcohol, which is as strong as the need for food or water, and which cannot be controlled. Some other habits associated with the risk of health deterioration such as smoking, driving without a seatbelt, etc., often go hand in hand with increased alcohol consumption (7). Contrary to this, among those who practice healthy life habits, (regular exercise, and healthy diets), a negative association with alcohol abuse has been noticed (8).

The exercise is documented as a provider of wealth of benefits to the brain and body and it is regarded as a protective factor against disease and consequently the addictions. Exercise is regarded as health promoting behavior counter to consumption of alcohol (8). The influence of alcohol consumption on health is dependent on the amount of alcohol consumption, i.e. alcohol use or alcohol abuse. The newest knowledge about relationship between alcohol use and health risk is depicted with U-shaped curve (9). According to the 10-year longitudinal study the subjects with moderate alcohol intake had the lowest mortality rates. Several population-based studies have shown that people who are physically active are more likely to be moderate drinkers (10). Considerable evidence indicates that physical activity and alcohol intake are positively related. A number of studies indicate heavier drinking in athletes among college students than compared to non-athlete peers (11).

Alcohol consumption during adolescence and during the early matured years is a significant public health problem within the countries of the western civilization, (USA and EU) (12, 13). Study on the prevalence of alcohol consumption among students from the end of elementary school to the end of high school showed that 19.6% of eighth graders, 35% of students in the second year of high school, and 48.6% of students in the last year of high school, consumed alcohol during the last 30 days (14). In relation to sex, only the male respondents from the fourth year of high school drank more than their female peers. Among the respondents from the faculties, the percentage of alcohol consumers was significantly high – around 70%, with a slight lead for the male respondents (68% vs 70%).

Ethanol is the macronutrient with the highest energy density. In an epidemiological study of the relationship between alcohol intake and body fat and physical activity, it has been found that those with a risky level of alcohol consumption have a lower level of physical activity than those who drink little or not at all (15). In a study that examined the association between the total intake of nutrient macronutrients (protein, sugars and fat) and alcohol intake, it was found that individuals who drank, were younger than the control group, individuals who do not drink alcohol (NHANES III). Drinking alcohol is negatively linked to the nutrition index (BMI), and the body weight of the female respondents (16).

In a research paper on the relationship between physical activity and alcohol consumption among adult US citizens, it has been found that there is a link between PA and drinking alcohol in 88% of the student population and 75% of the non-student population (17).

In a study conducted on more than 15.000 respondents from Australia, whose subject was the relationship of alcohol consumption and the level of physical activity (PA), no significant difference between the amount of alcohol and the level of PA has been determined. The same study determines that individuals who participate in a high level of PA consume more alcohol in relation to those who participate in PA with moderate intensity (18).

Our results showed that if we analyze all respondents in relation to their sex, the number of alcohol consumers is slightly higher among the male respondents. In relation to the frequency of alcohol consumption, men consume alcohol way more frequently than women. Male respondents started consuming alcohol earlier in life. The majority of male respondents tasted alcohol for the first time between the age of 12 and 14 (33%), or within a wider period between the age of 12 to 16. The majority of women tasted alcohol for the first time between the age of 14 to 16 (47%).

When we analyzed the obtained data within sexually different groups but in terms of lifestyle, sedentary or active during free time, we acquired the following results. Within the female group there are statistically significant differences for all answers, except for the question of whether they consume alcohol on a daily basis, on which all respondents gave a negative response.

Meaning that women who exercise, in a higher percentage, do not consume alcohol (34% vs 6%), that is, consume less often and a lesser amount of alcohol. Those women who exercise and who sporadically consume alcohol, tasted alcohol for the first time after the age of 14, while 23% of women with sedentary lifestyle tasted alcohol for the first time between the age of 12 to 14.

Among the male respondents, the percentage of those who consume alcohol is similar regardless of whether they exercise or not. In relation to the frequency of alcohol consumption, the percentage is slightly higher for those who have a sedentary lifestyle. It is important to mention that the frequency of all the answers was statistically significantly similar, except for the question of when they tasted alcohol for the first time. The biggest percentage (70%) of the sedentary respondents said that they tasted alcohol for the first time around the age of 12 to 14, while a similar number from the respondents who exercised said that they started drinking between the age of 14 to 16, and after the age of 16.

Our results show that there is no significant difference in the drinking habits among the male respondents who have a sedentary or an active lifestyle. Among our female respondents we noticed that there is a significantly higher percentage of women who consume alcohol with a sedentary lifestyle compared to women who have an active lifestyle.

Conclusion

Male respondents started consuming alcohol earlier than female respondents. Men drink more often than women. Women with a sedentary lifestyle started consuming alcohol earlier in their life, and drink more often than women who have an active lifestyle. Men with active and sedentary lifestyles have similar alcohol consuming habits considering the frequency and the amount. The main difference in alcohol consumption in men was that those with sedentary lifestyle started consuming alcohol earlier in their life.

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