

The Role of Social Support and Positive Affect on Prediction of Addiction Relapse

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ABSTRACT

Purpose: To ascertain the role of social support and positive affect in prediction of addiction relapse.

Materials and Methods: The research method was a causal-comparison. Population included all the clients seeking for medical advice in the centers for Addiction Treatment in Saravan and Iranshar. The sample includes 186 participants (83 participants had no relapse and 83 participants had relapses) that were selected by using snowball sampling among those who participated in the centers during four months. The variables were measured by Multidimensional Scale of Perceived Social Support and Positive Affect & Negative Affect Scale. The data was analyzed by the independent test and logistic regression analysis.

Results: Findings showed that there was a significant difference between the participants without relapse and the participants with relapse in social support and positive affect. The two variables of social support and positive affect were the best predictors for addiction relapse, respectively.

Conclusion: According to the findings it be can be concluded that social support and positive affect have effective role in prevention of clients' addiction.

Keywords: recurrence; risk; substance-related disorders; psychology; social environment.

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INTRODUCCION

As the rate of drug addiction is increasingly growing, unfortunately, the rate of individuals who relapse into drug addiction is also high.¹ For example, the results of a study indicated that 33.5% of substance abuse patients experienced failure in the treatment once, 38% of them had such experience for two to three times, and 28.5% experienced failure over three times. Fifty three percent relapsed into addiction in less than two months after withdrawal. Only 12% were able to keep withdrawal for more than a year. Moreover, despite the importance of drug therapy, non-pharmacological interventions such as psychotherapy and counseling is essential to prevent relapse of drug dependent people after cessation; so that, approximately 53% of drug-dependent individuals return to substance abuse after two months of cessation.²

Furthermore, given that addiction is a disease, it

requires support far more than physical diseases. In addition to receive medical and medicinal care, social and psychological support processes should focus on patients with substance abuse, particularly after medicinal treatment. The process of withdrawal and putting an end to the relationships with substance-dependent peers is extremely stressful and requires social-supportive relationships and resources.³ Hence, the emphasis on the individual's positive abilities from supportive resources causes him/her to reduce the focus on the weaknesses and gain higher levels of confidence⁴ and thus drug-dependent individuals are motivated for treatment. Hence, social support is among the factors that have a special role in maintaining the withdrawal of drug-dependent people.³

Studies conducted by Lemosvde and colleagues,⁵ Martin-Storey and colleagues⁶ Jason and colleagues,⁷ Atkins and Hawdon,⁸ and Ellisa and colleagues,⁹ showed

that positive factors such as family support can help the addiction cessation. Moreover, providing tips and information (support information) raises drug-dependent individuals' commitment and therefore these people are more successful in quitting than those who are not provided with such information and guidance.⁵⁻⁹ Despite of many studies, social support is considered as an important factor in the withdrawal of drug-dependent people; some researchers such as MacDonald and colleagues have shown that social support is not always an effective predictor of recovery steps but other conditions may contribute to the effectiveness of social support.¹⁰

Moreover, research shows that high positive emotions and low negative emotions play crucial roles in positive judgment and perception of self.¹¹ Substance-dependent individuals are emotionally hopeless and hostile. Restlessness, anxiety and weakness in decision-making are among other moods and behavioral characteristics of drug-dependent individuals. Positive affect can increase creativity, cognitive flexibility, efficiency in decision-making, problem-solving and other useful indicators of reflection; so that, it can reduce the addiction relapse in patients with substance abuse.¹² Several studies have examined this issue. For example, studies conducted by Schlauch and colleagues,¹³ and Kaiser and colleagues,¹⁴ indicated that people with high negative affect have a significantly high tendency for drug abuse, especially tobacco and alcohol, while people with high levels of positive affect have significant avoiding tendencies for drug abuse. Gajwani and colleagues demonstrated that emotional disorders are involved in the risk of addiction development.¹⁵ Affects (negative affects), not only influence the initiation of substance abuse, but also the maintenance and retention of addiction in individuals.¹⁵ Marques-Teixeira and colleagues¹⁶ have shown that the capacity of utilizing from environmental stimuli associated with positive affect in drug-dependent individuals is not similar to that of the control group and drug-dependent individuals have more negative or neutral affect compared to the control group. Likewise, researches show that people who are suffering from major depression are at higher risk for substance abuse than those without the disease.^{17,18}

Therefore, according to what was mentioned earlier, considering the psychological significance of social support and positive affect, and given that addiction is one of the fundamental mental health issues, the present research study examines the role of positive affect and social support in prediction of addiction relapse that has received less attention in Iran.

MATERIALS AND METHODS

The present study examines the role of positive affect and social support variables in prediction of addiction relapse. In the current study, the criterion variable is the addiction state (relapse or non-relapse) and predictor variables are positive affect and social support.

The population of the study included all drug-dependent individuals, applicants for withdrawal from addiction, residing in Nikshahr, Saravan and Iranshahr in Sistan and Baluchistan province, who referred to addiction treatment camps in Saravan and Iranshahr during the past five years.

Sampling was conducted from December to March 2012, in 4 months, using voluntarily snowball sampling method. After identifying each member and obtaining his/her consent to cooperate, he/she aided to find other members of the sample for data collection. Thus, the sample contains 166 individuals, including 83 patients without relapse and 83 patients with relapse. The group of drug-dependent individuals without relapse included those individuals who had referred to one of the two addiction treatment camps in Iranshahr and Saravan and quit addiction for at least one month to five years. The group of drug-dependent individuals with relapse included those who had relapsed repeatedly and had quit for one month to five years.

After identifying individuals belonging to the statistical population and justifying them by the researcher or colleagues through explaining the intention of the study and ensuring them that their information will remain confidential, the participants were asked to complete the questionnaire. People who were literate enough to read and write were asked to complete the questionnaire in the presence of the researcher or a colleague and hand it over to them. It is evident that the researcher or a colleague read the questionnaire for those who were illiterate or were not literate enough to read and write and recorded their answer in the questionnaire. Data were analyzed using independent *t*-test and logistic regression analysis and Statistical Package for the Social Science (SPSS Inc, Chicago, Illinois, USA) version 16.0. Data collection was performed through applying two questionnaires of Multi-dimensional Scale of Perceived Social Support (MSPSS) and Positiv& Negative Affect Scale (PANAS).

Multi-dimensional Scale of Perceived Social Support (MSPSS)

MSPSS is a 12-item multidimensional instrument to assess perceived social support among three sources of family, friends and significant people in life that was

developed by Zimet and colleagues,¹⁹ MSPSS assesses the multidimensional scale of perceived social support by the respondents in each of the three domains. This scale has a desirable internal consistency. Reported the Cronbach's alpha of the questionnaire about 0.88.²⁵ In the present study the Cronbach's coefficient alpha of the scale was obtained 0.89.

Positive and Negative Affect Scale (PANAS)

PANAS is a 20-item self-assessment scale designed to distinguish positive and negative affect. According to the designers,²⁰ the continuum of positive affect dimension moves from enthusiasm and activation toward indolence and sloth and the negative affect dimension moves from irritant turmoil and excitation to a state of serenity and equanimity.²⁰ Based on this 5-point Likert scale, respondents are asked to express how much they have experienced or are currently experiencing the emotions listed, in a specific period of time. Scores of each positive affect and negative affect subscales are calculated by adding the responses provided for each subscale items. Mir-Abdollahi has reported the Cronbach's alpha of the questionnaire as 0.80. Cronbach's alpha coefficient for this scale in the present study is obtained 0.87.²¹

RESULTS

Descriptive research findings related to the demographic variable of participants' age showed that the age group of 30-43 with 26.5% had the highest frequency and the age group of 44-57 with 3.6% had the lowest frequency among drug-dependent individuals without relapse. In contrast, the age group of 16-29 with 26.5% had the highest frequency and the age group of 44-57 with 6.6% had the lowest frequency among drug-dependent individuals with relapse. Frequency distribution of participants according to their educational level indicated that 4.8% of the individuals without relapse were illiterate. High school educational level with 16.9% was the

most frequent educational level among drug-dependent individuals without relapse. However, the rate of illiterate individuals in the drug-dependent group who had relapsed were 3.6% and guidance school educational level with 20.5% had the highest frequency among the individuals with relapse. Considering participants' employment status, results showed that the rate of unemployed and employed individuals in drug-dependent individuals without relapse was 6.6% and 43.4%, respectively. However, among the drug-dependent individuals with relapse, the rate of unemployment and employment was respectively 7.2% and 42.8%. Moreover, the results of frequency distribution regarding participants' marital status revealed that the frequency of married and single individuals among those who had not relapsed was 32.7% and 16.3%, respectively, while among those experiencing relapses, the rate of single and married individuals was 21.1% and 28.9%, respectively.

The comparison of mean social support scores of the two groups of drug-dependent individuals with and without relapse with the *t*-test shows that the mean social support of the group without relapse ($M = 63.4699$) is significantly higher ($P < .001$) than the mean social support of the group with relapse ($M = 48.1205$) with $t = 6.813$ and degree of freedom [df] = 164 (**Table 1**).

The comparison of mean positive affect scores of the two groups of drug-dependent individuals with and without relapse with the *t*-test shows that the mean positive affect of the group without relapse ($M = 67.6867$) is significantly higher ($P < .001$) than the mean social support of the group with relapse ($M = 45.3133$) with $t = 6.917$ and $df = 164$ (**Table 2**).

To answer this question that which of the variables of positive affect or social support can effectively predict the addiction relapse, logistic regression analysis was used. Results of the analysis without any of the independent variables revealed that the regression is able to predict 50% of the variables without entering the independent

Table 1. Comparison of mean social support between the two groups of drug-dependent individuals with and without relapse.

| Variable | Without Relapse | With Relapse | <i>t</i> | df | P Value |
|----------------|---|-----------------------|----------|-----|---------|
| | {Mean} and (Standard Deviation) of the two groups | | | | |
| Social support | {63.4699}, (13.84614) | {48.1205}, (15.15239) | 6.813 | 164 | .001 |

Abbreviation: df, degree of freedom.

Table 2. Comparison of mean positive affect between the two groups of drug-dependent individuals with and without relapse.

| Variable | Without Relapse | With Relapse | <i>t</i> | df | P Value |
|-----------------|---|-----------------------|----------|-----|---------|
| | {Mean} and (Standard Deviation) of the two groups | | | | |
| Positive affect | {67.6867}, (9.54824) | {45.3133}, (14.80106) | 6.917 | 164 | .001 |

Abbreviation: df, degree of freedom.

Table 3. Logistic regression for the prediction of addiction relapse prevention.

| Variables | B | SE | Wald | df | P Value | Odds Ratio | 95%CI | |
|-------------------|--------|---------|---------|----|---------|------------|-------|-------|
| | | | | | | | Upper | Lower |
| Social protection | -0.042 | 0.015 | 8.206/8 | 1 | .004 | 0.958 | 0.987 | 0.931 |
| Positive affect | -0.061 | 0.019 | 10.094 | 1 | .004 | 0.941 | 0.977 | 0.906 |
| General | 6.176 | 1.139/1 | 29.389 | 1 | .004 | 481.233 | | |

Abbreviations: df, degree of freedom; SE, standard error; CI, confidence interval.

variables. It was also fitter for predicting the significant variables ($P < .000$). Hosmer-Lemeshow test was significant with Chi square of 7.356, degree of freedom of 8 and significance level of 0.499, demonstrating that the predictive model was useful for predicting the effects of the variables. In order to investigate the influence of positive affect and social support variables on predicting the addiction relapse, Logistic regression was performed. The results show that due to the interaction between the two variables, both variables of social support ($P < .00$) and positive affect ($P < .001$) are able to significantly predict the relapse of addiction. However social support with a risk factor value of 0.947 is a stronger predictor of addiction relapse. Therefore, if other variables are controlled, respondents who have a higher level of social support are 0.958 times more successful than any other individuals in the addiction relapse prevention model (**Table 3**).

DISCUSSION

The present research study aimed to investigate the role of social support and positive affect in the prediction of addiction relapse. The results showed that individuals without relapse compared to those with relapse have significantly higher positive effect and better social support. This means that people who have not relapsed are provided with better social support and more desirable positive affect than the control group. Moreover, the logistic regression results showed that although both social support and positive affect variables have the ability to predict addiction relapse, social support is a more effective predictor with the risk value of 0.958. Moreover, findings of the present research about the role of social support in prediction of addiction relapse is consistent with the results of previously conducted studies carried out by Lemos and colleagues,⁵ Martin-Storey and colleagues,⁶ Jason and colleagues,⁷ Atkins and Hawdon,⁸ and Ellis and colleagues.⁹ However, the results are inconsistent with the results of McDonald and colleagues.¹⁰ Lemos and colleagues showed that people who have lower scores on social support are more likely to turn to substance abuse.⁵ Storey and colleagues stated

that a low level of perceived social support is associated with substance abuse.⁶ In addition, Jason and colleagues,⁷ Atkins and colleagues,⁸ and Ellisa and colleagues⁹ showed that positive factors such as family support can contribute to the withdrawal from addiction. However, McDonald and colleagues suggested that social support is not always an effective predictor of addiction recovery processes.¹⁰ Despite all, companionship and empathy can reduce many undesirable effects of stress that patients incur in life; since if such patients feel that there are people who care about them and help them with stressful situations, they will be less stricken by mental health problems including addiction and its following treatments.

In addition, findings about the role of positive affect in predicting addiction relapse are consistent with the results of studies conducted by Schlauch and colleagues,¹³ Kaiser and colleagues,¹⁴ Cheetham and colleagues, and Eduardo and colleagues.^{13-16,22} Schlauch and colleagues showed that individuals with high levels of positive affect have greater avoiding tendencies for smoking and drinking.¹³ Kaiser and colleagues also stated that people with high negative affect are less tolerant of disturbance and are more likely to initiate drug abuse.¹⁴ Also, Gajwani and colleagues indicated that affects (negative affects), not only influence the initiation of substance abuse but also the maintenance and retention of addiction in individuals.¹⁵ In addition, Marques-Teixeira and colleagues have shown that drug-dependent individuals have more negative or neutral affect compared to the control group.¹⁶ Hence, since many of the individuals who turn to addiction have low levels of positive affect and high levels of negative affect, they may face difficulties in principled decision making and controlling their own actions and behaviors. One consequence of such malfunctions in that the cognitive processing system may be addicted. Therefore, those with higher levels of positive affect may gain more desirable outcomes in addiction cessation due to better cognitive processing and more abilities for making rational decisions.

CONCLUSIONS

We concluded that families and stakeholders of

addiction treatment centers should primarily receive related trainings regarding how to create positive affect and social support networks for patients under treatment. Moreover, addiction treatment centers should attempt to provide the essential conditions for improving positive affect and social support to prevent addiction relapse.

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CONFLICT OF INTEREST

None declared.

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