

Abstract

Objective: The aim of the present study was to examine the relationship of pathological narcissism and self-control with drug abstinence self-efficacy in patients under the treatment of maintenance drugs. **Method:** The present study falls within the category of descriptive and correlation studies. A total of 356 patients under the treatment of maintenance drugs, such as methadone and buprenorphine were selected by random cluster sampling method from Addiction Treatment Clinics of Semnan city. These participants filled out Pincus et al.'s Pathological Narcissism Inventory, Grasmick et al.'s self-control scale, and Branson Drug Abstinence Self-Efficacy Scale. **Results:** The results showed that there pathological narcissism and self-control have a significant positive relationship with drug abstinence self-efficacy. Moreover, multiple regression analysis showed that pathological narcissism and self-control predicted 20% of drug abstinence self-efficacy variance. **Conclusion:** It can be concluded that the combination of adjusted narcissism and high self-control can increase the amount of self-efficacy among people who have a history of drug abuse and placement under maintenance drugs. In the following of the treatment of these patients, the conduct of psychological intervention seems to be necessary.

Keywords: pathologic narcissism, self-control, addiction abstinence self-efficacy, methadone, and buprenorphine

The Simple and Multiple Relationship of Pathological Narcissism and Self-Control in Prediction of Drug Abstinence Self-Efficacy

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Introduction

Substance abuse is a non-adaptive pattern of drug use, which leads to frequent problems and adverse consequences and includes a set of cognitive, behavioral, and psychological symptoms (Dehghani, Zare, Sedghi and Pour Movahed, 2009). Over the past few years, for the reduction of these symptoms, positive variables such as self-efficacy, self-control, mindfulness have been used. But in recent decades, many studies have focused on the importance of self-efficacy as a predictor or mediator of therapeutic effects in various fields such as education, sport, chronic medical conditions, psychiatric pathology, and addiction (Kadden & Litt, 2011). In drug abusers, the role of self-efficacy is related to these areas: a) the decision to change their relationship with drugs; b) to reduce drug use during treatment; c) to maintain and care for the outcome of treatment (Levin, Egen & Moos, 2007). According to a number of studies (Sara, Dolan, Rosemarie & Martin, 2008; Hanan, Badr & Philip, 2005; Joseph, Burleson & Yifrah, 2005), it was argued that self-efficacy may be considered as an important cognitive determinant to increase adaptive skills in preventing drug users from returning or improving the effects of various types of intervention programs for tobacco and other drugs withdrawal. Fatseas, Denis & Auriacombe (2014) have shown that patients treated with Buprenorphine & Methadone maintenance for ten years, experienced a decrease in substance abuse and improved their quality of life. Apelt's findings (2014) indicated that in Buprenorphine treatment, the injection of higher doses significantly improved the success of treatment. Drug abstinence self-efficacy is one of the key variables that are being proposed today. The term self-efficacy was first used by Bandura (1993) in social learning theory to give meaning to people's feelings of ability and efficiency in the production, change, and control of everyday life events (Molayi, Shahidi, Vazife and Baqarian, 2010). Research findings show that self-efficacy is a moderating or mediating feature for distal trait (Lent, Brown and Hackett, 1994; Hirschi & Jaensch, 2015). Wonga & Longshore (2008) regarding the drug abstinence self-efficacy and drugs abuse found that higher levels of self-efficacy in consumption were associated with an increased possibility of heroin abstinence, as well as a lower amount of drug after a one-year follow-up period was reported. According to Reilly et al. (1995), self-efficacy is consistent with the use of post-use medications with previous behaviors, but this effect only occurs at the onset of the stabilization phase and immediately before the cone phase begins, which in fact shows the usefulness of self-efficacy element in addiction treatment. One of the most important variables that seem to be associated with the drug abstinence self-efficacy is pathological narcissism.

The concept of pathological narcissism is defined as a strong need for admiration and recognition along with the difficulty in regulating these needs (Pinches and Roche, 2011). While clinical psychologists and psychiatrists tend to focus on the Grandiosity as the core characteristic of the narcissistic

personality disorder considered in Diagnostic and Statistical Manual of Mental Disorder (DSM-5; American Psychiatric Association, 2013). Social psychologists recognize pathological narcissism as a chain composed of two aspects: Grandiosity and vulnerability. Grandiosity includes intra-psychological processes, such as suppressing negative aspects of self and distorting external information, which leads to entitlement attitudes and the creation of an inflated image of self without the necessary capabilities. Also it is with unlimited power fantasies, excellence and perfection. Grandiosity is often expressed with exploitation, lack of empathy, high envy, aggression and narcissistic vulnerability expression which involves conscious experiences of helplessness, emptiness, low self-esteem and shame (Cain, Pincus and Ansell, 2008; Foster, McCain, Hibberts, Brunell & Johnson, 2015). Narcissists tend to reduce the effects and consequences of their future decisions, and prefer small and immediate rewards to long-term rewards (Cryse, Crosier & Webster, 2013; Johnson, Koenig & Tost, 2010). In addition, the results of the research have shown that individuals with high levels of narcissism have a vision about themselves such as exaggeration and obstinacy, and it is not surprising that there is a positive relationship between general beliefs of self-efficacy and narcissism (Mathieu & St-Jean, 2013). Research findings show that covert Narcissism (Grandiosity – exploitativeness features) is beyond self-confidence and overt narcissism has a unique positive contribution in self-efficacy of individuals. Therefore, individuals with high covert narcissism tend to be more likely to believe in their ability to achieve goals that show a positive overall outlook for life. Thus, the findings about self-efficacy are consistent with the basic assumptions that covert narcissism is a rational adaptive trait in non-pathologic people, compared with the overt form of narcissism that is more maladaptive (Rose, 2002). On the other hand, the findings show that the Narcissistic Personality Inventory (NPI) predicts self-efficacy significantly only in covert narcissism subscale. The positive relationship between the power of narcissism and self-efficacy may indicate that self-efficacy is an element more adaptive than narcissism (Brunel, 2011). Brookes (2015) in his research showed that there is a unique relationship between covert narcissism, overt narcissism, subscales of narcissism and self-efficacy. One of the most important variables associated with the drug abstinence self-efficacy is self-control. Self-control is the ability to refrain from excessive acts of motivation, emotions or tendencies (the Merriam-Webster dictionary) and includes various fields. Impulsivity is, of course studied more than the studied self-control problems and is a multifaceted structure (Evenden, 1999; Dick et al., 2010) and includes the tendency toward quick and unplanned responses to external and internal stimuli, along with reduced attention to negative consequences of these reactions to individual impulsivities or impulses of others (Brewer, & Potenza, 2008; Moeller, Barratt, & Dougherty, 2001). Effective self-control is necessary in everyday life, for example, when people must refrain from intolerant, strange expression, or inappropriate social

thought. In the case of drug use, damage to control implies excessive use of substance or in most cases is using more than intended, and also refers to the failure of individuals to control or reduce drugs. These disorders are listed in the Diagnostic and Statistical Manual of Mental Disorder (5) for drug users (American Psychiatric Association, 2013). Crowell et al. (2014) and O'Gorman, & Baxter (2002) showed that self-control has a positive relationship with self-efficacy and if self-control increases, self-efficacy is also increased. The results of the studies support the assumption of self-control impairment in drug-dependent addicts (Fillmore, 2003; Goldstein & Volkow, 2002; Hester Lubman, & Yücel, 2010; Jentsch, Ashenhurst, Cervantes, GromanJames, & Pennington, 2007). In another study, Fetiss et al. (2014) indicated that patients treated with Buprenorphine & Methadone maintenance for ten years, experienced a decrease in substance abuse and improved their quality of life. Meanwhile, self-efficacy factor, which itself is the main concept of many patterns and behavior change theories, means the belief or trust that a person has in his/her ability to perform a particular behavior to adopt a particular consequence (Sohrabi, Hadin, Daemi, and Asgharnejad, 2009). Based on previous studies, low self-efficacy leads to an increase in drug use among drug abusers (Boutvin, Griffin, Paul, and Macculley, 2003). The results of a study showed that the higher the self-efficacy skills in individuals, the more self-control in the strict refusal of drug use (Mohammad Khani, Jazayeri, Mohammadkhani, Rafiei and Ghazi Tabatabaei, 2008). On the other hand, Harrison's (2010) research results show that self-control acts as a moderator of the relationship between narcissism and physical aggression. The combination of low self-control and narcissism, as two separate structures, increases the likelihood of aggressive response, and the moderate and adjusted self-control combination reduces aggressive behavior and drug abuse. Individuals with high narcissism do not have self-control and are more at risk for physical aggressive responses and substance abuse against interpersonal conflicts. A study on self-control and substance abuse showed that someone who reduces the use of drugs may also have more self-control (King, Fleming, Monahan, & Catalano, 2011). Mardupour, Najafi and Amiri (2014) in a study showed that mindfulness-based relapse prevention has good practical capabilities for clinical interventions to reduce craving and relapse rate as well as increase self-control in addicts. Among drug treatments, opioid antagonists currently have the best evidence of the effectiveness of reducing drug use and increasing self-control (Leeman, Bogart, Fucito, & Boettiger, 2014). Considering the theoretical basics and research literature, and considering the role that pathological and self-control narcissism variables can have in the drug abstinence self-efficacy and prevention of this in society, the aim of this study was to examine the simple and multiple relationship of pathological narcissism and self-control with drug abstinence self-efficacy in patients under the treatment of maintenance drugs.

Method

Statistical population, sample and sampling method

The present study falls within the category of descriptive and correlation studies. The statistical population consists of the patients with drug abuse history under the treatment of maintenance drugs, such as methadone, buprenorphine and opium in Semnan city in 2016. A total of 356 patients were selected by random cluster sampling method and of 25 Addiction Treatment Clinics of Semnan city, 5 Addiction Centers were selected randomly. It should be noted that all the mentioned centers had patients who were treated with the aforementioned drugs; then, from each addiction center, 71 patients eligible for the research criteria completed the questionnaires.

Instrument

1. Pathological Narcissism Inventory: This questionnaire was developed by 52 Pincus et al. (2009) to examine grandiosity and vulnerable aspects of narcissism. Scoring is based on a seven-point Likert scale of strongly disagree (1) to strongly agree (7), and higher scores represent higher rate of pathological narcissism. The sub-scales include: contingent self-esteem, exploitativeness, self-sacrificing, hiding the self, grandiose Fantasy, devaluing entitlement rage narcissistic grandiosity and narcissistic vulnerability. The internal consistency of the scale is 0.80. Also, this scale has shown a positive correlation of 0.13 with narcissistic personality scale (Convergent validity). The total Cronbach alpha coefficient is also reported in another research of 0.95 (Besir & Ziegler-Hill, 2010; Pincus et al., 2009). Pathological Narcissism Inventory is standardized in Iran by Soleimani et al. (2015) in the Iranian student community, in which the results of the internal consistency of the subscales of contingent self-esteem, exploitativeness, self-sacrificing, hiding the self, grandiose fantasy, devaluing entitlement rage narcissistic grandiosity and narcissistic vulnerability were 0.89, 0.57, 0.73, 0.64, 0.82, 0.73, 0.78, 0.82, 0.92, respectively and the total scale was 0.93. Also, the 15-day test re-test reliability for each of the aforementioned subscales was 0.83, 0.72, 0.72, 0.74, 0.79, 0.69, 0.80, 0.81, 0.83, respectively and the total scale was 0.84 (Soleimani et al., 2015).

2. Cognitive self-control scale: This scale with 23 questions was developed by Grasmick, Tittle, Bursik & Arneklev (1993) as an indicator of self-control. The participants responded the questions on a five-point Likert scale of strongly disagree (1) to strongly agree (5) that questions directly assess the self-control. Validity and reliability of this scale have been reported in different populations (Grasmick et al., 1993; Ozdemir, Vazsonyi & Cok, 2013). Spencer (2005) reported the internal consistency coefficient of 0.92. The results of Molayi, Abolghasemi and Agha Babaei (2016) in Iranian sample showed that Cronbach's alpha is 0.90. The Cronbach's alpha coefficient of the present study is 0.89.

3. Drug Abstinence Self-efficacy Scale: This questionnaire was developed by Bramson in 1999, which consists of 16 questions and four subscales of problem-

solving, decision-making, self-expression and relationship skills (Dushtgerd, 2009). The responses are based on a seven-point Likert scale from strongly disagree (1) to strongly agree (7). This questionnaire was validated by Habibi, Karshaki, Dashtgerd, Heidari, Talaei (2012) in Iran among the clients referred to the Treatment and Rehabilitation Clinic of Addiction. The reliability through internal consistency for problem-solving, decision-making, self-expression and relationship skills subscales were 0.78, 0.72, 0.75 and 0.72, respectively for the total scale of 0.90.

Results

The correlation matrix of the studied variables is presented in Table 1.

Table 1: Correlation Matrix of Research Variables

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>
1-Pathological narcissism	122/08	54/12	1		
2-Self-control	49/50	12/22	*0/42	1	
3-Drug abstinence self-efficacy	62/36	16/22	*0/39	*0/34	1

* $p \leq 0.01$

Multiple stepwise regressions were used to predict the drug abstinence self-efficacy based on pathological narcissism and self-control. Before the regression analysis, its assumptions were examined. At first, the univariate outliers were examined by Box Plot, and the results showed that there was no univariate outlier. In addition, the skewness of the data was calculated using SPSS software and the results showed that skewness is not more than ± 1 . The normality assumption of the data was evaluated by a single-sample Kolmogorov-Smirnov test and the results showed that this assumption is satisfied. In addition, the similarity of distribution of variables was also evaluated using Box Plot. The results showed that distributions are almost homogeneous. In addition, the distribution graph of the density showed observed and expected values of a 45 degree slope, and all the points were placed on the line, indicating the normal distribution of the residuals. Durbin-Watson statistics was used to determine the independence of errors. The results showed that the assumption of independence was established ($DW = 1.867$). Multiple colinearity assumption was evaluated through Tolerance and Variance Inflation (VIF) statistics. The results showed that the minimum tolerance is 0.822 and the maximum value of the variance inflation is 1.216 that shows there is no multiple colinearity among independent variables.

Table 2: Prediction of Drug Abstinence Self-efficacy based on Pathological Narcissism Self-control in the Last Step

<i>Variables</i>	<i>F statistics</i>	<i>Significance</i>	<i>B</i>	<i>Beta</i>	<i>T statistics</i>	<i>Significance</i>
Narcissism	47/09	0/0005	0/091	0/296	4/815	0/0005
Self-control	31/52	0/0005	0/306	0/227	3/694	0/0005

At first, the pathological narcissism variable entered the equation that could explain 15% of the variance of drug abstinence self-efficacy. In the second and final step, by adding the self-control variable, the calculated variance increased from 15% to 19.6%. Therefore, totally 19.6% of the variance of drug abstinence self-efficacy was explained by pathological and self-control narcissism variables. Beta coefficients are positive for both pathological narcissism variables ($\beta = 0.296$) and self-control ($\beta = 0.227$), which indicates that with the increase of these variables, the drug abstinence self-efficacy will increase.

Discussion and conclusion

The aim of the present study was to examine the simple and multiple relationship of pathological narcissism and self-control in prediction of drug abstinence self-efficacy. The results showed that there is a positive relationship between pathological narcissism, drug abstinence self-efficacy and self-control. On the other hand, there is a positive relationship between drug abstinence self-efficacy and self-control. These results mean that with the increase of pathological narcissism, the drug abstinence self-efficacy and self-control increases and by the increase of self-control, the drug abstinence self-efficacy is also increased. These results are consistent with studies by Harrison (2010), Brunel (2011), Mathieu & St-Jean (2013), Crowell, Kelley and Schmeichel (2014), Brookes (2015), Hirschi & Jaensch (2015). Drug abstinence self-efficacy in this study is the individuals' ability to stay away from drug use and improve their quality of life by being treated with maintenance drugs such as methadone and buprenorphine. Individuals with high levels of narcissism have an exaggerated vision along with high ability feeling, thus, it is not surprising that there is a positive correlation between drug abstinence self-efficacy and narcissism, which is consistent with the study by Mathieu & St-Jean (2013). Also, Brookes (2015) and Hirschi & Jaensch (2015) found that self-efficacy has a unique association with narcissism. In this study, the findings suggest that patients under maintenance drugs show pathological narcissism, and this is harmful, but in the study of Fetiss et al. (2014), it was shown that patients who were treated by maintenance drugs such as methadone and buprenorphine for ten years had reduced substance abuse and pathological behaviors and their quality of life improved. Based on this finding, we can say, those under the maintenance drugs treatment and psychological interventions and are away from drugs have high self-efficacy for drug withdrawal and this is associated with the positive correlation with narcissism and this is moderated over time and treatment interventions. Self-control is defined as the ability of refusal in a variety of areas of behavior, motives, and desires. As it is evident in the definition, the term "ability" is shown in the three variables of this research as overt (pathological narcissism) and covert (drug abstinence self-efficacy) and self-control. In fact, individuals under maintenance drugs, with their high ability, self-efficacy and narcissism to take aside addiction, increase their self-control in drug use and in

some actions such as motives, emotions or desires. So based on the individuals "ability", we can conclude that there is a positive relationship between drug abstinence self-efficacy (the ability to withdraw drugs), self-control (ability in cognitive and behavioral control against drug use) and narcissism (the exaggerated and hidden ability in drugs withdrawal) and this point was shown in the present study and the results was consistent with the mentioned research findings.

In addition, the results of regression analysis indicated that pathological narcissism and self-control were predictors of drug abstinence self-efficacy and explained 19.6% of its variance. In fact, narcissism and self-control predict an appropriate proportion of drug abstinence self-efficacy. These results are consistent with the studies by Brunel (2011) and Brookes (2015) and are inconsistent with Harrison's research (2010). In the Brunel study, there is a positive relationship between drug abstinence self-efficacy and narcissism, and those who are being treated with maintenance drugs have a higher ability for addiction withdrawal. These results were also repeated in the Brookes study. But Harrison's research showed that the combination of low self-control and narcissism increases the likelihood of aggressive and maladaptive behaviors. In explaining this finding, it can be said that, in various studies, people with a history of drug use usually have low self-control over substance use and thus show maladaptive behaviors. In this study, the subjects under maintenance drugs and psychological interventions were chosen and this can be a good explanation for the findings of this study, as according to Fetiss et al. (2014), Individuals who received treatment with methadone and buprenorphine maintenance drugs, showed lower substance abuse and their quality of life improved. In fact, the combination of low self-control and narcissism in Harrison's research, in this study was moderated by examining those who were under maintenance drugs and created a positive relationship with drug abstinence self-efficacy and the ability and belief of individuals to be able to quit drugs was enhanced. This is one of the key points mentioned in this study. The present study has some limitations and the first limitation of this research is related to the spatial and temporal domain of the study. This study has been conducted on the Addiction Treatment Clinics in Semnan, so its findings can not be generalized to other cities of the country, or caution should be taken in generalizing them. This research is a correlational study and can not be used to explain cause and effect relations. Since prevention is prior to therapy, considering the results of this study, this phenomenon should be considered as a serious health problem. It is suggested that more clinical psychological interventions, such as cognitive-behavioral therapy are introduced in the Addiction Treatment Clinics to reduce the pathological narcissism injuries. It is also recommended to hold some classes to increase self-control over drug use and control impulses and temptations. For those researchers working in addiction, it is suggested that by conducting

research on psychological interventions such as mindfulness, cognitive-behavioral therapy etc. on these patients reduce their narcissistic problems.

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