Investigation of Influence of Schema-Focused Therapy on Anger Control Skill and Self-Expression in Drug Abusers

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ABSTRACT

Introduction: the present research tries to investigate influence of schema-focused therapy on anger control skill and self-expression in drug abusers.

Materials and methods: statistical population of the present research included all addicts who referred to Rasht City Addiction Give-up Centers in spring 2012 (200 people) and 132 people were selected by means of Morgan Table and random sampling method. Self-expression questionnaire of Gambril and Varichi and aggression (AGQ) questionnaires were used. 30 people were divided into two experiment and control groups. The two groups received pretest and then, schema-focused therapy was implemented on experiment group in 15 sessions each taking 45 minutes and once per week. In the end, both groups received posttest.

Results: according to the results, schema-focused therapy has significant influence on anger management and self-expression with F(25,2)=45.793, p<0.0001, Wilk's Lambda=0.214 and partial eta=0.786. In other words, MANCOVA method showed that in significance level (p<0.0001), schema-focused therapy has influence on anger management skill and self-expression of individuals.

Conclusion: we concluded that addicts who do not receive schema-focused therapy are angrier and show less self-expression. Furthermore, results showed that schema-focused therapy has influence on anger control and self-expression in drug abusers.

KEYWORDS: schema therapy, anger management, self-expression, drug abuser

INTRODUCTION

Drug abuse is one of the problems of Iranian Health system. Drug Fight Squad estimated drug abusers of Iran to be 1.2 million people. This is while some researchers estimate this value to be between 2 to 5 million people (Nadimi, 2008).

The present research uses schema therapy which is a new method in treatment of disorders like drug abuse and personality disorders. It is obvious that such knowledge can be very helpful because enables psychologists to recognize and treat the early maladaptive schemas and helps with treating drug abusers who are resistant to therapy. Schema therapy helps a physician with defining patients' deep problems and understanding them easily. In this model, trace of schemas is followed by emphasis on inter-personal relationships from their childhood to present time. Some studies showed that early maladaptive schema plays role in forming many psychological problems like depression, personality disorder, and anxiety disorder and drug abuse. This schema can influence on individuals' understanding of different situations (Young et al, 2003).

In spite of the fact that anger is one of the natural excitements of human and can have positive function in human life, its close relationship with aggression, psychological worries and physical illnesses is important and also problematic. Anger and aggression can have heavy costs for individuals and health, social security and treatment systems (Sadeghi, 2008). Negative excitement conditions might be among the important factors of starting addiction and drug abuse. Anger and nervousness are among the most important factors of drug abuse. Anger is an excetion response to deprivement and stimulation which is characterized by increasing spontaneous stimulation and activity change in central nervous system. Anger also is correlated with depression intensification, cocaine abuse, alcohol abuse and suicide (kendall, 2000). Today's tense life involves confrontation with many individual and social situations. In such situations, individual rights and expectations are feared to be negatively affected (Rees, S., & Graham, R, translated by Shahni Yeylagh, 2000). Self-expression means presentation of various responses and flexible decision-makings in unpredicted situations, and it is different from doubtfulness and anxiety in social situations (Hormozinejad, 2000). Lack of self-expression, lack of attention to one's rights and lack of assertiveness makes human sick and mentally ill and it brings unhealthy social relationships. Many unacceptable behaviors and crimes, especially in teenagers, happen due to lack of ability to say "no" in different situations. He does not want to upset others and tries to respond to others'
expectations positively, either legal or illegal. Such a slavish obedience threatens a society's psychological health (Rees and Graham, translated by Shahni Yeylagh, 2000).

One of the ways of preventing from psychological problems is promotion of psychological capacity by means of schema-focused therapy in order to improve skills and reduce drug abuse and prevent from violent behaviors and increase self-expression skill and establishment of positive relationship (Bolton, 2007). Samuel A. Ball (2005) conducted a research on drug abusers who were also suffering from personality disorder. He investigated social psychological problems and prevention from their relapse with 2 methods of schema-focused therapy and standard group consultancy. Results showed that schema-focused therapy is more effective than standard group consultancy. He (2007) conducted another research titled comparing individual therapies for personality disordered opioid dependent patients found that schema has a quick reduction in repetition of drug abuse in comparison with 12-step therapy. Mary A (2009) investigated prevention from relapse in drug abusers. He showed that teaching skills like anger management skill are effective in treatment of prevention from relapse. In his study, cognitive and behavioral treatments were the main influencing factors on relapse aggression. Rawson(2009) dealt with strategies of prevention from relapse in drug abusers. He showed that behavioral-cognitive techniques are effective in treatment of alcohol and cocaine and marijuana and heroin abuse. Snophide and Reilly (2006) conducted a research titled "anger group-therapy with a behavioral-cognitive approach for teenagers who are addicted to cocaine. Results showed that as anger management improves, cocaine abuse reduces and give-up period becomes longer.

RESEARCH METHODOLOGY

The present research is an applied research and it is an experimental study in terms of data gathering and its plan is pretest-posttest with control group. Two centers of addiction give-up(MMT) were chosen randomly in Rasht city. After execution of the questionnaires of self-expression of Gambril and Varichi and aggression (AGQ), 30 people were divided into two experiment and control groups. The two groups received pretest and then, schema-focused therapy was implemented on experiment group in 15 sessions each taking 45 minutes and once per week. In the end, both groups received posttest.

Population of the present research included all male drug abusers who referred to MMT addiction give-up centers in Rasht city in spring 2012 (200 people).

Research tools
Three questionnaires were used in this study:
1. Young Schema Questionnaire. Short form (YSQ-SF)
2. AGQ aggression questionnaire
3. Gambril and Varichi's self-expression questionnaire
1. Young Schema Questionnaire. Short form (YSQ-SF)

This questionnaire has 70 items which was proposed by Jeffer Young (1988) for evaluation of 15 early maladaptive schemas. standardization of this questionnaire was conducted by Ami (2005) in Iran. Internal reliability of this questionnaire was calculated by means of Cronbach's alpha to be 97% in women and 98% in men (Ahi, 2005, as quoted from Lotti, 2006). Questions of this questionnaire have 6-point Likert scale. Young et al (2003) believe that answers 5 or 6 in 2 questions may be indicative of the presence of that schema in individual's mind.

AGQ questionnaire
This questionnaire contains 30 questions. 14 items (=questions) measure anger, 8 items measure hostility and 8 items measure malice. Respondents select 4 choices never, rarely, sometimes and always. Numbers 1, 2, 3 and 4 are assigned to the four choices, except for item 18 which has a negative factor loading and reverse scoring direction. Total point is from zero to 90 and psychological characteristics of this scale based on statistical analysis are as follows (Zahedino, 1996): retest coefficients obtained between total point of respondents in two times (retest) is equal to r=70%, r=64% and r=79% for all respondents (N=91), female respondents (N=48) and male respondents (N=38), respectively.

Cronbach's alpha in AGQ questionnaire was equal to 87% for all respondents.

Self-expression questionnaire of Gambril and Varichi
This contains 40 questions and was introduced in 1975 by Gambril Varichi. Each question indicates one situation and respondents must determine level of feasibility of such behaviors with choices 1=always, usually=2, approximately=3, rarely=4 and never=5.

Validity and reliability of self-expression questionnaire of Gambril and Varichi was verified. Construct validity of the questionnaire was verified by factor analysis and hierarchical method in Piri's research (2005) and two factors explain 48% of total variance of self-expression. Reliability of the questionnaire was estimated 82% in Gambril and Varichi's research (1975) and 85% in Piri's research (2005).
## RESEARCH RESULTS

Data was analyzed by means of descriptive statistics (mean, standard deviation) and inference statistics (MANCOVA) using SPSS18 software.

Table 1. Matrix of correlations among dependent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Anger control skill</th>
<th>Self-expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger control skill</td>
<td>1</td>
<td>*0.449</td>
</tr>
<tr>
<td>Self-expression</td>
<td>*0.449</td>
<td>1</td>
</tr>
</tbody>
</table>

*p<0.05

As it can be seen in table 1, there is significant correlation between dependent variables (p<0.05).

Table 2. Investigation of interactive effect

<table>
<thead>
<tr>
<th>Interaction of independent variable</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean of squares</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>SS</td>
<td>d.F</td>
<td>MS</td>
<td>2.024</td>
<td>0.17</td>
</tr>
<tr>
<td>Error</td>
<td>301.213</td>
<td>25</td>
<td>12.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression</td>
<td>106.825</td>
<td>2</td>
<td>53.413</td>
<td>0.591</td>
<td>0.56</td>
</tr>
<tr>
<td>Error</td>
<td>2259.474</td>
<td>25</td>
<td>90.379</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interaction between independent variable and pretest is not significant (p>0.05). Regression homogeneity assumptions are verified.

Table 3. Box test for investigation of matrix homogeneity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Box’s M</th>
<th>F</th>
<th>Df1</th>
<th>Df2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger control</td>
<td></td>
<td>1.559</td>
<td>3</td>
<td>1411.5</td>
<td>0.217</td>
</tr>
<tr>
<td>Self-expression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Box test shows that sig=0.127 and F(3, 1411.5)=2.261 and homogeneity condition of variance-covariance matrices holds.

Table 4: Levin test for investigation of equal variances

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>Df2</th>
<th>Df1</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger control</td>
<td>0.802</td>
<td>1</td>
<td>28</td>
<td>0.378</td>
</tr>
<tr>
<td>Self-expression</td>
<td>1.036</td>
<td>1</td>
<td>28</td>
<td>0.146</td>
</tr>
</tbody>
</table>

Levin test for investigation of equal variances shows that significance level of all calculated Fs were p>0.05. Therefore, variances difference is not statistically significant and equal variances hypothesis is verified.

Table 5. Primary mean

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>group</th>
<th>40</th>
<th>40</th>
<th>3.34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger control</td>
<td></td>
<td>42.73</td>
<td>45.53</td>
<td>1.77</td>
</tr>
<tr>
<td>Self-expression</td>
<td></td>
<td>19.2</td>
<td>76.2</td>
<td>12.81</td>
</tr>
</tbody>
</table>

Table 6. Adjusted mean

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>group</th>
<th>Mean M</th>
<th>Standard error (SE)</th>
<th>Population mean with 95% certainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger control</td>
<td></td>
<td>36.297</td>
<td>1.139</td>
<td>38.63 33.956</td>
</tr>
<tr>
<td>Self-expression</td>
<td></td>
<td>50.236</td>
<td>1.139</td>
<td>52.57 47.895</td>
</tr>
</tbody>
</table>

As it can be seen in table 4, anger management skill and self-expression skill variables are different after adjustment of the points of experiment and control groups in the posttest. MANCOVA analysis with “Bonferroni” correction was used to investigate significance of this difference and whether it is due to treatment effect or not.

Table 7. Influence size test based on Wilk’s Lambda

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value F</th>
<th>Group degree of freedom</th>
<th>Error degree of freedom</th>
<th>Alpha significance level</th>
<th>Influence size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilk’s Lambda</td>
<td>0.214</td>
<td>45.793</td>
<td>2</td>
<td>0.250001</td>
<td>0.786</td>
</tr>
</tbody>
</table>

As it can be seen in table above, schema-focused therapy has significant influence on anger management control and self-expression in a combinational variable (partial eta=0.786, S=0.214, F(25, 2)=45.793, P<0.0001).
In other words, schema-focused therapy was effective in anger management skill and self-expression and effect size is equal to 0.786 which is a great effect size. It must be mentioned that an effect size greater than 0.14 is considered a great effect size. First subsidiary hypothesis: teaching schema-focused therapy is effective in anger management skill and self-expression.

Table 8. results of influence size test of teaching schema-focused therapy on anger management skill

<table>
<thead>
<tr>
<th>Source of changes</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean of squares</th>
<th>Significance level</th>
<th>Influence size test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger management skill</td>
<td>643.314</td>
<td>1</td>
<td>643.314</td>
<td>53.99</td>
<td>0.0001</td>
</tr>
<tr>
<td>Error</td>
<td>309.828</td>
<td>26</td>
<td>11.916</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table above shows that teaching schema-focused therapy has influence on anger management skill with \( P<0.0001 \) and \( F(1, 26)=53.99 \). Therefore, it can be concluded that research first subsidiary hypothesis is verified. Intensity of this influence is 0.675, which is a great intensity.

Second subsidiary hypothesis: teaching schema-focused therapy has influence on self-expression.

Table 9. results of influence size test teaching schema-focused therapy on self-expression

<table>
<thead>
<tr>
<th>Changes resource</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean of squares</th>
<th>F</th>
<th>Significance level</th>
<th>Influence size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-expression</td>
<td>2312.941</td>
<td>1</td>
<td>2312.941</td>
<td>26.145</td>
<td>0.0001</td>
<td>0.501</td>
</tr>
<tr>
<td>Error</td>
<td>2300.130</td>
<td>26</td>
<td>88.467</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table above shows that teaching schema-focused therapy has influence on self-expression with \( P<0.0001 \) and \( F(26, 1)=26.145 \). Therefore, it can be concluded that the second subsidiary hypothesis is verified. Intensity of this influence is equal to 0.501 which is a great influence size.

**CONCLUSION AND DISCUSSION**

The present research aimed to investigate influence of schema-focused therapy on anger management and self-expression in individuals who are addicted to drug. Results showed that addicts who did not receive schema-focused therapy had more anger and less self-expression. Furthermore, results showed that schema-focused therapy has influence on anger control and self-expression in drug abusers.

Young believes that schemas form the core of self and influence on the individuals' interaction with their surrounding environment. Schemas are used as models for processing individuals' experiences. Therefore, determines the quality of understanding of each person from himself and surrounding world. This perception continues all lifelong due to schemas nature (Simos, 2005, Young et al, 2003). Anti-social and aggressive behaviors are resulted from anger. Anger has relationship with depression, drug abuse, alcohol abuse and suicide. An antisocial aggressive behavior may be affected by cognitive events like hatred (like remembering an old spite) or inability in solving a problem (instead of automatic expression). Aggression can cause relationship problems in drug abusers and it can be an obstacle ahead of their treatment. Therefore, one of the problems that cause reuse in addicts who are being treated by Methadone is their inability in controlling and managing anger. Consequently, they look for a way for reducing psychological pressure resulted from anger and they use the closest and easiest way (in their opinion) to reduce this pressure, i.e., drug abuse. Schema-focused therapy can prevent from relapse of addiction and help drug abusers a lot.

Studies showed that lack of self-expression skill cause behavioral disorders, crime, anti-social behavior and psychological disorder. Therefore, increasing self-expression level can result in reduction of crimes and violent acts and drug abuse. Schema-focused therapy increases self-expression and individuals' responsibility and helps addicts with finding necessary abilities for confronting tense situations because addicts usually face dangerous situations like being under pressure to abuse drug by friends.


Finally, it can be said that Young sees early maladaptive schemas as foundation of psychological problems and disorders and unacceptable behaviors in humans. Young also believes that these deep infrastructures are very strong in cognitive disorders. Therefore, they prevent from effectiveness of short-term-cognitive-behavioral treatments. As a result, treatment of these problems needs an approach which changes and corrects schemas.

**Research recommendations**

1. It is recommended meetings be held to determine effectiveness of treatment and its results.
2. schema-focused therapy method can be used as an appropriate treatment method. First, patients' fundamental schemas are investigated and they are used in treating some unacceptable disorders which have been formed in the long run.

3. As it was seen, schema-focused therapy has influence on improvement of anger control skill and self-expression skill and this technique can be used in increasing self-esteem and inter-personal communications skill.

Research limitations
1. One of the serious restrictions of this study was the way of cooperation of respondents and lack of necessary attempt to receive treatment.
2. Low level of education of some of the respondents which can affect their understanding of questions and variables.
3. Lack of control over experiment and control groups because many of them attended Narcotics Anonymous classes and therefore it cannot say with high certainty that whether they changed due to schema-focused therapy or other intervening factor.

REFERENCES


Ball, A. comparing individual therapies for personality disordered opioid dependent patients, journal of personality disorder. 2007, 305-321.


