The Facilitating Role of Borderline Personality Disorder and the Inhibiting Role of Mindfulness in Adolescents' Tendency to Addiction

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Abstract

Introduction: The tendency to addiction appears more in adolescence and early adulthood than any other stages of a human life. The study of variables affecting addiction have always been of interest to researchers. This study aims to investigate the relationship between borderline personality disorder as a facilitating and mindfulness as an inhibiting factor in adolescents' tendency to addiction.
Method: The study employed a correlation method. A group of 579 first year undergraduate students of Arak University in 2016 were selected using purposeful sampling method. The participants were asked to answer a demographic questionnaire, Five Facet Mindfulness Questionnaire (FFMQ), Borderline Personality Part of Schizotypal Personality Scale, and the Iranian Addiction Potential Scale. The Data were analyzed using Spearman's rank correlation coefficient and the stepwise multiple regression.
Results: The results of the Spearman's rank correlation coefficient indicated significant ($p<0.05$) correlation between the borderline personality and mindfulness, and the tendency to addiction. The results of the multiple regression also indicated that the borderline personality and mindfulness explain 30% of the passive addiction potential variance to gather ($R^2 =0.30$, $p< 0.01$), and the borderline personality alone explains 23% of the active addiction potential variance ($R^2 =0.23$, $p<0.01$) and 31% ($R^2 =0.31$, $p<0.01$) of the total variance of tendency to addiction, but the role of mindfulness active addiction potential was not significant ($p>0.05$).
Conclusion: In sum, the results indicated that the borderline personality disorder and mindfulness symptoms together could significantly predict the tendency to addiction in adolescents. However, the borderline personality has more contribution than mindfulness.

Keywords: Adolescence, Borderline Personality, Mindfulness, Tendency to Addiction

Introduction

Adolescence is the period of experiencing and personal choices. In the process of gaining independence, adolescence fantasize is believed to be an immunity system against dangers. This makes adolescents not to be afraid of making high-risk decisions. Therefore, the adolescents become vulnerable against many high-risk behaviors including drug use, unhealthy sexual behaviors, and drinking alcohol [1]. Of course, in spite of the vulnerability of adolescents to high-risk behaviors, not everyone experiences such behaviors. Meanwhile, some factors play the role of facilitators and some as inhibitors. Among the facilitators, for example, are the tendencies of a person to addiction. The beliefs and attitudes of people about drugs and its negative/positive consequences are defined as the "tendency to drug use" [2]. These tendencies are of two types in social psychology: cognitive and emotional. The former deals with the intellectual traits such as intelligence, thought, and verbal

comprehension, and the latter with the personality traits such as attitudes, preferences, and needs [1]. As far as addiction is concerned, the Tendency Theory states that some people are susceptible to addiction, that is, if they are exposed to drugs, they become addicted, otherwise, they would not [3, 4].

There are three categories of theories about the causes of addiction. The first group believes that as drugs are easily available, people turn to it. The second category believes that social crises and disorders are the cause of tendency to addiction. Finally, the third category focuses on the psychological potentials [5]. However, some individuals with particular personality traits are more susceptible to addiction than others. Studies have identified various psychological features, including the use of emotionally avoidant coping strategies [6], poor emotional self-regulation [7], poor social skills [8], poor functioning of the family [9] and impulsivity and aggression [10]. These features, altogether, can cause a personality disorder called the borderline personality disorder.

The borderline personality disorder is a disturbance in the B-cluster of the personality disorders and is the most common personality disorder in psychiatrics. The main features of this disorder are an overwhelming pattern of instability in interpersonal relationships, self-depiction, emotions and apparent impulsivity, confusion of identity, emotional instability, chronic feeling of absurdity, fatigue, and self-harm. Impulsivity is the tendency and potential to express quick and unpredictable responses to internal or external stimuli, regardless of their negative consequences [11]. Impulsive behavior, in many cases, leads to high-risk behaviors such as gambling, spending money with no regard, overeating, substance abuse, sexual behaviors or high-risk driving [12]. Studies suggest that the borderline personality disorder has about 67% correlation with substance abuse [11, 10, 13].

The demand for drug is one of the apparent features of the borderline personality disorder [14]. The results of Jazayeri, et al.'s study [15] on addicted men indicated that the traits related to the borderline personality disorder among addicts were significantly more prevalent than the control group. The study also showed that the main aspect of the individuals' personality disorder depends on their personality traits before being addicted.

Besides the facilitators, some factors also act as inhibitors against addiction. Some of them are mental health, negative attitude towards drug use [17], social support and coping strategies [18], tolerance [6], and mindfulness. However, mindfulness, among these, has been studied less. According to Baer (2003), mindfulness is "the nonjudgmental observation of the ongoing stream of internal and external stimuli as they arise" (p. 125). Mindfulness is a skill that allows individuals to perceive incidents as being less depressing than what they really are in the actual situation. Mindfulness plays an important role in inhibition against addiction by reinforcing factors such as effective coping strategies against emotional turmoil and momentum addiction [20], effective coping strategies against temptation of visual clues [21], and the

acceptance of thoughts instead of suppressing them [22]. Accordingly, the results of several studies [23, 19, 24, 25, 26, 27] suggest that using interventions such as the training of mindfulness skill can be effective in reducing the symptoms of addiction. Therefore, it seems that the role of mindfulness can be considered as an inhibitor in the tendency to addiction. As the tendency to addiction appears more common in adolescence and early adulthood [16], the study of traits affecting addiction have always been of interest to researchers. Therefore, this study aims to investigate the relationship between the borderline personality disorder as a facilitator and mindfulness as an inhibitor in the adolescents' tendency to addiction.

Methods

This study used a correlational and cross-sectional method. Among the undergraduate university students of Arak University (first year university students at the age of 20), 579 participants (350 women and 229 men) with a mean age of 19.2 (SD = 0.5) were selected using the purposeful sampling method. Since the aim of the study was to examine the relationship among variables in adolescents, the participants' age was an important variable. Therefore, the participants were asked to complete a set of questionnaires. After a brief overview of the topic of the study, the participants completed the questionnaires in groups. The approximate time to complete the questionnaires was 30 minutes, and the participants were free to end their contribution at any stage of the research.

An oral informed consent was obtained from all participants included in the study. The protocol was approved by the local ethical committee (Arak University-Iran).

The research questionnaires which were administered to the participants were as follows:

Iranian Addiction Potential Scale: The Addiction Potential Scale was designed by Weed Butcher (1992). There have been many attempts to determine its validity in Iran. The questionnaire used in this study, is an Iranian version of the Addiction Potential Scale which is designed by Zargar (2006) regarding the psychological and social conditions of the Iranian society. It consists of two factors. It has 36 items as well as 5 lie detector items. In the first factor (the active addiction potential), the highest proportions are attributed to antisocial behavior, desire to use drugs, positive attitude to drugs, and excitement. In the second factor (the passive addiction potential), the highest proportions are attributed to the lack of self-expression and depression. The scoring procedure of each item was based on a continuum from zero (totally disagree) to 3 (totally agree). In order to assess the validity of this scale, two methods were employed. As far as the criterion validity is concerned, the addiction potential questionnaire well-differentiated both the addicted and non-addicted groups. The validity of the scale structure was assessed by correlating it with the 25-item Scale of Clinical Symptom Scale (SCL-25) 0.45, which was significant at a level less than 0.001. The reliability of the

scale was assessed using Cronbach's alpha 0.9, which is optimal (28). The Cronbach's alpha value for the first factor (the active addiction potential) is 0.89, and for the second factor (the passive addiction potential) is 0.76 (29). According to the Cronbach's alpha method in this study, the reliability of the total scale was 0.94, and it was 0.95 and 0.81 for the active and passive factors respectively.

Five-Facet Mindfulness Questionnaire: This instrument is a 39-item questionnaire using a self-report assessment method developed by Baer, Smith, Hopkins, Krietemeyer, and Tony (2006). It is developed by combining several independent mindfulness questionnaires such as: The Kentucky Inventory of Mindfulness Scale (30), the Mindful Attention Awareness Scale (31), the Freiburg Mindfulness Inventory (32), the Cognitive and Affective Mindfulness Scale-Revised (33), and the Southampton Mindfulness Questionnaire (34), based on the factor analytic approach. The analysis reveal five factors indicating different aspects of mindfulness. These factors are observation, description, acting with awareness, non-judgment of the inner experience, and non-reactivity to the inner experience. The responses were pre-coded from 1 to 5 based on a Likert's five-point scale. Based on the results, the consistency of the factors was acceptable and the alpha coefficient ranged from 0.75 to 0.91. The correlation between the factors was moderate, and in all cases, it was significant and ranged from 0.15 to 0.34 (Neuser, 2010). Moreover, in a study on the validity and reliability of this questionnaire in Iran, the correlation coefficients of the test-retest of the above-mentioned questionnaire in the Iranian version was between 57.0 and 84.0. The alpha coefficients were also obtained at an acceptable level of 0.55 to 0.83 (35).

Borderline Personality Scale: The borderline personality scale is a part of the Schizotypal Trait Questionnaire. This questionnaire was developed by Claridge and Broks (1984) at Oxford University and then was revised by Rawlings, Claridge and Freeman (2001). Mohammadzadeh and Rezaee [36], using the edited version of this test according to the criteria of DSM-IV-TR, in addition to the 18 primary items, added another 6 items to cover the diagnostic criteria of the disorder. Thus, the borderline personality scale, used in this study, had 24 items which requires a Yes/No response. This scale measures three traits of hopelessness, impulsivity, and stress-related dissociative and paranoid symptoms. Rawlings et al. (2001) reported an alpha of 80% for the

borderline personality scale. The concurrent validity of the borderline personality scale with neuroticism and psychoticism scales of Eysenck personality questionnaire in its original culture was reported to be 0.64 and 0.44, respectively. The coefficient of the test-retest reliability of the total borderline personality scale in the Iranian society was 0.84, and for the subscales of hopelessness, impulsivity, and stress-related dissociative and paranoid symptoms were reported to be 0.53, 0.72 and 0.50, respectively. Also, the alpha coefficient of the total scale was 0.77, and for the subscales of hopelessness, impulsivity, and stress-related dissociative and paranoid symptoms were 0.64, 0.58 and 0.57, respectively [36].

Results

The data analysis was performed using the scores obtained from the completed questionnaires of all the members of the groups participating in the study. In the first step, in addition to computing the mean and standard deviation of the variables under investigation, the correlation between the variables was also calculated. The results are presented in Table 1.

The results of the Pearson correlation coefficients in Table 1 indicate that there is a significant positive correlation between the borderline personality trait and tendency to addiction in the adolescents participating in this study, as well as, the active and passive addiction potential subscales. Moreover, the variable of mindfulness has a significant negative correlation with the passive addiction potential. However, there is no significant correlation between mindfulness and the active addiction potential and the total score of tendency to addiction.

The stepwise multiple regression analysis was employed in order to determine the relationship among variables more accurately and to also identify the contribution of each variable under investigation to explain the tendency to addiction. In this analysis, the borderline personality was fed as the only predictor variable in the regression equation. The results presented in Table 2 indicate that 31% of the variance of tendency to addiction is explained by the borderline personality variable. In fact, as the students' borderline personality scores increase, their tendency to addiction will increase too. Thus, the variable of mindfulness did not play a significant role in explaining the tendency to addiction and therefore, it was not presented in the regression analysis results.

Table 1. Descriptive statistics (Mean and Standard Deviation) and Pearson correlation coefficients among variables

	variables	M	SD	1	2	3	4
1	active addiction potential subscales	19.1	17.14	1			
2	passive addiction potential subscales	15.95	6.76	0.47**			
3	Total score of tendency to addiction	34.93	21.27	0.96**	0.7**		
4	borderline personality trait	5.7	4.24	0.41**	0.46**	0.48**	
5	mindfulness	113.75	10.9	-0.06	-0.1*	-0.068	-0.07

* p<0.05 ; ** p<0.01

Table 2. Results of multiple regressions of total score of addiction potential on borderline personality trait

criterion variable	step	Predictor variable	F	R²	β	t
Total score of addiction potential	first	borderline personality trait	245.2	0.31	2.82	15.66**

* p<0.05 ; ** p<0.01

Table 3 shows the results of the stepwise regression analysis for multiple relationships among the predictive variables with the active addiction potential subscale. The borderline personality was considered as the only predictor variable in the regression equation. The results presented in Table 4 indicate that 23% of the variance of the active addiction potential is explained by the borderline personality variable. The variable of mindfulness did not indicate a significant role in explaining the tendency to addiction, and therefore, it was not available in the regression analysis results.

Table 4 shows the results of the stepwise regression analysis for multiple relationships among the predictive variables with the passive addiction potential subscale. In the first step, the borderline personality was considered as the only predictor variable in the regression equation. The

results presented in Table 4 indicate that 28 % of the variance of the passive addiction potential is explained by the borderline personality variable. Moreover, the borderline personality and mindfulness together can explain 30 % of the variance of the passive addiction potential. In other words, 30 % of the variance in the passive addiction potential among adolescents is attributed to the borderline personality and mindfulness. The value of beta coefficient (β = 0.826) indicate that as the score of the borderline personality scale increases, the passive addiction potential increases too. As far as mindfulness is concerned, beta coefficient (β = 0.084) is negatively significant. In other words, as the value of mindfulness increases, the passive addiction potential decreases among adolescents.

Table3. Results of multiple regressions of active addiction potential subscales on borderline personality trait

criterion variable	step	Predictor variable	F	R^2	β	t
active addiction potential subscales	first	borderline personality trait	168.28	0.23	1.95	12.97 **

* p<0.05 ; ** p<0.01

Table 4. Results of multiple regressions of passive addiction potential subscales on borderline personality trait and mindfulness

criterion variable	step	Predictor variable	F	R^2	β	t
Passive addiction potential subscales	first	borderline personality trait	217.32	0.28	0.826	14.74**
	second	borderline personality trait mindfulness	116.23	0.30	0.796 -0.084	14.18** 3.34**

* p<0.05 ; ** p<0.01

Discussion

Substance abuse puts adolescents in grave risk of academic failure, low adaptability and progress, thus, endangering their job opportunities in future [6]. Studying the causes of addiction among adolescents is important because it will be very helpful in its prevention and early treatment. The aim of this study was to investigate the relationship between the borderline personality variables as facilitators and mindfulness as an inhibitor against the tendency to addiction among Arak University students. According to the results, it seems that the borderline personality has a significant positive relationship with both active and passive addiction potential. This means that as the borderline personality scores increase, both active and passive addiction potential will increase too. The findings of this study are consistent with the findings of Jazayeri et al. [15] and Molavi et al. [13].

The active addiction potential, in this study, means antisocial behavior, the desire to use drug, positive attitude to drugs, and the excitement that predisposes a person to be addicted. One of the main symptoms of the borderline personality disorder is the intense and disproportionate anger and the inability to control one's behavior in social situations, which is one of the features of the antisocial personality. Therefore, it seems that the borderline personality disorder provides the context for the active addiction potential by strengthening the aggressive and antisocial behaviors. Also, the chronic feeling of absurdity and fatigue in these patients usually leads to seeking excitement in order to relieve the feeling of boredom. Accordingly, seeking excitement in these

individuals is high. This particular feature, besides being the cause of extraordinary impulsivity in these individuals, leads to an active addiction potential towards using drugs and alcohol [11].

The passive addiction potential, in this study, means self-expression and depression. One of the features of identity turmoil in individuals suffering from borderline personality disorder is the sense of intense absurdity and meaninglessness. Such feelings may be due to individuals' extreme investment on their own system of values and ideals that can provide the basis for addiction. Several researchers have suggested the relationship of the borderline personality and drug abuse in their studies [10, 13]. Alilu and Sharifi [11] also identified the relationship between the borderline personality disorder and substance abuse to be between 14-54 percent. Studies indicate that the individuals who suffer from the borderline personality disorder, more than any other psychiatric disorders except the antisocial personality disorder, meet the diagnostic criteria of a substance abuse disorder. About 57% of individuals suffering from borderline personality disorder also have the diagnostic criteria for substance abuse disorder [37]. According to the results of the current study, the symptoms of the borderline personality disorder can, to some extent, predict the tendency to addiction and high-risk behaviors among adolescents.

As far as mindfulness as an inhibitor is concerned, the results of this study indicate that this variable cannot be a strong predictor of the active addiction potential. In fact, it failed to predict anti-social behavior, desire to use drug,

the positive attitude to drugs, and the excitement that has an effective role in addiction. However, it can play a significant role in predicting passive addiction potential, or what is known as the lack of self-expression and depression. Based on the results, as the passive addiction potential increases, mindfulness decreases. Many studies confirm these findings and show the role of mindfulness in addiction.

To explain the negative relationship between drug use and mindfulness, one reason could be reviewing the past mistakes and the worries about the future. These thoughts act against being mindful which forces individuals to be focused in the present time. Hence, it seems that those who have a higher level of mindfulness have less desire to use drugs as a temporary way of forgetting or getting rid of thoughts and worries. Also, recent studies have shown that difficulty to accept of emotion could predict substance abuse [38] and both mindfulness and mindfulness-based meditation include neurological qualities that act against the negative emotions such as depression [39,40], and thus, act as an inhibitor against drug use.

The negative relationship between mindfulness and drug use may also be related to the disturbance of attention regarding thoughts and events, which leads to impulsivity and weakness in decision making. In other words, the decrease of mindfulness and the increase of a person's reliance on biased judgments can lead to the maladaptive and unwanted thoughts and actions such as drug use. In contrast, having a non-judgmental awareness of the present time allows more skillful response to discomforting emotional states or behavioral impulses.

As far as addictive behaviors are concerned, several studies [for example, 41] have evaluated the effectiveness of the mindfulness-based interventions in the treatment of drug use problems and have suggested various possible mechanisms.

Conclusion

Since mindfulness means the ability to accept negative emotions in a non-judgmental way [42], and that there are features such as intense impulsivity, intense and disproportionate anger, and the instability in interpersonal relationships in the borderline personality disorder, [11] it seems unlikely that a person with such features can accept its negative emotions without any judgment. Therefore, it can be concluded that the relationship between the borderline personality and the weakness of mindfulness, which often occur together, can predispose a person to addiction.

Like many other studies in the area of addiction and its underlying factors, this study also has some limitations, including the limitations of measuring instruments, which require more precise tools to measure the tendency to addiction in adolescence. It is suggested that further research should be carried out using more precise tools and consider some more factors in tendency to addiction such as family and experiences of individuals.

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