Efficacy of Anger Management Skills on Reducing Aggression and Improving Adjustment in Addicts Treating with Methadone in Sari-Iran

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Abstract

Background: Aggression and lack of adjustment are important issues in incidence and recurrence of addiction. This study aimed to evaluate the effectiveness of anger management skills training on modifying these variables among addicts treating with methadone. Methods: In the present experimental study all patients referred to four private addiction treatment centers supported by Sari University of Medical Sciences in north of Iran in 2015, to receive methadone treatment, completed Bell Adjustment Questionnaire and Buss-Perry Aggression Questionnaire. Sixty-four men scored high on aggression questionnaire and low on the Bell were identified. Among them forty were selected randomly and were replaced in two groups (twenty in case groups and twenty in control group). Nine sessions anger management skills training was performed in case group and both groups completed questionnaire again. Data were analyzed using covariance in SPSS-20. Findings: Training anger management skills reduced aggression and increased personal and social adjustment among addicts treating with methadone, significantly (p<0.001). Conclusion: Given the benefits of anger management skills as a non-pharmacological and effective approach, using this strategy as a part of a comprehensive treatment for addicts recommended.

Keywords: Anger management therapy, Aggression, Personal-social adjustment, Methadone, Drug users.

Introduction

Today attitudes toward addiction does not last longer one-dimensional model and this ominous and prevalent phenomenon is known as a multidimensional disorder, including biological, psychological, social and spiritual [1]. In line with this new attitude, many studies have been conducted in various subjects, such as studies that have evaluated psychological risk factors for addiction development and continuous. A bunch of these studies are
those that concluded a significant relationship between addiction and mood disorders alike depression, anxiety and anger [2-4].

Although all three of these related disorders are very important in incidence and recurrence of addiction, but because anger can be transformed to aggression potentially [5] and can harm people, [4, 6] it is more sensitive than two rest disorders.

Despite the effectiveness of drug treatment programs such as methadone therapy in decreasing anger in addicts [7-10] but they could not respond to their needs, comprehensively. So it is essential to pay more attention to other addiction aspects, including the psychological aspect that impacts completion and continuation of addiction treatment [11].

In line with the comprehensive treatment of drug addiction, many studies have been conducted specially in psychological dimension. A large group of these studies are concerned on the effectiveness of cognitive-behavioral therapy (CBT) to reduce the aggressiveness and increase the adjustment in different populations.

For example, Moemeni and colleagues improved short-time quality of life in addicts treating with methadone by group cognitive-behavioral therapy [11]. Some other studies have achieved positive results on the impact of some strategies such as mindfulness in reducing anger in different types of addicts, too [12-14] But the strategy that could be directly effective in reducing aggression and improvement of adjustment is anger management.

Anger management is a structured psycho-educational intervention that has conducted to increase anger management skills and decrease vulnerability among normal or clinical people [15]. Schamborg and Tully in a review study approved the effectiveness of anger management interventions in reducing aggression [5]. Many studies have confirmed hypothesizes in this field such as Karimi and colleagues, Vahidzadeh and colleagues, Neetu and Sajad Ahmad and Hashemian and colleagues [16-19].

Here an important point should be considered; despite many supportive studies, training anger management skills has not been studied well, nor separately and nor combined with pharmacological therapy, for simultaneously reducing aggression and improving psycho-social adjustment in addicts. To full this deficiency, the present study was conducted with these assumptions.

• Training anger management skills is effective on decreasing aggression among addicts receiving methadone therapy.

• Training anger management skills is effective on improvement personal and social adjustment among addicts receiving methadone therapy.

Materials and Methods

This research was a quasi-experimental study with a control group. Among all male patients referred to 32 drug rehabilitation centers in Sari in 2015, who were willing to take part in this study and had following inclusion criteria were identified. Include criteria were included: 1) addicted to narcotic substances at least in last twelve months, 2) at least three months has been spent of methadone therapy, 3) no history of psychosis and mental retardation, 4) literacy and 5) using alcohol nor other substances. All of them responded to Buss-Perry Aggression (AQ) and Bell Adjustment Questionnaire. So, sixty-four who scored high in aggression questionnaire and received a low score on Bell questionnaire was selected. At the end forty male were selected and replaced randomly in two groups (20 in case groups and 20 in control group).

It should be noted that participants’ “no history of psychosis” was approved by some psychiatrists and all participants signed informed consents.

Nine sessions psycho-educational anger management intervention based on Klinke package and controlling anger book (Ghahari) [20] was implemented for case group while the control group did not receive any intervention. Thereafter post-test was given to participants in both groups.
This study was approved by the Ethics Committee of Islamic Azad University, Tonekabon branch in Iran.

**Instruments**

In this study data collected by a demographic questionnaire, Buss-Perry Aggression (AQ) and Bell Adjustment Questionnaire.

**Demographic questionnaire** it was included personal information's such as age, marital status, education, income and duration of addiction.

**Buss-Perry Aggression Questionnaire (AQ)** This useful scale that first was published in 1992 by Buss and Perry, [21-22] includes four subscales: physical aggression, verbal aggression, anger and hostility [23] and has shown convincing reliability and validity in Iran [24, 25].

**Bell Adjustment Questionnaire** It contains 160 questions and measures adjustment at five levels: adjustment at home, health adjustment, emotional adjustment, social adjustment and vocational adjustment. Various studies have confirmed its reliability and validity in Iran [26-28].

**Intervention Sessions**

Intervention package was extracted of the book “controlling anger” and the book of “life skills” Klinke and its content is as follows:

The first session was allocated to introduction and familiarity with communication skills; active listening skills. In second session another communication skill; speaking skills were discussed. Third and fourth sessions were about two other communication skills; “expressing feelings and ideas, asking, and negotiation to resolve the disputes” and also getting familiar with anger control skills.

In fifth session triggers of anger were identified and problem solving skills were taught. Sixth and seventh sessions were focused on training some anger control skills; diaphragmatic breathing techniques and relaxation techniques, and distraction techniques and leaving the position. In eighth session expression anger in a healthy manner was taught. At the end, in ninth session last sessions were reviewed and post-test was done.

In descriptive statistic frequency, percent, mean and standard deviation were used. In inferential analysis, Levin test was used to determine the similarity of variances of variables. In order to control the impact of pre-test, one-way covariance analysis was used. Statistical analysis was performed using SPSS-20.

**Results**

All of the participants were male. Demographic characteristics of them in both groups are shown in Table 1. Descriptive statistics of variables are demonstrated in tables 2 and 3. Before inferential analysis of data, Levin test was used to determine the similarity of variances of variables. In order to control the impact of pre-test, one-way covariance analysis was used. Statistical analysis was performed using SPSS-20.

**Table 1: Demographic characteristics of the experimental group and the control group**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Case group frequency</th>
<th>Case group percentage</th>
<th>Control group frequency</th>
<th>Control group percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt;20 years</td>
<td>7</td>
<td>35%</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>20-29 years</td>
<td>9</td>
<td>45%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>&gt;30 years</td>
<td>4</td>
<td>20%</td>
<td>5</td>
</tr>
<tr>
<td>education</td>
<td>&lt;diploma</td>
<td>13</td>
<td>65%</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>diploma</td>
<td>6</td>
<td>35%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>&gt;diploma</td>
<td>1</td>
<td>5%</td>
<td>2</td>
</tr>
<tr>
<td>Marriage</td>
<td>Single</td>
<td>6</td>
<td>30%</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>10</td>
<td>50%</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>divorced</td>
<td>4</td>
<td>20%</td>
<td>3</td>
</tr>
<tr>
<td>Income in month</td>
<td>&lt;3000000R*</td>
<td>3</td>
<td>15%</td>
<td>2</td>
</tr>
</tbody>
</table>
Descriptive statistics of variables are demonstrated in tables 2 and 3. Before inferential analysis of data, Levin test was used to determine the similarity of variances in aggression and personal-social adjustment. The results showed that the variances of both variables statistically were similar in both groups [Levin test results for aggression: (F = 1.04), (DF₁ = 1), (DF₂ = 38), (p = 0.09) and for personal-social adjustment: (F= 0.10), (DF₁ = 1), (DF₂ = 38), (p = 0.74)]. With these results, the assumptions for the analysis of covariance was confirmed. Mean and standard deviation of aggression is shown in table 2. In addition the covariance analysis demonstrated that training anger management skills was significantly effective in aggression reduction (p<0.001).

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean/standard deviation</th>
<th>variables</th>
<th>d.f</th>
<th>Sum of squares</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>Pre-test</td>
<td>111.55±22.18 (SD)</td>
<td>Pre-test</td>
<td>1</td>
<td>14.31</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>51.70±11.58 (SD)</td>
<td>Between groups</td>
<td>1</td>
<td>35412.08</td>
<td>109</td>
</tr>
<tr>
<td>control</td>
<td>Pre-test</td>
<td>114.40±13.68 (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>111.30±22.34 (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 3, the mean and standard deviation of personal-social adjustment are shown. As you can see based on covariance analysis training anger management skills was significantly effective in improving participants’ personal and social adjustment (p <0.001).

The present study showed that training anger management skills effectively decrease aggression in addicts treating with methadone. This finding supported our first primary hypothesis.

In recent years, many studies have shown that training life skills such as anger management, problem solving, communication skills and group training is effective in anger management. [29-32] In general, despite various treatment methods have been applied for treatment of aggression, but behavioral management of aggression is only method that has repeated its favorable effectiveness [18].

For example Karimi and colleagues in their comparative study in Hamedan (a central province in Iran) cannabis addicted prisoners found that training anger management skills can significantly reduce their aggression. [16]. Also, Neetu and Ahmad Sajad in a pre-test-post-test without control group design concluded that anger management skill training could decrease aggressive behaviors in people with mild and moderate mental retardation [18].

In one quasi experimental study it was explored that anger management skills training decrease general aggression, aggressive behaviors and aggressive thoughts in high school students. [17] Seghati et al supported the effectiveness of anger control skills in reduction of aggression in addicts who received methadone treatment, too [4].
This result can be attributed to enhancing self-consciousness in addicts. Anger management skills help people to recognize the causes of their anger such as triggers and psychological stimulators [5]. When an individual identifies his anger arousals, he can handle them more successfully. People who can regulate their anger, they will be more successful in their social and vocational functions.

All of this factors, increase participants’ self-esteem and self-confidence and as a result of, increase in their ability to deal with personal and social problems. Besides when a person feels he can control his negative emotions such as aggression, his self-control ability will enhance. Self-control, in turn, encourages him to use anger management skills more frequently.

On the other hand, the present study found that training anger management skills can increase personal-social adjustment in addicts treating with methadone, effectively. This finding is adjusted with our second hypothesis. Some other studies are consistent with this result. For example Hashemian and colleagues, Snyder Dubois and colleagues, Matteson Skiba and Mckelvey, Foad Al- Dini and colleagues, Shoookhiyekta and colleagues have achieved to similar results [19, 29- 34].

**References**


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girl high school students in Mahshahr, Iran. Knowledge and Research in Psychology; 35: (36): 1-14.


