



## Original Article

## Investigating the Relationship between Locus of Control, Emotional Intelligence, and Resilience among Young Male Opium Abusers in Shiraz

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## ABSTRACT

**Background:** Addiction destroys lifestyles and affects individuals, family, and society. The present study aimed to investigate the relationship between resilience, locus of control, and emotional intelligence in opium addicts. Recognizing the weaknesses of this group helps them to recover and can provide preventive strategies for society.

**Methods:** A total of 40 male opium addicts were selected by convenience sampling from Ibn-e-Sina Center in Shiraz. Rotter, Shrink, Connor-Davidson, and demographic questionnaires were used in this cross-sectional study, and Pearson's test was used to obtain the correlation coefficient.

**Results:** Less resilient people reported more relapses after quitting ( $r=-0.424$ ,  $P=0.006$ ). People with higher social awareness used psychological therapies to liberate themselves from addiction ( $r=0.337$ ,  $P=0.033$ ). Longer addiction was reported among people who consumed opium more frequently during the day ( $r=0.433$ ,  $P=0.005$ ). Greater frequency of daily consumption and more years of consumption had a positive relationship with increasing the number of quits and relapses ( $r=0.323$ ,  $P=0.042$ ;  $r=0.362$ ,  $P=0.022$ ).

**Conclusion:** Addiction treatment centers should evaluate and improve the levels of resilience, emotional intelligence, and type of locus of control in addicts. Most of the participants started their addiction out of curiosity between the ages of 20 and 25 years. The media and policymakers are recommended to play a vital role in raising social awareness and clarifying the devastating consequences of opium addiction. Most of the participants were unemployed and needed money for more treatments. Therefore, it is advisable that rehabilitation centers use occupational therapists for pre-vocational and vocational rehabilitation programs in the treatment process.

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## Introduction

The spread of addiction is a catastrophe that, unfortunately, affects more than two million young

addicts in Iran at ages as low as school age [1]. Addiction affects daily work performance and disrupts lifestyle [2]. Narcotics, especially opium, were the most commonly used substances in 2011 according to the Iranian Mental Health Survey (IranMHS) [3]. Like Iran, other countries such as Afghanistan, Pakistan, India, Myanmar, Laos and China also have high opium use [4].

Drug-related deaths and mortality increased from 1990 to 2010 based on the global burden of disease

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assessment [5, 6]. Regardless of the damage it causes to body structures, addiction limits individual activities and affects participation in daily situations [7]. Stoffel et al. noted that occupational therapy studies the work performance of the addict and its effects on the family and helps maintain detoxification during the recovery period (by increasing skills and improving roles and lifestyles) [8]. Despite the role of occupational therapy in the rehabilitation of addicted individuals, few studies have been conducted in this area [9]. Addiction can disrupt work performance, and occupational therapists can play a role in correcting this [10].

One addiction theory is emotional pressure [11-13]. Therefore, studying emotional intelligence is a useful strategy for investigating and learning about addiction. Emotional intelligence is the ability to understand, express, use, and manage the emotions of oneself and others [14] and to recreate them [15]. However, addiction not only does not solve problems, but it further exacerbates them [16].

In addition to emotional intelligence, another factor influencing decision-making processes throughout life is the locus of control. How much people perceive they are more in control of their lives than external sources is called the locus of control. Kelly et al. showed that young people with low self-confidence have an external locus of control, and those with high self-confidence have a significantly internal locus of control [17]. Quatman et al. reported that people with an external locus of control have more anxiety and less self-confidence and insight, while people with an internal source of control show more self-confidence [18].

In addition to emotional intelligence and locus of control, the present study also investigated resilience to life challenges. Assessing resilience and understanding its process affects preventive interventions affecting quality of life [19]. Substance abuse may be related to psychological processes [20]. Therefore, therapists view it as a biopsychosocial disease [21], and several dimensions are important from the therapists' point of view.

Another advantage of the present study is that studying the addiction etiology can help break its cycle [1]. People are working beings, and there is a gap in the research into the role occupational therapy plays in addiction [8]. Because addiction not only is a problem of the family and the individual but also imposes a burden on society, recognizing addicts' problems is the first step to solving them. Therefore, it is hoped that the present study, the aim of which was to investigate the relationship between emotional intelligence, locus of control, and resilience in opium addicts, will help prevent and treat this disease.

## Methods

A total of 40 eligible male addicts admitted to Ibn-e-Sina Hospital, Shiraz, Iran, were entered into the present cross-sectional study using convenience sampling in 2019. Individuals received the necessary and sufficient information about the research process and then voluntarily signed an informed consent form. The source

of control, resilience, and emotional intelligence were assessed using the Rotter, Connor-Davidson, and Shrink questionnaires, and a comprehensive demographic questionnaire was also used in the present study.

The Shrink questionnaire was used to measure emotional intelligence as suggested by Daniel Goleman. The Shrink standardized questionnaire used in Iran consists of 33 questions, which include five sub-tests of self-awareness, self-regulation, self-motivation, social awareness, and social skills. The reliability of the Siberia Shrink emotional intelligence questionnaire was assessed by Jarabket through split-half and Cronbach's alpha method with coefficients of 0.94 and 0.91, respectively [22]. The internal consistency of this test was assessed using Cronbach's alpha ( $\alpha=0.86$ ) by Pazhouhan, which indicates an acceptable reliability [23].

The locus of control was also assessed by the Rotter questionnaire. Rotter first introduced this concept in 1954. Then designed by Rotter in 1966, the questionnaire consists of 29 questions. Scores less than and  $\geq 9$  indicate internal locus of control and external locus of control, respectively. This questionnaire shows that the respondent attributes his/her problems to bad luck, the mistakes of others, or any external source, or vice versa. Studies have shown that such a difference between the internal and external nature of the locus of control can have applications in mental and physical health outputs [24].

According to Weiner, the test-retest coefficient of the above questionnaire is between 0.40 and 0.83 [25]. Yaryari et al. reported the reliability coefficient of the test as about 0.81 [26].

The Connor-Davidson questionnaire consists of 25 questions scored on a five-point Likert scale with a possible score range of 0-100 that measure a person's resilience. Higher scores indicate greater resilience. Bigdeli et al. reported an internal consistency of  $\alpha=0.9$  for this tool [27], and based on the results of factor analysis, Campbell Siles et al. reported values of 44% to 93% [28].

Inclusion criteria in the current study included opium addiction, male gender, ability to understand questionnaire questions, and ability to answer them. Exclusion criteria comprised lack of consent to participate in the study, even after entering the process, and regretting answering questions honestly.

The demographic questionnaire was a good source of important information about the history and status of the participant. Descriptive and inferential statistics were used. Pearson's test was also used to obtain the correlation coefficient, and a  $P<0.05$  was considered as significant. The parametric test was also used considering the normal data distribution based on Kolmogorov-Smirnov test ( $P>0.05$ ). The current research was approved by the Ethics Committee affiliated with the School of Rehabilitation Sciences, Shiraz, Iran (Approval number: "IR.SUMS.REHAB.REC.1398.017").

## Results

The demographic questionnaire showed that the most obvious reason for subjects starting to abuse drugs was curiosity and fun (25%), followed by fatigue (22.5%),

**Table 1:** Significant correlation relationship between the studied components based on correlation coefficient

	Resilience	E4 (Social Awareness)	Daily use	Frequency of deciding to quit	Frequency of quitting and relapse	Method of quitting	Years of substance abuse
Resilience	-						
E4 (Social Awareness)	-0.104	-					
Daily use	-0.082	0.159	-				
Frequency of deciding to quit	0.199	0.247	0.362 <sup>a</sup>	-			
Frequency of quitting and relapse	-0.424 <sup>a</sup>	0.054	0.362 <sup>a</sup>	0.141	-		
Method of quitting	-0.196	0.337 <sup>a</sup>	-0.006	-0.183	0.224	-	
Years of substance abuse	-0.046	0.203	0.433 <sup>a</sup>	-0.046	0.323 <sup>a</sup>	0.135	-

<sup>a</sup>P<0.05

frequency of psychological problems (17.5%), and physical problems (5%). Ten people were treated with medication, 19 were treated without medication, 8 received counseling, and 6 received a combination of all of the above-named services. Ten people consumed opium at home, 12 people consumed it outside the home, and 9 people consumed it both indoors and outdoors; one person did not specify a place. Participants began using drugs before the age of 20, 21-25, 26-30, and 31-35 years in 15%, 57.5%, 25%, 2.5% of cases, respectively. Fifteen participants expressed their willingness to participate in psychotherapy interventions. Two participants were willing to receive medication, and 12 were interested in receiving both medication and psychological treatment. There were 8 reports of brain problems, 5 cases before and 3 cases after drug abuse. The mean±SD of the participants' age was 25±5 years.

Four people had physical problems before addiction, and 37.5% were interested in participating in psychotherapy. A total of 27.5% of the participants had an addicted brother, and 17.5% had an addicted father. A total of 42.5% of them were detoxified, while the rest underwent no detoxification process. In 50% of cases, participants were satisfied with the drug use. Opium consumption methods used by the participants comprised smoking, injection, orally, and a combination of all methods in 21, 5, 9, and 10 cases, respectively. Opium was consumed for less than one, two, three, four, five, six, seven, and more than seven years in 12.5%, 15%, 10%, 12.5%, 17.5%, 15%, 5%, and 12.5% of cases, respectively.

The mean±SD of the locus of control in this group was 11.125±3.596 and of resilience was 65.82±11.441. The mean±SD of the Shrink questionnaire was 92.35±9.186. The mean±SDs of subtests on this questionnaire were E1=19.8±2.671, E2=25.12, E2=25.12±3.14, E3=18.52±3.56, E4=15.52±2.65 and E5=13.75±2.47.

There was no significant relationship between resilience, locus of control, and emotional intelligence based on Pearson's test ( $P>0.05$ ), but a significant relationship was observed between the components as shown in Table 1.

## Discussion

The results of the present study revealed that people with higher social awareness, which is a dimension of emotional intelligence, use psychological therapies to achieve further recovery. As a result, therapists can facilitate subjects' acceptance of more different treatments as auxiliary options by raising their social

awareness; the media is also effective in this regard. The results also showed that people with more daily consumption also reported more years of consumption. There was a significant relationship between the number of daily consumption times and years of consumption. In fact, from the perspective of occupational therapy, devoting a large part of daily time to drug abuse stabilizes this behavior over the years of use, and the behavior becomes part of the individual identity, leading to significant physical dependence. There was also a positive relationship between the frequency of daily use with the frequency of quitting and relapses. It seems that more dependence occurred physically and mentally. In people with more years of drug abuse, more relapses had occurred after quitting addiction, and there was a direct relationship between these two factors. Therefore, it is recommended that the quitting process be performed as soon as possible so that less physical and psychological dependence occurs.

Researchers investigated resilience and locus of control in methadone-treated and NA-treated individuals using the Rotter and Connor-Davidson questionnaire. They found no significant difference between the two groups in terms of the locus of control, but a higher resilience level was observed in NA-treated individuals. Therefore, NA treatment can help increase resilience and reduce the likelihood of relapse after quitting [29]. The Connor-Davidson questionnaire has the potential to assess resilience, and Davidson described a number of characteristics of resilient people in 2003: the ability to view stress as an opportunity or challenge, to understand the boundaries of control, to feel realistic about choice and control, an action-based approach, tolerance of negative effects, optimism and adaptation to change [30]. These factors are suggested to be included in the rehabilitation program.

The results of the present study showed that less resilient people were more likely to return to addiction, so they can be supported and strengthened by increasing their ability to cope with problems. Results also showed that more resilient addicts were less likely to return to addiction. Therefore, a rehabilitation strategy for occupational therapists and specialists in this field is to increase the resilience of people, especially addicts, during recovery and rehabilitation.

The present study also revealed that people with higher daily consumption and longer years of drug abuse were more physically and mentally dependent on substances and that there was a higher chance of relapse after

quitting. The most common reasons for starting to use drugs was curiosity and fun (25%), followed by fatigue (22.5%), psychological problems (17.5%), and physical problems (5%).

In the present study, one case reported having suicidal thoughts, and another reported perceiving absurdity and worthlessness in life, which is consistent with the findings of other research that indicate the subjects' poor mental condition. From a health promotion perspective, the media should be aware that creating happiness, power, and energy in movies is a commercial pursuit, as in the present study, 40% of participants started using drugs out of curiosity. Khajehdelouei and Moghaddam also proposed increasing social awareness and making people aware of the side effects of drugs so as not to be affected by advertising [31], which is consistent with the findings of the present research. The results also showed that people who had more social awareness were willing to use more psychological methods for their treatment.

Participants cited having fun, life problems, fatigue, psychological problems, and physical problems as the reason for their addiction in 25%, 25%, 22.5%, 17.5%, and 5%, respectively.

Ten participants consumed opium at home, in which case the family members were also at risk. Twelve people consumed opium outside the home, and 9 people consumed it both at home and outside the home; one person did not mention a specific place for using drugs.

Participants had started using drugs before the age of 20, 21-25, 26-30, and 31-35 years in 15%, 57.5%, 25%, 2.5% of cases, respectively. According to research by Akbari et al., the mean±SD of age of onset of addiction in Iran is 23.2±8.5 years [32]. This statistic is similar to one reported by Karari et al. and higher than one reported by Goodarzi et al. in patients admitted to Shiraz outpatient medical centers [33, 34]. According to the IranMHS (2011), the majority of addicts are in the 20-39-year age group [35]. The findings of the mentioned studies are relatively consistent with those of the present study. One hopeful point concerning these participants is that 15 cases were willing to receive psychological interventions. Two participants were willing to receive medication, and 12 were willing to receive both medication and psychological treatment. Policymakers need to consider providing assistance in covering treatment costs. Furthermore, among the current participants, there were 8 reports of a history of head problems, 5 of which were related to pre-addiction period and 3 were related to post-addiction period.

The current study also demonstrated that the main reason for quitting was family pressure; a small number of people were internally motivated to quit their addiction. The majority of participants had an external locus of control.

Most of the participants used drugs with their friends and did so under the influence of an external source. External locus of control seems to increase a person's vulnerability to addiction. Unlike people with higher resilience, people with less resilience expressed less ability to resist the relapse temptation. Although participants reported secondary problems with substance

use and physical, psychological, social, family, economic, and occupational harms following substance use, they expressed satisfaction with 50% of the temporary feeling after substance use (despite sex problems, suicidal ideation, and divorce as substance use problems).

The results of the present study cannot be generalized to all addicts. Even in the case of all opium addicts, a more general picture can be obtained with further studies. The present study procedure can be used with other addicts, including consumers of industrial substances.

## Conclusion

Clinical and therapeutic applications include giving importance to the components of emotional intelligence, resilience, and internalizing the locus of control in the processes of prevention, treatment, and prevention of relapse to addiction. Adopting a preventive view, authorities are recommended to act to educate and empower different segments of the population from childhood. It is suggested that the media also help by increasing social awareness in this regard, so that people can choose the right method to solve problems and being aware of the harms of addiction by increasing their problem-solving power. In addition, to provide further assistance, it is recommended that occupational therapists add occupational rehabilitation to the treatment of addicts in the rehabilitation process to overcome potential future problems.

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