

## Mental Health Literacy and Some Factors Affecting It among Referring People to Addiction Treatment Centers: A Cross-Sectional Study in Iran

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### ABSTRACT

**Background and Objectives:** Given the increasing prevalence of addiction and the importance of assessing the level of mental health literacy among addicted individuals and the limited reports in this regard, the present study aimed to assess mental health literacy and some of the factors affecting it among addicts.

**Materials and Methods:** The present study was a cross-sectional analytical study. Two hundred thirty addicts referred to addiction treatment centers in Qaen, South Khorasan, Iran, were selected to participate in the survey through one-stage cluster sampling in 2024. The data collection instrument included demographic and contextual characteristics, and Mental Health Literacy Questionnaires (MHLQ). The data were analyzed using SPSS version 23, descriptive statistics, and logistic regression.

**Results:** The mean and standard deviation of the mental health literacy score was  $68.258 \pm 3.247$  out of 145, which was low. Occupation, family economic status, smoking status, and amount of substance used were among the factors affecting mental health literacy.

**Conclusion:** Mental health literacy was lower among retired addicts, those with families with unfavorable economic status, addicts who smoke, and addicts with high amounts of substance use. It is suggested to pay more attention to the addicts in designing educational programs to improve their mental health literacy.

**Paper Type:** Research Article

**Keywords:** Addicts, Addiction Treatment Centers, Mental Health Literacy, Qaen.

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## Introduction

Mental health literacy is recognized as a determinant of mental health (1). Jerm et al. defined mental health literacy as knowledge and beliefs about mental disorders that help to identify, control, or prevent mental disorders (2). More researchers have tried to expand this concept and recently four domains have been proposed to build mental health literacy: 1- Understanding good mental health, i.e., promoting mental health, also known as positive mental health literacy, 2- Familiarity with mental disorders and treatments, 3- Stigma against mental illness and treatment, and 4- Competence in help-seeking behavior (3). Low levels of mental health literacy have been recognized as one of the most important treatment problems in psychological disorders (4). People have less awareness of mental illnesses than physical illnesses (5). One of the main barriers to not seeking information about mental disorders is low mental health literacy and inability to recognize mental disorders (6). Mental health literacy affects attitudes toward help-seeking and help-seeking intentions through stigma (7). People with higher knowledge about mental disorders are more likely to seek mental health services (6). Improving mental health literacy helps in the early diagnosis of mental disorders, and mental disorders can be prevented by increasing the level of mental health literacy (8). Mental disorders make it difficult for people to carry out social and professional activities due to the economic, emotional, suffering, and limitations they cause (6). In general, addiction leads to an increase in mental disorders in people (9).

Recent studies indicate that addiction is a serious and growing problem in Iran, with a prevalence of 3 out of every 1,000 people (10). The prevalence of addiction has increased from 3.7% in 2008 to 5.4% in 2016. According to data published by the United Nations Office on Drugs and Crime in 2017, more than 400 million people were addicted, constituting 5% of the world's population. Iran is also the fourth country with a consumption rate of 1.13% (11). According to the reports of the Iranian Anti-Drug Headquarters in 2017, about 2,808,000 people were addicted in Iran. Among them, people aged 15 to 64 have the largest population, and 6.5% of addicts started abusing drugs at the age of 15 (12). Drug abuse is associated with hundreds of physical and mental illnesses and is therefore classified among the greatest risk factors for preventable morbidity and mortality (13). Drug abuse not only has negative health consequences but also impacts social and family relationships, which are methodologically complex to quantify for individuals and society (14).

To prevent addiction, several precautionary measures should be taken at different levels. One of these is to increase the level of mental health literacy among people with alcohol and drug abuse disorders (15). Increasing the level of mental health literacy in addicted people might have a positive effect on compliance and motivation for treatment (16). Determining the level of mental health literacy among addicted people and their relationship to motivation for treatment is important to provide relevant interventions (especially information on mental health literacy,

addiction recognition, professional help, available treatments, and information on effective self-help strategies) (17).

There is limited information on the level of mental health literacy among people with addiction (15). According to Cook et al., mental health literacy among alcohol and drug addicts was at an average level (15). Also, a study by Kessing et al. showed that the mental health literacy of the addicts was at an average level (18). Regarding factors affecting mental health literacy, the results of a study by Mahmoudi et al. showed that factors such as parental education, socioeconomic status, the presence of mental illness among acquaintances, and history of using mental health services were associated with mental health literacy (3). Also, the study by Kantas Yilmaz and Ünkür showed that mental health literacy was positively and significantly affected by greater attitudes toward seeking psychological professional help, mental well-being, female gender, and availability of information for mental health (19).

Given the increasing prevalence of addiction (11) and the importance of assessing the level of mental health literacy among addicted individuals (17) and considering limited reports in this regard (15,18) and the lack of measuring mental health literacy among addicts in Iran, the present study aimed to assess mental health literacy and some of the factors affecting it among addicts.

### Materials and Methods

This study was a cross-sectional analytical study, and its statistical population was 230 addicts referring to addiction treatment centers in Qaen City between October and November 2024. Sampling was carried out

based on a one-stage cluster sampling method, in which a list of all addiction treatment centers in Qayen was first prepared. Then, two centers were randomly selected from all existing centers, and addicts referring to these selected centers provided they met the inclusion criteria, were selected and entered into the study.

According to the results of the pilot study among 30 addicts and considering  $P=0.15$  for the frequency of desirable mental health literacy, as well as using the Cochran sample size formula and calculating  $d=0.05$ , the sample size was estimated to be 195 people which increased to 240 participants considering a 20% probability of sample dropout.

The inclusion criteria included willingness to participate in the study, addiction to one of the drugs for at least one year, absence of mental disorder, literacy, having a file in one of the addiction treatment centers in Qaen, and living in Qaenat County. Incomplete questionnaires and dissatisfaction with the continuation of the study were also exclusion criteria.

The data collection instrument consisted of a two-part questionnaire, which included:

a) The first part included demographic and background information, which included items about age, gender, marital status, place of residence, level of education, spouse's level of education, occupation, spouse's occupation, number of family members, family economic status, history of drug use among family members, smoking status, alcohol intake status, use of psychotropic drugs, Ritalin and Tramadol, type of drug currently used, amount of drug used, the first drug used, age at the time of first drug use,

and ways to obtain information about addiction treatment.

b) To measure mental health literacy, the Persian version of the Dias, Campos, Almeida, and Palha Mental Health Literacy Questionnaire was used (20). This questionnaire is a 29-item instrument that is structured on a 5-point Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree) and in four dimensions: 1- Awareness of mental health problems (11 items), 2- Misconceptions about mental health problems (8 items), 3- Seeking help and first aid skills (6 items), and 4- Self-help strategies (4 items). This questionnaire has an overall Cronbach's alpha coefficient of 0.77, which indicates the appropriateness of the overall internal consistency of the questionnaire. The validity and reliability test of the Persian version of the Mental Health Literacy Questionnaire was calculated among a sample of students at Shahrood University, and the results showed that this questionnaire had good reliability and validity (20). According to the researchers, the level of mental health literacy was classified into two levels: poor (score less than 50% of the total score) and good (score 50-100%) and it was used in logistic regression. This questionnaire was initially administered to 30 addicts and Cronbach's alpha coefficient for the entire questionnaire was calculated to be 0.84.

First, a research plan number was received from the Vice-Chancellor for Research and Technology of Birjand University of Medical Sciences (with ethics code IR.BUMS.REC.1403.226), and necessary

coordination was made with the selected addiction treatment centers. Also, the purpose of the study was explained to the participating addicts, and their written consent was obtained. In addition, the questionnaires were completed in a self-report manner and through a written questionnaire, in such a way that all addicts were asked to answer the items of the questionnaire with complete honesty. They were also assured that all the information requested in the questionnaire would be used confidentially and without mentioning the names of the individuals. Then, the data were entered into SPSS version 23 software and analyzed using descriptive statistics and logistic regression tests. The significance level was considered less than 0.05.

## Results

230 addicts were studied (response rate: 95.8%). Among them, 78.7% (181 people) of the samples were married, 70% (161 people) of them had a sub-diploma degree, and 79.5% (183 people) were businessmen (Table 1). The mean and standard deviation of the age of the addicts studied was  $40.124 \pm 3.247$  years. Also, the mean and standard deviation of the mental health literacy score among the addicts was  $258/68 \pm 247/3$  out of 145, which was at a low level.

Table 2 shows the results of logistic regression to determine the factors affecting mental health literacy among the participants. The results showed that family economic status, smoking status, and amount of substance used were among the factors affecting mental health literacy.

**Table 1. Demographic and background characteristics of the participants**

Variable	Levels	Frequency	Percentage
Sex	Man	195	84/78
	Woman	35	15/22
Marital Status	Single	49	21/3
	Married	181	78/7
Place of residence	City	142	61/74
	Village	48	20/86
	The country	40	17/40
Degree	Undergraduate	161	70
	Diploma	40	17/40
	Higher than Diploma	29	12/60
Spouse's Degree	Undergraduate	47	20/43
	Diploma	122	53/05
	Higher than Diploma	61	26/52
Job	Worker	85	36/90
	Businessman	80	34/8
	Retired	40	17/40
	Other	25	10/88
Spouse's Job	Housewife	176	76/52
	Employee	25	10/88
	Retired	29	12/60
Number of family members	Two	50	21/74
	Three	46	20
	Four- six	92	40
	seven and more	42	18/26
Economic Status of the family	Not favorable	75	32/65
	Moderate	75	32/65
	Favorable	80	34/7
History of drug abuse	No	60	26/1
	Yes	170	73/9
Smoking status	No	90	39/13
	Yes	140	60/87
Hookah use	No	135	58/7
	Yes	95	41/3
Alcohol intake	Never	158	68/7
	Sometimes	46	20
	Every day	26	11/3
Psychedelic pills, Tramadol, and Ritalin use status	Never	140	60/87
	Sometimes	56	24/35
	Every day	34	14/78
Type of drug currently used	Opium	72	31/3
	Heroin	46	20
	Cannabis	40	17/4
	Glass	23	10

Variable	Levels	Frequency	Percentage
	Crack	26	11
	Other	23	10
Amount of drugs used	Once a day	135	58/7
	Twice a day	45	19/57
	More than twice a day	50	21/73
First drug used	Opium	65	28/26
	Heroin	37	16/1
	Cannabis	70	30/44
	Glass	18	7/8
	Crack	23	10
	Other	17	7/4
age at the time of first drug use	More than 25 years	60	26/1
	15-25	130	56/5
	Less than 15	40	17/40
Ways to obtain information about addiction cessation	Internet	70	20/43
	Healthcare workers	45	19/57
	Radio and television	35	15/3
	Friends and Acquaintances	30	13
	Books, Newspapers and Magazines	30	13
	Other	20	8/7

- the job was one of the factors affecting mental health literacy so the chance of having good health literacy among retired addicts was 1.615 times more than that of addicts with a working job.

- family economic status was one of the factors affecting mental health literacy so the chance of having good health literacy among addicts with higher income was 1.811 times more than that of addicts with lower income

- smoking variable was one of the factors affecting mental health literacy so the chance of having good health literacy among addicts who smoked was 0.451 times more than that of addicts who did not smoke.

- the amount of substance used was another factor affecting mental health literacy, so the chance of having good health literacy among addicts who used drugs more than twice a day was 0.312 times more than that of addicts who used drugs only once a

day. Meanwhile, other demographic and background variables did not affect mental health literacy ( $P < 0.05$ ).

### Discussion

The present study aimed to assess mental health literacy and some of the factors affecting it among addicts. The results showed that mental health literacy was low among the participants. Considering the role of low levels of mental health literacy in the diagnosis, treatment, and cessation of psychological disorders (4, 8) and the presence of 70% of people with a sub-diploma education level in this study and the higher level of mental health literacy among people with higher education (7), these results can be justified to some extent. This finding was not consistent with the results of studies by Cook et al. (15) and Kessing et al. (18), which showed an average level of

mental health literacy among addicts. Possible reasons for this discrepancy include different instruments used to measure mental health literacy and the difference in education levels between these two studies and the present study. Another reason could

be the location of this study which is near to the borders of Afghanistan, because this proximity might have been effective in the transfer of drugs and a greater influence on the culture of the people studied here.

**Table 2. Factors affecting mental health literacy of the participants in logistic regression\***

Variables		Odds (CI 95%)	P
Age		1/241 (0/862 - 1/770)	0/550
Gender	Male	1/00 (ref.)	
	Female	2/782 (1/088 - 7/987)	0/615
Marital status	Single	1/00 (ref.)	
	Married	0/851 (0/258 - 2/458)	0/458
Residence	City	1/00 (ref.)	
	Rural	1/601 (0/658 - 6/102)	0/568
	Suburb	2/412 (0/847 - 6/899)	0/258
Degree	Undergraduate	1/00 (ref.)	
	Diploma	7/501 (0/748 - 45/721)	0/125
	Higher than diploma	3/252 (0/809 - 10/458)	0/257
Spouse's Degree	Undergraduate	1/00 (ref.)	
	Diploma	0/452 (0/128- 1/987)	0/147
	Higher than diploma	1/039 (0/475- 4/287)	0/2574
Spouse's job	Housewife	1/00 (ref.)	
	Employee	2/172 (0/875 - 5/214)	0/654
	Retired	1/611 (0/658 - 4/878)	0/551
Job	Worker	1/00 (ref.)	
	Businessman	3/781 (0/65-19/254)	0/258
	Retired	1/615(0/654-5/535)	0/019
	Other	1/510 (0/322-7/714)	0/125
Number of family members	2 people	1/00 (ref.)	
	3 people	1/972 (0/988 - 6/147)	0/574
	4 to 6	1/562 (0/665 - 4/874)	0/475
	7 people and more	1/052 (0/458 - 3/198755)	0/811
Family economic status	Unfavorable	1/00 (ref.)	
	Average	0/581 (0/847 - 2/827)	0/874
	Favorable	1/811 (0/415 - 1/927)	0/021
Family history of drug use	No	1/00 (ref.)	
	Yes	0/191 (0/089 - 0/847)	0/587
Smoking	No	1/00 (ref.)	
	Yes	0/451 (0/258 - 1/258)	0/011
	Glass use		
	No	1/00 (ref.)	



Variables		Odds (CI 95%)	P
Psychotropic drugs, tramadol, and Ritalin usage	Yes	6/472 (1/479 - 7/014)	0/114
	Never	1/00 (ref.)	
	Sometimes	0/711 (0/455 - 1/874)	0/898
	Every day	0/821 (0/370 - 1/790)	0/301
	Type of drug currently used		
	Opium	1/00 (ref.)	
	Heroin	0/550 (0/401 - 1/547)	0/898
	Hashish	0/802 (0/417 - 1/585)	0/301
	Cannabis	0/531 (0/254 - 1/258)	0/184
	Crack	0/872 (0/124 - 2/147)	0/747
	Other	1/041 (0/368 - 2/921)	0/945
Amount of substance used	Once a day	1/00 (ref.)	
	Twice a day	0/258 (0/243 - 2/721)	0/125
	More than Twice	0/312 (0/517 - 4/814)	0/007
First drug used	Opium	1/00 (ref.)	
	Heroin	0/882 (0/411 - 2/124)	0/587
	Cannabis	1/051 (0/358 - 3/921)	0/898
	Glass	0/221 (0/066 - 0/847)	0/154
	Crack	0/891 (0/147 - 4/147)	0/258
	Other	1/031 (0/468 - 3/578)	0/254
Age at the time of drug use	Over 25 years	1/00 (ref.)	
	15 to 25 years	0/851 (0/46 - 3/08)	0/689
	Less than 25 years	1/147 (0/547 - 2/257)	0/574
Ways to obtain information about addiction	Internet	1/00 (ref.)	
	Healthcare workers	0/851 (0/198 - 4/017)	0/587
	Radio and television	0/360 (0/147 - 1/175)	0/158
	Books, newspapers, and magazines	0/451 (0/146 - 2/147)	0/257
	Other	2/010 (0/852 - 5/121)	0/258

The independent variables were entered into the regression simultaneously

The results also showed that job was one of the factors affecting mental health literacy. It seems that job status is a socio-economic component and can indirectly affect the level of mental health literacy of addicts because the participants with lower income are less likely to refer to a psychologist, psychoanalyst, or psychiatrist to solve their mental health problems. It also seems that workers have less income and time than self-employed people or retirees, and even because of their lower literacy, they have less

potential to identify and use information and services related to mental health. Therefore, their level of mental health literacy is lower than other groups.

The results also showed that the economic status of the family was another factor affecting mental health literacy, and the participants from families with unfavorable economic status had lower mental health literacy. Similar to this finding, the results of a study showed that lower socioeconomic status was correlated with lower mental



health literacy (3). Also, in another study, the participants' health literacy had a significant relationship with income level (21). In justification of this finding, it can be inferred that participants from families with unfavorable economic status are less likely to refer to a psychologist, psychoanalyst, or psychiatrist to solve their mental health problems than those from families with favorable economic status. As a result, their mental health literacy was lower.

The results showed that smoking status was another factor affecting mental health literacy. Consistent with this finding, the results of studies by Panahi et al. (22, 23), Sadeghi et al. (24), and Stewart et al. (25) indicated a relationship between health literacy and smoking status. In justification of this finding, it can be inferred that mental health literacy is a determinant of mental health and as a result, people who have higher literacy about mental disorders are more likely to seek mental health services (6). Therefore, they are less likely to engage in other risky behaviors.

Also, the amount of drug use was one of the factors affecting mental health literacy. Consistent with this finding, in the studies by Karimi et al. (26) and Raisi et al. (27), there was a significant relationship between health literacy and the level of addiction. In justification of this finding, it can be inferred that health literacy affected the individuals' mental health and addiction reduction (26). Health literacy is also recognized as a fundamental pillar of mental health (28). Therefore, it can be inferred that mental health literacy can also influence individuals' mental health and well-being.

**Study Limitations and Strengths:** To our knowledge, the present study is the first study to assess the relationship between the majority of demographic and contextual variables and the mental health literacy of addicts in a comprehensive study. Therefore, this can be considered as an innovation of this study. The participants' self-reporting when completing the questionnaire is a limitation of this study, which might have caused inaccurate information to the research team. Also, the small number of samples, the limited number of studies, and the lack of access to addicts who did not refer to addiction treatment centers were other limitations of the present study. Among other limitations of this study, is that the present study was conducted only among addicts referring to addiction treatment centers in Qaen city. Therefore, the results obtained cannot be generalized to addicts in other parts of the country. Therefore, it is recommended to conduct this study on a larger scale of addicts in other parts of the country.

## Conclusions

Overall, the results indicated that the mental health literacy of the addicts studied was at a low level. Mental health literacy was lower among retired addicts, those with families with unfavorable economic status, addicts who smoke cigarettes, and addicts with high amounts of substance use. Therefore, it is suggested that more attention be paid to the addicts in designing educational programs to improve their mental health literacy.

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**Availability of data and materials:** Data availability the datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

**Conflict of interest:** All authors declare that they have no conflict of interest.

**Consent for publication:** Not applicable.

**Ethics approval and consent to participate:** All materials and the procedure

of this study adhered to the Declaration of Helsinki to this effect, and it was approved by Ethics approval The Ethics Committee of Birjand University of Medical Sciences (IR.BUMS.REC.1403.226). Informed consent to participate were also obtained from all participants before the commencement of the study, which they signed to indicate their willingness to participate in the study.

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**Author Contributions:** Rahman Panahi: Writing – original draft, Validation, Methodology, Formal analysis, Data curation, Conceptualization. Elaheh Razavi: Writing – review & editing, Validation, Methodology, Mahmood Rajabpoor: Formal analysis, Data curation Conceptualization, Writing – review& editing. Mohiadin Amjadian: Writing – original draft, Writing – review& editing, Formal analysis, Validation, Methodology.

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