Investigate the effectiveness of psychological treatment on the life quality and coping styles of Shishe abusers, based on the matrix model

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ABSTRACT

The current research was aimed to investigate the effectiveness of psychological treatment on the life quality and coping styles of Shishe abusers, based on the matrix model. The current study was semi-experimental. The statistical population of this research consisted of Shishe abusers in the city of Rasht. The research sample included 20 people who were selected through in access method and were randomly divided into two experimental and control groups. The World Health Organization's Life Quality Scale and Parker and Andler's Coping Styles Scale were administered to both groups in form of pretest and posttest. Findings: Findings revealed that participants' scores in therapeutic sessions were significantly higher compared to those in the control group in regard to subscales of problem oriented and emotion oriented coping styles. Also, in relation to life quality subscales, it was determined that experimental group scores in subscales of interpersonal relations, physical health and life requirements were significantly higher than those in the control group. It appears that a psychological therapy, based on a matrix model, can cause to promote peoples' life quality level and thus offer more effective techniques for coping with negative stresses and emotions.

Keywords: Matrix model based psychological therapy; Life quality; Coping styles
1. INTRODUCTION

The problem of abuse and dependency on industrial substances, especially methamphetamines has become a serious and controversial issue in recent years, such that it has led officials to think of ways to curb it. According to the last statistics, 1% of the people used to consume narcotics, while according to a Fast Situation Analysis in 2007, methamphetamines consumption accounted for 4% of the addicts. Also, researches on then trend of stimulants consumption trend in Tehran suggested an increasing growth of such substances, particularly methamphetamines. This substance is highly addictive, such that its continuous consumption and its destructive impacts over time will lead to a wide spectrum of behavioral, psychological, social and physiologic functions; thus, it is highly important to treat this illness (Jafari, Taheri Nakhost and Gilani Pur, 2012).

Addiction is thought to be one of the social problems of the modern world, in particular, in countries like Iran with its special young, social and geographic conditions. The addict due to the fact that he has trespassed social norms and values is considered perverse. He is a patient that is subject to economic, social and cultural conditions and in fact he is a perverse whose pervert way of life leads him to other pervert conducts. Addiction is a social crisis for Iran that if not attended to, it will result in all kinds of deviations, diseases and social problems in a near future (Mozafar et al, 2009). Addiction threatens human societies. Despite dangers and side effects of addiction, more and more people fall victims to it on daily basis. Observing its horrible scenes has not yet been regarded as a serious warning for the peoples’ avoidance especially the younger generation (Yousefi and Khaledian, 2012). Given the fact that the addiction age is falling down as well as human and material costs of fighting narcotics distribution and also, mental-physical side effects and in addiction huge costs and low success percentage and lack of motivation by addicts to get improved have overall had no favorable results.

Also, based on performed research, it looks 20-90% of addicts placed under drug therapy will return (Kamarzarrin et al, 2013). It sounds as if in rehabilitation centers with respect to harm reduction and psychological therapies to change the drug abuse attitude are needed more than ever before. So, psychological therapies and non drug therapies are regarded as important (Kamarzarrin et al, 2012). One of the most important social world criteria is the issue of addiction and its increasing infiltration among the younger generation. Although, drug abuse, has had a long history, and the herbs from which traditional narcotics are obtained are actually Iranian indigenous herbs.

Based on the statistics and reports of the global organizations such as WHO, in parallel with the advancement of the societies, needs and inclinations of the young peoples' behavioral patterns will be transformed and the drug abuse pattern among the young people in the world including Iran, and its capital Tehran, is changing from a traditional style to an industrial approach. In such a way the representative of the bureau of fighting narcotics and crime of the United Nations in Iran, warned about the expansion of industrial narcotics (Islamdoost, 2010). Addiction is a social, psychological and biological disease. Various factors cause addiction that in interaction with each other, leads to starting consumption and then addiction. Effective factors on the person, environmental and social factors as basic factors will result in a situation where the trend of prevention, identification and treatment are planned purposefully. Hence, familiarity with factors causing addiction as well as preserving factors against it is necessary for two reasons. (a) The etiology of people exposed to addiction and
conducting necessary preventive measures (b), choosing the type of therapy and service, support and counseling measure needed for addicts. Dangerous factors of drug abuse include personal, interpersonal and socio-environmental factors (Yousefi, and Khaledian, 2012).

In this regard, many therapists and researchers have made efforts for developing therapeutic models (Tajeri, 2012). As a result, much regard was paid to the situation of construction and assessment of social mental/behavioral treatments. One of the promising therapeutic approaches in recent years is the Matrix Outpatient Treatment Model. Researches have illustrated that in this treatment method, despite length of the treatment, the patients will more likely to continue with their treatment and negative methamphetamines experiments are seen in this period of time (John et al. 2009).

The addiction ailment starts with initial consumption of substances and acquisition of enjoyable experiences during initial period of consumption and moves forward with changes made to the nervous cells as the need for the substance increased. Creation of deprivation signs as a result of severance or reduction of consumption will necessitate continuation of consumption. Consumption behavior loses its please and becomes compulsory; substances, too, except for creation of dependency will inflict various mental and physical ills on the consuming individual. Under these conditions, a full tableau of addiction along with a combination of dependency and destruction can be seen.

This destruction and dependency in drug abuse such as methamphetamines abuse is high. Damages inflicted on the Central nerve system will disrupt mental and natural functioning of the individual and bring about many side effects, including illusions, hallucinations and aggression in the individual (Rawson, 2014).

To treat addiction to methamphetamines, psychological treatments are the only effective treatments for this kind of addiction, given the fact that there is no specialized and known drug like methadone and buprenorphine. One of these drugs for treating addition to methamphetamines is psychotherapy with a matrix model. Matrix is a non-drug outpatient treatment method for patients addicted with methamphetamines. It has been determined that kind of coping styles and stress management affect peoples' life quality. For example, while it has been clearly defined in some researches that active coping styles (assignment oriented) are accompanied with low depression, low anxiety, low stress, overall well-being and life quality and vice versa, mental release (as an avoidance coping style) is followed by high anxiety and depression and life quality as well a slow well-being. It appears that patients’ life quality is affected by their stressful conditions, where one can promote peoples' life quality by training control and managing stress as well as by training life skills, training effective coping skills and the like (Maremmani, Pani, Pacini and Perugi, 2009).

Researches have proven the impacts of life skills on improving life quality and improving coping skills among people. As an example, it was defined in a research that training life skills, including communication skills decision making, managing stress sand anxiety have been effective in reducing alcohol (Botvin and Cantour, 2007). Life skills will increase appropriate social behaviors and reduce negative and destructive behaviors. Training life skills has always been effective in reducing violence delinquency and suicide. For example, in the research by Khadivi Reza, Shakeri and Borjian (2005) on women and children, it was specified that training life skills has been effective in promoting mental health level and in preventing suicide among depressed women and those prone to suicide. Other researches have also suggested that training life skills have been effective on reducing drug
consumption promoting life quality and improving coping skills in countering stressful problems (Botvin, Griffin, 2004; Wenzel et al. 2009).

Of course, there are also contradictory findings, As an example, it was clarified in a research that training life skills, though it decreased depression signs, social problems and subjective obsession or ailment an death, from an affection answer, feeling of guilt, self-esteem and happiness, it did not have much effects (Amiri Baramkoohi, 2009). Investigating the comparison of dependency management and cognitive behavioral approaches during maintenance treatment with methadone for dependency on cocaine, Rawson (2004) concluded that while drug effect of dependency management was more salient, but in the long run, Matrix treatment was more successful.

Exploring level of Matrix method effects on addicts with Shishe, Darvish Nia (2012) found out that cognitive skills such as identifying troublesome situations, preventing from obsession, over abuse, managing possible ass of recurrence and ways for remaining clean, increasing power in facing stress and adverse situations, healthy life and valuable substances like planning, communications with others, healthy recreation increasing individual's insight to one's behaviors and reforming mental and behavioral problems in these have led to considerable progress. Tajeri et al (2011) were successful in implementing Matrix methods and in training addicts affected with stimulants while preventing from obsession and lack of return. Patients used to enjoy physical and mental health under this treatment such that they did not have any recurrence after 9 months.

One of the major goals of this research in connection with coping skills among patients was to determine what coping strategies could be accompanied by better compatibility. In fact, relation of a special kind of coping skill for predicting the patient's coherence depends on a special kind of stressful conditions which have involved the individual himself. With this research gap in clinical populations, the research was done based on exploring the effectiveness of training life skills on life quality and coping skills among addicts improving through maintenance method for methadone. In other words, has psychological treatment based on Matrix Model been effective on life quality and solving coping styles among methamphetamines users?

2. METHODOLOGY

2.1. Population, Sample and Sampling method

In this semi-experimental research, the statistical population consisted of all Shishe abusers who had been hospitalized due to becoming psychotic in the Shafa Shahr hospital, Rasht city. The number of 20 people of Shishe abusers who had been hospitalized due to becoming psychotic in the Shafa Shahr hospital, Rasht city was selected via convenience study. These members were randomly assigned to two experimental and control group. Inclusion criteria were: age range of 20-25, male and minimum education degree of third grade junior school

2.2. Tools

Life quality inventory:

The World Health Organization's Life Quality Scale is comprised 26 items which evaluate areas relating with health, mental health, social relations and then environment.
Differential validity, content validity, and retest reliability of this inventory have all been affirmed well (World Health Organization, 1993). The World Health Organization's Life Quality Scale was translated from the original language into Farsi in Iran by five experts in the area of Psychology of Health and then, it was retranslated from Farsi into the original language and no linguistic discord was found. Also, the said inventory was administered to 504 teachers for a factorial analysis (Farahani, Mahamad Khani and Jokar, 2010).

In the end, the analysis having been completed four components were determined for this scale. These components are: life requirements, physical health interpersonal relations and meaningful life. The Inventory's Cronbach's alpha (0.75) in the current research for the subscales were life requirements (0.75), interpersonal relations (0.82), physical health (0.80), meaningful life (0.70).

Coping style scale:

This inventory was constructed by Endler and Parker in 1990. It measures three assignment oriented, emotion oriented and avoidance oriented styles coping styles. Each individual's predominant style is determined based on his score in each of the three dimensions of coping styles. In other words, each of the behaviors scoring high in the scale is considered as the preferred individual style. Questions have been distributed in order to control for side secondary effects in the inventory. The respondents are required to specify a five degree option (from 1(never) to 5 (always) via a cross mark after reading each question. This scale is a tool which is used for both adults and healthy adolescents and patients and even various vocational groups. Its scoring in each age group for adults and adolescents is the same (Khabbaz et al. 2011).

Procedure

To conduct the research, the World Health Organization's Life Quality Inventory and Endler and Parker's Coping Styles Scale were at first provided to patients (experimental and control groups) as they were discharging. Members of both groups were placed under treatment with anti-psychotic drugs, but participants in the experimental group were also placed under Matrix Model Treatment sessions in 24, one hour sessions in an outpatient manner, in addition to receiving treatment with anti-psychotic drugs (Members of the control group were only place under treatment with anti-psychotic treatment during this period). Thereafter, educational areas in relation to Matrix model were at first provided to the subjects, and then the researcher taught Matrix to the participants. In the end, the above mentioned inventories were again offered to two groups for completion after a week.

Matrix programs

Matrix was considered as a psychological intervention for at least two sessions per week of one hour each session for a three-month period (24 sessions). The session would start with a review of past days’ occurrence and practices, then continue into the next round of session with a new minute. During the session, while educating the patient, practices would be given to do for the future days. During the sessions, patients would be visited by their own musicians in order to set the dose of anti-psychotic drugs.

In this manner, efforts were made so that the patient would utilize his/her own real power and increase his/her performance level during the treatment process, and thus make use
of drug potential as an auxiliary supplementary. Also, in this method the patient's gradual abstinence, strengthening areas of mental and social well a professional performance would be targeted so that the patient would find more insight as to his own illness and benefits of abstention.

Matrix treatment Model has also considered several session for training families such that families can also increase their own information and knowledge of this disease and get their wrong information corrected. The family can bring about a comfortable and secure environment for the improving persons via building trust in the patient and is therapy, thereby paving the way for his treatment. Family members, serving as treatment aids, can offer help to the therapist and the patient. In this research, members of the family, including (father, mother or spouse) attended in 8 Educational sessions. The sessions were held individually twice a week of one hour each, where 24 sessions were held during four months. It is noteworthy that in this research, as many as 12 people ceased cooperation for unknown reasons, including: recurrence, return to consuming drugs, and non-observance of sessions thinking. In the end, the research was completed with 20 people (10 people in the experimental group and 10 more in the control) in attendance. The Matrix Treatment Model was administrated in a time period of December, 2015 to March, 2016.

3. FINDINGS

Descriptive statistics of the variables under study have been offered as separated by kind of test in the experimental group in Table 1.

Table 1. Descriptive statistics of coping strategies and life quality as separated by kind of test in the experimental group.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest mean (SD)</th>
<th>Posttest mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem- oriented coping</td>
<td>(8/87) 44/16</td>
<td>(9/63)54/22</td>
</tr>
<tr>
<td>Emotion-oriented coping</td>
<td>(7/05) 50/32</td>
<td>(10/03)59/10</td>
</tr>
<tr>
<td>Avoidance coping</td>
<td>(9/98) 39/12</td>
<td>(9/80)48/18</td>
</tr>
<tr>
<td>Life requirements</td>
<td>(2/80) 18/61</td>
<td>(5/15)26/77</td>
</tr>
<tr>
<td>Meaning in life</td>
<td>(6/71) 24/01</td>
<td>(3/98)29/61</td>
</tr>
<tr>
<td>Physical health</td>
<td>(5/10) 14/69</td>
<td>(5/23)34/50</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>(3/14)8/33</td>
<td>(2/81)15/23</td>
</tr>
</tbody>
</table>

Descriptive statistics of the variables under study have been offered as separated by kind of test in the control group in Table 2.
Table 2. Descriptive statistics of the variables under study have been offered as separated by kind of test in the control group.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest mean (SD)</th>
<th>Posttest mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-oriented coping</td>
<td>(8/80)4/12</td>
<td>(9/03)44/22</td>
</tr>
<tr>
<td>Emotion-oriented coping</td>
<td>(7/15)49/82</td>
<td>(8/23)48/22</td>
</tr>
<tr>
<td>Avoidance coping</td>
<td>(9/02)40/23</td>
<td>(9/80)39/11</td>
</tr>
<tr>
<td>Life requirements</td>
<td>(2/70)19/21</td>
<td>(5/15)20/79</td>
</tr>
<tr>
<td>Meaning in life</td>
<td>(6/51)24/31</td>
<td>(5/98)25/51</td>
</tr>
<tr>
<td>Physical health</td>
<td>(5/19)15/09</td>
<td>(5/23)16/33</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>(3/84)9/13</td>
<td>(2/15)8/22</td>
</tr>
</tbody>
</table>

To examine the efficacy of the treatment on coping strategies, MANCOVA Test was applied. The MANCOVA analysis assumption is equality of Covariance Matrix. Box's test results suggested /this assumption was met (M = 7/52, F = 1/123, P > 0/05). ANCOVA analysis results indicated a significant difference between linear combination of coping strategies components in both experimental and control groups, despite taking into account pretest scores (Wilks Lambda, 0/462, F = 6/251, P < 0/01). To examine difference patterns, ANCOVA test was applied.

Table 3. Inferential statistics of Covariance analysis for examining the efficacy of the intervention on coping strategies.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Square sum</th>
<th>Freedom degree</th>
<th>Square mean</th>
<th>F statistic</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem oriented coping</td>
<td>511/11</td>
<td>1</td>
<td>511/11</td>
<td>9/127</td>
<td>0/005</td>
<td>0/296</td>
</tr>
<tr>
<td>Emotion oriented coping</td>
<td>233/61</td>
<td>1</td>
<td>233/61</td>
<td>6/390</td>
<td>0/016</td>
<td>0/250</td>
</tr>
<tr>
<td>Avoidance coping</td>
<td>192/81</td>
<td>1</td>
<td>192/81</td>
<td>2/484</td>
<td>2/484</td>
<td>-</td>
</tr>
</tbody>
</table>

As seen in the table above, training life skills has been effective in problem oriented coping (F = 9/127 and P < 0/01), and emotion oriented coping (F = 6/390 and P < 0/05). However, no significant difference was made in the avoidance coping (F=2/484 and P >
0/05), meaning training life skills has increased problem oriented coping questions and reduced emotion oriented coping scores; but no considerable change was seen in the avoidance coping. Also, to examine the effectiveness of treatment on life skills, the MANCOVA test was used. The MANCOVA analysis assumption is equality of covariance matrix. Box's test results suggested a significant difference between the two groups (M = 5/91, F = 1/029, P > 0/05). MANCOVA analysis results indicated a linear combination of the components of life quality in the two groups despite taking into account of pretest scores (Wilks Lambda, 0/158, F = 16/047, P < 0/001). To examine patterns of difference, the ANCOVA test was used.

**Table 4.** Inferential statistics of Covariance analysis for examining the efficacy of the intervention on life quality components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Square sum</th>
<th>Freedom degree</th>
<th>Square mean</th>
<th>F statistic</th>
<th>Sig.</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life requirements</td>
<td>375/16</td>
<td>1</td>
<td>375/16</td>
<td>44/234</td>
<td>0/005</td>
<td>0/615</td>
</tr>
<tr>
<td>Meaning in life</td>
<td>53/23</td>
<td>1</td>
<td>53/23</td>
<td>2/927</td>
<td>0/65</td>
<td>-</td>
</tr>
<tr>
<td>Physical health</td>
<td>192/81</td>
<td>1</td>
<td>192/81</td>
<td>22/546</td>
<td>0/005</td>
<td>0/486</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>190/21</td>
<td>1</td>
<td>190/21</td>
<td>54/238</td>
<td>0/005</td>
<td>0/699</td>
</tr>
</tbody>
</table>

As seen in the table above, training life skills has been effective in life requirements (F = 44/234 and P < 0/001), physical health (F = 22/546 and P < 0/001) and interpersonal relations (F = 54/238 and P > 0/01). In other words, training life skills have raised the aid components scores, but it has not been effective in the component of meaning in life (F = 2/927 and P < 0/05).

**4. CONCLUSIONS**

The current research was aimed to explore the efficacy of psychotherapy based on Matrix model on life quality and coping styles of shishe abusers. The research results in then pretest and posttest in two control and experimental groups indicated that psychotherapy based on Matric model in shishe abusers has been effective in problem oriented coping style, meaning that people who were treated with training of life skills, including techniques affecting coping with stress and life pressures, ability to decide and solve problems, ability to establish effective communications between the individuals and ability of self-conscious, experienced considerable improvement in coping styles and life quality. Problem oriented coping styles, like problem solution and planning are referred to the individual's efforts for managing and controlling the impacts of a stressful condition (Lazarus and Folkman, 1984).
This finding is consistent with results of other researches in this regard (Botvin and Griffin, 2004; Wenzel et al. 2009). Research results have explicitly suggested then role of training of life skills in promoting coping guidelines based on problem solution depending on the situation. Also, while analyzing pretest and posttest results in the current research it was determined that people, by participating in psychotherapy treatment sessions based on Matric model of transferring of life skills saw a considerable improvement in emotion oriented coping style. Emotion oriented coping style refers to the individual's efforts for setting emotional insolvency which causes stress (Lazarus and Folkman, 1984; Robinson, 2008).

It appears that people under the treatment of Matrix model psychotherapy, via revealing emotions in form of Educational sessions and relying in supporting sources inside groups (e.g. intelligence and emotion support) and learning techniques affecting coping with stress, could handle and manage emotions based on their own main problems which is the very abstention from narcotics. This finding is in line with other researches (Wenzel, et al. 2007; Taylor et al. 2008).

Of other variables which was explored in the current research in comparing two control and experimental groups was life quality. Research results indicated that experimental group subjects' scores in the subscale of interpersonal relations, life requirements and physical health were significantly higher than those in the control group. Of techniques focuses attention in training of life skills was the ability to establish effective communications between individual. Interpersonal relations refer to one of the main life quality components which imply having appropriate interpersonal relations, ability to favorably conduct life affairs, self-satisfaction and level of social support. It looks training of skills to establish effective interpersonal relations lead people to join experienced people to solve their own problems, so that they offer advices on shishe (Beigi, 2010; Taylor, et al. 2008).

Participation in educational workshops related with training of life skills in places where addiction is abstained creates this opportunity so that people learn solutions and strategies effective for coping problems and to establish communications with others. Intra-network social support leads people not to feel isolated and this will increase peoples' contact with those who abstain from drugs a d drug consumers. Social support will increase the individual's contact with those who can be supportive in stressful conditions and as a result, interpersonal relations will be boosted (Chen, 2006; Robinson, 2008).

These researches have all affirmed the role of training of life skills in reducing negative behaviors, preventing from violence and enhancing interpersonal; communications. It appears through proper and continuous training on life skills, including skills of coping with stress, proper decision making and problem solution, interpersonal communications and self-conscious, one can promote peoples' mental health and life quality. It appears that turning to negative behaviors such as drug consumption among people with a high level of knowledge is related with their life skills. These people due to lack of familiarity with life skills are unable to apply communications techniques, use effective coping styles and thus face with communications and emotional problems and they attempt to compensate for their weakness by turning to drugs. Since they do not know guidelines for coping with stress appropriately, and do not possess the ability of decision making, they easily surrender to problems and tend to mental and behavioral problems. Thus, it appears training of life skills; especially addicts who have experienced various damages in life could offer appropriate guideline for promoting life skills.
The current research was aimed to explore the efficacy of psychotherapy based on Matrix model on life quality and coping styles of shishe abusers in the Shafa clinic in the city of Rasht. In the current research, the posttest assessment was done as well after the completion of Matrix Model sessions; given the change of behavior assumes importance, it is necessary the future researches to have regard for this. To sum up, psychotherapy seems to be effective on shishe abusers, because it strengthens effectiveness of coping guidelines for solving problems and raising life quality.

References


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