Psychological rehabilitation in terms of anxiety and hopelessness in addicts during treatment period: a positive approach

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Abstract

Introduction: Despite an increased focus on addiction treatment in Iran, but many addicts cannot successfully pass this stormy period and many of them experience relapse. One of the most important factors that results in addiction recurrence is non-physical consequences. Anxiety and hopelessness are two most important psychological consequences of addiction. Today, in addition to traditional therapies, some newer psychological treatments have been introduced that they seem promising either in improving the negative emotions and strengthening the positive emotions. Positive intervention is one of the newest of them. Since lack of studies in effectiveness of this method in alleviating non-physical consequences of addiction, this study was conducted. This research aimed to investigate the effect of positive intervention in improving anxiety and hopelessness among addicts under treatment. Methods: In this quasi-experimental study, of one hundred addicts receiving treatment at one treatment addiction camp in Iran, thirty people who had lower scores in Snyder hope scale and Beck anxiety questionnaires (BID) were selected and then they were divided to test group (fifteen) and control group (fifteen), non-randomly. The experimental group received positive intervention while the control group did not. After that both groups were tested again. For data analysis, descriptive statistics and Mann-Whitney were used in SPSS-20. Results: After intervention, test group showed significant difference in hope rather control group. Also, test group scores in anxiety reduced after intervention, significantly. Conclusion: Due to the effectiveness of positive intervention in improvement of hopelessness and anxiety in addicts during treatment, it is recommended to consider it in addiction therapeutic protocols. Besides, because of impact of positive intervention in addiction rehabilitation through intermediaries such as happiness, peace, forgiveness, etc., it is probable that this intervention can be effective in reducing the relapse. Of course, more research is needed to investigate this claim.

Keywords: Positive intervention, Psychological consequences of addiction, Hopeless, Anxiety, Addicts under treatment.
Introduction:
Substance abuse and addiction are of most complex issues of societies that threatening humans lives like an invasive cancer gland, all over the world. According to estimates by the United Nations Office on drugs and crime (UNODC) in 2015, the prevalence of addiction has remained stable since 2013 at the world - which it was largely due to the impact of population growth. But it does not seem a good news because of 27 million addicts who live throughout the world (1). Doubtless, Iran has not been deprived of these statistics, due to its specific geographical status that has transformed it to a major drug traffic. According to some studies that have been done in Iran during recent years, the amount of addicts is rising (2).

Addiction not only is personally devastating, but also it imposes a heavy burden on society. In one study in Iran, the prevalence of addiction-related crimes was examined and it was found that murder, theft, drug transportation and defraud had the highest relationship with the addiction. The rate of domestic violence in the addicts was higher, too (3). Due to this problem, in recent years, treatment methods have been focused more seriously by health policy makers, in addition to prevention methods.

Aside from the more experienced therapies like detoxification and pharmacological methods such as methadone maintenance therapy, today Iran emphasizes specifically on the psychological strategies. Requiring all addiction clinics to provide psychological services to clients is a good evidence for this claim. In addition to improving treatment conditions, good law conditions for drug addicts who have referred for treatment voluntarily, have been provided. All of them have increased addicts’ interest for the treatment and their references.

Despite these efforts, but unfortunately, we see that these patients cannot long endure separation of substances and will soon return to them. Sadegiyeye and colleagues (4) found that 80% of drug addicts who referred to Tehran Welfare had recurrence during the first six months of treatment. Addiction relapse can occur for many reasons such as substance use by family and unpleasant events (5). But one of the main reasons is craving (6). Craving is a mental state that occurs as an inevitable desire to substance re-use. It can be intensified and strengthened by anxiety disorders (6-8), stress (9), psychological factors such as low self-efficacy and low ability to deal with high-risk situations (10). Depression as the other problem commonly seen in addicts, can have a significant impact on craving and subsequently in relapse (11, 12). If we consider the relationship between depression and hopelessness, we can look at it as one of the predictors of relapse among addicts.

Given that experience a relapse, increases likely of recurrence in the future and devastates addicts’ attitudes towards his self-confidence for treatment (5) managing relapse predictive factors from the beginning of the treatment is necessary.

In addition to important therapies such as social, cognitive and behavioral model of Marlatt (13) that has intended to improve addiction co-morbidities, the result of positive psychology approaches in this field are taken into consideration.

Positive psychology as a new approach in psychology, not only through the elimination of negative symptoms but also through the creation of positive emotions and mental strengths, creates positive resources and prevents recurrence of negative symptoms, simultaneously (14). Kortte et al. (15) have considered positive psychology components such as hope, optimism, forgiveness, happiness, etc. as predictors of enhancing psychological well-being and reducing mental disorders. Since positive thinking as the basis of Positive Psychology stems from the attitudes and beliefs of human beings, and on the other hand according to Seligman it is a
deliberate and selective process (16). It seems that mental health will be increased in addicts (17) and anxiety and stress will be decreased in them (18) by positive interventions such as gratitude, optimistic thinking, represent positive experiences and socialization. A study that supports this claim is Rezai Kooshalshah and colleagues study. They found that positive thinking could help to reduce vocational stress in female nurses (19).

Due to the impact of co-morbidities in reducing the likelihood of successful treatment of addiction and also claim of positive psychology to improving the co-morbidities by strengthening the mental capabilities, it was expected that many studies have been done in this area. However, there are few studies in this field. Most of these studies have often focused on some more famous components of positive psychology like hope and optimism. For example, Sadeghi et al (20) showed that hope therapy can reduce symptoms of depression in amphetamine consumers. Due to this shortage, the design and conduct of research to evaluate the effectiveness of positive attitude in addiction was necessary.

Since the higher prevalence of anxiety and hopelessness -as a part of depression- among addicts under treatment, the effectiveness of positive intervention in reducing anxiety and hopelessness among addicts was studied.

**Methods:**
The research was a quasi-experimental with pretest - posttest and control group. Sampling was done this way: Of the addicts in Meshkin Dasht in Alborz province (a province in center of Iran), one hundred residents in one of the camps, were selected voluntarily. Then all of them completed hope and anxiety questionnaires. Among them 30 who scored lower in hope and anxiety were selected and were placed in two groups: fifteen in experimental groups and fifteen control group, non-randomly. Then the experimental group participated in fourteen positive intervention sessions. When the intervention was finished, both groups responded to the questionnaires again.

The materials that were used in this study are as follows:

**Beck Anxiety Inventory:** This is a twenty-one item questionnaire, every item has four options. Depending on the participant selection, his anxiety score ranges from one to three. So, general score of participant will be between 0 to 63. Each of the inventory items belongs to one of the common symptoms of anxiety (subjective symptoms, physical symptoms and phobia). Reliability and validity of the inventory is confirmed in several studies in Iran (21, 22).

**Snyder hope questionnaire:** This twelve item questionnaire is scored based on Liker style. Higher scores in this scale indicate greater hope in respondent. In Golzari study (23), alpha Cronbach of hope questionnaire was 0.89. Some other studies showed that the scale has acceptable psychometric properties in Iran. (24).

The intervention programmed based on Snyder positive attitude method. A summary of the strategies are as follows:

First session: self-acceptance as a drug addict, second session: planning, third session: ways to ward off negative thoughts, fourth session: believe to be efficient, fifth session: change the unfavorable conditions, sixth session: understanding capabilities, seventh session: being grateful of each day, Eighth session: do a good deed, without having to tell anybody, ninth session: Get rid of hatred and asking for forgiveness, tenth session: appreciation of great things about others and about nature, eleventh session: being volunteer to help one needy, twelfth session: smiling, thirteenth session: flowing and fourteenth session: revising purpose of life and being productive.
It should be noted that this study has been approved by the ethical committee of Islamic Azad University.
For data analysis, descriptive statistics and Mann-Whitney were used. Moreover, all data were analyzed in SPSS- 20.

**Finding:**
Scores of experimental group and control group either in hope and anxiety are illustrated in table 1. As seen, there was difference in meanings of both variable in pre-test and post-test in both groups. Then the significance of this difference was evaluated. To select most appropriate inferential statistics, at first the homogeneity of variance-covariance was performed. In this test, the significance was P<0.000. So, variance-covariance homogeneity hypothesis was rejected. After that, the similarity of variances was tested. Similarity of variances in both variables was P<0.000. So, this hypothesis was rejected too. As a result of, Mann-Whitney was chosen to analyze the effectiveness of the intervention.

Based on table 2, there was a significant difference between both groups in pre-test and post-test in hope. Also, table 3 shows the significant difference in anxiety in pre-test and post-test in both groups.

**Table 1: Mean and standard deviation of the pre-test and post-test in hope and anxiety**

<table>
<thead>
<tr>
<th>Group</th>
<th>Case group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Hope</td>
<td>12.94± 1.11(SD)</td>
<td>18.47± 1.98(SD)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>11.51± 1.83(SD)</td>
<td>4.44± 0.95(SD)</td>
</tr>
</tbody>
</table>

**Table 2. Effectiveness of positive intervention to reduce hopelessness**

<table>
<thead>
<tr>
<th>Group</th>
<th>MR</th>
<th>Mann-Whitney</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>case</td>
<td>23</td>
<td>-4.77</td>
<td>0.000</td>
</tr>
<tr>
<td>control</td>
<td>8</td>
<td></td>
<td></td>
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</table>

**Table 2. Effectiveness of positive intervention to reduce anxiety**

<table>
<thead>
<tr>
<th>Group</th>
<th>MR</th>
<th>Mann-Whitney</th>
<th>Sig</th>
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</thead>
<tbody>
<tr>
<td>case</td>
<td>8.01</td>
<td>-4.813</td>
<td>0.000</td>
</tr>
<tr>
<td>control</td>
<td>22.99</td>
<td></td>
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**Discussion:**
In recent years, many developments have been established in the treatment of substance abuse disorders such as in pharmacological, psychological and social methods (25). General goals of these treatment approaches focus on three major axes: 1) physical de-dependence to the drug, 2) psychological de-dependence to the drugs, And 3) psychosocial rehabilitation that include reducing non-physical consequences of drug abuse, such as anxiety and depression and improve quality of life and prevention of relapse (26).
Among the various treatment approaches in treatment of psychological comorbidities of addiction, positive psychology intervention, as a new solution appear to be useful in improving cognition, emotions and positive behaviors (27) as well as rehabilitation and reduce non-physical consequences of addiction.

In line with this claim, recent study showed that positive psychology can enhance hope and reduce anxiety in drug addicts under treatment. This finding is supported by some few similar studies in Iran; for example, Ebadi and Faghihi (28) in a study of widowed women in Ahvaz found that positive attitude with emphasis on the Quran verses can increase their hopes significantly.

Zand Vakili and colleagues (29) in their study evaluated the effectiveness of positive intervention on increasing quality of life and reducing depression, anxiety and stress in 41 male adolescents resident in Correction and Rehabilitation Center in Zahedan, and showed that positive intervention can be effective in reducing depression, anxiety and stress and enhancing quality of life (physical and mental) among adolescents.

Other studies have verified the effectiveness of positive thinking in increasing job satisfaction among Sarcheshmeh mine employees, in Kerman (30) and reduction of job stress in female nurses (19).

Other studies that have assessed the effectiveness of sub-components of positive psychology have confirmed these findings. For example, Shekarabi Ahari et al study (31)supported the effectiveness of hope therapy in reducing depression and enhancing hope in mothers of children with cancer. Also, Lin (32) confirmed the effectiveness of Enright forgiveness intervention method in increasing forgiveness, self-esteem and decreasing depression, anxiety and vulnerability to substance abuse in Taiwan substance abusers that were harmed in domestic interpersonal relations.

The mechanism of positive intervention can be explained in several ways: first, it seems that positive intervention helps people to explore new cognitive, emotional and behavioral rules. This discover assist them to increase their mental strengths. To elaborate this point progressive - Productive theory of Fredrickson can be noted. Fredrickson says positive emotions caused to expanding momentary thought-act treasury. This expansion will be resulted in strengthening personal resources over time such as physical, social, intellectual, and psychological resources (16). And thereby causes that person can be successful in some fields such as increasing of hope and decreasing of anxiety.

Second, the positive psychology makes the person feel more control of his life by changing his attitudes and emotions. Since the sense of controls an important factor in increasing hope and decreasing anxiety, the findings of the present study can be explained as follow: positive psychology helps a person feel more self-efficacy and then see himself less helplessness in dealing with the stress. In turn, this can help to improve people's hope and anxiety.

And in the end it seems that positive psychology through its sub-components, such as hope, forgiveness, happiness, flow, appreciation and etc. defines new aims for individual. Also, positive psychology infuses new energy to person and guides him to achieve his goals.

This study was restricted in some cases: small sample size, lack of control for confounding variables such as age and socio-economic level, focus on male addicts, and lack of cooperation from the participants to track their relapse status in three months after intervention was of the
most important limitations of this study. In addition, because the instruments were self-reporting, the findings should be analyzed cautiously.

**Conclusion:**
Training Positive psychology can improve the non-physical consequences of addiction such as hopelessness and anxiety. Due to its widespread positive effects on the addicts’ mental health that seems to be largely related to its effect on mediating factors like sense of control, peace, and self-efficacy, it is expected that this type of intervention can be effective in reducing the likelihood of relapse in treating addicts. However, to investigate this claim more researches are necessary. But in general, according to the acceptable effect of positive intervention, it is recommended to apply it in treatment protocols of addicts.

**Acknowledgement:**
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