

# Relationship Between Mental Health Literacy Level and Treatment Motivation in Alcohol and Drug Addicts

## *Alkol ve Madde Bağımlılarında Ruh Sağlığı Okuryazarlık Düzeyi ile Tedavi Motivasyonu Arasındaki İlişki*

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### ABSTRACT

The primary objective of this research is to explore how the level of Mental Health Literacy influences the motivation for treatment among individuals dealing with alcohol or substance addiction. The study involved 128 subjects undergoing inpatient treatment at the Alcohol and Substance Abuse Treatment Center. To gather data, researchers utilized a Personal Information Form, Mental Health Literacy Scale, and Treatment Motivation (TM) survey. The scores obtained from the Treatment Motivation Questionnaire and Mental Health Literacy Scale were  $94.21 \pm 12.2$  and  $108.03 \pm 11.7$ , respectively. The analysis revealed a statistically significant, albeit weak, positive correlation between the participants' Mental Health Literacy Scale-Knowledge of How to Seek Mental Health Information subscale mean score and both their total Treatment Motivation Questionnaire score and their Interpersonal Help-Seeking subscale mean scores ( $r=0.284$ ). Conversely, a statistically significant weak negative correlation emerged between the participants' Mental Health Literacy Scale-Knowledge of Professional Help Available subscale mean score and their Treatment Motivation Questionnaire-Distrust in Treatment subscale mean score ( $r=-0.230$ ). Conclusions drawn from the study indicate that a lack of knowledge regarding addiction and accessing professional assistance, coupled with concerns surrounding stigma, pose as significant barriers to motivation for seeking treatment.

**Keywords:** Addiction, mental health literacy, treatment motivation

### ÖZ

Bu çalışmanın amacı alkol/madde bağımlılığı olan bireylerin ruh sağlığı okuryazarlık düzeyinin tedavi motivasyonuna etkisini belirlemektir. Alkol ve Madde Bağımlılığı Tedavi Merkezi'nde yatarak tedavi gören 128 kişi çalışmaya dahil edildi. Veri toplama aracı olarak kişisel bilgi formu, Ruh Sağlığı Okuryazarlığı Ölçeği ölçeği ve Tedavi Motivasyonu (TM) anketi kullanıldı. Tedavi Motivasyonu Anketi ve Ruh Sağlığı Okuryazarlığı Ölçeği-Ruh Sağlığı Bilgisini Nasıl Arayacağı Bilgisi alt ölçek puan ortalaması ile Tedavi Motivasyon Anketi toplam ve Kişilerarası Yardım Arama alt ölçek puan ortalamaları arasında istatistiksel olarak anlamlı pozitif zayıf bir korelasyon vardı ( $r=0,284$ ). Ancak Ruh Sağlığı Okuryazarlığı Ölçeği-Mesleki Yardım Bilgisi alt ölçek puan ortalamaları ile Tedavi Motivasyon Anketi-Tedaviye Güvensizlik alt ölçek puan ortalamaları arasında istatistiksel olarak anlamlı negatif zayıf bir korelasyon vardı ( $r=-0,230$ ). Sonuç olarak ağırlıklı konusunda bilgi eksikliği, profesyonel yardımın nasıl alınacağı ve damgalanma endişesinin tedavi motivasyonunun önündeki en büyük engel olduğu kanısına varıldı.

**Anahtar sözcükler:** Bağımlılık, ruh sağlığı okuryazarlığı, tedavi motivasyonu

## Introduction

Mental health literacy is defined as “the knowledge and belief to recognize, manage and prevent mental health disorders” (Göktaş et al. 2019). Mental health literacy has become an important concept in early intervention and prevention of mental health diseases in society (Göktaş et al. 2019, Kesgin et al. 2020). Due to the low mental health literacy level of the general population, mental disorders are not recognized enough, their treatment is often delayed, and people with mental health disorders do not have a good quality of life for many years (Kesgin et al. 2020). People with mental illness often go untreated for many years, increasing the incidence of relapses and suicide attempts, decreasing remission rates, and worsening overall outcomes (Saglik Bakanligi

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2022). A sufficient level of mental health literacy can reduce health expenditure, is used to create policies and practices to promote mental health and enable individuals to develop self-treatment methods (Faigenbaum et al. 2022).

Recent studies have shown that mental health literacy has a multifaceted relationship with people seeking help from mental health services, receiving treatment services, treatment motivation, helping someone with mental illness, and stigma (Çam and Çuhadar 2011). Although it is more common in those living in Asian countries, help-seeking is delayed in some societies, especially in case of a mental health disorder due to cultural characteristics, decreasing treatment motivation (Bjørnsen et al. 2017). As a result, mental health disorders progress and people generally seek help when they reach advanced stages of the disease, increasing the rates of emergency service applications and hospitalizations related to mental health disorders. Only half of people with any mental health disorder (i.e. schizophrenia, bipolar affective disorder, depression) and addiction use mental health services (Bjørnsen et al. 2017). The Ministry of Interior reported the rate of individuals using drugs in Turkey to be around 7.8–35.0% (Duyan and Gövebakan 2021). To prevent addiction, several precautions should be taken at various levels. One of these is to increase the mental health literacy levels of individuals with alcohol/substance use disorder (Wang et al. 2013). An increased mental health literacy level in addicted individuals may positively affect treatment compliance and motivation (Miles et al. 2020). It is important to determine addicted individuals' existing mental health literacy levels and their relationship with treatment motivation in order to provide them with relevant interventions (especially mental health literacy information, addiction recognition, professional help, available treatments, information on effective self-help strategies, knowledge and skills to provide first aid and support to others, and information on how to prevent their relapse) (Bozdağ and Çuhadar 2022).

There are limited data on the mental health literacy levels of people with alcohol and substance addiction and its effect on treatment motivation in Turkey. This study aimed to determine the sociodemographic factors affecting the mental health literacy level in people with alcohol/substance use disorder and the relate of the mental health literacy level on treatment motivation.

At the end of the study questions as “What are the Mental Health Literacy Scale and Treatment Motivation Survey scores of individuals with alcohol and substance use disorders? What is the relationship between demographic characteristics (age, gender, marital status, income, education level, etc.) and Mental Health Literacy Scale scores of individuals with substance use disorders? What is the relationship between the Treatment Motivation Questionnaire and Mental Health Literacy Scale scores of individuals with alcohol and substance use disorders?” will have been answered.

## Method

### Sample

This analytic study included patients who received inpatient treatment in the Alcohol and Substance Abuse Treatment Center (AMATEM) of Bolu Abant İzzet Baysal Mental Health Hospital of Türkiye between July 1, 2021 and January 31, 2022. People who apply to AMATEM due to alcohol and substance addiction and whose inpatient treatment is deemed appropriate by the physician are hospitalized for 28 days if the AMATEM rules are accepted and approved. They receive pharmacological and non-pharmacological treatments, including Cigarette Alcohol Substance Addiction Treatment Education Program, awareness meetings, skill development activities, motivational interviews, individual interviews, interaction group therapies, and occupational therapies. Physicians, nurses and psychologists implement these support programs. In addition, morning walks, relaxation exercises, painting and handicraft activities, movies, and reading hours under the supervision of nurses are also included as supportive treatments. A confidentiality agreement is made with the health personnel (i.e. physicians, nurses, psychologists) working in the AMATEM service.

In the previous year, 151 patients were hospitalized between July 1, 2020 and January 31, 2021. The EPI-INFO program developed by the CDC was used for sampling in this study, and the sample size was determined to be 102 considering the population width for addiction as 151, expected frequency as 5.5%, accepted margin of error as 5%, and confidence interval as 99 %. Individuals diagnosed with alcohol substance use disorder, having completed three weeks of their treatment with this diagnosis, having at least a primary school graduation, not having mental or physical pathology that prevents them from completing the scales, and having given written consent to participate in the study were included in this study. The study was completed with 128 participants.

A total of 23 people who did not complete the 3-week treatment program (n = 18) and did not give written consent (n = 5) were excluded.

## **Procedure**

The data were collected from the participants between July 1, 2021 and January 31, 2022, by the researchers, using the data collection tools. Preliminary permission was obtained from the institution where the study was conducted. Written informed consent was obtained from all participants and written approval was obtained from the Bolu Abant İzzet Baysal University Clinic Research ethics committee (2021-173;/22.06.2021). Participants were informed that they could leave the study at any stage. This study was conducted in accordance with the principles of the Declaration of Helsinki.

## **Measures**

Data were collected using a personal information form, the Mental Health Literacy Scale, and the Treatment Motivation Questionnaire.

### ***Personal Information Form***

The form prepared by the researchers in line with the relevant literature includes information such as age, gender, marital status, education level, income level, and the presence of an accompanying mental or physical disease. (Kesgin et al. 2020, Miles et al. 2020, Akgün et al. 2021, Feigenbaum et al. 2022).

### ***Treatment Motivation Questionnaire***

This is a 26-item self-report scale designed to evaluate the reasons for starting and continuing with the alcohol/substance addiction treatment. The Turkish validity and reliability of the treatment motivation scale was determined by Evren et al. (2006). The scale includes four identifiable factors: 1) Internal motivation (11 items), 2) external motivation (4 items), 3) interpersonal help-seeking (6 items), and 4) distrust (5 items). A higher total scale score indicates greater treatment motivation. Evren et al. (2006) calculated the Cronbach's alpha value of the scale as 0.84. The Cronbach's alpha value of this study was calculated as 0.836.

### ***Mental Health Literacy Scale***

The Mental Health Literacy Scale is a tool utilized to gauge an individual's mental health level and identify areas where they may require additional support. A Likert-type scale, the Mental Health Literacy Scale comprises 35 items and six sub-dimensions: ability to recognize disorders (8–32 points), knowledge of how to access information (4–20 points), knowledge of risk factors and their causes (2–8 points), knowledge of self-help/treatment interventions (2–8 points), knowledge about accessing professional help (3–12 points), attitudes that facilitate the search for appropriate help for mental health-related disorders, and attitudes toward mental health-related disorders (stigmatization ) (16–80 points). The total score attainable from the scale ranges between 35 and 160. In the Turkish validity and reliability study conducted by Kesgin et al. (2020), the Cronbach's alpha coefficient was 0.89. The Cronbach's alpha coefficient was calculated as 0.84.

## **Statistical Analysis**

The data were analyzed using the SPSS 22 program and evaluated using percentage and frequency values for statistical data such as gender, income status, and occupation. In addition, mean and standard deviation were used to assess the variable and scale scores. The skewness–kurtosis values were calculated to test the normality of variables and found between +2.5 and -2.5, and the data were considered to have a normal distribution. The Mann–Whitney U test was used for non-parametric data (Knowledge of risk factors and causes, Knowledge of self-treatments, Knowledge of professional help available, Attitudes promoting recognition and appropriate help-seeking (Stigma)-sociodemographic characteristics) and the Independent Samples t Test (Recognition of disorders, Knowledge of how to seek mental health information, Mental Health Literacy Scale Total Score - sociodemographic characteristics) was used for parametric data. Pearson and Spearman analyses were used for correlation analysis (Treatment Motivation Scale and subscales - Mental Health Literacy Scale and subscales). The results were evaluated at the 95% confidence interval and  $p < 0.05$  significance level.

## **Results**

Of the participants, 42.6% were between the ages of 18 and 30 years, 94.5% were male, 48.4% were single, 17.2%

had a low income, 82.5% were High school and below graduates. In addition, 60.2% of them had substance use disorder, 23.4% had a concomitant mental illness other than addiction, 15.6% had a concomitant physical illness, and 41.4% consulted a health professional as the first choice to combat alcoholism/substance use (Table 1). The participants' means Treatment Motivation Questionnaire and Mental Health Literacy Scale scores were  $94.21 \pm 12.2$  and  $108.03 \pm 11.7$ , respectively (Table 2).

<b>Table 1. Demographic characteristics of study participants with alcohol/substance use disorder</b>		
<b>Demographic characteristics</b>	<b>n</b>	<b>%</b>
Age ( <i>n</i> = 94)		
18-30 years	40	42.6
31 years and above	54	57.4
Mean age	34.12±9.8	
Gender ( <i>n</i> = 128)		
Female	7	5.5
Male	121	94.5
Marital status ( <i>n</i> = 127)		
Married	65	50.8
Single	62	48.4
Income status ( <i>n</i> = 128)		
Good	41	32.0
Moderate	65	50.8
Poor	22	17.2
Military service ( <i>n</i> = 127)		
Completed	80	63.0
Not completed	28	22.0
Exempted*	19	10.2
Education level ( <i>n</i> = 126)		
High school and below	104	82.5
Associate-bachelor's degree	22	17.5
Presence of chronic disease ( <i>n</i> = 128)		
Yes	20	15.6
No	108	84.4
Presence of mental illness ( <i>n</i> = 128)		
Yes	30	23.4
No	98	76.6
Type of addictive substance ( <i>n</i> = 127)		
Alcohol	51	39.8
Substance	77	60.2
Who do you refer to first to combat alcoholism? ( <i>n</i> = 113)		
Family members	44	34.4
Spouse/partner	16	12.5
Health professionals	53	41.4
Methods of coping with deprivation ( <i>n</i> = 128)		
Praying	31	24.2
Participating in therapies	14	10.9
Doing sports	18	14.1
Sleeping	28	21.9
Other	18	14.1
None	19	14.8
Facing legal issues ( <i>n</i> = 128)		
No	41	32.0
Yes	87	68.0

\* female, obstacle to military service presence of physical or mental illness

Married people had a significantly higher mean knowledge of how to access information score than single people ( $p = 0.039$ ), and those with comorbid psychiatric disease had a significantly higher knowledge about accessing professional help mean score than those without comorbid psychiatric disease ( $p = 0.009$ ). No statistically significant relationship was found between other sociodemographic characteristics, Mental Health Literacy Scale, and its subscales (Table 3).

Scales and subscales	Min.	Max.	Mean	Standard deviation	Skewness	Kurtosis
TMQ	50	130.0	94.21	12.2	-0.198	1.263
TMQ-IM	14	55	48.42	6.7	-1.649	4.796
TMQ-EM	5.0	20.0	11.50	3.2	0.335	0.081
TMQ-IHS	10.0	30.0	21.16	4.9	-0,154	-0.415
TMQ-DT	5	25.0	13.11	3.7	1.012	1.130
MHLS (MHLS)	79	144	108.03	11.7	0.386	0.339
MHLS-RD	8.0	32.0	22.01	4.4	-0,211	0.501
MHLS-KS	4.0	20.0	14.82	4.0	-0.816	0.324
MHLS-KRFC	4.0	9.0	5.99	0.9	0.309	1.899
MHLS-KST	3.0	24.0	6.00	1.8	7.668	77.602
MHLS-KPHA	3.0	14.0	9.11	1.3	0.807	1.373
MHLS-S	6.0	78.0	50.07	7.9	0.535	1.194

Min: minimum, Max: maximum; TMQ: Treatment Motivation, TMQ-IM: Internal motivation, TMQ-EM: External motivation, TMQ-IHS: Interpersonal Help-Seeking, TMQ-DT: Distrust in treatment; MHLS-RD: Recognition of disorders, MHLS-KS: Knowledge of how to seek mental health information, MHLS-KRFC: Knowledge of risk factors and causes, MHLS-KST: Knowledge of self-treatments, MHLS-KPHA: Knowledge of professional help available, MHLS-S: Attitudes promoting recognition and appropriate help-seeking (Stigma), MHLS: Mental Health Literacy Scale Total Score

Scales and subscales	MHLS-RD	MHLS-KS	MHLS-KRFC	MHLS-KST	MHLS-KPHA	MHLS-S Serisi	MHLS (MHLS)
Age							
18-30 years	21,82±4,5	14,04±4,2	6,02±0,1	6,05±0,1	9,05±0,2	50,55±1,2	107,90±11,5
31 years and above	22,79±4,2	15,01±4,0	5,92±0,1	6,01±0,3	9,24±0,2	50,40±1,1	109,40±12,8
Statistics	t = -1.066 df = 92, p = 0.289	t = -0.721, df = 92, p = 0.473	U = 1045,0, Z = -0.307, p = 0.759	U = 894,50 Z = -1.758, p = 0.079	U = 1007,50 Z = -0.573, p = 0.566	U = 1007,50, Z = -0.073, p = 0.942	t = -0.588, df = 92, p = 0.558
Gender							
Female	22,85±2,8	14,57±2,6	6,57±0,6	6,0±0,3	9,57±0,4	53,14±2,5	112,71±9,4
Male	21,96±4,6	14,83±4,9	5,95±0,1	6,0±0,1	9,09±0,1	49,90±0,7	107,7±11,9
Statistics	t = 0.508, df = 126, p = 0.613	t = -0.168, df = 126, p = 0.867	U = 343,00, Z = -0.944, p = 0.345	U = 400,00, Z = -0.308, p = 0.758	U = 351,00 Z = -0.788 p = 0.431	U = 305,00, Z = -1.244, p = 0.214	t = 1.084, df = 126, p = 0.280
Marital status							
Married	22,23±4,2	15,53±3,8	6,00±0,1	6,03±0,3	9,09±0,2	50,26±1,0	109,15±12,0
Single	21,85±4,8	14,06±4,1	6,00±0,1	5,98±0,1	9,12±0,2	49,87±0,9	106,90±11,5
Statistics	t = 0.469, df = 125, p = 0.640	t = 2.086, df = 125, p = 0,039*	U = 1964,00, Z = -0.276, p = 0.783	U = 1821,50 Z = -1.165, p = 0.244	U = 1988,0 Z = -0.135, p = 0.892	U = 1885,5, Z = -0.626, p = 0.532	t = 1.074, df = 125, p = 0.285
Income status							
Poor	22,02±4,3	15,00±3,8	5,95±0,9	6,01±1,9	9,01±1,4	50,54±7,9	108,75±11,6
Good	21,95±5,1	13,90±4,5	6,18±0,9	5,95±0,3	8,72±1,0	47,81±7,3	104,54±12,2
Statistics	t = 0.070, df = 126, p = 0.945	t = 1.171, df = 126, p = 0,244	U = 1027,50, Z = -0.979, p = 0.328	U = 1143,50, Z = -0.178, p = 0.859	U = 1027,50 Z = -0.907, p = 0.364	U = 953,50, Z = -1.344, p = 0.179	t = 1.535, df = 127, p = 0.127
Education level							
High school and below	21,64±4,2	14,69±3,9	5,99±0,1	6,08±0,2	9,08±0,1	49,45±0,7	106,95±10,6
Associate-bachelor's degree	23,40±5,3	15,13±4,5	6,04±0,3	5,68±0,5	9,27±0,3	53,22±2,3	112,77±15,8
Statistics	t = -1.684, df = 124, p = 0.095	t = -0.469, df = 124, p = 0.095	U = 1128,50 Z = -0.112 p = 0.911	U = 937,50 Z = -1.668 p = 0.095	U = 1118,50, Z = -0.170, P = 0.865	U = 895,00 Z = -1.603, P = 0.109	t = -1.648, df = 25.134, p = 0.112

Presence of additional mental illness							
Yes	23.39±3.6	15.23±3.8	5,90±0,2	5,63±0,2	9.63±0.2	49.00±0.1	108.76±12.5
No	21.60±4.7	14.69±4.1	6.02±0.1	6.12±0.2	8,95±0,1	50,40±0,8	107.80±11.6
Statistics	t = 1.899, df = 126, p = 0.06	t = 0.642, df = 126, p = 0.522	U = 1354.00, Z = -0.730, p = 0.465	U = 1363.50, Z = -0.750, p = 0.453	U = 1020.50, Z = -2.622, p = 0,009*	U = 1313.00, Z = -0.885, p = 0.376	t = 0.390, df = 126, p = 0.697
Type of addictive substance							
Alcohol	21.62±4.7	15.25±3.9	5,82±0,1	5,84±0,1	9.33±0.2	49.98±1.1	107.86±12.2
Substance	22.27±4.3	14.53±4.0	6.10±0.1	6.11±0.3	8.97±0.2	50.14±0.8	108.14±11.5
Statistics	t = -0.793, df = 126, p = 0.429	t = -0.996, df = 126, p = 0.320	U = 1643.00, Z = -1.746 p = 0.081	U = 1893.50, Z = -0.426, p = 0.670	U = 1676.50, Z = -1.449 p = 0.147	U = 1940.00, Z = -0.115 p = 0.909	t = -0.131, df = 126, p = 0.896
Who do you refer to first to combat alcoholism?							
Family members	22.01±5.2	15.06±4.3	5,94±0,9	6.13±2.2	9.01±1.4	49.53±8.1	107.70±12.4
Health professionals	22.01±3.2	14.47±3.5	6.05±0.9	5,83±0,9	9.26±1.4	50,84±7,7	108.49±10.8
Statistics	t = -0.007, df = 126, p = 0.995	t = -0.824, df = 126, p = 0.411	U = 1895.50, Z = -0.498 p = 0.618	U = 1966.00, Z = -0.127 p = 0.899	U = 1832.50, Z = -0.778 p = 0.437	U = 1784.00, Z = -0.986 p = 0.324	t = -0.370, df = 126, p = 0.712
Having methods of coping with deprivation							
Yes	22.26±4.3	14.80±4.0	5,97±0,9	5,84±0,8	9.07±1.3	50.06±7.6	107.83±11.0
No	20.57±5.2	14.89±4.0	5,89±0,6	6.94±4.2	8.94±1.4	49.89±8.9	107.15±14.0
Statistics	t = 1.516, df = 126, p = 0.132	t = -0.087, df = 126, p = 0.931	U = 1005.00, Z = -0.229 p = 0.819	U = 967.50, Z = -0.570 p = 0.568	U = 931.00, Z = -0.726 p = 0.468	U = 974.50, Z = -0.410 p = 0.682	t = 0.349, df = 126, p = 0.727
Facing legal issues							
Yes	21.75±5.1	15.39±4.0	5,87±0,8	6.31±2.9	9.41±1.6	49,90±8,0	108.65±11.6
No	21.13±4.2	14.55±3.9	6.04±0.9	5,86±0,9	8,97±1.3	50.16±7.9	107.13±11.6
Statistics	t = 0.027, df = 68, p = 0.978	t = 0.773, df = 68, p = 0.442	U = 1597.00, Z = -1.066 p = 0.287	U = 1763.50, Z = -0.128 p = 0.898	U = 1553.50, Z = -1.218 p = 0.223	U = 1767.50, Z = -0.082 p = 0.935	t = 0.541, df = 68, p = 0.590

U = Mann-Whitney U, t = Independent Samples t Test, \*p < 0.05, \*\* Tukey Test; TMQ: Treatment Motivation, TMQ-IM: Internal motivation, TMQ-EM: External motivation, TMQ-IHS: Interpersonal Help-Seeking, TMQ-DT: Distrust in treatment; MHLS-RD: Recognition of disorders, MHLS-KS: Knowledge of how to seek mental health information, MHLS-KRFC: Knowledge of risk factors and causes, MHLS-KST: Knowledge of self-treatments, MHLS-KPHA: Knowledge of professional help available, MHLS-S: Attitudes promoting recognition and appropriate help-seeking (Stigma), MHLS: Mental Health Literacy Scale Total Score

In addition, no statistically significant relationship was found between Mental Health Literacy Scale and Treatment Motivation Questionnaire. A weak positive correlation was found between Mental Health Literacy Scale-knowledge of how to access information, Treatment Motivation Questionnaire, and Treatment Motivation Questionnaire - interpersonal help-seeking (r = 0.284, p = 0.00, r = 0.212, p = 0.016, respectively). There was a weak negative correlation between Mental Health Literacy Scale - knowledge about accessing professional help and Treatment Motivation Questionnaire - distrust in treatment (r = -0.230, p = 0.009). In addition, a statistically significant negative weak relationship was found between Mental Health Literacy Scale-stigmatization and Treatment Motivation Questionnaire - external motivation (r = -0.203, p = 0.022) (Table 4).

Scales and subscales	TMQ-IM	TMQ-EM	TMQ-IHS	TMQ-DT	TMQ
MHLS-RD	0.018*	0.008*	0.110**	-0,111**	0.052**
MHLS-KS	0.133**	0.076**	0.284**	0.079**	0.212**
MHLS-KRFC	-0,033**	-0,109**	0.045**	-0,049**	-0,077**
MHLS-KST	-0,031**	0.000**	0.018**	0.039**	0.021**
MHLS-KPHA	0.024**	0.031**	0.109**	-0.230**	0.028*
MHLS-S Serisi	-0,068**	-0,203*	0.068*	-0,114*	-0,100**
MHLS (MHLS)	-0,033**	-0,165*	0.161*	-0,108*	-0,029**

\* Pearson; \*\*Spearman; TMQ: Treatment Motivation, TMQ-IM: Internal motivation, TMQ-EM: External motivation, TMQ-IHS: Interpersonal Help-Seeking, TMQ-DT: Distrust in treatment; MHLS-RD: Recognition of disorders, MHLS-KS: Knowledge of how to seek mental health information, MHLS-KRFC: Knowledge of risk factors and causes, MHLS-KST: Knowledge of self-treatments, MHLS-KPHA: Knowledge of professional help available, MHLS-S: Attitudes promoting recognition and appropriate help-seeking (Stigma), MHLS: Mental Health Literacy Scale Total Score

## Discussion

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This study determined the mean score on the Mental Health Literacy Scale among individuals dealing with alcohol or substance use disorder to be  $108.03 \pm 11.7$ . Notably, those facing alcohol and substance use disorder exhibited similar mental health literacy levels, without a significant difference between them. These scores surpassed the cutoff values ( $X = 106.00$ ) established by Kesgin et al. (2020). While no previous studies specifically address the mental health literacy of individuals with alcohol or substance use disorder, Degan et al. (2019) reported that addicted individuals generally had low health literacy levels. The data collected for individuals in this study with alcohol or substance use disorder were obtained after 21 days of inpatient treatment. Alongside pharmacological treatments, the treatment protocol at AMATEM (Alcohol and Substance Addiction Treatment Centers) integrates non-pharmacological approaches, including mandatory SAMBA (Smoking, Alcohol, and Substance Abuse Treatment Program) training during hospitalization. SAMBA training aims to enhance treatment motivation, improve awareness about anger communication, and augment knowledge about addiction as a mental health condition among individuals with alcohol or substance use disorder. The heightened awareness of addiction among individuals with alcohol or substance use disorder through SAMBA training during their hospital stay likely contributed to the increase in their scores on the Mental Health Literacy Scale (Ögel 2022).

In this study, single individuals exhibited a lower mean score on the Mental Health Literacy Scale regarding knowledge about accessing information compared to married participants. Notably, while this study reveals a significant association between marital status and mental health literacy, a study in China did not find such a relationship (Wang et al. 2013). Further research by Degan et al. (2019) observed that 68% of married participants among individuals with alcohol or substance use disorder had moderate to high health literacy levels. In healthy populations, being married was also linked with higher mental health literacy (Geboers et al. 2016). The absence of a partner or being single could potentially heighten feelings of isolation among individuals facing alcohol or substance use disorder. Those living alone often have limited social networks, engage less in social activities, have restricted social relationships, and lack adequate social support—all factors that might impede their awareness of mental health literacy, access to information, and utilization of existing knowledge (Geboers et al. 2016).

Moreover, individuals with concurrent psychiatric conditions alongside alcohol or substance use disorder demonstrated notably higher scores on the Mental Health Literacy Scale regarding knowledge about accessing professional help in this study. Akgün et al. (2021) similarly found a significant correlation between the presence of psychiatric illness and mental health literacy among the Turkish population. Other research by Gorczyński et al. (2017) indicated that individuals with high mental health literacy were more inclined to seek help, either personally or through other means, for their mental health issues. This inclination might stem from their ability to recognize and manage psychiatric symptoms and diseases more effectively. Consequently, this study's findings align with expectations concerning the recognition of mental health symptoms and help-seeking behavior among individuals dealing with alcohol or substance use disorder (Akgün et al. 2021). However, the history of additional psychiatric illness in individuals facing alcohol or substance use disorder could complicate addiction treatment, potentially leading to recurrent and prolonged hospitalizations (Geniş et al. 2021).

Miles et al. (2020) reported that Mental Health Literacy Scale scores increased with age, and Akgün et al. (2021) reported that individuals aged 18–30 years had higher Mental Health Literacy Scale scores than those aged 31–60 years. The present study found that individuals aged 30 years and older with alcohol/substance use disorder had higher mental health literacy levels than those aged 18–30 years, although the difference between them was not statistically significant. Although the difference between them was not statistically significant, those with high education levels had higher mental health literacy levels than those with low levels of education. With advancing age, individuals tend to acquire more knowledge and be exposed to more information through higher education (Akgün et al. 2021). This may increase awareness of mental health literacy. In addition, older people may have reached higher mental health literacy levels by gaining more information about mental health and illness through social or traditional media and health education (Farrer et al. 2008).

In the present study, although there was no significant relationship between gender and Mental Health Literacy Scale scores, the women's Mental Health Literacy Scale scores were higher. Akgün et al. (2021) reported that women had higher Mental Health Literacy Scale scores than men. Considering the addiction rates, men are diagnosed with alcohol/substance use disorder more often than women and their risk levels are higher (WHO, 2022). However, compared with men, women are willing and adaptable in coping with psychological difficulties and seeking professional help. This difference between the sexes can be explained as the result of gender roles (Miles et al. 2020).

In this study, no significant relationship was found between the Mental Health Literacy Scale scores, use of coping methods for alcohol/substance addiction symptoms, and type of first referral (family members or health personnel) to fight against addiction. Patients with alcohol/substance use disorder seek help from official channels such as health institutions and unofficial channels such as family members in the fight against addiction (Waldmann et al. 2019). However, family members do not have enough up-to-date information about addiction help-seeking (Bozdağ and Çuhadar 2022). In addition, the lack of sufficient health personnel in health institutions shortens the time allocated to patients with alcohol/substance use disorder, making it difficult for them to access healthcare services and health education. At this point, it is an expected result that there is no significant difference between the mental health literacy scores according to the above-mentioned variables (Kalanlar 2018).

Our investigation revealed a positive correlation: as scores on the Mental Health Literacy Scale, particularly related to knowledge in accessing information, increased, there was a concurrent rise in scores on the Treatment Motivation Questionnaire (TMQ) and Treatment Motivation Questionnaire - interpersonal help-seeking. A qualitative examination involving individuals dealing with alcohol or substance use disorder demonstrated that heightened recognition and understanding of addiction directly corresponded to increased motivation for seeking treatment (Yılmaz 2022). However, a separate study focusing on SAMBA training for individuals with alcohol or substance use disorder did not show a significant enhancement in interpersonal help-seeking scores. SAMBA training's primary goals are educating participants about alcohol and substance use, inspiring change, and improving compliance with drug cessation treatments. This discrepancy in results might be due to the former study's inclusion of individuals mandated to undergo training as part of their probation, whereas our current study involved voluntary participants receiving SAMBA training during inpatient treatment. Consequently, the increased comprehension of addiction during inpatient care might have contributed to elevated TMQ and TMQ-interpersonal help-seeking scores. Numerous services provided by official and non-governmental organizations, such as inpatient-outpatient treatment, SAMBA training, and probation programs, aim to boost knowledge levels and treatment motivation among individuals with alcohol or substance use disorder. For example, a study targeted at curbing drug abuse offered 12 sessions of in-class learning-based training to young people aged 14 to 19. These sessions emphasized acquiring motivation for treatment. Following the training, there were notable reductions observed in one-month smoking, cannabis, drug, and alcohol use rates (Sussman et al. 2002). The increased knowledge level among individuals grappling with alcohol or substance use disorder, coupled with access to pertinent information during addiction prevention and rehabilitation, likely played a significant role in elevating their TMQ and TMQ - interpersonal help-seeking scores (Ögel 2019).

This study uncovered a notable trend: as scores on the Mental Health Literacy Scale increased, specifically in knowledge about accessing professional help, there was a corresponding decrease in the Treatment Motivation Questionnaire's distrust in treatment score. Aldemir et al. (2018) conducted research examining an addiction probation program's impact on individuals with alcohol or substance use disorder, revealing a significant reduction in Treatment Motivation Questionnaire scores related to distrust in treatment (Aldemir et al. 2018). It's established that conveying clear, understandable, and accurate information about the disease and treatment process from trusted sources to patients is crucial in bolstering their trust in treatment (Gille et al. 2021). In our study, the inpatients received information from mental health professionals during their hospitalization, potentially contributing to the reduction in their distrust toward the treatment. Trust and active participation in treatment significantly motivate individuals to persist in treatment and abstain from substance use. Higher trust levels in treatment are linked to increased motivation to quit substance use, thereby facilitating a more successful treatment process (Rosen et al. 2004).

Additionally, this study noted that as individuals' scores on the Mental Health Literacy Scale regarding stigmatization increased, their Treatment Motivation Questionnaire's external motivation scores decreased. This contrasts with Bozdağ and Çuhadar's (2022) findings, who reported an increase in treatment motivation with rising levels of internalized stigma among individuals with alcohol or substance use disorder. Meanwhile, Şamar et al. (2022) found no direct relationship between internalized stigma and Treatment Motivation Questionnaire scores. Stigma involves negatively evaluating characteristics like mental illness, ethnicity, substance abuse, or physical disability, while internalized stigma occurs when individuals adopt these negative evaluations for themselves (Çam and Çuhadar 2011). Stigma and internalized stigma can exacerbate depressive symptoms and diminish self-efficacy among addicts (Şamar et al. 2022). Individuals facing addiction frequently encounter stigma, which can erode self-confidence, belief in recovery, and foster a sense of societal non-acceptance. Given that external motivation pertains to seeking rewards or positive outcomes in social contexts,



it is plausible that external motivation decreases as stigma scores increase among individuals dealing with addiction (Aslan and Doğan 2020).

There are certain limitations to this study. To start, being an analytical study, it didnot allow for precise identification of causal relationships. Second, the sample size had a disproportionately low representation of women. The study solely encompassed individuals who either underwent or were open to inpatient treatment, excluding those with alcohol or substance use disorder who didn't access treatment or had no exposure to it. Consequently, it's challenging to extend the study's findings to encompass all individuals with alcohol or substance use disorder. Furthermore, the study highlights that a lack of understanding about addiction, navigating professional help, and the presence of stigma represent the primary hurdles influencing treatment motivation in individuals dealing with alcohol or substance use disorder.

## Conclusion

This study revealed that individuals dealing with alcohol or substance use disorder typically exhibited moderate levels of mental health literacy and Treatment Motivation Questionnaire scores. Interestingly, married respondents demonstrated a higher understanding of accessing mental health information compared to single individuals. Additionally, those with a history of psychiatric illness showed greater knowledge regarding available professional help compared to those without such a history. Furthermore, the study highlighted that an increase in knowledge about addiction or methods to access professional help corresponded to higher treatment motivation, while stigma had an adverse effect, decreasing treatment motivation.

This study marks the initial exploration into the correlation between the Mental Health Literacy Scale and Treatment Motivation among patients with alcohol or substance use disorder. To establish a more conclusive causal relationship between the Mental Health Literacy Scale and Treatment Motivation, it may be beneficial to replicate this study utilizing varied research designs, incorporating individuals with varying addiction profiles, and a more expansive sample size. Additionally, future studies should focus on assessing mental health literacy levels and devising strategies to enhance these levels among untreated or never-treated populations facing alcohol or substance use disorder. Consequently, it would be beneficial to organize mental health literacy training programs for patients receiving care in AMATEMs and day care centers. Equally important is the development of knowledge and skills among healthcare professionals in mental health literacy, considering their pivotal role in providing training and support to this particular group.

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