



Comparison of Self-Perception and Perceived Social Support in Addicts Undergoing Maintenance Therapy and Abstinence Treatment

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Quantitative Study

Abstract

Background: The objective of this study was to compare addicts undergoing pharmacological treatment (maintenance therapy) with those undergoing non-pharmacological treatment (abstinence treatment) in terms of their self-perception and perceived social support.

Methods: The study population consisted of all addicts in Ghazvin City, Iran, who were undergoing either pharmaceutical or non-pharmacological treatment. Cluster sampling was used to select 100 participants, 50 for the pharmacological treatment group and 50 for the non-pharmacological treatment group. The Multidimensional Scale of Perceived Social Support (MSPSS) and Self-Perception Questionnaire (Townend) were used for data collection. Independent t-test and multivariate analysis were used for analyzing the data and comparing the two groups.

Results: The results show a significant difference between the two groups in terms of the 2 subscales of self-perception of aggression and manipulation ($P < 0.05$). Moreover, the two groups were significantly different in the 2 subscales of perceived social support of support by their family and friends ($P \leq 0.05$).

Conclusion: It appears that those addicts who are undergoing pharmaceutical treatment in a rehabilitation center receive more support from their friends and families. The results also indicate that they show less aggressive and manipulative behaviors.

Keywords: Self-perception, Perceived support, Pharmaceutical treatment, Non-pharmacological treatment

Citation: Alami S, Latifian R, Zandi S. **Comparison of Self-Perception and Perceived Social Support in Addicts Undergoing Maintenance Therapy and Abstinence Treatment.** *Int J Body Mind Culture* 2019; 6(1): 42-9.

Received: 25 Oct. 2018

Accepted: 15 Jan. 2019

Introduction

Addiction, as a physical and mental disease, has affected the quality of life (QOL) of many

people all over the world. Drug abuse is one of the causes of mental problems, neurocognitive problems, marital dissatisfactions, depression, anxiety, and general health problems (Cole, Logan, & Walker, 2011; Beygi, A., Shirazi, & Pasandide, 2013). Addicts' self-threatening and self-destructive behavioral and thinking patterns

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lead to the occurrence of problems in their QOL and functions (Lin, Wu, & Detels, 2011). Although the physiologic and chemical effects of drugs on the body are recognized, the affected person has to take responsibility for his/her addiction and its improvement. Addiction is a symptom not the original disorder. The problem lies in the affected individuals themselves not in the drug. Considering that addiction does not only involve a physical problem, but also a mental, social, and cultural one and many factors may have roles in its prevalence, its treatment is more complicated and includes dealing with different aspects of the addict's life. As a result, many studies have been performed on the subject to find treatment methods with more efficacy and reduced chance of addiction relapse. Due to the fact that biopsychosocial aspects play roles in addiction, relying on a single approach is not efficient for addiction recovery or treatment of substance-related disorders. The results reported by many studies indicate that, like many other mental disorders, the most efficient approach to substance-abuse reduction or recovery is a combination of psychological and physical methods. Many different treatment programs have been introduced for addiction recovery in recent years including pharmacological and non-pharmacological methods (Karimnejad, Maktabi, Vatankhah, Firoozy, & Rahimi, 2014). Addiction progression starts with the first stage of using narcotic drugs. With their continued usage, stupor, weakness, problems in memory, and changes in appearance gradually happen (Sayed Alitabar, Falahatpisheh, Habibi Asgarabad, Arvin, & Sarvestani, 2016). With the progression of the disease, we witness depression, other psychiatric problems, and greater weakness in the patient (Farnam & Farhoudian, 2011).

One of the effective pharmaceutical treatments introduced in recent years is maintenance treatment program. With regard to the chronic process of addiction and

possibility of relapse, the treatment of addiction may be long-term and multidimensional. Maintenance treatment is one of the main methods of treatment of addiction to narcotic substances (opium, heroin, opium residue, and crack). During this treatment, the patient receives a series of medical, pharmaceutical, and psychological interventions. Currently, two drugs, methadone and buprenorphine are used for maintenance treatment (Farnam & Farhoudian, 2011). Abstinence method involves non-pharmacological treatments planned as a local program in Iran and is classified as non-pharmacological treatment methods. In this method, the individual enters quasi-family groups and acquires the skills required for returning to life and gaining his/her sense of security. In this way, they prepare themselves to function in society. Therefore, abstinence method can be considered as a social model.

These two treatment methods have different effects on various aspects of addicts' personality and mind including self-perception, perceived social support, and mental health. Self-perception involves an individual's experience of himself/herself and his/her beliefs in terms of his/her physical, behavioral, and mental aspects. It is the reflection of the individual's experience of himself/herself. An individual's experience and his/her beliefs are independent of, but connected with that of others (Bahrami, Abolghasemi, & Narimani, 2013).

Perceived social support is the individual's assessment of his/her accessibility to support when needed. This concept implies an individual's cognitive assessment of his/her relationships. Researchers believe that the relationships one has with others are not counted as social support unless one assesses them as an available and suitable resource to satisfy his/her needs. Social support scales focus on one's cognitive assessment of one's environment and the confidence one has in the availability of the support when it is

needed (Asayesh, Hesam, Ghorbani, Shariati, & Nasiri, 2011).

Through increasing an individual's psychological health, perceived social support works as a guard against addiction relapse after recovery. In their study, Davis and Jason (2005) concluded that avoiding substance abuse is positively correlated with received social support. Perceived social support is also of significance in the primary stages of addiction treatment (HosseiniAlmadani, Ahadi, Karimi, Bahrami, & Moazedian, 2012).

The current study compared addicts undergoing the two treatment methods in terms of their self-perception and perceived social support.

HosseiniAlmadani et al. (2012) conducted a study to compare resilience, identity styles, spirituality, and perceived support among addicts, non-addicts, and recovered addicts. They concluded that participating in anonymous addicts groups, receiving social support, and taking part in the process of quitting a substance require increased resilience in addicts.

Descriptive results of the research done by Delpasand, Ayar, Khani, and Mohammadi (2012) concerning the relationship between social support and crime indicate that young non-criminals receive significantly more social support in all its aspects compared to young criminals. Data analysis using logistic regression analysis indicates that the theoretical construct of social support has high distinctive power to distinguish between non-criminals and criminals. In other words, increased social support diminishes the rate of crimes.

Brabadi, Younesi, and Taleghani (2009) studied the effect of treatment on addicted criminals. The objective of this study was the examination of the effect of integrative treatment on self-perception evolution of addicted criminals. Other objectives of the research were the investigation of the effect of integrative treatment on the self-

conception and self-esteem of addicted criminals. Results of the pretest show slow evolution in the level of self-perception in addicted criminals, while integrative treatment is shown to be effective in enhancing the self-perception evolution, self-conception, and self-esteem of these people. These findings suggest that authorities have to develop counseling and psychotherapy centers in prisons and centers for criminals.

Methods

Method: The current study was a retrospective, causal-comparative research. The aim of a causal-comparative research design is to find possible causes of a behavioral pattern. Those with the behavior are compared with those who do not show such behavior. This method is often called retrospective study since it refers to causes that have taken place before and the study is conducted through the influence they have on another variable – that is the effect (Delavar, Ghoreyshi, Jahanshahi, & Nabian, 2014).

The study population consisted of all the addicts in Ghazvin City, Iran, who were undergoing either pharmaceutical treatment (maintenance treatment) or non-pharmacological treatment (abstinence treatment). Cluster sampling was used to select the study participants.

From among the three districts of Ghazvin city, district one was selected accidentally, and one drug rehabilitation center (Negin Addiction Treatment Center) and one residential addiction treatment center (Behesht Pakyar Ara) were selected. From the first center, 50 individuals who were undergoing maintenance treatment (methadone and buprenorphine) and 1 month of their treatment had passed were selected accidentally as the pharmaceutical group participants. The other 50 participants for the non-pharmacological treatment group were selected from the second center. Informed consent forms were obtained from all participants before participating in the research.

Table 1. Results of the comparison of the two groups in terms of subscales of MSPSS

Subscales of MSPSS	Pharmaceutical treatment		Non-pharmacological treatment	
	Mean \pm SD	Variance	Mean \pm SD	Variance
Family	14.68 \pm 3.60	12.99	12.70 \pm 5.098	35.80
Friends	11.66 \pm 5.31	28.27	9.44 \pm 4.67	21.88
Significant other	13.80 \pm 4.84	23.42	13.04 \pm 5.46	29.91

MSPSS: Multidimensional Scale of Perceived Social Support; SD: Standard deviation

The study inclusion criteria were men aged between 20 to 40 years and addicted to narcotics. In addition, those in the pharmaceutical group used methadone and buprenorphine and 1 month of their treatment had passed, and those in the other group resided in the residential center and received neither pharmaceutical nor psychological treatment and 1 month had passed since their acceptance into the center.

Material: Self-Perception Questionnaire developed by Townend (1999) was used to collect the data for the current study. This scale helps us understand what the individual thinks or feels about himself/herself and others and how he/she treats others. This questionnaire has 60 statements with the 4 subscales of passivity, aggression, assertiveness, and manipulation. The reliability of the questionnaire was reported to be 0.62 for passivity, 0.54 for aggression, 0.57 for assertiveness, and 0.66 for manipulation by Nikmanesh and Yari (2012) using Cronbach's alpha. Positive and negative answers are added separately to obtain the total score for each subscale.

The other scale used was the Multidimensional Scale of Perceived Social Support (MSPSS); it is one of the numerous scales that assess social support. The MSPSS was developed by Zimet, Dahlem, Zimet, and Farley (1988) to evaluate the perceived social support provided by one's family, friends, and significant other. This scale comprises 12 statements scored on a scale

ranging from 1 to 7, with 1 as "I very strongly disagree" and 7 as "very strongly agree". Using Cronbach's alpha, Bruwer, Emsley, Kidd, Lochner, and Seedat (2008) calculated the internal reliability of this tool and its subscales to be 86% and 86-90%, respectively, by examining a sample of 778 high school students. Karami, Hossini, Shahabi Majd, Ebrahimzadeh, and Alemy (2013) reported that the Cronbach's alpha of the 3 subscales of social support provided by family, friends, and the significant other are 89%, 86%, and 82%, respectively.

Results

To analyze the data descriptively, we have presented statistical indicators such as frequency, mean, variance, and standard deviation. In addition, to compare the variables under study, independent t-test and multivariate analysis were used. The results of descriptive analysis of the two groups in terms of the subscales of the MSPSS are presented in table 1. This table shows that the group undergoing pharmaceutical treatment receives more support from family and friends compared to the non-pharmaceutical group, and the support they receive from their significant others is also slightly more than the other group.

Considering the information presented in table 2, we can understand that addicts under pharmaceutical treatment show less passivity, aggression, and manipulative behaviors compared to the other group.

Table 2. Results of the comparison of the two groups in terms of subscales of the Self-Perception Questionnaire

Subscales of Self-Perception Questionnaire	Pharmaceutical treatment		Non-pharmacological treatment	
	Mean \pm SD	Variance	Mean \pm SD	Variance
Passivity	13.84 \pm 3.35	11.23	14.96 \pm 3.53	12.48
Aggression	9.26 \pm 4.97	24.72	15.10 \pm 4.49	20.17
Assertiveness	10.92 \pm 4.75	22.60	12.14 \pm 5.32	28.40
Manipulation	9.84 \pm 4.02	16.17	11.50 \pm 4.16	17.31

SD: Standard deviation

Table 3. Results of multivariate analysis to compare self-perception and perceived social support in two groups

Multivariate Indices	Value	F	df	Error df	P
Pillai's trace	0.45	6.98	6	93	< 001
Wilks' lambda	0.54	6.98	6	93	< 001
Hotelling's Trace	0.83	6.98	6	93	< 001
Roy's largest root	0.83	6.98	6	93	< 001

df: Degree of freedom

In order to compare the two groups in terms of self-perception and perceived social support, multivariate analysis was used.

As seen in table 3, Wilk's lambda value and its significance level are less than 0.05; therefore, it can be concluded that there is a significant difference between the groups. For a more detailed examination of the differences between the two groups, results of analysis of variance (ANOVA) are reported in table 4.

As shown in table 4, one-way multivariate analysis of variance (MANOVA) between the two groups was carried out to examine the differences between the two groups of addicts in terms of self-perception and perceived social support. The 4 dependent variables included family support, friends' support, aggression, and manipulation. The independent variables were the two groups of addicts. To investigate the normality of data, linearity, and univariate and multivariate outliers, homogeneity of the variance-covariance matrix, and multicollinearity were examined and no violations were observed. There was a significant difference between the two groups in terms of multiple dependent variables [Wilk's lambda = 0.54; P = 0.000; f(6,93) = 6.98].

When the results of dependent variables

were considered separately, a significant difference at the level of 0.05 was observed in all dependent variables. Therefore, we can conclude that there was a significant difference between perceived social support and self-perception in the two groups. In order to examine the difference of self-perception in addicts in the two groups, independent t-test was implanted the results of which are given in table 5.

Regarding the homoscedasticity of variances for each of the subscales in the Self-Perception Questionnaire and compatibility of variances, T values show that the two groups are significantly different in terms of aggression and manipulative behaviors (P ≤ 0.05). Therefore, we can conclude that there is a significant difference in the self-perception of the two groups.

In order to evaluate the difference in perceived social support in addicts under pharmacological and non-pharmacological treatment, independent sample t-test was used the results of which are shown in table 6.

As seen in table 6, the independent samples t-test was conducted to compare scores of perceived social support between the two groups.

Table 4. Summary of multivariate analysis of variance to compare perceived social support and self-perception in the two groups of addicts (df = 1)

Sources of variation	SS	df	MS	f	P
Family support among groups	98.01	1	98.01	0.04	0.04
Friends' support among groups	123.21	1	123.21	0.02	0.02
Aggression among groups	852.64	1	852.64	0.000	< 0.01
Manipulation among groups	68.89	1	68.89	0.04	0.04
Error of family support	2391.380	98	24.40		
Error of friends' support	24.57.54	98	25.07		
Error of aggression	2200.12	98	22.45		
Error of manipulation	1641.22	98	16.74		
Total family support	21231	100			
Total friends' support	13711	100			
Total aggression	17888	100			
Total manipulation	13095	100			

df: Degree of freedom

Table 5. The t-test results for comparison of the two groups in terms of self-perception

Subscale	Pharmaceutical treatment	Non-pharmacological treatment	Df	t	P
	Mean ± SD	Mean ± SD			
Passivity	13.84 ± 3.35	14.96 ± 3.53	98	1.62	0.10
Aggression	9.26 ± 4.97	15.10 ± 4.49	98	6.16	<0.01
Assertiveness	10.92 ± 4.75	12.14 ± 5.32	98	1.20	0.23
Manipulation	9.84 ± 4.02	11.50 ± 4.16	98	20.02	0.04

SD: Standard deviation; df: Degree of freedom

Considering homoscedasticity of variances for each of the subscales of perceived social support and homogeneity of variances, t values revealed a significant difference between the two groups in terms of the support they receive from family and friends ($P \leq 0.05$). Therefore, there is a significant difference between these two groups in the subscales of perceived social support, except support received from significant others. The group undergoing pharmaceutical treatment received more support from their families and friends compared to the other group.

Discussion

One-way MANOVA between groups was carried out to examine the differences between the two groups of addicts undergoing pharmaceutical and non-pharmaceutical treatments in self-perception and perceived social support. The comparison showed a significant difference between the two groups ($P \leq 0.05$). These results are consistent with research findings of Roohani, Salarieh, Abedi, and Kheyrikhah (2012) who examined the effects of methadone on the QOL of addicts. Their findings showed that people who underwent methadone treatment had a significant improvement in their QOL. They concluded that pharmaceutical treatment and the use of methadone can be a suitable approach for treating drug-dependent people. Using methadone and buprenorphine is a pharmaceutical method that helps addicts

control their dependence on drugs. These two drugs are recognized as effective intervention for drug-dependent people (Bray, Pemberton, Lane, Hourani, Mattiko, & Babeu, 2010), eliminate the difficulties of quitting drugs, and have a positive impact on various individual and social aspects of the addict's life. In developed countries, drug treatments like buprenorphine and methadone are used for opiate abuse. However, in many developing countries, pharmaceutical methods are not accepted. Rather, it is attempted to eliminate the problem of drug dependence by using non-pharmacological methods such as force, prison, etc. Despite government and authorities' aims to eliminate addiction, it seems that the non-pharmacological methods they employed in previous decades, have failed to meet their goals. In recent years, pharmaceutical treatments are used (Roohani et al., 2012).

The results of the present study showed that there is a significant difference between these two groups in all subscales of self-perception except passivity and assertiveness. The behavior one shows in different situations is directly affected by the image and concept one has of one's whole being.

If the individual has a negative feeling toward his/her appearance and physical and mental capabilities, this negative perception is reflected in a series of his/her actions and behaviors, and he/she cannot show the necessary adaptation needed in interaction with others or in deprivation.

Table 6. T-test results for comparison of the two groups in subscales of perceived social support

Subscale	Medicinal treatment	Non-medicinal treatment	df	t	P
	Mean ± SD	Mean ± SD			
Family support	14.68 ± 3.60	12.70 ± 5.98	98	2.01	0.04
Support by others friends	11.66 ± 5.31	9.44 ± 4.67	98	2.21	0.02
Support by others	13.80 ± 4.84	13.04 ± 5.46	98	0.73	0.46

SD: Standard deviation; df: Degree of freedom

Self-concept is a series of ideas, perceptions, and feelings one has about oneself. It is one of the most important aspects of social development and is gradually obtained through social experiences and in communication with others (Khalaji and Sadeghian, 2002). One of the causes of drug addiction or addiction relapse is the perception one has about one's capabilities and competencies. Negative perception increases the probability of return to drug use (Bavi & Borna, 2009). The 2 addiction treatments used in Iran consist of pharmaceutical and non-pharmaceutical treatments. In this research, abstinence treatment (in residential centers) and pharmaceutical treatment (in rehabilitation centers) such as using methadone and buprenorphine were compared. It seems that residential centers have achieved some successes by relying on 12 Step Programs for addiction recovery, strengthening addicts' spirituality, providing powerful and effective social support for members, and changing one's attitude to life problems. The other method for treating addicts is maintenance treatment that has become popular in recent years and its efficacy in abstinence and improving addicts' psychological states, health, and well-being has been proved. By using buprenorphine and methadone, maintenance treatment programs can be an effective treatment for opiate-addiction. Results showed that there is a significant difference between these two groups in all subscales of perceived social support except support from significant others; addicted men undergoing pharmaceutical treatment received more support from their family and friends compared to addicted men undergoing non-pharmaceutical treatment. Various studies have shown that addicts have less social support (Pourmohamadreza Tajrishi & Mirzamani Bafghi, 2007; Karimi Moghaddam Arani, Hashemi, & Bayrami, 2009). The findings of this study suggest that rejection of people from the family and lack of access to equal opportunities in society

lead to drug addiction. This may also lead to escalation of drug use and relapse. Drug addicts who have less social support face multiple social deprivations. In other words, they experience less satisfaction in their life, experience more social alienation, and have less social contact and interaction with others. It seems that those people who are rejected by their families are more likely to join improper groups and their self-confidence decreases. Negative attitudes of people toward them lead them to the idea that they are defective and make them feel worthless. Moreover, the aggressive behavior of addicts may cause their rejection by their positive friends and peers who have reasonable responses in confronting life problems. This may lead to addicts' attraction toward improper groups, which in turn sets the scene for drug abuse. Based on the results of this study, methadone and buprenorphine programs can be efficient treatment methods for drug dependent patients. Thus, the use of medical and pharmaceutical treatment methods, especially methadone and buprenorphine, in Iran is suggested for treating drug dependent individuals.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

We would like to thank the director of Negin Addiction Treatment Center and Behesht Pakyar Ara.

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