

Evaluating the Effectiveness of Drama Therapy by Psychodrama Method on Psychological Well-Being and False Beliefs of Addicts

Case Study: Persian Gulf Addiction Treatment Center in the City of Bushehr

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Abstract

This study aimed to determine the effectiveness of psychodrama on psychological well-being and false beliefs of people with drug abuse referred to Persian Gulf residential center in the city of Bushehr. The methodology of this study was experimental with pretest-posttest design and following up with the control group. For the purpose, among the people referring to this center, 30 patients (15 as experimental group and 15 as control group) were randomly selected. Research tools included a psychological well-being questionnaire (1986) and irrational beliefs of Jones (1969). Psychodrama interventional program was presented as a group to the participants of the experimental group during twelve 90-minute sessions. Analysis of data covariance showed that the psychodrama, in the experimental group, has significantly increased psychological well-being of subjects in making positive relations with others, autonomy, self-acceptance, environmental mastery, personal growth and a purposeful life, and reduced irrational beliefs such as emotional irresponsibility, avoiding dealing with the problems, helplessness in the face of change and demand for approval from others.

Keywords: psychodrama, psychological well-being, false beliefs, positive relationship, autonomy

1. Introduction

In the early twentieth century, Moreno founded the theory of psychodrama in Vienna. He called psychodrama the science of truth discovery, a branch which is known as a whole title of “psychodrama” today. Although the general perception of the theater is the show on stage for the audience, the fact is that since the last century, another way of show was born that the viewer has no place in it; a show whose introduction is attributed to special initiatives of Moreno. He realized that the art of show has important potentials for psychological purposes, and then, he went on to invent showing exercises and games that resulted in establishment of a branch in the treatment of mental disorders and social problems which is called psychodrama (Kianinejad, 2009). Psychological well-being is of the issues that has been widely used in the mental health, and attracted the attention of optimistic psychologists. Psychological well-being is affected by factors such as social and family relationships, cognitive and perceptual characteristics and personality of individuals (Ganji, 2012). One of the factors that could endanger people’s psychological well-being is the false beliefs. False beliefs are those thoughts formed based on incorrect assumptions and lead to biases in thinking. It is expected that psychodrama could be effective as a group therapy method in psychological well-being increase and addicts’ false beliefs reduction. Therefore, this study tries to investigate whether psychodrama is effective in psychological well-being and addicts’ false beliefs?

1.1 Research Hypotheses

- (1) Psychodrama is effective in increase psychological well-being of the participants.
 - a) Psychodrama is effective in increase self-acceptance of the participants.
 - b) Psychodrama is effective in increase the participants’ positive relationships with others.
 - c) Psychodrama is effective in increase autonomy of the participants.

- d) Psychodrama is effective in increase environmental mastery of the participants.
- e) Psychodrama is effective in increase purposeful life of the participants.
- f) Psychodrama is effective in increase personal growth of the participants.
- (2) Psychodrama is effective in reduce false beliefs of the participants.
- a) Psychodrama is effective in reduce participants' helplessness in the face of change.
- b) Psychodrama is effective in reduce participants' demand for approval.
- c) Psychodrama is effective in reduce avoiding problems in the participants.
- d) Psychodrama is effective in reduce emotional irresponsibility of the participants.

2. Research History

Eskian et al. (2008) studied the effect of psychodrama on the individual's increased differentiation from the main family, in the female high school students. The samples consisted of 20 female students of the first year of high school. Twelve 90-minute sessions of psychodrama were administered twice a week for the experimental group. The results of data processing confirmed research hypotheses in the sense that the psychodrama could increase differentiation in the female high school students in the experimental group compared to the control group.

Aghabagheri et al. (2012), in their study, evaluated the effectiveness of mindfulness-based cognitive therapy on psychological well-being and hope for patients with MS. Sampling was first done as a public call among women and girls who were members of MS Society in Yazd province. The results showed that the mean scores of psychological well-being and hope in the experimental group were significantly increases compared to the control group, and mindfulness-based cognitive therapy affected psychological well-being and life expectancy in patients with MS.

In a study aimed at determining the effectiveness of drama therapy on the attention span of male students with intellectual disability, Bayati et al. (2011) randomly selected 30 elementary school students from two schools of exceptional children. Pretest-posttest project with control group was used in this quasi-experimental study. The results showed that there is a significant difference between the average attention span from cognitive diagnostic tests of Toulouse and Piron in the experimental and control groups, and psychological drama therapy could improve attention span in educable children with intellectual disability.

Reviewing the studies done in the field of psychodrama, Blatner (2006) came to the conclusion that this method is applicable in family therapy and individual therapy, and it can be successfully applied to victims of trauma and alcohol and drug consumers.

3. Methodology

The statistical population included all patients with drug abuse resident in the city of Bushehr. The research statistical sample consisted of 125 people referred to Persian Gulf residential centers in the city of Bushehr. At the first step, to evaluate the questionnaire reliability and validity, from the list of people referring to Persian Gulf Residential Center in Bushehr in the first quarter of 2012, 50 people were randomly selected and the questionnaires were completed by them. A week after the initial assessment, to evaluate the reliability of research instruments, these people responded to the questionnaire again. At the second step, from the referring people, 30 subjects were selected and randomly divided into experimental group ($n = 15$) and control group ($n = 15$). Only the subjects of the experimental group were participated in the psychodrama meetings, and the subjects of the control group did not receive any interventions during the meetings. Participants in both groups were matched for age and sex. The mean age of subjects in the experimental and control groups were 29.57 and 30.35 years of age, respectively; there was no significant difference by age between the two groups. All subjects participating in the study were men. To collect data in this study, two questionnaires of Ryff psychological well-being and Jones Irrational Beliefs were used. In order to determine the content validity, the questionnaires were approved by the supervisor and a number of specialists. Using Cronbach's alpha, reliability coefficients for Ryff psychological well-being questionnaire and Jones Irrational Beliefs Questionnaire were equal to 0.86 and 0.80, respectively. In order to analyze the data for this study, SPSS software was used. To describe the data, the frequency and percentage, mean and standard deviation were used. Shapiro-Wilk test was used for the observance of the normal score distribution. The Cronbach's alpha and Spearman Brown coefficients were used to calculate reliability coefficients. In order to calculate the validity, the correlation coefficient between the subscales of research tool with each other and with the total score was used. In line with the hypotheses test, multivariate analysis of variance (MANCOVA) is used.

4. Findings

4.1 Descriptive Findings

4.1.1 The Descriptive Findings about the Questionnaires of Psychological Well-Being and False Beliefs

Descriptive information on the individuals' mean scores in the questionnaires of psychological well-being and false beliefs in different phases by groups, are given in Table 1. As the results of Table 1 show, the individuals' total mean score in the questionnaire of psychological well-being, before, after and one month after the end of intervention, in the experimental group was 300.7, 332.00 and 326.60 and in the control group was 297.00, 302.07 and 298.93, respectively. Table 1 indicates that in the variable of psychological well-being and its components, before intervention, the individuals' mean scores in both experimental and control group had no significant difference with each other. Thus, after interventions in the experimental group, the subjects' means score in all components of psychological well-being and the total mean have been increased significantly, but such a change is not observed in the control group.

Table 1. The mean score of the participants in the variables of psychological well-being and false beliefs and their components in the experimental and control groups before, after and one month after the end of intervention

Variables	Experimental group			Control group			
	Pre-test	Post-test	Follow up	Pre-test	Post-test	Follow up	
Positive relations with others	51.00	56.20	55.33	50.27	50.53	51.00	
Subscales of psychological well-being	Autonomy	51.27	55.53	54.30	50.53	49.80	49.47
	Environmental mastery	50.47	53.35	52.49	48.93	50.20	49.60
	Personal growth	49.13	55.73	54.00	49.80	51.13	50.66
	Purposeful life	49.40	56.47	54.35	48.60	50.93	49.57
	Self-acceptance	48.87	54.86	53.13	48.87	49.47	49.53
Psychological well-being (Total score)	300.07	332.00	326.60	297.00	302.07	298.93	
False beliefs components	Helplessness in the face of change	44.87	40.20	41.27	44.80	45.20	44.50
	Demand for approval	39.00	33.33	34.60	38.60	38.73	38.67
	Avoiding problems	20.07	18.13	18.36	19.33	20.00	19.90
	Emotional irresponsibility	31.67	29.07	29.53	32.33	33.13	32.67
False beliefs (Total score)	135.53	120.73	123.76	135.07	137.07	136.74	

4.1.2 A Review on the Assumptions of Analysis of Covariance

In order to test hypotheses and conduct covariance on mean scores of subjects, the default for scores' normality and homogeneity of variance must be examined first. To determine the normal distribution of scores, the Shapiro-Wilk test was used due to small sample size.

4.1.3 A Review on Normal Distribution of Scores

Information on Shapiro-Wilk test results is shown in Table 2.

Table 2. Results of Shapiro-Wilk test to evaluate normal distribution of scores

Variables	Statistics	Significant level
Total test of psychological well-being	0.957	0.254
Subscales of psychological well-being		
Positive relations with others	0.942	0.105
Autonomy	0.983	0.908
Environmental mastery	0.985	0.940
Personal growth	0.966	0.425
Purposeful life	0.953	0.208
Self-acceptance	0.973	0.633
Total test of false beliefs	0.969	0.525
Subscales of false beliefs		
Helplessness in the face of change	0.947	0.138
Demand for approval	0.934	0.061
Avoiding problems	0.955	0.229
Emotional irresponsibility	0.939	0.084

Note. N = 30.

As Table 2 shows, since the significant level obtained from Shapiro-Wilk test on the variables of psychological well-being and false beliefs and their components is more than 0.05, the data can be assumed to be normal with high confidence in all the variables studied.

4.1.4 Consistency Test of Means' Variance

In order to determine the consistency of means' variance, the Levin test is used, the results of which are presented in Table 3.

Table 3. Levin test results to study the homogeneity of means' variance scores of subjects

Variables	Levin statistics	df1	df2	Significant level
Total test of psychological well-being	3.873	1	28	0.059
Subscales of psychological well-being				
Positive relations with others	0.197	1	28	0.660
Autonomy	3.080	1	28	0.092
Environmental mastery	3.115	1	28	0.088
Personal growth	2.371	1	28	0.135
Purposeful life	0.670	1	28	0.420
Self-acceptance	0.317	1	28	0.578
Total test of false beliefs	4.133	1	28	0.052
Subscales of Helplessness in the face of change	2.05	1	28	0.163

false beliefs	Demand for approval	3.869	1	28	0.059
	Avoiding problems	1.002	1	28	0.326
	Emotional irresponsibility	1.398	1	28	0.247

As the results of Table 3 show, since the significant level of Levine test in all variables is more than 0.05, it can be said that the variance of the groups has the necessary homogeneity for testing hypotheses and covariance. Therefore, considering the scores normal distribution and the equal number of subjects in both experimental and control groups, parameter statistics and covariance are permitted.

4.2 Analytical Findings

To study the effect of the experimental intervention, MANCOVA analysis is conducted on the subjects' scores in variables of psychological well-being, false and irrational beliefs and their components, and the effect of pre-test scores on post-test score, is controlled and balanced. This means that the effect of pre-test score on post-test scores and individuals' scores in the follow-up step (one month after the end of the intervention) is removed, and then, the remaining scores of the experimental group and the control group were compared.

4.2.1 Psychological Well-Being Hypotheses Test and Their Components

The results of MANCOVA analysis on the scores of subjects in the variables of psychological well-being and its components (self-acceptance, positive relations with others, autonomy, environmental mastery, purposeful life and personal growth) are given in Table 4.

Table 4. Summary results of multivariate analysis of covariance on the post-test score by controlling the pre-test scores of the subjects in the variable of psychological well-being and its components

Test	Value	F	df hypothesis	df error	Significant level	Effect size
Pillai's trace	0.90	19.96	7	15	0.0001	0.90
Wilks Lambda	0.10	19.96	7	15	0.0001	0.90
Hotelling effect	9.31	19.96	7	15	0.0001	0.90
Roy's largest root	9.31	19.96	7	15	0.0001	0.90

Table 4 shows that there is a significant difference between experimental and control groups in at least one of the dependent variables of psychological well-being and its components. To study this difference, one-way ANCOVA analysis was conducted on the score of dependent variables of psychological well-being and its components, the results of which are given in Table 5. The information provided in Table 5 indicates that one-way ANCOVA analysis on the dependent variable of psychological well-being ($F = 33.59$, $P = 0.0001$), positive relations with others ($F = 19.19$, $P = 0.0001$), autonomy ($F = 64.66$, $P = 0.0001$), environmental mastery ($F = 5.37$, $P = 0.03$), personal growth ($F = 20.21$, $P = 0.0001$), purposeful life ($F = 5.67$, $P = 0.02$), and self-acceptance ($F = 15.82$, $P = 0.001$), shows significant difference between these variables in experimental groups compared to the control group.

Table 5. Results of ANOVA analysis on the post-test score by controlling the pre-test scores of the subjects in the variable of psychological well-being and its components

Dependent variable	Sum of squares	Degrees of freedom	Mean Square	F	Significant level	Effect size	Test power
Positive relations with others	169.42	1	169.42	19.19	0.0001	0.48	0.81
Autonomy	180.57	1	180.57	64.66	0.0001	0.76	0.87
Environmental mastery	46.36	1	46.36	5.37	0.03	0.20	0.71
Personal growth	186.96	1	186.96	20.21	0.0001	0.50	0.83
Purposeful life	168.22	1	168.22	5.67	0.02	0.21	0.72
Self-acceptance	212.57	1	212.57	15.82	0.001	0.43	0.71
Total test of psychological well-being	5518.87	1	5518.87	33.59	0.0001	0.62	0.82

Thus, according to the findings in Table 5, it can be said that the psychodrama could significantly enhance the psychological well-being and its components (self-acceptance, positive relations with others, autonomy, environmental mastery, purposeful life and personal growth) in subjects of the experimental group compared to the control group. So, the hypotheses 1 and 1-1 to 1-6 of the study are approved.

4.2.2 Testing the Hypothesis of False Beliefs and Its Components

The results of MANCOVA analysis on subjects' scores in the dependent variable of false beliefs and its components (helplessness in the face of change, demand for approval from others, avoiding problems and emotional irresponsibility) are given in Table 6.

Table 6. Summary results of multivariate analysis of covariance on the post-test score by controlling the pre-test scores of the subjects in the variable of false beliefs and its components

Test	Value	F	df hypothesis	df error	Significant level	Effect size
Pillai's trace	0.80	20.27	5	20	0.0001	0.80
Wilks Lambda	0.20	20.27	5	20	0.0001	0.80
Hotelling effect	4.05	20.27	5	20	0.0001	0.80
Roy's largest root	4.05	20.27	5	20	0.0001	0.80

Contents of Table 6 show that there is a significant difference between experimental and control groups in at least one of the variables of false beliefs and its components (helplessness in the face of change, demand for approval from others, avoiding problems and emotional irresponsibility). To study these differences, one-way covariance analysis is done on the score of the dependent variable of false beliefs and its components, the results of which are shown in Table 7. The information provided in Table 7 indicates that one-way covariance analysis on the variables of helplessness in the face of change ($F = 2052$, $P = 0.0001$), demand for approval from others ($F = 43.51$, $P = 0.0001$), avoiding problems ($F = 16.42$, $P = 0.0001$), emotional irresponsibility ($F = 18.47$, $P = 0.0001$), and false beliefs ($F = 86.61$, $P = 0.0001$), shows significant difference between experimental and control groups.

Table 7. Results of ANOVA analysis on the post-test score by controlling the pre-test scores of the subjects in the variable of false beliefs and its components

Dependent variable	Sum of squares	Degrees of freedom	Mean Square	F	Significant level	Effect size	Test power
Helplessness in the face of change	196.94	1	196.94	20.52	0.0001	0.47	0.77
Demand for approval	229.56	1	229.56	43.51	0.0001	0.65	0.81
Avoiding problems	39.61	1	39.61	16.42	0.0001	0.42	0.67
Emotional irresponsibility	75.89	1	75.89	18.47	0.0001	0.45	0.91
Total test of false beliefs	1952.75	1	1952.75	86.61	0.0001	0.79	0.89

Therefore, the hypotheses 2 and 2-1 to 2-4 are approved and the null hypothesis that there is no difference between the two groups is rejected, and it can be said that the psychodrama could significantly reduce the false beliefs and its components in patients with drug abuse in the experimental group compared to the control group.

5. Conclusion

According to the information provided in Table 5, one-way covariance analysis on the dependent variable of psychological well-being and its components in line with the aforementioned hypothesis testing showed that there is a significant difference between the experimental and control groups in terms of psychological well-being ($F = 33.59$, $P = 0.0001$), positive relations with others ($F = 19.19$, $P = 0.0001$), autonomy ($F = 64.66$, $P = 0.0001$), environmental mastery ($F = 5.37$, $P = 0.03$), personal growth ($F = 20.21$, $P = 0.0001$), purposeful life ($F = 5.67$, $P = 0.02$), and self-acceptance ($F = 15.82$, $P = 0.001$). So the hypotheses 1 and 1-1 to 1-6 were confirmed, and it can be said that psychodrama could significantly increase psychological well-being in addicts under treatment in Persian Gulf Residential Center in the city of Bushehr. According to the mean scores obtained by subjects in pre-test and post-test steps in the questionnaire of psychological well-being and its components, it appears that these trainings could significantly improve positive relationships with others, autonomy, personal growth, self-acceptance, environmental mastery and purposeful life in the experimental group compared to the control group. The results of this study are consistent with the findings of studies conducted by Oscar (1996), Dayton (2004) and Blatner, and show that the psychodrama method can be properly used in the treatment of people with drug abuse.

According to the information provided in Table 7, one-way covariance analysis on the dependent variable of false beliefs and its components shows that there is a significant difference between experimental and control groups in terms of false beliefs ($F = 86.61$, $P = 0.0001$), helplessness in the face of change ($F = 2052$, $P = 0.0001$), demand for approval from others ($F = 43.51$, $P = 0.0001$), avoiding problems ($F = 16.42$, $P = 0.0001$), emotional irresponsibility ($F = 18.47$, $P = 0.0001$). So, the hypotheses 2 and 2-1 to 2-4 have been approved; it can be said that psychodrama could significantly reduce false beliefs and its components in the experimental group compared to the control group. The findings of this study are consistent with the theories and studies conducted by Ellis (2001), that having false beliefs can prepare the context for helplessness in the face of change, demand for approval from others, avoiding dealing with the problem and emotional irresponsibility. And, releasing of emotion can reduce the impact of these false beliefs and attitudes. In future studies, the researchers must consider the effect of intervening variables such as the length of addiction and quitting history.

6. Recommendations

- ❖ In future studies, researchers have considered the effect of intervening variables such as addiction durations and quitting previous history.
- ❖ It is recommended to increase the autonomy in other diseases using drama therapy.
- ❖ Use psychodrama in other residential centers and addiction treatments.
- ❖ Apply interventions to programs of prevention and reducing the vulnerability of young people and groups at risk.

❖ It is recommended to reduce demand for addicted people approval using drama therapy.

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