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The Effect of Cognitive Group Therapy on Metacognitive Beliefs Prisoners

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Abstract

The purpose of this study to be examines the effect of cognitive group therapy on metacognitive beliefs prisoners. The experimental methodology of research is pre-test and post-test with control group. The statistic population of research consists of all prisoners in Ardabil. 40 persons were selected with sampling method. Then the experimental group for 12 sessions (90 minutes) was conducted using cognitive therapy. The persons answered the same questionnaire including MCQ. Data analysis included multivariate regression, ANOVA analyses and SPSS software (package of SPSS / pc + + ver18).
The results of this study showed the average scores of meta-cognitive components in the experimental group compared to the control group significantly decreased. According the results, there are significant differences in terms of dependent variables in studied groups.

Keywords: Cognitive group therapy, Metacognitive beliefs, Prisoner, Ardabil.

Introduction

Depression is one of the most prevalent psychiatric disorders which impose high economic, emotional and social burden on patients, families and society (Ching and Dobson, 2010). Approximately 121 million people suffer from depression worldwide (Lambert, 2006). Currently, depression ranks fourth among the ten leading causes of global disorders costs , and it is predicted that it will be the second leading cause of financial burden globally by 2020 (World Health Organization, 2001). Studies have also showed that prevalence of depression among Iranians is quite high (Ahmadi et al, 2010). Concerning high prevalence and distasteful consequences of depression, effectiveness of different types of drugs and psychological interventions on depression has been investigated**.** During the past three decades, about 200 studies have compared the effectiveness of psychological interventions with controlled situations and other therapies (Cuijpers et al, 2009). Results have demonstrated the effectiveness of psychological interventions in treatment of depression. One of the most common psychological interventions is cognitive-behavioral therapy (CBT) which its effectiveness has been confirmed in different studies (Oei et al, 2006). In some cases, CBT was considered as alternative treatment for depression (Butler et al, 2006). The theoretical basis of CBT in depression originates from the behavioral and cognitive theories of depression. Beck's theory (Beck and Alford, 2009) is the most important and widely recognized cognitive theory of depression. In this approach, the negative thoughts may cause depression in people. According to Beck, depression is resulted from individual's negative views of ego, world and future which form a cognitive triangle. It is assumed that if negative schemas become active, they would produce cognitive biases with the tendency to process information negatively, thus leading to low and reduced mood (Beck, 1967). In conclusion, it can be mentioned that Back's approach gives priority to negative beliefs and attitudes in reducing mood. The cognitive approaches try to treat depressed patients through changing the cognitive content of their thoughts. Although studies have shown that cognitive behavior therapy is the most effective psychological treatment for major depression (Beck, 1967); however, this approach did not address the therapeutic needs of all patients. The outcome studies using Beck's Depression Inventory (BDI) have reported that only 40-58% of patients show improvement without any relapse at the end of the treatment (Dimidjian et al, 2006).

Recently, new approaches including metacognitive theory (MCT), have been proposed which gives priority to mood in producing negative thoughts, beliefs, and attitudes (Butler et al, 2006). Self-regulatory executive function model, also known as S-REF, developed by Wells and Matthews (Ching and Dobson, 2010). was the first model that conceptualized the role of meta-cognition in provoking mental pathologies and disorders. In fact, psychological disorders are sustained when maladaptive coping strategies such as anxiety, rumination, threat monitoring, avoidance, and thought suppression, prevent the modification of dysfunctional self-beliefs, thereby increasing the availability of negative information towards ego.

MCT is one of the newest approaches in the field of clinical psychology. Its effectiveness in treatment of various psychiatric disorders has been confirmed through a number of well controlled studies (Butler et al, 2006). MCT is a type of cognitive therapy using thought modification but is different from cognitive therapy in its conceptualization of specific disorders. The beliefs which are important in MCT including normal cognitions as negative automatic thoughts are not accounted in cognitive behavioral therapies. However an individual's beliefs about thinking determine metacognitive beliefs. The Meta-cognitive beliefs are said to be some beliefs that individual considers them about their experiences,

thoughts and procedures (Cuijpers et al, 2009). MCT aims at replacing rumination process with negative automatic thoughts. MCT emphasizes on meta-cognitive knowledge and procedure differing from cognitive therapy in applying therapeutic techniques. MCT is recommended for mental disorders including generalized anxiety disorder, social anxiety disorder (Cuijpers et al, 2009), post traumatic stress disorder and obsessive compulsive disorder. A case study confirmed the effectiveness of MCT on depressed patients as well (Wells et al, 2009).The aim of this study to was examine the effect of cognitive group therapy on metacognitive beliefs prisoners.

Research Methods

The experimental methodology of research is pre-test and post-test with control group. The statistic population of research consist all prisoners in Ardabil. 40 persons were selected with sampling method. Then the experimental group for 12 sessions (90 minutes) was conducted using cognitive therapy group. The cognitive group therapy based on practical handbook of cognitive therapy (Free, 1999). The persons answered the same questionnaire including MCQ (Wells & Caertwright-Hatton, 2004). The Cronbach's alpha that obtained from the pilot data was 0.87 for MCQ. Data analysis included multivariate regression, ANOVA analyses and SPSS software (package of SPSS/ pc + + ver18).

Results

The results showed that the mean age of the subjects was 34.77 and SD was 5.78, According the results the highest frequency was under diploma education and lowest education was associate degree. 54.4 percent of the subjects were male and 45.6 percent were female. Also 30% of the sample was single, 60% were married, 10% were divorced.

The table 1 shows the mean and standard deviation of pre-test and post-test cognitive beliefs in control and experimental groups.

Table 1: The mean and SD pre-test and post-test groups in terms of cognitive belief and metacognitive beliefs.

Variable		Examination group		Control group		Total	
		Mean	SD	Mean	SD	Mean	SD
Metacognitive beliefs	Pre-test	82.65	8.73	87.20	11.95	84.92	10.59
	Post-test	87.65	8.73	82.45	10.49	85.05	9.88
Cognitive trust	Pre-test	14.80	4.61	15.60	3.56	15.20	4.10
	Post-test	17.85	4.63	14.45	4.58	16.15	4.86
Positive beliefs worried	Pre-test	16.90	4.47	16.95	4.07	16.92	4.22
	Post-test	15.35	4.35	16.60	4.34	15.97	4.34
Cognitive self-awareness	Pre-test	16.65	2.90	19.30	4.11	19.47	3.52
	Post-test	20.35	3.15	18.05	2.85	19.20	3.18
Negative beliefs uncontrollability	Pre-test	15.35	3.11	17.05	3.30	10.20	3.28
	Post-test	16.7	2.56	16.3	3.67	16.5	3.13

Beliefs needs to control	Pre-test	15.45	4	17.75	3.16	16.60	3.74
	Post-test	18.15	2.45	16.85	3.24	17.50	2.91

The results showed that amount box is not significant (P=0.127, F=1.421, BOX=21.846). As a result, there is a defaults difference between variances.

Table 2: The box test quality of variance matrix

Size Box	F	df_1	df_2	P
24.876	1.421	15	5814	0.127

The results showed that the Levine test is not significant. Based on these results, defaults homogeneity of variances in variable were approved. This test was not significant for any of the variables.

Table 3: The result of Levine test in terms of default compliance variances in scores of aspects metacognition.

Variable	F	df_2	df_1	Sig.
Cognitive trust	0.399	1	38	0.531
Positive beliefs worried	0.119	1	38	0.733
Cognitive self-awareness	0.110	1	38	0.742
Beliefs needs to control	1.223	1	38	0.276
Negative beliefs uncontrollability	1.033	1	38	0.316

The results show that there is significant differences in terms of dependent variables in studied groups. The Chi Eta shows that there is a significant difference between the two groups with respect to dependent variables and this difference is 53%.

Table 4: The results of multivariate analysis of variance

Test	Value	F	Hypothesis df	Df error	Significantly	Chi Eta
Pillai effect	0.530	7.676	5	34	0.000	0.530
Wilks Lambda	0.470	7.676	5	34	0.000	0.530
Hotelling effect	1.129	7.676	5	34	0.000	0.530
The largest root of error	1.129	7.676	5	34	0.000	0.530

According to the results average scores in two metacognitive components (cognitive confidence and negative beliefs about uncontrollability of thought) in the experimental group (group cognitive therapy) compared to the control group significantly decreased ($0.01 \geq P$). As a result this hypothesis is confirmed.

Table 5: The results of multivariate analysis of variance on test scores

Source	SS	df	MS	F	Dependent variable	Chi Eta
Group	176.400	1	176.4	10.998	0.002	0.224
	14.400	1	14.4	0.459	0.502	0.012
	38.025	1	38.025	3.668	0.063	0.088
	40	1	40	3.934	0.055	0.094

	129.600	1	129.6	7.530	0.009	0.165
Error	-	38	-	-	-	-

Discussion and Conclusion

The purpose of this study to was examine the effect of cognitive group therapy on metacognitive beliefs prisoners. The results of this study showed the average scores of meta-cognitive components (cognitive confidence and negative beliefs about uncontrollability of thought) in the experimental group (group cognitive therapy) compared to the control group significantly decreased. So we can say that cognitive therapy has a significant impact on metacognitive beliefs prisoners. These results are in good agreement with result Abolghasemi et al (2008), Hemmati (2010) and Vasile (2011). Abolghasemi et al (2008) reports that cognitive therapy was effective in metacognitive beliefs. Vasile (2011) reports that cognitive therapy were has a significant effect on the reduction of metacognitive beliefs wrong. The explanation for this finding is that since the theory of meta-cognition Wells, this variable agent knows that acts as a mediator cognitive the affected of knowledge and thoughts and feelings of people. Metacognitive beliefs are concerned the importance and meaning of negative events internal cognitive such conventional beliefs and thoughts. The negative beliefs is comprised of two sub-categories:1) Beliefs about the uncontrollability of thought. 2) Beliefs related with risk, importance and meaning of these thoughts (Wells, 2001). Therefore, the manipulation of emotional states may change cognitive and assessment. So it is important that if metacognition can be entered in a model general cognitive and emotional self-management, basis for the conceptualization and development of cognitive reform processes in cognitive behavioral therapy will be provided. So to obtain such a result is not unexpected. In finally expressed the cognitive behavioral group therapy on metacognitive beliefs prisoners have had significant effect, and plans of psychology experts to reform the metacognitive beliefs prisoners in the prison and outside prison should be provided. Of limitations this study is limited the sample to the male gender, and the impossibility of implementing the follow-up period to investigate the stability of effects therapeutic. Recommended that such research be done on women prisoners and the implementation of the follow-up period.

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