

# Evaluation of Emotional Self-Awareness and Impulse Control in Drug-Dependent Individuals With and Without Borderline Personality Characteristics Undergoing Methadone Maintenance Treatment (MMT)

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## Abstract

**Background:** Drug addiction is one of the most significant problems related to general health in the world, creating various mental problems in addicts and leading to social and family difficulties. Emotional factors also play a key role in treating addiction.

**Objectives:** The purpose of this study is to examine emotional self-awareness and impulse control in drug-dependent individuals with and without borderline personality characteristics undergoing methadone maintenance treatment (MMT).

**Patients and Methods:** This was a descriptive-correlational study. The population of the study included 361 drug-dependent individuals under Methadone Maintenance Treatment (MMT) who were selected randomly among referrals to substance abuse treatment clinics in Zahedan, Iran, in 2013. To obtain data, emotional self-awareness and impulse control were assessed using Bar-On Emotional Quotient Inventory (EQI) and Millon Clinical Multiaxial Inventory III (MCMI-III). Data were analyzed using SPSS software version 16.

**Results:** The findings indicated no significant differences between these two groups in terms of their emotional self-awareness ( $P \geq 0.01$ ). With regard to impulse control, the results revealed significant differences between these two groups ( $P \leq 0.01$ ).

**Conclusions:** It can be indicated that reinforcing components of emotional intelligence, especially emotional-awareness and impulse control, are effective methods to develop against substance use in among drug-dependent individuals.

**Keywords:** Emotional Adjustment, Impulse-Control Disorders, Substance Abuse, Borderline Personality Disorder

## 1. Introduction

Drug addiction has increased in the past decade. Several psychoactive substances, like cocaine and alcohol, can create physical or mental symptoms. Furthermore, substance-related addiction requires social attention (1). Notwithstanding the ample cultural changes in lifestyles and modernism in today's world, some people still lack the necessary skills to deal with life issues. It seems that emotional intelligence (EI) plays a significant role in coping with social problems. In addition, scant EI is correlated with aggression, depression, and addiction (2), low levels of EI are associated with smoking, substance abuse, and impulsive behaviors (3). Impulsivity is defined as an inability of impulsive behaviors and thoughts. Impulse control is a substantial component in performance (4) and has a great impact on both individuals and social attributes

(5). Impulsivity is considered as a symptom related to several disorders, including anxiety disorders, depression, personality disorders, and particularly cluster B disorders (antisocial personality disorders and borderline personality disorders) (6, 7).

Difficulties in emotion regulation and unstable behaviors that include impulsive aggression and impulse control are core components of BPD. Albeit, both BPD and antisocial personality disorder are dependent on impulsivity and aggressive behaviors. Emotion regulation problems can be dependent on BPD (8). Some studies have shown the relationship between emotion intelligence and addiction. For example, Kopera et al. associate the duration of alcohol abuse with patients' poor ability to utilize emotions. The results of this study indicate that these people had more difficulties in regulating their emotions and had

severe depression symptoms associated with heavy drinking (9). Considering the many studies carried out on EI, few studies have been conducted in this regard.

## 2. Objectives

The current study attempted to evaluate emotional self-awareness and impulse control in drug-dependent individuals with and without borderline personality characteristics under methadone maintenance treatment (MMT).

## 3. Patients and Methods

This was a descriptive-correlational study conducted on 361 drug-dependent individuals undergoing MMT who were referred to substance abuse treatment clinics in Zahedan, Iran, in 2013. Using the two-stage random sampling method, the subjects were selected randomly among patients of 29 public and private MMT centers in Zahedan. Statistical population of the current study was 6000 individuals. Applying the Cochran sample size formula (5), 361 subjects were recruited. After conducting millon clinical multi-axial inventory III (MCMI-III) and clinical interview based on DSM IV, the subjects were divided into two groups: one with and one without borderline personality characteristics. In the next step, emotional-awareness and impulse control were assessed using Bar-On emotional quotient inventory (EQI) and Millon clinical multi-axial inventory III (MCMI-III).

The clinical multi-axial inventory (MCM III, Millon 1994) is a self-report scale with 175 true-false questions that evaluates 14 clinical personality patterns and 10 clinical symptoms. It is also used for adults aged 18 years and older. This test is developed on the basis of psychological disorders (Millon, 1969/1982). In this test, the base rate score of 85 and higher show that there is a significant clinical concern or disorder. The base rate scores of 75 - 84 implicate the existence of features of a disorder. The base rate scores of 60-74 indicate the description of individual's personality. In this study, the cut-off point of 85 was considered. Diagnostic validity of this scale was estimated and reported as very good. Sharifi (2003) states that the reliability of this test was calculated by applying internal consistency in Iranian people and the alpha coefficient was obtained from 85% (alcohol dependence) to 97% (posttraumatic stress disorder) (10).

Bar-On Emotional Quotient Inventory (EQI) is a 5-point Likert type scale (from never to always) developed in 1997. This questionnaire has 15 subscales: emotion self-awareness, self-regard, assertiveness, independence, self-actualization, empathy, social responsibility, interpersonal relationship, stress tolerance, impulse control, real-

ity testing, flexibility, problem solving, optimism, and happiness. The mean Chronbach's alpha, calculating the internal consistency, was very high for all subscales (11). In Iran, the reliability of this questionnaire was examined using Chronbach's alpha (0.93) by Samouei et al. (2002) (12). In order to analyze emotional awareness and impulse control in drug dependent individuals with and without borderline personality characteristics, the Pearson correlation coefficient, independent t-test, through applying SPSS software version 16, and descriptive statistics were used.

## 4. Results

Table 1 shows, the mean and standard deviation of 354 subjects with regard to impulse control are 15.48 and 5.07, respectively. In addition, the mean and standard deviation in relation to emotional self-awareness are 19.25 and 3.60, respectively. The assumption of homogeneity variances of two drug-dependent groups with and without borderline personality characteristics under MMT was examined with a probability of 95% and then perused independent t-test. The results are shown in Table 2.

Table 2 provides some information about Leven's test and shows no significant difference between the variances of these two groups ( $F = 2.607, P \geq 0.05$ ). Therefore, the assumption of homogeneity of variances is confirmed. In this case, t-test was used to examine the equality of variances. It is implicated that impulse control in drug-dependent individuals' under MMT without borderline personality characteristics is significantly higher than drug-dependent individuals under MMT with borderline personality ( $t = 3.78, P \leq 0.01$ ). Table 3 provides a summary of Leven's test. The results of Leven's test applied to examine the equality of variances are violated ( $F = 1.142, P \geq 0.05$ ). Owing to this assumption of violation, the t-test, not assuming homogeneity of variance, was computed ( $t = 1.675, P \geq 0.01$ ).

## 5. Discussion

This study evaluated emotional self-awareness and impulse control in drug-dependent individuals with and without borderline personality characteristics under methadone maintenance treatment (MMT). The prominent point of this study was that the mean score of impulse control in drug-dependent individuals without borderline personality characteristics undergoing MMT was higher than the mean score of impulse control in drug-dependent individuals with borderline personality characteristics under MMT ( $P \leq 0.01$ ). This confirms the long term relationship between substance dependence and impulse control (13).

**Table 1.** Mean and Standard Deviation of Emotional Self-Awareness and Impulse Control of the Subjects

Variable	Number	Mean <sup>a</sup>	Maximum	Minimum
Impulse control	354	5.07 ± 15.48	26	6
Emotional self-awareness	354	30.60 ± 19.25	29	10

<sup>a</sup>Data are presented as mean ± SD.

**Table 2.** Leven's Test for Equality of Variances of Groups

Tests	Values
Leven's Test for Equality of Variances	
F	2.607
P value	0.107
<b>t-test Applied for Equality of Means</b>	
df	352
t	3.780
P value (2 tailed)	0.005

**Table 3.** Leven's Test Equality of Variances of Groups

Tests	Values
Leven's Test for Equality of Variances	
F	1.142
P value	0.286
<b>t-test Applied for Equality of Means</b>	
df	352
t	1.675
P value (2 tailed)	0.095

A review study conducted by Inman et al. (1985) assessed individuals with borderline personality disorder who took part in drug-dependent treatment programs. The subjects were asked to answer a series of psychological tests. Subjects with borderline personality disorder were more disparate than subjects without borderline personality disorder in various issues, including depression, impulse control, and antisocial tendencies (14). In addition, people with a history of drug dependence may be more impulsive than people with no such history (15).

Likewise, it is obvious that there are relationships among substance abuse, antisocial behavior, conduct disorder, and other disorders along with externalize spectrums that may be reflected by poor impulse control (16). In sum, little impulse control plays a principal role in initial drug-seeking and subsequent relapse, in so much as it is a central approach in treatment of drug dependency (17).

Therefore, it is recommended that in drug dependent centers, psychological and consulting sessions be considered seriously in order to provide adequate treatment.

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### Footnote

**Authors' Contribution:** Nour Mohammad Bakhshani developed the original idea, and Mohammad Davoud Mohebi completed literature research. Data analysis was carried out by Mehdi Sargazi, Norodin Mir, Fariba Piri, while Samaneh Fouladi prepared and wrote the manuscript.

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