Study of the Effectiveness of Cognitive Group Therapy in Relapse Prevention among Substance Abusers

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ABSTRACT: This research project studies the cognitive group therapy effectiveness in relapse prevention among the outpatients in Uromiyan Welfare Self Introducing Center. The objective of this study is to increase the knowledge in relation with this method's effect on relapse prevention. The method used in this study was experimental method of pretest, posttest type with control group. To carry out this study project, 30 substance abusers were randomly selected and placed in two groups of experimental (15 people) and control group (15 people). The experimental group received cognitive group therapy in 12 sessions and the control group did not undergo any experiments. Measurement tools include relapse prediction scale, nonstructural clinical interview and educational program for cognitive group therapy. Research hypothesis: Cognitive group therapy has a positive effect on relapse prevention in substance abusers. For hypothesis test, t test was used. The conclusion obtained from the research showed that cognitive group therapy method has a positive effect on relapse prevention among narcotic dependents.
Keywords: Cognitive Group Therapy, Relapse, Relapse Prevention, Substance Abusers, Narcotic Dependent Persons

ORIGINAL ARTICLE

INTRODUCTION

Using or abusing narcotic drugs or substances is of a long historical background, the Chinese used marijuana in the 27th century BC. In the United States, drugs including opium were used without a prescription. As a result, numerous people became narcotic dependents in their teens (Keh, 1997). In Iran, using opium has been in the form of drug or non-drug and other substances abuse has started about the recent 50 years. Throughout the last century, an increase in substance abuse has led to an ever increasing concern for all communities. Studies show that substance abuse has increased from 1-2% among people born in the 20's and the 30's to 20% among people born in the 50's (Taheri., 1999 quoted from Vaziriyan et al., 2003). In addition, on the eve of the Third Millennium, the human communities are still suffering from a disaster like drug abuse; despite the widespread efforts against this social damage, no effective and useful solution has been found for the problem.

Nowadays, in scientific and academic circles, the term "drug dependence" is used interchangeably for addiction although from people's point of view the illness has been regarded as addiction and the patient himself regarded as an addict.

The prevalence of substance abuse during one's lifespan is 6.1%, alcohol 13.5% and the company of psychological disorder and substance abuse 3.2%. Also the ratio of men to women for alcohol is 2 to 1 and for substance abuse disorder 4 to 1. Some studies carried out in the west show that more than a half of people from 16 to 22 years old have tested an illegal substance (Wright et al., 2002). Some studies show that 15% of the over 18 US population suffer serious problems resulted from substance abuse. Also two third to three forth of substance abuse disorder patients are accompanied by psychiatric disorders diagnosis (Kaplan & Sadock., 2003). Evaluating the narcotic dependents is often to some extent difficult, because they cannot be easily categorized, most of them report the amount of their consumption lower than the real use dosage. They are apt for denying the reality and are usually afraid of the consequences of admitting the problem and it is crucial to get data from other resources of information like family members.

One of the cases seen in narcotic dependents after they bother to quit is a relapse toward narcotics. Most quitters commit either a lapse or a relapse (Saunders et al., 1997; Viallant., 1998) and 90 days after quitting are the most probable times among all (Mackayet al., 1999). Various studies and researches have showed that the rate of relapse is very high among narcotic and alcohol dependents (Daley et al., 1995). In a survey into 500 research reports the results of the effectiveness of

addiction quit programs, (Milter et al., 1980) for example, have come to the conclusion that three forth of those who underwent the treatment period had a relapse within one year after completing the treatment. In 1988, Catalano et al (Daley et al., 1995) have stated that the relapse rate among the narcotic users was 25% to 97%.

A relapse is the first sudden consumption of the drug or a substance after one has fulfilled his vow to quit. This is different from the process which leads to a regular substance reuse (i.e. a relapse).A lapse will not necessarily result in a relapse. One of the important reasons for a lapse, craving or the strong desire is the dire psychological need of taking the substance (Mostashari et al., 2003).In the past, a relapse wad regarded as a treatment failure. At the time being, it has been discovered that an addiction is a disease with repeated lapses. A relapse is not an event but is a process. Following the behavior re-adopting, the apparently low risk behaviors can lead to a relapse in a spontaneous process.

Numerous conceptual models have been put forward to explain addiction behaviors and prevention on relapse. Among these, (Marllatt et al., 1985) provided a remarkable assistance to the addiction scientific background by introducing a cognitive behavioral model (Marlatt et al., 1985). individuals see themselves as having a sense of perceived control or self efficacy. When facing the risky conditions of abuse this sense is threatened. The risky condition for drug abusers may include positive or negative emotional, physical moods, interpersonal conflicts, social pressures or facing some of the drug symptoms. The individual who possess less adjusting reactions may show a decrease in self efficacy and experience positive expectations about drug's effect, something which is followed by the first intake and results in abstinence violation effect (i.e. perceived control loss) and finally increases the probability of relapse.

Regarding the above mentioned factors, numerous strategies have been paid attention for relapse prevention. In the study of approaches toward relapse prevention there are some categorized patterns which range from neurological to the behavioral ones. The method studied in this research project in relation to relapse prevention is the cognitive group therapy. The therapy method's objective is to identify, to challenge and to change the negative understanding of the substance dependents and or the individuals suffering emotional disorders such as stress, depression and extreme anger.

Cognitive behavior therapy (CBT) or cognitive theory (CT) was proposed in western countries during the end of the Christian 50's and nowadays this method is employed as an efficient method to treat lots of psychological and behavioral problems. According to cognitive view point, the way in which people interpret particular situations influences their feelings, their motifs and their performance. In turn, their interpretations too, are

formed by the ideas activated under these circumstances. The theoretical and researching background of the subject show that there are various strategies for relapse prevention among the narcotic dependents, and applying any of them can be significant.

a research project was called the effectiveness of group therapy based on the changing stages in relapse prevention among the men addicts in Kerman. In this research, 30 individuals were randomly selected and placed into two groups of experimental and control. The measurement tools included preparation ruler and clinical interview. It included 15 sessions which was carried out after the selection of the control group. Findings from the project show that this method has been identified as useful and it is one of the methods for relapse prevention. (Golestani, 1999).

a research project was called a survey into the effectiveness of group CBT on reducing the relapse probability among the opium dependent prisoners in Gorgan Prison. Out of the behavioral methods used, we can point out relaxation learning, assignments, advantages and disadvantages and behavior test including appropriate behavior learning and repeatedly practicing what has been learned. In this project 12 people were randomly selected out of opium addict prisoners. They were randomly selected in two six member groups. Results from MANOVA showed that the group CBT has influenced the probability of the addict's relapse toward opium have decreased it in the both stages of pretest and follow up. The rate of craving and the probability of using the scale of the intervened group's relapse predictability in the post test were significantly less than the control group. The results from Rapid test confirm the mentioned findings as well. The results of the scale of the intervened group's predictability at the follow up stage in two components of craving and consumption probability showed a significant decrease compared to the control group (Rasouli et al., 2006).

a research project was studied the effectiveness of the organized group therapy and family training on substance dependent patients' relapse reduction in Isafhan. The researched method employed was the semi experimental method of pretest and posttest kinds accompanies by two months of follow up. To do this, two groups of 14 members were randomly selected out of the above mentioned patients who had been detoxified successfully. The first group, as the experiment group, received a course of 8 session's group treatment and their spouses received a course of 8 session's family instruction. The second group members were also randomly selected out of the detoxified patients of the same center who didn't receive the mentioned interventions. The final results indicated that the treatment and learning group has led to a significant decrease in the craving level and the tendency towards substance use in the post test stage,

however there was no significance in the two month follow up stage. In addition, these interventions resulted significantly in a decrease in relapse frequency among the experiment group in the follow up stage (Mehrabi et al., 2005). In one project, (Arab, 1998; quoted from Panahi Kivi, 2004) carries out a study into the effect of cognitive religious group therapy and cognitive group therapy on three groups of quitting addicts by using the intervention method. Thus the first group including 10 quitting addicts went under cognitive-religious group therapy after getting equal as the second and the third group members and the second group underwent cognitive therapy. According to data analysis, the second group was significant in terms of depression reduction compared to two other groups and also in terms of addiction relapse; however the members of this group showed their disparity compared to other groups in terms of stress reduction. The research project carried out (Oei et al., 2004, quoted from Ferry, 1999) show that cognitive group therapy is effective for many psychological health problems from alcohol and narcotic addiction to stress and depression disorders and cognitive therapy group is as useful as personal cognitive theory in curing the effects of alcohol abuse and other psychological disorders.(Marcus et al., 1994; quoted from Golestani, 2008) used the group therapy model based on the change stages which is one of the methods used by National Cancer Institute to stop smoking in order to prevent among a group of women so that they reported the result of the prevention success.

In one project (Daffee et al., 1990; quoted from Adib, 1995) in US on a group of alcoholic men, 28 people were participated in group therapy. In these groups method like learning and training therapy, self-expression, drug therapy, family therapy and observation relationship and the observed relationship were utilized. In addition, in groups, the drama therapy method was utilized to solve self introduced conflicts and the method was practiced and in this way the group members were asked to express their feelings and find new ways to solve their own problems. The results from this group showed an increase in their self-confidence and a change in the way they view their relationship patterns was seen. Thus, regarding the discussions mentioned above, the objective of this project is to study the effect of cognitive group therapy on relapse prevention among the narcotic addicts and the research hypothesis is put forward within the project: The cognitive group therapy has a positive effect on relapse prevention among the narcotic dependents.

MATERIALS AND METHODS

In this project the Empirical Research Method and the proposal of pretest, posttest and with control group kind were utilized. The statistical community of this project included all men substance abusers from Uromiya that had referred to Uromiyan Substance Abusers Welfare Organization from Persian date 2008 to 2009. According to the authentic projects carried out in this field, 30 people were selected as samples. The sampling method was the accessible sampling. Out of the all tested group members, half of them (15 members) were placed in the test group in which the independent variable (the cognitive therapy group) was applied for them and another half (15members) in the control group for which no variables were used. The average age of the tested subjects was 33.99 and within the age range of 20 to 50. Both groups were equalized in terms of some sociological variables as well as variables related to consumption such as substance dependence duration, previous addiction quitting background and the kind of the substance consumed. Some sociological aspects of the tested people are mentioned in the result's part.

The research tools used in this project include: Relapse Prediction Scale, This questionnaire which was created by Fred. D. Wright includes 50 questions and has two parts: 1- To determine the members' powerfulness in specific situations. 2- To determine the probability of members' consuming in these situations. The answers to the questions were measured according to a grading scale from 0 to 4. The grade to the "none" answer was 0 and the grade to the "very strong" answer was 4. In this project the validity of the questionnaire was calculated according to Cronbach's alpha which was equal to 0.74. Its Face validity and content-related Validity was confirmed by some psychology professors.

The unorganized clinical interview: The unorganized clinical interview was done according to DMS-IV and by someone who has a master's degree in clinical psychology. Thus the people who had more inclination toward quitting were selected and placed in two experiment and control groups.

The cognitive group therapy program: This educational program has been set according to various psychological theories specially Michael Free theory. The program included 12 education sessions that was presented by practical guidance of Michael Free cognitive therapy group. Each session had certain objectives and for each session, assignments appropriate for the presented subjects were considered. In this program, each lesson includes some instructions for practicing which helps the persons to achieve the therapy objective and for a better performance of the program, in addition to ample notes about how to conduct the therapy process in the group; various resources will be put forward for the readers.

The conditions and the method of research project's implementation. The project was carried out in Uromiya and in the outpatient department of Uromiyan Substance Abusers Welfare Organization and for three month the individuals attended in the cognitive therapy sessions every week and the results were followed three months

later. In this project, in addition to pursuing the experiment, one pretest is carried out in the first measurement and in the second measurement a post-test will be carried out. For selecting the testable first the individual's addiction was proven by a urine test which was performed by the addiction quitting center and then detoxified in the addiction quitting center for 12 days. After having been clinically unorganized interviewed, the substance dependents were randomly placed into the experiment and control groups. Then the post test was carried out for both groups and the cognitive group therapy sessions were started for the experiment group. The control group received no programs and just pretest and posttest and the pursuing test was carried out. The number of cognitive group therapy sessions was 12 and was performed according to Michael Free's book (the practical instruction to group cognitive therapy). The structures of the sessions are briefly mentioned here.

Session 1: Reviewing the exercises of the sessions before the therapy, the educational speech A and welcoming etc. practicing and bothering to know one another, the educational speech B about thinking and feeling, suitcase allegory and…, practicing the conducted thought, summarization and assignments for the first session.

Session 2: Reviewing the previous session's assignment, the educational speech A and the emotional disorder theory and uncontrollable and spontaneous thoughts and…, practicing the classification of beliefs and thinking processes, the educational speech B and identifying the uncontrollable and spontaneous thoughts ,educational speech C; resistance in front of therapy, practicing ,…,assignment for the session 2.

Session 3: Assignment review, a speech about the behavior consequences of thoughts, practicing the thought injecting, giving speech about the vertical arrow method and practicing it, the session C assignment.

Session 4: Assignment review, delivering speech about the advance vertical arrow and practicing it, delivering a speech: beliefs classification, session 4 assignment.

Session 5: Reviewing the previous session's assignment, the educational speech and providing the main

list of thoughts and practicing the case, speech B about cognitive plans and their providing, the educational speech C and using SUD (subjective units of disturbance), the session 5 assignment.

Session 6: reviewing the assignment, a speech about that the beliefs could be changed, the speech: testing your beliefs, practicing and speaking about criterion analysis, the session 6 assignment.

Session 7: reviewing the assignment, delivering speech: Analyzing being useful, giving speech: similarity analysis and practicing it, session 7 assignment.

Session 8: reviewing the assignment, giving speech: logical analysis and practicing, presentation and practice, delivering speech: to continue the logical analysis and…, Session 8 assignment.

Session 9: reviewing the assignment, giving speech: providing the hierarchy and practicing, delivering speech about an opposite belief and its features, session 9 assignment.

Session 10: reviewing the assignment, giving speech: comprehension change and practicing, practicing the optional group prevention in a big group and.., session 10 assignment.

Session 11: reviewing the assignment, giving speech: punishing oneself-self rewarding and practice, delivering speech about the preserving methods and designing its plan, session 11 assignment.

Session 12: reviewing the assignment, reviewing the program, programs for post therapy pursuing and evaluation, closing program.

Data analysis methodology In this project, in addition to descriptive statistics, the t-test was used and the SPSS software was employed for statistics processing.

RESULTS

Table number 1 shows the demographic features of the dispersion measures according to marital status, occupation, education level and sex. The mean and the standard deviation between control and Experimental groups in the pretest, posttest and pursuing stages were calculated (table 2).

Table 1: The descriptive statistics for the dispersion measures according to the demographic factors

Group	Experiment	Frequency	Percentage	Control	Frequency	Percentage
Marital status	Single	7	46%	Single	7	46%
	Married	8	54%	Married	8	54%
Occupation	Unemployed	9	60%	Unemployed	10	67%
	Employed	6	40%	Employed	5	33%
Education	Under diploma	6	40%	Under diploma	8	53%
	Diploma &Associate	6	40%	Diploma &Associate	4	27%
	Undergraduates & post graduates	3	20%	Undergraduates & post graduates	3	20%
Gender	Female	-	-	Female	-	-
	Male	15	100%	Male	15	100%

Table 2. Comparison pretest and posttest between experimental and control groups

Groups	Pretest			Post test			Pursuing	
	N	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Experiment	15	51.44	9.60	29.66	11.09	25.33	10.02
Control	15	52.88	9.93	49.77	9.53	47.66	10.55

Table 3.Comparison between experimental and control groups by T test

Groups	N	Mean Difference	Standard deviation	T VALUE	P
Experiment	15	21.77	15.45	3.34	<0.007
Control	15	3.11	6.37		

As you it can be seen in tables 2 and 3, the experiment groups mean score in the post test has decreased in comparison to the control group. In this project, to study the significance of the difference between the scores each groups post test score was deducted from the pretest. Then the difference t test was carried out to study the difference between the experiment group and the control group. Since the calculated t (3.34) is significant, the project's hypothesis is confirmed that is the cognitive group therapy has a positive effect on relapse prevention among the dependents on narcotic substances.

DISCUSSION

According to the discussions mentioned above it can be inferred that the cognitive group therapy sessions have a positive effect on the relapse prevention among the narcotic substance dependents. The results received from this project are consistent with some results from the Iranian researches in the field of group therapy and cognitive therapy and relapse prevention regarding the narcotic substance dependents among whom Golestani 2008, Rasouli et al .,2006., Mehrabi et al., 2005 and similar result have been obtained regarding the effect of cognitive group therapy on repulse prevention. Similarly, the project is consistent with some theorists' view point such as Marlatt et al and Oei et al and confirms their results.

It can be seen in research literature that a relapse is not an event but is a process and addiction is disease with repeated relapses. Many narcotic dependents experience a relapse 7 to 8 times before a durable quit. By identifying the factor (such as the personal, interpersonal, social and situational factors) that led to the previous relapses, the next lapses will be less likely to happen.

One of the factors which can pave the way for a relapse is the dangerous stimuli (Carroll et al., 1991; quoted from Back et al., 2001). So the cognitive therapists have to identify the risky situations or conditions for each subject. As mentioned in research theoretical framework, the risky stimuli provoke the basic ideas toward drug intake and increase the subject's vulnerability toward lapse and relapse.

According to this research and other researches, the effect of cognitive group therapy on repulse prevention can be confirmed. Moreover, it can be predicted that the method alongside with consultation and family learning is one of the effective methods for preventing relapse in narcotic dependent subjects.

Out of the limitations ahead of this research project, it can be pointed out that the accessible or convenience sampling was used for selecting a sample of the studied subjects. Thus, the studied sample cannot probably represent the studied population. So in generalizing the study, precautionary measures have to be considered.

Considering the obtained results it is suggested that this therapy method be used as a part of treating the problems of the substance dependents especially for prevention on craving and relapse in the state addiction quitting centers as well as the private sector and prisons.

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