The Effect of Rational Emotive Behavior Group Therapy on Self-Concept and Depression of Self-Introduced Drug Abusers Referred to Ofogh Addiction Treatment Center in Zarand (Kerman, Iran)

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ABSTRACT

Drug abuse as one of the most challenging problem worldwide has created different problems. Among different therapeutic approaches for drug dependence, the methods with psychosocial interventions are more successful. Examining the effect of rational emotive behavior group therapy on self-concept and depression of self-introduced drug abusers referred to Ofogh Addiction Treatment Center in Zarand, Kerman is of significance importance. This is a pilot study with pre-test, post-test and a control group which samples consisted of 30 male drug abusers referred to Ofogh Addiction Treatment Center being treated with methadone for at least 3 months. The subjects were randomly selected and divided into experimental (n=15) and control (n=15) groups. Then, the Beck Depression Inventory and Rogers' Self-Concept Inventory were implemented in both groups. The subjects in experimental group participated in 9 sessions of rational emotive behavior group therapy. Ten days after intervention, the post-test was performed in both groups and covariance analysis was used to analyze data. The results showed that rational emotive behavior group therapy reducing depression and increasing positive self-concept of drug abusers.

Key words: Rational emotive behavior group therapy, depression, self-concept, self-introduced drug abusers.

INTRODUCTION

In the present era, drug abuse and its unpleasant consequences are known as one of the most important public health problems in most communities and gradually expand the base[1-2]. Drug abuse disorder with increasing number of victims disturbs social order and security, directly and indirectly. It also causes physical, psychological, familial, cultural, economic and social disorders, individually and socially and the human health is threatened ultimately[3-5]. Problems related to drug abuse, in addition to being directly endanger the health of millions people, can affect lives of millions indirectly[1,6]. Development prohibition, political stability disruption and democratic process threatening in communities are among complications known as general outcomes of addiction.

New emerging signs such as referring drug abusers, visiting medical emergency rooms, drug-related deaths, abuser arresting and the number of countries reporting increased levels of consumption show that drug abuse is a global phenomenon[7]. Increasing drug abuse production and consumption over the past decade has caused global community concern, so that international organizations believe that the international cooperation and solidarity are

necessary to combat this huge problem. Recent researches in United Nations show that 213 millions of people around the world currently use drugs[8].

Iran strategic position and locating in the neighbor of such countries as the world's drug production center caused a high incidence of drug abuse and addiction[9]. According to a study conducted by Dariush Research and Education Institute in 28 provinces of Iran, the number of drug-dependent individuals in Iran was estimated at 1200000 to 1800000[10]. Studies have also revealed the age of addiction onset reached 14 years that representing early onset of addiction in Iranian society[5]. In total, expanding the number of drug abusers to about 2 million people, lowering the age of addiction, dangerous prevalence of addiction in some centers, schools and student dormitories as well as the presence of 100 thousand prisoners addiction-related put the addiction problem out of warning stage and reveal the demand for faster efforts to mitigate this social phenomenon[11,12].

One of the factors affecting human behavior and emotion is attitudes and beliefs about self, events or schemas about various issues[13,14]. Cognitive approach assumed cognitive beliefs and processes determine people feeling or mood in different situations[15]. In this regard, one of the most important issues in the field of drug addiction attracted experts and researchers' attention is "Self-Concept"[12]. "Self-Concept" or "Self" notion is personal feelings toward self or showing respect for self.

Therapeutic approaches for drug dependence are different based on consumption patterns, presence of psycho-social support systems and the specific characteristics of patients. There are different classifications for therapeutic purposes which stress on three following ideas: 1) stopping physical dependence to drugs, 2) stopping psychological dependence and lowering non-physical consequences of drug abuse and its related problems, and 3) prevention of relapse[16,17]. There are different therapeutic approaches for drug dependence and now more emphasis on maintenance therapy which used various types of narcotic and non-narcotic drugs. Previous studies indicate that drug maintenance therapies were not successful without psychosocial interventions due to solely emphasis on drug treatment. In these circumstances, many treated addicts will relapse[18].

Hypothesis
1. Rational emotive behavior group therapy affects reducing depression in withdrawal self-introduced drug abusers.
2. Rational emotive behavior group therapy affects increasing positive Self-Concept in withdrawal self-introduced drug.

MATERIALS AND METHODS

Present study is defined as applied one based on our objective and pilot study of semi-experimental type according to data collection methods[14].

The research method is quasi-experimental with pre-test and post-test. The independent variable is rational emotive behavior group therapy and the dependent ones are depression and self-concept. The diagram of the present study (pre-test - post-test with a control group) is as follows:

Population and Sample
Population
The statistical population consisted of all self-introduced drug abusers voluntarily referring to Ofogh Addiction Treatment Clinic during summer 2011 in Zarand, (Kerman province, Iran).

Sample
A sample of 30 patients referred to Ofogh Addiction Treatment Clinic in Zarand was randomly selected and divided into two groups (experimental and control), each homogenous ones comprised of 15 people. In both groups, the patients were treated with methadone maintenance treatment for at least 3 months.

Measurement Tools
Rogers Self-Concept Questionnaire and Beck Depression Inventory (BDI) were used to measure variables.
1. Rogers Self-Concept Questionnaire: This is a 26-item test which includes 7 options rated from one to seven. The subjects should mark

the desired sub-degree according to their feelings. The validity and reliability coefficients of the test in a study conducted on 40 people through bisection were obtained 0.87 [19]. In order to determine the reliability, Cronbach's alpha (0.69) and bisection methods (0.60) were used.

2. Beck Depression Inventory: This is one of popular depression self-assessment scales proposed by Beck in 1961. This is a 21-item questionnaire which contains four questions with a score from zero to three indicating mental health and acute deep depression respectively. The total score of each individual is obtained by summing the scores in all categories. Marnatt (1990) obtained a reliability of 0.73-0.92 with a mean of 0.86 through a meta-analysis to determine the internal consistency of the test (20). Beck and Steer (1993) examined the reliability of Beck Inventory in 10 research works in which the Beck Depression Inventory was implemented through pre-test and post-test method. They reported a correlation coefficient ranged from 0.48 to 0.86 for psychiatric patients, while for normal individuals, it was 0.60 to 0.92 [21].

Implementation Method

In this study, a group of drug abusers (n=15; experimental group) admitted in the Ofogh Addiction Treatment Center treated with maintenance methadone for at least 3 months were treated using rational emotive behavior group therapy. First, the control and experimental groups filled Rogers Self-Concept and Beck Depression Inventories. The experimental group received rational emotive behavior group therapy. At the end of group therapy lasting about 2 months, the tests were performed in this group. Finally, analysis of covariance was performed in order to evaluate the results.

RESULTS

In this study, the mean, standard deviation and range of scores were used in descriptive level and analysis of covariance was used in inferential level.

In this section, descriptive findings such as sample frequency distribution were presented in terms of depression and self-concept scores. Then, mean, standard deviation, minimum and maximum values were reported. Followed by descriptive information, the results of covariance analysis are provided for two hypotheses.

As shown in Table 1, in the pre-test of experimental group, 6.7% of patients deny depression, 20% do not show depression, 26.7%, 33.3% and 13.3% show mild, moderate and

Table 1: The frequency distribution of depression score in experimental and control groups

Depression	Experimental group				Control group			
	Pre-test		Post-test		Pre-test		Post-test	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Possible denial of depression	1	6.7	1	6.7	0	0	0	0
Lack of depression	3	20	3	20	3	20	3	20
Mild depression	4	26.7	5	33.3	5	33.3	6	40
Moderate depression	5	33.3	6	40	5	33.3	4	26.7
Severe depression	2	13.3	0	0	2	13.3	2	13.3
Total	1	100	15	100	15	100	15	100

severe depression, respectively. In the post-test of experimental group, 6.7% of patients deny depression, 20% do not show depression, 33.3%, 40% and 0% show mild moderate and 0% severe

depression, respectively. In the pre-test of control group, 0% of patients deny depression, 20% do not show depression and 33.3% show mild depression, 33.3% moderate and 13.3% show severe depression.

In the post-test of control group, 0% of patients deny depression, 20% do not show depression and 40% show mild depression, 26.7% moderate and 13.3% severe depression.

According to Table 2, 60% of subjects are normal and 40% are weak in pre-test and in post-test, 86.7% are normal while 13.3% are weak (experimental group). In the control group, 46.7% of

Table 2: The frequency distribution of self-concept score in experimental and control groups

Self-concept	Experimental group				Control group			
	Pre-test		Post-test		Pre-test		Post-test	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Normal	9	60	13	86.7	46.7	0	8	53.3
Weak and negative	6	40	2	13.3	53.3	20	7	46.7
Total	15	100	15	100	15	100	15	100

subjects are normal and 53.3% are poor in pre-test, while 53.3% are normal and 46.6% are weak in the post test.

Table 3 shows the mean depression score of the experimental group in pre-test which is 18.6 with a standard deviation (SD) of 10.49. The mean depression score of experimental group in the post-

Table 3: The mean and standard deviation of depression score in experimental and control

Groups	Test	Number of subjects	Mean	Standard deviation	Minimum	Maximum
Experimental	Pre-test	15	18.86	10.49	3	38
	Post-test	15	16.40	8.24	3	29
Control	Pre-test	15	18.73	9.11	6	35
	Post-test	15	18.60	8.60	6	33

test is 16.40 with a SD of 8.24. The mean depression score of control group in pre-test is 18.73 with a SD of 9.11. The mean depression score of control group in post-test is 18.60 with a SD of 8.60.

Table 4 displays the mean self-concept score of the experimental group in pre-test which is 6.53 with a SD of 1.67. The mean score of the experimental group in post-test is 5.72 with a SD

Table 4: The mean and standard deviation of self-concept score in experimental and control

Groups	Test	Number of subjects	Mean	Standard deviation	Minimum	Maximum
Experimental	Pre-test	15	6.53	1.67	4	9.48
	Post-test	15	5.72	1.34	3.8	8
Control	Pre-test	15	7	1.32	4.89	9.69
	Post-test	15	6.65	1.30	5	9

of 1.37. The mean self-concept score of the control group in pre-test is 7 with a SD of 1.32. The mean post-test score is 6.65 with a SD of 1.30.

The present study includes two main hypotheses; each of them is presented with the results of analysis.

First hypothesis

The rational emotive behavior group therapy significantly reduces depression in withdrawal self-introduced drug abusers.

According to the results reported in Table 5 and the significant level (P<0.05), F-test is significant. Therefore, there is a significant difference between mean depression scores of experimental and control

Table 5: The analysis of covariance for depression score

	Sum of squares (SS)	Degree of freedom (DOF)	Mean of (MS)	F squares	Significance level
Constant value	19.07	1	19.07	5.39	0.02
Pre-test	1893.79	1	1893.79	535.93	0.00
Group	40.07	1	40.07	11.34	0.002
Error	95.40	27	3.53		
Total	11213	30			

groups in post-test. Thus the hypothesis is accepted. In other words, the rational emotional behavior group therapy significantly reduces depression in withdrawal self-introduced drug abusers.

Second hypothesis

Rational emotional behavior group therapy significantly increases positive self-concept in withdrawal self-introduced drug abusers.

Based on Table 6 and the significant level (P <0.0005), F test is significant. Therefore, there is a significant difference between mean self-concept scores of control and experimental groups in post-test. Thus the hypothesis is accepted. In other words, rational emotive behavior group therapy significantly increases positive self-concept in withdrawal self-introduced drug abusers.

Table 6: The analysis of covariance for self-concept score

	Sum of squares (SS)	Degree of freedom (DOF)	Mean of (MS)	F squares	Significance level
Constant value	0.83	1	0.83	2.98	0.09
Pre-test	41.42	1	41.42	147.28	0.00
Group	2.89	1	2.89	10.29	0.003
Error	7.59	27	0.28		
Total	1221.34	30			

DISCUSSION

According to the results, the following conclusions can be derived

Hypothesis 1 - The rational emotive behavior group therapy reduces depression in self-introduced male drug abusers referred to Therapeutic Community Center. According to Table 6, there is a significant difference between post-test and pre-test negative self-concept scores of drug abusers.

In other words, rational emotive behavior group therapy reduced negative self-concept of drug abusers. Based on Fliming and colleagues (1998), a significant increased self-esteem and reduced depression and negative self-concept were observed in the experimental group having been trained in life skills[22]. Dziladowskia (1999) indicated patients receiving cognitive-behavior therapy showed improving positive self-concept and reducing depression than patients treated with traditional methods[23]. Forogh-Aldin and Sadr-Alsadat al (2001) showed that there is a significant difference

between self-concept of young addicts and non-addicts. Negative self-concept has been effective in attracting young people toward addiction[24].

Hypothesis 2 -Rational emotive behavior group therapy reduces depression in self-introduced male drug abusers referred to Therapeutic Community Center. Table 5 displays a significant difference between the post-test and pre-test depression scores of drug abusers. In other words, rational emotive behavior group therapy reduced depression in drug abusers. According to Dziladowskia (1999), patients who benefited from cognitive-behavior therapy showed improved self-concept and significant reduced depression than patients treated with traditional methods[23]. Fliming and Barry (1998) observed significant increase in self-esteem, reduced depression and negative self-concept in experimental group trained in life skills[22].

Amoli (2004) found that 72.3% of addicts had mood and anxiety disorders that these disorders were major depression in 66% of cases[25]. According to Rosenblum and Magura (1999), anxiety and depression significantly decreased in cocaine-dependent patients who treated with cognitive behavior therapy for 48 weeks[26]. Finally,

it can be concluded that rational emotive behavior group therapy provided at the Zarand Therapeutic Community Center reduced depression and negative self-concept in drug abusers. As we know, addiction treatment includes drug and non-drug therapies that drug and non-drug therapies' portion are about 5-10% and 90-95%, respectively.

Due to some reasons, the rate of relapse in drug addict using non-drug therapies is high. The studies showed that if we can control or reduce problems associated with addiction, the addict simply leaves drug abuse and will not reuse. Among these disorders are depression before or after addiction and negative self-concept. Control or reduce each of these disorders is important to treat an addict. Therefore, it is recommended that:
1. Highly qualified professionals perform group therapy for all addicts in withdrawal (outpatient hospitalization).
2. Similar studies should be done on female drug abusers
3. The study should be done on a larger population and sample to produce more favorable results with higher validity.
4. Another tools may be used to examine the relationship between the variables.

REFERENCES

1.   Jenkins R, Baingana F, Ahmad R, McDaid D, Atun R. Health system challenges and solutions to improving mental health outcomes. *Mental Health in Family Medicine.* **8**(2): 119 (2011).
2.   Daley A, Marlatt G, Lewinson J, Ruiz P, Millman R, Langrod J. Substance Abuse (A Comprehensive Textbook). 4th edit. Boston: Williams& Wilkin. 674-81 (2005).
3.   Rahimi Movaghar Aaa. A guideline for addiction prevention and treatment,. Tehran,: Behzisti Publications (1997).
4.   Coleman V. What is the addiction and who is the addicted? . Tehran: Ohadi Publication; (1997).
5.   Jandaghi F, Neshat-Doost H-T, Kalantari M, Jabal-Ameli S. The Effectiveness of Cognitive-Behavioral Stress Management Group Training on Anxiety and Depression of Addicts under Methadone Maintenance Therapy (MMT). *Journal of Clinical Psycology*. **4**(4): 41-50 (2013).
6.   Leigh BC, Stacy AW. Alcohol expectancies and drinking in different age groups. Addiction. **99**(2): 215-27 (2004).
7.   Seraj Khorrami N. Identification, prevention and treatment of addiction. 1st edition, ed. Dezful: Efham Publications. (2003).
8.   Esmaili F. Addicts are getting ID,. Etemad Newspaper, (2003).
9.   Heidari M. The prevention of Addiction,. Hemayat Newspaper (2006).
10. Ekhtiari H. Introduction the main addictive substance in Iran for families,: Under educational resources Develop Council of the National Center for Addiction Studies,

National Center for Addiction Studies, Middle East and North Africa Harm Reduction Association (2008).

11. Ahmadi H, Jamali M. influencing Factors on knowledge and attitudes of addicted prisoners towards HIV prevention,. Journal of Humanities and Social Sciences University of Shiraz,. 47 (2006).

12. Shahnam Abolghasemi, Mohhammad Mojtaba Keikhay Farzaneh. Medical Psychology and Neuropsychology. Tehran: Academic Center for Education, Culture and Research (2012).

13. Rahimi Movaghar A. Predisposing underlie factors to addiction (2007).

14. Sarmad Z, Bazargan A, Hejazi E. Research methods in the behavioral sciences/ Tehran: Agah Publication, (1996).

15. Ghahhri S, Atefvahid m, AsgharnezhadFarid A. Step by step guidance of behavioral – Cognitive therapy for cannabis abuse (for therapists).

16. Jualie A., Tuker D. changing in addictive behavior. newyork: The Guilford press; 1999.

17. Tahere Ghorbani, Shahram Mohammadkhani, Gholamreza Sarami. The comparison between cognitive- behavioral group therapy effectiveness and maintenance treatment with methadone in changing the the drug related beliefs and prevention of relapse. *Quarterly Jouranal of Research on Addiction.* **6**(22): 23-38 (2012).

18. Parviz Dabbaghi, Aliasghar Asgharnejad Farid, Mohammad Kazem Atef Vahid, Jafar Bolhari. Prevention Effectiveness of Relapse Based on mindfulness in opioid dependence tratment and mental health. *Addiction Research*. **7**: 29-44 (1997).

19. Sameti N. Construction and validation of a scale for measuring social support and examining the relationship between student pressures, academic performance, depression, anxiety and negative self-concept in Shahid Chamran University of Ahvaz.: Faculty of Education Science and Psychology, Shahid Chamran University of Ahvaz (1996).

20. American Association of Mental Health. Diagnostic and Statistical Manual of Mental Disorders,. Tehran, : Sokhan Publication,; (1996).

21. Beck TA, Steer AR. Beck depression inventory. New york: Harcourt brace joranvich, Inc.; (1993).

22. Fliming MF, Barry KL. Addictive disorders.: Mosby year book.; (1998).

23. Dziladowskia. A. Acognitive behavioral intervention in the context o methadone tapering treatment for opiate addiction. . Clinical psychology psychotherapy. (1999).

24. Forogh-Aldin A, Sadr-Alsadat MJ. The relationship between self-concept and the tendency to addiction in youth. *Journal of Medicine and Purification,.* **46**: 25 (2001).

25. Amoli MR. Cleaning and securing schools of drug addiction. . Ettelaat Newspaper, (2004).

26. Rosenblum A, Magura S, Palij M, Foote J, Handelsman L, Stimmel B. Enhanced treatment outcomes for cocaine-using methadone patients. *Drug and Alcohol Dependence*. **54**(3): 207-18 (1999).