

The frequency of alcohol consumption and the relationship between alcohol dependence and depression among a group of men

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ABSTRACT

Objective: To determine the prevalence of alcohol consumption and dependence and the relationship between alcohol dependence and depression.

Methodology: This study was a cross-sectional research conducted among men aged 30 years and over residing in a town of Eskisehir (Kaymaz) between 11 Jan., 2010 and 25 Feb., 2010. Of a total of 946 students studying in the school 816(86.3%) constituted the study group. In this study, of a total of 367 men who accepted to participate in the study 273 (64.4%) were enrolled in this study. The CAGE test as a screening test in determining alcohol dependence and the Beck Depression Inventory (BDI) for depression screening test were used. The data was evaluated by Ki-square (χ^2) test. For statistical significance $p < 0.05$ level was accepted.

Results: The mean age of the respondents was 55.22 ± 12.39 (range=30-87). Overall, the prevalence of depression was 22.7%. According to the test CAGE, the prevalence of suspected alcohol abuse among alcohol consumers was 30.6%. In this study, the frequency of alcohol consumption was found to be 35.9%. The frequency of alcohol consumption was higher in those whose age was 60 and over ($p < 0.001$), in those whose education level was secondary school and above ($p < 0.001$), in those with a job ($p < 0.01$) and in those who were married ($p < 0.05$).

Conclusion: The co-morbidity between alcohol use and depression may be considered and understanding of these relationships should be helpful to increase the chances of treatment success.

KEY WORDS: CAGE test, Depression, Alcohol dependence, Men.

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INTRODUCTION

Alcohol dependence and abuse are the most important health problems of society and they are among the most common psychiatric disorders.¹ Worldwide 90% of individuals drink alcohol at some time in their lives.²

In Europe, alcohol consumption is twice more than the world average rate, and according to the evaluations of the burden of disease; alcohol takes 3rd place in 26 risk factors after tobacco and hypertension.^{3,4} With alcohol dependence, the lifetime prevalence of alcohol abuse has been reported as 13.8%.^{2,5}

In Turkey, the proportion of alcohol use among elementary school students at least once in their life is 15.4%; in secondary education, those who use

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alcohol at least once in their life is between 45% and 50%; within the last one month, the proportion of consuming at least once alcoholic beverages is 16.5%; the prevalence of alcohol use among university students is between 43.0% and 53.9% and the proportion of current alcohol use is 22.9%. Due to pressure of friends, social and psychological reasons, the age of drinking the first alcohol has dropped until age 11.^{3,4}

In alcohol-dependent people, concurrent psychiatric problems occur. The most common co-morbidities are anxiety disorders, antisocial personality disorder and mood disorder. Co-morbid anxiety disorder is most common in alcohol-dependent people, and phobic and panic disorders, obsessive-compulsive disorder, posttraumatic stress disorder takes place in the front row.⁶ Co-morbid psychiatric disorders make diagnosis, course, termination and treatment of abuse difficult. It has been known that patients with alcohol and substance use disorders apply to treatment more with co-morbid psychiatric disorders, and also that the frequency of stopping treatment is higher.⁷

In this study, the aim was to determine the prevalence of alcohol consumption and dependence and the relationship between alcohol dependence and depression.

METHODOLOGY

This study is a cross-sectional research conducted out among men aged 30 years and over residing in a town of western Turkey, Kaymaz / Eskişehir between 11 Jan., 2010 and 25 Feb., 2010. According to data of the Kaymaz Family Health Center for the year 2009, the total population of the town was 1440, 661 of which (46.9%) were men. Most of male population (64.2%) was in the age group of 30 and over.

Out of total 367 subjects (85.6%), the study group consisted of 273 subjects who agreed to participate in the study (64.4%). A total of 151 individuals (35.6%) were unable to participate in the study due to the individuals' not being at home, and some individuals' not accepting our invitation at that particular time.

A questionnaire was prepared with reference to previous studies in the literature^{1-3,6-8} to evaluate the subjects' alcohol dependence and depression. The CAGE test developed by Ewing (1984)⁹ was used as a screening test for the evaluation of alcohol dependence. The options of the test were in the form of yes and no, it consisted of four questions. If at least two questions were answered yes, the person was considered "suspicion of alcohol abuse."

The third part of the questionnaire evaluated the status and the prevalence of depression. Depression was measured with a Turkish version of Beck Depres-

sion Inventory (BDI). The BDI was developed by Beck et al. (1961)¹⁰, and later modified by Hisli (1999) to suit the Turkish culture and norms.¹¹ The subjects who obtained 17 points or over were considered at high risk in terms of having depression.

In the current study, alcohol consumers were evaluated as those who had consumed at least one standard drink per week (one glass of raki / 1 cup vodka 1 cup gin / one glass of wine or one large glass of beer).³ Those unemployed, those not working actively, housewife and retired were considered to be not working. The income status was grouped as enough, medium or insufficient in the men's own statements. The participants monthly income status was grouped as insufficient if they were earning 500 US dollars, as medium if they were earning between 501-750 US dollars, and as enough if they were earning more than 750 US dollars.

Statistical analysis was made using the chi-square test for categorical variables. A value of $p < 0.05$ was considered statistically significant.

RESULTS

The average age of the participants was 56.64 ± 6.38 years (range = 45-65 years). Most of the men (30.0%) were in the 50-59 age group. The number who had not ever gone to school was 5 (1.9%), and that of primary school graduates was 170 (62.3%). The number of university graduates was only 8 (2.9%). Most men were married (86.8%). The majority of men (70.0%) had a job. The number of cases reported the family income as poor was 43, whereas that of those reported as well was 51. In total, 19 participants were deprived of social health insurance.

The frequency of alcohol consumption in our study was found to be 35.9% ($n = 98$). The distribution of alcohol consumers and non alcohol consumers by some sociodemographic characteristics is given in Table-I.

In this study, the frequency of depression was 22.7% ($n=62$). According to the Cage test, the number of those who had suspicious alcohol dependence among alcohol consumers was 30 (30.6%). The prevalence of suspicious alcohol abuse was 10.9%. The distribution of those with depression by alcohol consumption and suspicious alcohol dependence is given in Table-II.

DISCUSSION

The present study found a high prevalence of alcohol consumption, more than one third, reported among men (35.9%), consistent with many study

Table-I: Some sociodemographic characteristics of those consuming alcohol and those not consuming alcohol.

Sociodemographic characteristics	Alcohol consumption			Statistical analysis χ^2 ; <i>p</i> value
	No <i>n</i> (%)	Yes <i>n</i> (%)	Total <i>n</i> (%)	
Age group				19.177; 0.000
30-39	20 (55.6)	16 (44.4)	36 (13.2)	
40-49	27 (50.9)	26 (49.1)	53 (19.4)	
50-59	46 (56.1)	36 (43.9)	82 (30.0)	
≥60	82 (80.4)	20 (19.6)	102 (20.4)	
Educational level				29.988; 0.000
Primary school and below	133 (76.0)	42 (24.0)	175 (64.1)	
Secondary school and over	42 (42.9)	56 (57.1)	98 (35.9)	
Marital status				9.068; 0.011
Married	160 (67.5)	77 (32.5)	237 (86.8)	
Single	7 (36.8)	12 (63.2)	19 (7.0)	
Widower	8 (47.1)	9 (52.9)	17 (6.2)	
Job status				9.059; 0.003
Employed	111 (58.1)	80 (41.9)	191 (70.0)	

results from both our country and other countries showing that the figures ranged between 30% and 37%.^{3,12,13} These values indicating that one in every three people consumed alcohol is rather high.

In our study, 10.9% of men were found to be alcohol-dependent. However, contrary to our result, the prevalence of alcohol consumption in men in another study conducted in Turkey was 1.9%.¹⁴ An explanation for this could be as follows: a screening test as in our study in that research had not been used, and in addition, suspected alcohol users had been determined.

Due to the emergence of advanced age and chronic illnesses, reduction of alcohol consumption can be expected. The frequency of alcohol consumption in this study was significantly lower in the age group of 60 and over when compared to other age groups, in line with various studies.¹² This result may be explained as follows: depending on advancing age and increase of diseases, people may have chosen to reduce alcohol consumption.

Especially in developing countries as the level of education increases, income also increases. In paral-

lel, the money to spend on alcohol also increases. All these factors may increase social drinking. In this study, the prevalence of alcohol consumption among those whose educational levels were primary and secondary school was higher than those whose educational levels were primary school and below ($p < 0.05$). There are several studies which reported similar results.¹⁴ However, in some studies in developed countries; increasing educational levels have been reported to decrease alcohol use.¹⁵ More studies are needed to clarify this contradiction.

Depending on increase of the level of education business ownership rate also shows increase. Therefore, in those who had any business, prevalence of alcohol use can be expected to be higher when those did not have. Similarly, in this study, the prevalence of alcohol use was found to be higher in those with any job than those without ($p < 0.05$). However, a study carried out in Albania¹⁶ is inconsistent with our results. The reason for this could be that alcohol use increased with increasing psychological disturbances in the societies where unemployment increased and income level decreased.

Table-II: Distribution of those with depression and without depression depending on their alcohol consumption and dependence

Alcohol consumption	Depression			Statistical analysis x ² ; <i>p</i> value
	No n (%)	Yes n (%)	Total n (%)	
No	143 (81.7)	32 (18.3)	175 (64.1)	4.758; 0.029
Yes	68 (69.4)	30 (30.6)	98 (35.9)	
Total	211 (77.3)	62 (22.7)	273 (100.0)	
Alcohol dependence (in those consuming alcohol, n=98)				
No	48 (70.6)	20 (29.4)	68 (69.4)	0.023; 0.880
Yes	20 (66.7)	10 (33.3)	30 (30.6)	
Total	68 (69.4)	30 (30.6)	98 (100.0)	

Since being married creates a regular lifestyle and brings responsibilities to one's life, the prevalence of alcohol use is expected to be lower in those married than in those single and widower. The prevalence of alcohol consumption for those married was significantly lower than those unmarried and those widowers ($p<0.05$). Many studies report similar results.¹⁵

Prevalence of depression in the study group was found to be 22.7%. In other studies conducted in Turkey,¹⁷ it was reported that the prevalence of depression in men ranged from 10.4% to 25.5%. Our results are consistent with the literature, when considered the criteria related to the age group in another studies.

Co-morbidity exists among alcohol dependence and other psychiatric disorders. Anxiety and depression are seen as major risk factors in the formation of alcohol dependence. In the research by Kalyoncu et al.¹⁸ it was reported that in co-existence of alcohol dependence, anxiety disorders and depressive disorders, although alcohol use showed a significant difference in terms of sociodemographic, clinical and treatment characteristics, in those with anxiety-depressive disorder, duration of alcohol use was shorter and they tended to come more quickly to treatment. The prevalence of depression among alcohol consumers was significantly higher when compared to non alcohol consumers ($p<0.05$). This result, although cause-effect relationship could not be established, suggests the co morbidity between alcohol use and depression. Yet, there was no difference between those who were suspected of alcohol abuse and those who were not ($p>0.05$). This finding concludes that the level of dependency should not be taken into account in the approach to those who use alcohol in terms of depression co-morbidity.

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