Journal of Experimental and Clinical Medicine
https://dergipark.org.tr/omujecm

Research Article

J Exp Clin Med
2024; 41(3): 690-700
doi: 10.52142/omujecm.41.4.2

The effect of internalized stigma, perceived social support, depression and anxiety levels on treatment motivation in patients with Gambling disorder

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Received: 31.05.2024 • **Accepted/Published Online:** 07.10.2024 • **Final Version:** 31.12.2024

Abstract

Treatment motivation is very important for the prognosis of gambling disorder (GD) patients. Decreased treatment motivation is reported to be one of the most common reasons for poor treatment compliance and relapse after treatment. This study aims to determine whether internalised stigma, perceived social support, depression, and anxiety have an effect on treatment motivation in patients diagnosed with GD and to examine the effect of sociodemographic data on this relationship. The study was conducted in an alcohol and substance abuse treatment centre on the Asian side of Istanbul. A total of 165 patients between the ages of 18-60 who were diagnosed with GD were included in the study. Sociodemographic and clinical data form, internalised stigma scale in mental illness (ISMI), multidimensional perceived social support scale (MSPSS), Beck depression inventory (BDI), Beck anxiety inventory (BAI) and treatment motivation questionnaire (TMQ) were used to collect data. A moderate positive relationship was found between intrinsic motivation and alienation and (ISMI); between extrinsic motivation and depression, anxiety, and confirmation of stereotypes; between (TMQ) and alienation and (ISMI); and a weak negative relationship was found between (MSPS) and (TMQ). It was concluded that alienation, stereotype endorsement, and perceived discrimination explained 34% of the variance in treatment motivation; alienation and (ISMI) explained 30% of the variance in intrinsic motivation; depression, anxiety, and stereotype endorsement explained 31% of the variance in extrinsic motivation; and stereotype endorsement explained 6% of the variance in interpersonal help-seeking. It was concluded that social support had no effect on treatment motivation.

Keywords: Gambling use disorder, internalised stigma, social support, depression, anxiety, treatment motivation

1. Introduction

Treatment dropout and relapse rates are high in patients diagnosed with GD (1). Successful treatment outcomes in GD are associated with attending more treatment sessions and receiving support from others in attempts to quit gambling (2).

Addiction treatment is not an easy process and it is essential to provide the patient with all the support he/she needs at every stage such as creating treatment motivation, continuing treatment and developing life skills (3). Quigley (4) states that gambling addiction is among the mental health problems that are most stigmatised. As in individuals diagnosed with alcohol and substance addiction, it has been reported that patients diagnosed with GD do not choose to seek treatment due to fear of stigmatisation (5,6).

As a result of a study conducted by Hing et al. (7) with patients with GD, it is stated that society labels, stereotypes, social distancing, emotional reactions, devaluation, and discrimination are applied against gamblers, and then internalisation of all these stigmatising beliefs by patients may lead to a decrease in self-esteem and self-efficacy, physical health problems and shame. It has been reported that the person hides his/her problem and delays disclosure in order to struggle with this internalised stigma, cognitively distances himself/herself from his/her environment and is reluctant to accept his/her problems, may exclude himself/herself due to stigmatisation even if he/she receives treatment and relapses may worsen internalised stigmatisation (7).

It is stated that internalised stigmatisation increases the need to hide the disease together with the shame experienced and may lead to a decrease in treatment motivation in seeking treatment together with the effects on self-confidence, self-efficacy, perceived social value, mental and physical health (8). As a result of a study in which the opinions of counselors were taken, it was stated that combating internalised stigma in the early period is a vital element in the treatment of gambling addiction (9).

As a result of a study on whether social support has a

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predictive effect in the treatment of gambling addiction; it was determined that the membership of the participants to the Gamblers Anonymous group, which acts as a social support mechanism, and this long-term membership were effective in the treatment of gambling. It was concluded that long-term membership in this group led to lower gambling urges and a higher quality of life through the social support provided (10-12).

It has been reported that people with gambling problems may have neurotic symptoms such as sleep disorders, insomnia, palpitations, chest tightness, depression and anxiety, various physical disorders such as back pain, and suicide attempts in more than 8% (13-29).

In a review study in which 12 studies examining the reasons for discontinuation of psychological treatments in people diagnosed with GD were evaluated, it was reported that the factors related to discontinuation of treatment included poor social support level, lethargy, feeling of hopelessness, lack of interest and motivation, comorbid depression, anxiety and alcohol-substance use (30,31-35).

It is seen that there is no previous study in the literature on internalised stigma, social support, depression, and anxiety, which are thought to be effective on treatment motivation in order to achieve successful results in the treatment of GD and to prevent relapses. The aim of this study is to determine whether internalised stigma, perceived social support, depression and anxiety have an effect on treatment motivation in patients diagnosed with GD and to examine the effect of sociodemographic data on this relationship.

2. Material and Method

2.1. Participants

For this cross-sectional study, the number of patients to be included in the sample was determined as 157 as a result of G power analysis. The inclusion criteria are as follows: Being diagnosed with GD according to DSM-5 diagnostic criteria after the evaluations made by a psychiatrist, completing the scales before the first interview, being a male between the ages of 18-60, being at least primary school graduate and signing the informed consent form. Only male patients were included to control for gender-specific factors in the treatment of GD. The exclusion criteria were having a co-diagnosis of psychiatric illness (psychotic disorder, bipolar disorder, etc.), mental retardation, alcohol, substance use disorder (SUD), having a neurological disorder, having visual, hearing, cognitive loss at a level that would prevent communication, and incomplete completion of the scales.

In this context, a total of 170 patients aged 18-60 years with a gambling addiction who were consecutively admitted to Erenköy Mental Health and Neurological Diseases Training and Research Hospital, Sancaktepe Addiction Counselling and Training Center between April 2022 and December 2022 according to DSM-5 diagnostic criteria, were included. Since two of the participants were female, one of them filled out the scales incompletely and in order to prevent the possible effect of only the diagnosis of GD and other comorbidities on treatment motivation through demographic forms; one of them stated that he had a diagnosis of alcohol use disorder and one of them stated that he had a comorbid diagnosis of SUD, five patients were excluded and a total of 165 patients were included in the study.

The study protocol was approved by the Ethics Committee of the Turkish Republic. Health Sciences University Erenköy Mental and Neurological Diseases Training and Research Hospital (decision number 2, dated 07.02.2022). Participants were informed about this study and written informed consent was obtained from all of them. It took approximately 25-30 minutes for the participants to answer the scales.

2.2. Data Collection Tools

Sociodemographic information form: This form, prepared by the researchers, assesses the sociodemographic characteristics of the participants such as age, education level, occupation, socioeconomic status, marital status, history of gambling and history of physiological/psychiatric illness.

Internalised Stigma Scale in Mental Illness (ISMI): Developed by Ritsher et al. (36), the ISMI is a 4-point Likert-type 29-item self-report scale. The aim of the scale is to measure internalised stigma in patients. Turkish validity and reliability study was conducted by Ersoy and Varan (37). The scale has five sub-dimensions: alienation, confirmation of stereotypes, perceived discrimination, social withdrawal, and resistance to stigmatisation. Scores obtained from the scale range between 4 and 91 points. The scores obtained from the last five items of the scale are reverse coded, and the total score of the scale is obtained by adding the scores obtained from the other items of the scale. The internal consistency reliability coefficients of the subscales and the whole scale are .84, .71, .87, .85, .63, and .93, respectively. High scores obtained from the scale indicate that the stigmatisation of the person is negatively severe. The scale has no cut-off score. In this study, internal consistency reliability coefficients were calculated as .80 (alienation), .72 (confirmation of stereotypes), .80 (perceived discrimination), .80 (social withdrawal), and .88 (for the whole scale). Since the Cronbach's alpha coefficient for resistance to stigmatisation was .35, this sub-dimension was not included in the other analyses.

Multidimensional Scale of Perceived Social Support (MSPSS): It was developed by Zimet et al. (38), and a validity and reliability study was conducted by Eker et al. (39). The scale consists of 12 items and is a 7-point Likert type. It includes expressions between 1-absolutely no and 7-absolutely yes. The aim of the scale is to determine by whom the social support perceived by individuals is given. The sub-dimensions of the scale are family, friends, and a special person. Scoring of the scale is between 12 and 84 points. The higher the score obtained from the scale, the higher the perceived social support. The scale has no cut-off score. The internal

consistency reliability coefficients of the subscales and the whole scale are .83, .84, .88, and .86, respectively (39). In this study, the internal consistency reliability coefficients were calculated as .85 (family), .75 (friend), .68 (special person), and .89 (for the whole scale).

Beck Depression Inventory (BDI): It aims to determine the level of depression by measuring physical, emotional, cognitive and motivational symptoms. It was developed by Beck et al. (40) and validity and reliability studies on the Turkish version were conducted by Hisli (41). The scale consists of a total of 21 items in 4-point Likert type. Scoring of the scale is between 0-63 points. According to the severity of the disease, 0-9 points indicate the presence of minimal depression, 10-16 points indicate mild depression, 17-29 points indicate moderate depression and 30-63 points indicate severe depression. The internal consistency reliability coefficient of the scale was found to be 0.80 (41). In this study, the internal consistency reliability coefficient was calculated as .79.

Beck Anxiety Inventory (BAI): It was developed by Beck et al. (42) and Turkish validity and reliability study was conducted by Ulusoy et al. (43). It is a self-report scale used to determine the frequency of anxiety symptoms experienced by individuals. The scale consists of a total of 21 items in 4-point Likert type. Scoring of the scale is between 0-63 points. Scale scoring according to the severity of the disease; 8-15 points indicate the presence of mild anxiety, 16-25 points indicate moderate anxiety and 26-63 points indicate severe anxiety. The reliability coefficient of the scale was found to be .91 (43). In this study, the internal consistency reliability coefficient was calculated as .90.

Treatment Motivation Questionnaire (TMQ): The Turkish validity and reliability study of the treatment motivation questionnaire developed by Ryan et al. (44) was conducted by Evren et al. (45). The aim of the scale is to determine the motivation of patients in treatment processes. The scale is in 5-point Likert type and the scoring of the scale is between 26 and 130 points. It is a self-report questionnaire consisting of 26 items that determine the reasons for participating in and continuing treatment. The sub-dimensions of the scale are intrinsic motivation, extrinsic motivation, interpersonal help seeking, and trust in treatment. The internal consistency reliability coefficients of the subscales and the whole scale are respectively: .91, .42, .83, .72, and .84, respectively (45).

There is no Turkish validity and reliability study of the scale on patients diagnosed with GD. The scale has been adapted and used to measure treatment motivation in patients diagnosed with GD in our country (46) and abroad in adult prisoners, diabetic patients, cardiac patients, tuberculosis patients, chronic musculoskeletal pain patients, patients diagnosed with borderline personality disorder, patients diagnosed with hoarding disorder, hemodialysis patients, patients diagnosed with HIV, patients with mental health problems, patients diagnosed with generalised anxiety disorder and hypertension patients (47-58). In this study, the treatment motivation scale for GD was adapted for GD, reliability study was performed for the subscales of the scale and the total score of the scale and internal consistency reliability coefficients were calculated. In this study, the internal consistency reliability coefficients were calculated as .89 (intrinsic motivation), .60 (extrinsic motivation), 74 (interpersonal help seeking) and .81 (for the whole scale), respectively. Since the Cronbach's alpha coefficient for trust in treatment was .39, this sub-dimension was not included in the other analyses.

2.3. Statistical Analysis

All statistical analyses of this study were performed using the Statistical Package for Social Sciences 25 (SPSS25) program, with a significance level of $p<0.05$ considered statistically significant. Mean, standard deviation, frequency, and percentage terms were used to describe descriptive statistics. Kolmogorov Smirnov test was used to determine whether the data were normally distributed, and the results showed that the data were normally distributed. Internal consistency reliability of all scales and subscales was evaluated with the Cronbach Alpha coefficient. Pearson correlation analysis was performed to examine the relationship between the variables in the study. Multiple linear regression analysis was performed using the backward elimination method to determine the predictor variables in terms of treatment motivation.

3. Results

3.1. Demographic characteristics of the sample

The ages of 165 male participants, who constituted the sample of the study, ranged between 20-60 years. 87.3% (144 people) had social security, 92.1% (152 people) had a living mother, 86.1% (142 people) had a living father, 81.8% (135 people) had parents living together, 72.7% (120 people) had a job, 66.1% (109 people) worked regularly, 37.6% (62 people) had an income between 4500-10000 TL, 50. 6% (84 people) were married, 54.5% (90 people) had no children, 47.9% (79 people) lived with their families, 50.3% (83 people) had a primary education graduate mother, 47.9% (79 people) had a primary education graduate father and the detailed demographic characteristics of the participants are shown in Table 1.

The mean age score (mean=32.77, SD=7.31), mean education score (mean=12.60, SD=3.26), mean age at first gambling score (mean=21.2, SD=7.16), mean total gambling time (mean=10.35, SD=7.19), 58.2% (96 people) gambled every day, 67.9% (112 people) had no history of outpatient treatment for GD, 32. 1% (53 people) had a history of outpatient treatment for GD, 95.8% (158 people) had no history of inpatient treatment for GD, 89.1% (147 people) had no forensic history, 6.1% (10 people) had a forensic history for gambling-related reasons and 4.8% (8 people) had a forensic history for reasons other than gambling. Detailed clinical characteristics of the participants are shown in Table 2.

Table 1. Demographic characteristics of the participants

		N	%
Social Security	Yes	**144**	**87.3**
	No	21	12.7
Is your mum alive?	Yes	**152**	**92.1**
	No	13	7.9
Is your father alive?	Yes	**142**	**86.1**
	No	23	13.9
Do your parents live together?	Yes	**135**	**81.8**
	No	30	18.2
Do you have a job?	Yes	**120**	**72.7**
	No	45	27.3
If you are employed, what is your type of work?	Organised	**109**	**66.1**
	Irregular	15	9.1
	Part-time	5	3.0
	Not working	36	21.8
Total income	Under 4500 TL	19	11.5
	Between 4500-10000 TL	**62**	**37.6**
	Between 10.000-15000 TL	45	27.3
	15000 TL>	39	23.6
Marital status	Single	70	42.4
	Married	**84**	**50.9**
	Divorced/separated/widowed	11	6.7
Presence of children	Yes	75	45.5
	No	**90**	**54.5**
Who you live with	Alone	11	6.7
	With my parents	65	39.4
	With my family	**79**	**47.9**
	Friends and relatives	10	6.0
Mother's education level	Not literate	27	16.4
	Literate	21	12.7
	Primary education	**83**	**50.3**
	High School	26	15.8
	Undergraduate and above	8	4.8
Father's education level	Not literate	6	3.6
	Literate	21	12.7
	Primary education	**79**	**47.9**
	High School	43	26.1
	Undergraduate and above	16	9.7

Table 2. Clinical characteristics of the participants

	N	Min.-Max.	Mean±SD
Age	165	20-60	32.77±7.31
Education Level	165	4-20	12.60±3.26
Age of initiation of gambling	165	11-49	21.26±7.16
Total gambling time	165	1-40	10.35±7.19
		N	**%**
Frequency of gambling	Less than once a week	15	9.1
	1-2 times a week	9	5.4
	3-4 times a week	45	27.3
	Every day	**96**	**58.2**
History of outpatient treatment of gambling disorder	Yes	53	32.1
	No	**112**	**67.9**
History of inpatient treatment for gambling disorder	Yes	7	4.2
	No	**158**	**95.8**
Forensic history	No forensic history	**147**	**89.1**
	Linked to gambling	10	6.1
	Non-gambling	8	4.8

3.2. Data belonging to data collection tools

Detailed information about Cronbach Alpha reliability coefficients, mean, standard deviation, and minimum and maximum values of all scales in the study are given in Table 3.

Table 3. Descriptive characteristics of data collection tools

Scales	N	Mean	SD	Cronbach Alpha	Min.-Max.
BDI	165	22.15	12.11	.79	0-61
BAI	165	16.42	14.19	.90	0-63
ISMI	165	53.27	15.32	.88	17-88
Alienation	165	18.19	4.16	.80	6-24
Confirmation of Stereotypes	165	17.73	4.43	.72	7-28
Perceived Discrimination	165	12.71	3.93	.80	5-20
Social Withdrawal	165	15.21	4.34	.80	6-24
Resistance to Stigmatisation	165	10.58	2.64	.35	5-18
MSPSS	165	51.72	18.52	.89	14-84
Family	165	15.31	7.90	.85	4-28
Friend	165	15.24	7.34	.75	4-28
A Special Person	165	21.17	5.85	.68	4-28
TMQ	165	94.67	11.57	.81	53-126
Intrinsic Motivation	165	48.92	6.26	.89	23-55
Extrinsic Motivation	165	11.43	3.77	.60	4-20
Interpersonal Help Seeking	165	21.24	4.61	.74	6-30
Trust in Treatment	165	13.08	2.87	.39	6-25

SD: Standart deviation, BDI: Beck depression inventory, BAI: Beck anxiety inventory, MSPSS: Multidimensional scale of perceived social support, TMQ: Treatment motivation questionnaire, ISMI: Internalized stigma of mental illness scale.

3.3. Data on factors related to treatment motivation

Sociodemographic data

No significant correlation was found between TMQ scores and age, forensic history, age at first gambling, frequency of gambling, and total duration of gambling ($p>0.05$). History of gambling, as well as previous treatment attempts and social support, had no effect on TMQ or its subscales ($p>0.05$).

Internalised stigma

The mean ISMI score of all participants was 53.27±15.32. A moderate positive correlation was found between intrinsic motivation and alienation ($r=0.533$; $p<0.01$), confirmation of stereotypes ($r=0.445$; $p<0.01$), perceived discrimination ($r=0.434$; $p<0.01$) and social withdrawal ($r=0.407$; $p<0.01$), respectively. A moderate positive correlation was found between intrinsic motivation and ISMI scores ($r=0.532$; $p<0.01$).

A moderate positive correlation was found between extrinsic motivation and alienation ($r=0.403$; $p<0.01$), confirmation of stereotypes ($r=0.504$; $p<0.01$), perceived discrimination ($r=0.407$; $p<0.01$) and social withdrawal ($r=0.428$; $p<0.01$), respectively. A moderate positive correlation was found between extrinsic motivation and ISMI scores ($r=0.485$; $p<0.01$).

A moderate positive correlation was found between TMQ score and alienation ($r=0.510$; $p<0.01$), confirmation of stereotypes ($r=0.549$; $p<0.01$), perceived discrimination ($r=0.487$; $p<0.01$) and social withdrawal ($r=0.460$; $p<0.01$), respectively. A moderate positive correlation was found between TMQ and ISMI scores ($r=0.571$; $p<0.01$).

Perceived social support

The mean MSPSS score of all participants was 51.72±18.52. A weak negative correlation was found between MSPSS and TMQ score ($r=-0.175$, $p<0.05$).

Depression

The mean BDI score of all participants was 22.5±12.11. A moderate positive correlation was found between BDI score and extrinsic motivation ($r=0.474$; $p<0.01$). A moderate positive correlation was found between BDI and TMQ score ($r=0.426$; $p<0.01$).

Anxiety

The mean BAI score of all participants was 16.42±14.19. A moderate positive correlation was found between BAI and TMQ score ($r=0.367$; $p<0.01$). A moderate positive correlation was found between BAI and extrinsic motivation ($r=0.412$; $p<0.01$). Detailed correlation relationships between all variables are shown in Table 4.

Table 4. Correlational relationships among variables

Scales and Sub-Dimensions	BDI	BAI	MSPSS	Family	Friend	A special person	Intrinsic Motivation	Extrinsic Motivation	Interpersonal Help Seeking	TMQ	Alienation	Confirmation of Stereotypes	Perceived Discrimination	Social Withdrawal	ISMI
BDI	1														
BAI	.560**	1													
MSPSS	-.347**	-.125	1												
Family	-.330**	-.160*	.891**	1											
Friend	-.339**	-.114	.937**	.781**	1										
A special person	-.228**	-.036	.786**	.492**	.657**	1									
Intrinsic Motivation	.312**	.256**	-.197*	-.248**	-.178*	-.066	1								
Extrinsic Motivation	.474**	.412**	-.126	-.181*	-.112	-.016	.349**	1							
Interpersonal Help Seeking	.152	.131	-.012	-.070	.043	.000	.400**	.269**	1						
TMQ	.426**	.367**	-.175*	-.242**	-.147	-.042	.791**	.697**	.691**	1					
Alienation	.604**	.458**	-.239**	-.266**	-.247**	-.087	.533**	.403**	.181*	.510**	1				
Confirmation of Stereotypes	.574**	.420**	-.299**	-.354**	-.252**	-.153	.445**	.504**	.260**	.549**	.663**	1			
Perceived Discrimination	.495**	.384**	-.317**	-.360**	-.280**	-.164*	.434**	.407**	.228**	.487**	.522**	.690**	1		
Social Withdrawal	.546**	.438**	-.282**	-.316**	-.256**	-.145	.407**	.428**	.187*	.460**	.688**	.740**	.627**	1	
ISMI	.647**	.489**	-.347**	-.398**	-.316**	-.164*	.532**	.485**	.235**	.571**	.818**	.888**	.815**	.873**	1

*:p<.05,**:p<.01 BDI: Beck depression inventory, BAI: Beck anxiety inventory, MSPSS: Multidimensional scale of perceived social support, TMQ: Treatment motivation questionnaire, ISMI: Internalized stigma of mental illness scale.

3.4. Predictors of treatment motivation

The mean TMQ score of all participants was 94.67±11.57. Logistic regression analysis was performed by fulfilling the multiple linear regression conditions respectively. Multiple linear regression analysis was performed to examine the effect of BDI, BAI, MSPSS, and ISMI on TMQ, and the Backward Elimination Method was applied in this analysis. Through this method, variables that did not need to be included in the model were eliminated based on low partial F value and the variables that needed to be included in the model were finalised (49). For this purpose, the scores of BDI, BAI, MSPS and its sub-dimensions, ISMI and its sub-dimensions were included in the regression equation in order to determine the variance in the total score of treatment motivation. In the next step, in order to determine the variance in TMQ sub-dimensions, the scores belonging to the same variables were included in the regression equation separately for each sub-dimension, and the variance in the sub-dimensions was determined.

In the model analysed for TMQ total score, three independent variables were included in the regression equation and explained 34% of the change in treatment motivation [F(3,164)=29.641, p<0.01, adjusted R=.344]. When the p values in the model were checked, it was determined that ISMI alienation sub-dimension (β=0.240; t=2.821; p<0.01), ISMI confirmation of stereotypes sub-dimension (β=0.269; t=2.678; p<0.01) and ISMI perceived discrimination sub-dimension (β=0.176; t=1.998; p<0.05) were the predictor variables in the model established for TMQ.

In the model analysed for the TMQ intrinsic motivation sub-dimension, two independent variables entered the regression equation and explained 30% of the variance in this sub-dimension [F(2,164)=36.735, p<0.01, adjusted R=.304]. When the p values in the model were checked, it was determined that ISMI alienation sub-dimension (β=0.295; t=2.601; p<.05) and ISMI total score (β=0.291; t=2.566; p<0.05) were the predictor variables in the model for TMQ intrinsic motivation sub-dimension.

The analysis for the TMQ extrinsic motivation subscale revealed that three independent variables entered the regression equation and explained 31% of the variance in this subscale [F(3,164)=25.667, p<0.01, adjusted R=.311]. When the p values in the model were checked, it was determined that the BDI score (β=0.196; t=2.236; p<0.05), BAI score (β=0.168; t=2.124; p<0.05), and ISMI stereotype confirmation sub-dimension (β=.321; t=4.006; p<0.01) were the predictor

variables in the model for TMQ extrinsic motivation sub-dimension.

The analysis for the TMQ interpersonal help-seeking subscale revealed that one independent variable entered the regression equation and explained 6% of the variance in this subscale [F(1,164)=11.859, p<.001, adjusted R=.062]. When the p values in the model were checked, it was determined that the ISMI stereotype confirmation subscale (β=0.260; t=3.444; p<0.01) was the predictor variable in the model for the TMQ interpersonal help-seeking subscale. Detailed information about the regression analyses can be seen in Table 5.

Table 5. Predictors of treatment motivation

Dependent Variable	Predictor Variables	B	SH	β	t	p	Adj. R
TMQ	Alienation	.668	.237	.240	2.821	.005**	.344
	Confirmation of Stereotypes	.701	.262	.269	2.678	.008**	
	Perceived Discrimination	.518	.259	.176	1.998	.047*	
Intrinsic Motivation	Alienation	.443	.171	.295	2.601	.010*	.304
	ISMI	.119	.047	.291	2.566	.011*	
Extrinsic Motivation	BDI	.061	.027	.196	2.236	.027*	.311
	BAI	.045	.021	.168	2.124	.035*	
	Confirmation of Stereotypes	.272	.068	.321	4.006	.000**	
Interpersonal Help Seeking	Confirmation of Stereotypes	.271	.079	.260	3.444	.001**	.062

* $p < .05$, ** $p < .01$, TMQ: Treatment motivation questionnaire

4. Discussion

Among the TMQ subscales, the highest score belonged to the intrinsic motivation subscale, while the lowest score belonged to the extrinsic motivation subscale. The fact that the mean score of the treatment motivation scale was at a moderate level in the study is consistent with the findings of a review study in which 12 studies examining the reasons for treatment discontinuation in individuals diagnosed with GD were evaluated (30). As a result of the study, it is evaluated that attempts to increase this score, which was found to be at a moderate level, may have a positive effect on treatment.

Gordane et al. (59) found that patients with mood disorders had high depression and anxiety scores. It was reported that there was a significant relationship between depression and anxiety and treatment motivation and that depression and anxiety had an effect on treatment compliance (59). In the regression analysis performed in this study, it was concluded that depression and anxiety had a predictive effect on the extrinsic motivation subscale, one of the subscales of treatment motivation. This result is consistent with the literature.

Although amotivation is stated as a symptom of depression, it has been reported in a limited number of studies that the treatment motivation of depressed patients is higher than that of patients without depression (60-62). It has been stated that the reason for the negative results experienced by individuals in the treatment of opiate use disorder patients may be that they started to realize opiate use disorder, and therefore, their motivation for treatment may have increased (63). In this study, it can be interpreted that the decrease in perceived social support, the increase in psychological problems such as depression, anxiety, alienation, confirmation of stereotypes, perceived discrimination, social withdrawal, and internalized stigmatization, as well as the reasons such as legal, family, economic and social problems caused by the fact that a large proportion of GD patients gamble every day, and therefore the fact that the patients started to realize gambling addiction as the cause of all these negativities they experienced, may have been effective in finding the treatment motivation at a moderate level.

In a study conducted by Mohamed et al. (64), it was reported that increased social support increased treatment motivation in SUD patients and there was a positive correlation between social support and treatment motivation. As a result of the study conducted by Petry and Weiss (10), it was stated that a low level of social support in SUD patients was related to the increase in gambling, family, and psychiatric problems and, thus, low treatment outcomes. Increased social support is reported to have an important role in regulating positive treatment outcomes. Interestingly, this study found a weak negative correlation between social support and treatment motivation, which contradicts previous research. The reasons

for this inconsistency may be the high proportion of those who gamble every day, the increase in the severity of gambling, the decrease in social support from the family due to the increase in family problems, and the increase in the severity of psychiatric problems.

As a result of a study conducted by Tanrıverdi et al. (65) on the investigation of social support and factors affecting social support in both male and female patients diagnosed with SUD, it was reported that treatment motivation and social support scores were at a moderate level, the participants' scores of intrinsic motivation from the treatment motivation subscale were at the highest level, working in a job increased both social support and treatment motivation, as the social support levels of the participants increased, their treatment motivation increased, and the participants perceived the most social support from their families. As a result of this study, the fact that treatment motivation and social support scores were at a moderate level and that the highest score belonged to the intrinsic motivation subscale according to the scores obtained from the treatment motivation scales is consistent with the results obtained in the study conducted by Tanrıverdi et al. (65).

It is stated that working at a job may increase both treatment motivation and social support and that treatment motivation may increase as the social support levels of the participants increase (65). Since it is more difficult for substance addicts to find a job compared to GD patients, it can be interpreted that if substance addicts work at a job, their social support and treatment motivation levels may have had a more positive effect than GD patients.

The fact that the participants perceived the most social support from their families is not consistent with the results obtained in this study (65). In this study, it was determined that the participants perceived the most social support from a special person. It can be interpreted that the fact that social support is given more by the family to substance addicts, that the physical symptoms caused by substance use are taken into consideration more in the process of seeking treatment, that the disease is not hidden and accepted by the families, that it leads to more ownership of the patients and that the families have more hope and perception that the patients will recover are also effective in increasing the social support given to the patients by their families. In the case of SUD patients, the fact that the rate of marriage is higher in SUD patients compared to substance addicts, that the disease is recognized and accepted at an early stage, that solutions are sought, that the treatment process is accompanied, that all problems are tried to be solved by giving responsibility to the patients and that interpersonal relationships are better than in SUD patients may have been effective in providing more social support by a special person.

In this study, it was determined that the treatment motivation of GD patients decreased as the social support provided by a special person increased compared to families (65). The development of co-dependency in the patient's relatives may have delayed the development of awareness in patients and the social support provided may have been ineffective in increasing treatment motivation. This result also contributes to the literature in terms of emphasizing the importance of paying attention to the presence of co-dependency in social support providers in the treatment of patients diagnosed with GD.

Instead of a negative correlation between ISMI and TMQ, a positive correlation was found in this study. This result, which seems to be inconsistent with the literature, can be explained by the transtheoretical change model, which suggests that behavioral change in patients diagnosed with GD and SUD has five stages of change: pre-intention, intention, preparation, action and maintenance (66,67).

In a limited number of studies conducted in the field of addiction, it has been reported that SUD patients are willing and motivated at the beginning of the treatment in line with the findings obtained in this study, but their willingness and motivation may decrease over time with the start of the treatment process and the possibility of obtaining positive results by continuing the treatment process for a long time may decrease (63,68,69). It has been reported that these individuals often anchor in the preparation stage where they think that their change will be beneficial for them, then they mostly try to change again or start the process all over again, and therefore the preparation stage is not followed by the action and maintenance stages (70). It has also been reported that within the first 30 days of the preparation stage, patients with high intrinsic motivation are 1.5 times more ready to quit than those with high extrinsic motivation, and those with high extrinsic motivation are stuck in the intention stage of the transtheoretical model even after six months and therefore may be less likely to make positive progress in the treatment process (71). This study included GD patients who applied for outpatient treatment and were involved in the preparation and action stages of the transtheoretical change model. Therefore, the finding that there is a positive relationship between treatment motivation levels and internalized stigma levels is consistent with these explanations.

In the treatment of SUD, it is stated that the combination of intrinsic and extrinsic motivation will increase treatment success by increasing treatment motivation. It is stated that extrinsic motivation may arise in individuals with SUD due to the pressure created by the social environment, legal situations, and social stigmatization. It has been reported that if these individuals internalize social stigma and their perception of stigma increases, their intrinsic and extrinsic motivation levels also increase (66). In light of the data obtained in this study, it is seen that individuals with GD go through the same processes similar to individuals with SUD. It is seen that extrinsic motivation emerges with the approval of stereotypes and the addition of depression and anxiety to the picture. Approval of

stereotypes was found to have a small effect on the motivation to seek interpersonal help. It was concluded that the individual's approval of the stereotypes exhibited by the society, perceiving them as discrimination and showing alienation from the society were effective on treatment motivation.

In order to increase the treatment motivation of gambling addicts, it is thought that it may be important to evaluate the anxiety, depression and internalized stigma levels of gambling addicts during their treatment, to provide psychoeducation to families and patients in this regard, to provide social support specific to the phenomenological structure of individuals and to implement a holistic treatment. Along with effective social support, intervention for depression, anxiety and stigmatization and providing patients with the necessary skills to combat them are expected to contribute to the prevention of relapses in the post-treatment process (72). This study emphasizes the importance of addressing internalized stigma, social support, depression and anxiety in increasing treatment motivation for GD. Future research should evaluate the effectiveness of psychoeducation-based treatment programs and investigate gender differences in treatment responses.

When interpreting the findings of this study, there are some limitations that need to be taken into account. First, the cross-sectional design of this study limits the ability to infer causality. Since self-report data collection tools were used in this study, the findings are limited to the participants' own perceptions and interpretations. There was no complete equality in terms of the demographic characteristics of the participants. Therefore, the representativeness of the sample is considered to be limited. Although it is seen as a limitation that the sample of the study was obtained only from outpatients with male GD, it suggests that the findings obtained can be generalized to society since the majority of people with GD in society are men. It is thought that future longitudinal studies with a larger sample, including both genders, to determine the temporal relationships between internalized stigma, perceived social support, depression, anxiety, and treatment motivation may contribute to clinical practice and health practitioners.

As a result, increasing the number of outpatient, inpatient, and rehabilitation centers for GD patients in order to facilitate access to psychological and pharmacological treatment opportunities may contribute to increasing the recovery rates of GD patients and facilitate access to professional support for those in the risk group. Preventive activities such as psychoeducation on positive and supportive attitudes, communication, social support, co-dependency, problem-solving skills, change, acceptance, stigmatization, and establishing good relationships with parents, family therapy, and the establishment and promotion of telephone helplines should be organized for at-risk groups and families.

In addition, raising awareness about the harms of gambling addiction, preparing public service announcements on issues such as reducing the stigma associated with seeking help, banning all kinds of gambling-related advertisements and triggers, and organizing theatre workshops to increase people's motivation to seek treatment support, It is thought that projects-programs should be organized in which GD patients in complete remission can share their experiences about the individual harms and recovery experiences and the individual harms related to gambling experienced by patients whose active gambling behavior continues, awareness should be raised by raising social awareness, treatment programs should be planned in accordance with the needs and developmental age of each individual and the effectiveness of these projects in terms of treatment should be evaluated. In addition to these, it is recommended to establish a gamblers anonymous group, which is not practiced in our country, and to conduct longitudinal studies in the future to investigate the effects of depression, anxiety, internalized stigma, and social support on treatment motivation in GD patients who are members of this group.

Conflict of interest

There is no conflict of interest.

Funding

This study was supported by the Green Crescent within the scope of PhD thesis study scholarship.

Acknowledgments

We would like to thank all participants for their support.

Authors' contributions

Concept: Ö.K., B.Ü., Design: Ö.K., B.Ü., Data Collection or Processing: Ö.K., Analysis or Interpretation: Ö.K., B.Ü., Literature Search: Ö.K., B.Ü., Writing: Ö.K.

Ethical statement

The study was initiated with the approval of the Ethics Committee of Erenköy and Mental Neurological Diseases Training and Research Hospital. The Ethics Committee decision date is 07.02.2022 and the number of ethics committee decisions is 2.

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