Effects of Depression on Treatment Motivation in Male Alcohol Dependence

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ABSTRACT

Introduction: Treatment motivation in alcohol dependents is usually viewed as a strong predictor of seeking treatment and treatment success. The conditions affecting motivation in alcohol dependence, however, has not been clarified. In this study, it is aimed to determine the effects of depression on treatment motivation in male alcohol dependence.

Methods: The present study included 34 male alcohol dependents presenting to outpatient clinics in Manisa Hospital of Mental Disorders and Hospital of Celal Bayar University. The patients underwent evaluation using the socio-demographic and clinical information form, DSM-IV SCID-I Clinical Version, Treatment Motivation Questionnaire (TMQ), and Hamilton Depression Rating Scale (HDRS).

Results: A significant relationship was found between the total score of TMQ and HDRS ($p=.039$).

Conclusion: We believe that the present study, in which we examined the relationship between treatment motivation in male alcohol dependence and depression, would provide a significant contribution to literature. It is also important to investigate other factors that may affect treatment motivation in male alcohol dependence. Studies with larger samples are needed on this topic.

Keywords: Alcoholism, dependence, motivation, depression

INTRODUCTION

The World Health Organization defines alcohol dependence as “a patient using alcohol for a long time in an unusual manner and whose psychological, bodily, and social health has been impaired due to it but cannot evaluate his/her own situation, and cannot stop himself/herself to take alcohol and requires treatment.” Alcohol dependence has been addressed as a separate chapter under the heading “Substance Abuse” in the classification of American the Psychiatry Association (APA) (DSM-IV-TR) (APA, 1994).

It is appropriate at the beginning of treatment to evaluate the situation of the patient, enhance motivation to pack in and subsequently apply detoxification for alcohol, and to create a long-term therapeutic plan. One of the aims of treatment is to prevent relapses in drinking behavior. It is known that staying longer for treatment positively affects prognosis. This may be due to the fact that the more motivated patients maintain treatment for a longer time and have a better prognosis.

Being ready for treatment and treatment motivation have been the most interesting topics for research on treatment of dependence (1). Lack of appropriate motivation, the patient's discontinuation of the treatment, and leaving it uncompleted are the most commonly reported reasons for recurrence and other unfavorable presentations. Duration of and participating in the treatment are strongly related to motivational changes during treatment. The decision to seek medical assistance and accepting the assistance, which in other words is to be ready for treatment and to wish for treatment, are different from each other (2). The most commonly reported reasons for unfavorable presentation of treatment are not completing the treatment, shorter duration of and low rate of participation in the treatment, and not being ready for the treatment and inadequacy in treatment motivation manifesting as increased relapses (3,4). Being ready for treatment and treatment motivation are processes with unique stages (5,6).

Motivation may be viewed as an internal situation manifesting as accepting change and being ready for it, which may vary depending on time or conditions, and being affected by external factors (7). Treatment motivation in alcohol dependents is usually viewed as a strong predictor for seeking treatment and treatment success (8).

Alcohol dependence is a biopsychosocial disease presenting with “relapses and remissions”. Motivation is of great importance in preventing relapses. This has been clearly demonstrated in several studies. Conditions affecting motivation in alcohol dependence, however, have not been clarified. The present study examined the extent to which depression affected treatment motivation in male alcohol dependents.

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Received: 02.07.2014 **Accepted:** 20.10.2014

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METHODS

The present study was descriptive using a relational screening model aimed at determining whether a significant effect of depression existed for treatment motivation in male alcohol dependence.

Settings and Sample

We first gained approval for the research by the ethics council of Celal Bayar University.

By the time the patients who gave written consent first applied, they underwent a diagnostic interview using the Socio-demographic and Clinical Information Form and DSM-IV SCID-I: Clinical Version. Later, the Treatment Motivation Questionnaire (TMQ) and Hamilton Depression Rating Scale (HDRS) were applied.

The current study comprised a total of 52 male alcohol dependents presenting to outpatient clinics in Manisa Hospital of Mental Disorders and Hospital of Celal Bayar University between May 2012 and November 2012. A total of 34 (65.3%) patients who agreed to participate in the study, who signed the informed consent form, and who met the inclusion criteria comprised the sample of the present study.

Inclusion criteria were as follows: Diagnosis of alcohol dependence based on the diagnostic criteria of DSM-IV, age between 18 and 65 years, agreed to participate in the study and provided written informed consent.

Exclusion criteria were as follows: Substance or drug abuse except for alcohol, caffeine, or nicotine, presence of conditions impairing the ability to evaluate reality and judgment such as mental retardation or psychosis, being illiterate.

Measurements

Socio-Demographic and Clinical Information Form

This is the information form containing demographic characteristics of the patients, medical or psychiatric history in past- and family-history, and features of alcohol use.

DSM-IV SCID-I: Clinical Version

This is a clinical interview tool used for the diagnosis of Axis I disorders of DSM-IV, which was developed by First et al. (9) and adapted to Turkish and subjected to reliability testing by Özkürkçügil et al. (10).

TMQ

TMQ is a self-reported questionnaire of 26 items developed by Ryan et al. (3) and was designed to evaluate reasons for the patients to participate and stay for the treatment of alcohol-substance dependence. Factor analysis showed that the scale contained four definable factors.

(1) Internal motivation (IM) (items 1, 2, 4, 5, 7, 8, 9, 11, 15, 20, and 23): Internalized motivation albeit not being completely self-determined.

(2) External motivation (EM) (items 3, 6, 10, and 12): Feelings of not having another option other than being in search for treatment and external pressure to stay for treatment.

(3) Interpersonal help-seeking (IPHS) (items 17, 18, 19, 22, 25, and 26): Motivation for patients to share their own problems with others (4). Confidence in treatment (CT) (items 13, 14, 16, 21, and 24): Expectations about the presentation of the treatment.

The factorial structure of the Turkish version of the scale has been found to be consistent with that of the original version. For measurement of the internal consistency of the scale in patients with alcohol abuse, Cronbach's alpha coefficient was found to be .91 for the first factor (IM), .42 for the second factor (EM), .83 for the third factor (IPHS), .72 for the fourth factor (CT), and as .84 for the whole scale. All correlations among the subscales and among the items in each subscale were significant at level of $p < .001$, and all coefficients were above .30 ($r > .30$). The correlation coefficient ($r = .17$; $p = .019$) was low but significant only for the CT subscale and item 14 in it. No significant correlation was found between EM and IM, IPHS, and TMQ. The Michigan Alcoholism Screening Test showed a linear correlation with the TMQ total score and all subscales except for IPHS (11).

In examining the reliability of this scale, Cronbach's alpha coefficient was calculated to be .912 for IM, .458 for EM, .788 for IPHS, and .250 for CT, and the total score was calculated to be .890.

HDRS

Developed by Hamilton in 1961 after examining depressive patients and performing factor analysis of their signs and reviewed and finalized by him in 1967, HDRS has been widely used to determine the severity of signs in depressive patients. In the present study, a form of 17 items was used, which was selected from several forms with different number of items. For rating, a scoring scale was used that was separately established for each sign with points from 0 to 4. Validity and reliability testing in Turkish was conducted by Akdemir et al. (12). Testing-retesting correlation was 0.85. In internal consistency analysis, Cronbach's alpha value was .75 and Spearman-Brown's reliability coefficient was .762. Inter-rater reliability coefficients based on the independent rating of four psychiatrists ranged between .87 and .98. In the reliability testing of this scale for the present study, Cronbach's alpha coefficient was calculated to be .838.

Statistical Analysis

The obtained data were analyzed using v.15.0 of Statistical Package for Social Sciences (SPSS Inc., Chicago, IL, USA) software. The normality of distribution of numeric variables was graphically examined using Stem-and-Leaf Plot, Normal QQ Plot, and Detrended Normal QQ Plot, and Lilliefors test was done. After all analyses, it was concluded that the distribution of all variables was not normal. Relationships between the numeric variables were examined with Spearman's rho method, which is a nonparametric correlation method. All tests were two-tailed at the level of 95%, and error level was set to 0.05. Inter-group difference was considered as significant when the p-value was below .05.

RESULTS

Socio-Demographic Characteristics of the Sample

All patients included in the present study were males, and their mean age was 44.0 ± 11.4 years. Of the patients, 61.8% ($n = 21$) were married, 38.2% ($n = 13$) were primary school graduates, 67.6% ($n = 23$) were living in their core family, and 26.5% ($n = 9$) were retired (Table 1).

Clinical Features of the Sample

In total, 61.8% ($n = 21$) of the patients had a past medical history, and 26.5% ($n = 9$) had a past family medical history. Psychiatric history revealed a past psychiatric history in 35.3% ($n = 12$) and a family psychiatric history in 26.5% ($n = 9$) of the patients. With regard to the substances the patients used along with alcohol, 91.2% ($n = 31$) of the patients used only alcohol, whereas 2.9% ($n = 1$) used marijuana, 2.9% ($n = 1$) used ecstasy, and 2.9% ($n = 1$) used benzodiazepine.

With regard to the reason for patients to start using alcohol, the most common reason was aping someone (32.4%; $n=11$). On the alcohol risk assessment based on the amount of alcohol consumption, 73.5% ($n=25$) of the patients were under high risk, 23.5% ($n=8$) were under intermediate risk, and 2.9% ($n=1$) were under low risk. Moreover, 82.4% ($n=28$) of the patients answered "Yes" and 14.7% ($n=5$) answered "No" to the question "Have ever thought to pack in?" Furthermore, 64.7% ($n=22$) of the patients answered "Yes" and 32.4% ($n=11$) of them answered "No" to the question "Is there anybody in your family regularly consuming alcohol?" (Table 2).

Relationship between Depression and Treatment Motivation

A significant relationship was found between the total scores of TMQ and HDRS ($r=.356$, $p=.039$). No significant relationship was found between TMQ-IM and total HDRS ($r=.224$, $p=.204$), TMQ-EM and total HDRS ($r=.143$, $p=.419$), TMQ-IPHS and total HDRS ($r=.259$, $p=.140$), and TMQ-CT and total HDRS ($r=.215$, $p=.221$) (Table 3).

DISCUSSION

Socio-Demographic and Clinical Characteristics

It has been proposed that among the socio-demographic features, age group is important in the development of interaction. It seems that being in the same age group facilitates participating in treatment. All patients included in the present study were males. When the search on substance abuse is looked from the perspective of gender, the prevalence of substance abuse is much higher in men than in women. In a study conducted by Villa et al. (13) on 40 subjects in the Netherlands in which motivational interviews on substance dependence were addressed, 36 subjects were males and 3 were females. Although there was no female subject in the current study, it is in line with literature in terms of the fact that substance abuse is much more common in men than in women.

The mean age of the patients in the present study was 44.09 ± 11.44 years. In a study on the treatment of substance abuse conducted with a large sample in 11 cities (DATOS study), 66% of the subjects were males and the mean age of the subjects was 32 years. In addition, 49% of the patients were single (14). In National Epidemiologic Survey on Alcohol Abuse and Related Conditions in the general population in USA, subjects with a history of substance abuse over the last 12 months were usually males, aged between 18 and 29 years, single, college graduates, and with a low level of income (15). In a European study on the efficiency of treatment modalities (mandatory and voluntary), more than half of the subjects were males with a mean age of approximately 31 years. Moreover, 11% of the subjects were married, and their duration of their education was 10 years (16). In a comprehensive study on substance abuse by Tamar et al. (17), it was seen that of the individuals in the sample, 45 were married, 48 were single, and 3 were divorced. In a study on the same topic, 65% of the subjects were single, 12.5% were married, and 22.5% were divorced or widowed (13).

Marital status may vary depending on structure of the family and features of the society in which the individuals live rather than substance abuse (13,18,19).

With regard to the level of education in the patients of the present study, 14.7% of the patients were literate, 38.7% were primary school graduates, 32.4% were high-school graduates, and 14.7% were college graduates. Majority of the patients were primary school graduates, which is in agreement with literature. With regard to the employment

Table 1. Socio-demographic characteristics of the sample

Socio-demographic characteristics	n	%
Marital status		
Never married	5	14.7
Married	21	61.8
Widowed	2	5.9
Divorced/living apart	6	17.6
Level of education		
Literate	5	14.7
Primary school (1–8 years)	13	38.2
High school (9–11 years)	11	32.4
College (+12 years)	5	14.7
Type of family		
Core family	23	67.6
Extended family	10	29.4
Other	1	2.9
Profession		
Official/military	3	8.8
Worker	7	20.6
Retired	9	26.5
Unemployed	4	11.8
Self-employed	7	20.6
Farmer	1	2.9
Other	3	8.8
Social Security		
None	8	23.5
Social security institute	25	73.5
Private	1	2.9
Place of growth		
Village/small town	10	29.4
County	12	35.3
City	11	32.4
Abroad	1	2.9
Location		
Village/small town	9	26.5
County	14	41.2
City	11	32.4

employed, and 9% were retired. In the study by Ünsalan et al. (19) on alcohol and non-alcohol substance-dependent physicians, it was seen that 90.2% of the subjects were actively working. In another study, 50% of the subjects were actively working (13). Based on these data, the employment status of the patients in the present study is parallel to that in literature.

Relationship of Depression with Treatment Motivation

There was a statistically significant relationship between the total scores of TMQ and HDRS ($p=.039$). In a study on a sample from the community, depression

Table 2. Clinical features of the sample

Clinical features	n	%
Past medical history		
Absent	21	61.8
Present	13	38.2
Family medical history		
Absent	25	73.5
Present	9	26.5
Past psychiatric history		
Absent	22	64.7
Present	12	35.3
Family psychiatric history		
Absent	25	73.5
Present	9	26.5
Substance use in the past		
Marijuana	1	2.9
Alcohol	31	91.2
Ecstasy	1	2.9
Benzodiazepine	1	2.9
Reason for starting to use alcohol		
Curiosity	2	5.9
Aping someone	11	32.4
Being influenced by the environment	10	29.4
Stress	5	14.7
Other	6	17.6
Change in amount of alcohol consumption		
Not changed	6	17.6
Decreased	6	17.6
Increased	22	64.7
Alcohol risk		
Low	1	2.9
Intermediate (harmful)	8	23.5
High (dangerous)	25	73.5
Previous thoughts on packing in		
No	5	14.7
Yes	28	82.4
Presence of individuals in the family regularly consuming alcohol		
No	22	64.7
Yes	11	32.4

was observed at high rates in individuals with alcohol dependence (males: depression 24%, dysthymia 11%; females: depression 49%, dysthymia 21%) (20). Conditions with additional diagnoses associated with Alcohol and Substance Use Disorders (ASUD) were usually investigated because of their effects on the disease process and treatment duration. In a study on male and female patients in which the in-patients and out-patients were

Table 3. Relationship between depression and treatment motivation

Spearman's rho	Total HDRS
TMQ- internal motivation	
r	.224
p	.204
TMQ-external motivation	
r	.143
p	.419
TMQ-interpersonal help seeking	
r	.259
p	.140
TMQ-confidence in treatment	
r	.215
p	.221
Total TMQ score	
r	.356
p	.039*

*p<.05. HDRS: Hamilton Depression Rating Scale; TMQ: Treatment Motivation Questionnaire

assessed together, the frequency of any diagnosis of Axis I other than ASUD was 55.9% and that of major depression was 36.4% (21). In a study conducted in our country in 2011 on personality features of patients on probation, the frequency of any diagnosis of Axis I other than ASUD was 87% with affective disorder being the most common diagnosis followed by anxiety disorders. Of the affective disorders, the most common was recurrent major depression (22). In the study by Driessen et al. (23), relapses occurred in 69% of the individuals with additional anxiety disorder and in 77% of those with additional mixed anxiety-depression disorders, whereas relapses occurred in only 40% of those without additional disorders. Curran et al. (24) reported that depressive symptomatology was a risk factor for relapses. In another study, it was observed that depressive affect was significantly more common in individuals with relapse (25).

Although research has shown that psychiatric comorbidities are usually associated with a poor prognosis, there are inconsistent data on the outcomes of concurrent depression and alcohol dependence. One study found that having a life-time diagnosis of major depression was associated with reduced drinking frequency in men and women (26). In our study, we focused on the role of depression, while we determined the relation between depression and the low motivation of male alcohol dependents. The study by Greenfield et al. (26) takes a different line in that it shows that having a diagnosis of major depression is a factor reducing drinking frequency in both men and women. That study is in line with the present one. One of the important findings of the present study was that treatment motivation was high especially in male alcohol dependents whose depression scores were high. The presence of concurrent psychiatric conditions may increase application to treatment and motivation just like the presence of medical conditions in alcohol dependents increases them.

It should be noted that an important limitation of the current study was the low number of patients in the sample. Other limitations were that all patients were males and diagnoses of Axis II were not examined. Furthermore, it should be remembered that motivation level is different at different stages of treatment in the process of dependence.

Our research is a study that searches the relation of depression besides socio-demographic and clinical features in male alcohol dependents. In conclusion, we believe that our study on the relationship between treatment motivation and depression would significantly contribute to literature. In male alcohol dependents, it is also important to investigate other factors that may affect treatment motivation in alcohol dependence.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

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