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Investigating the Effectiveness of Metacognitive-Focused Group Therapy on Improvement of Meta-Cognitive Beliefs and Thought Control in Patients with Obsessive-Compulsive Disorder (OCD)

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Abstract: The aim of this study was to investigate the efficacy of Meta-Cognitive Therapy (MCT) in improving meta-cognitive beliefs and thought control in treating patients with Obsessive-Compulsive Disorder (OCD). This semi-experimental study was conducted with pretest-posttest and follow-up design, using control group. Total 28 patients were selected through objective sampling method and randomly divided into two equal experimental and control groups. Experimental group experienced 8 weeks of Well's meta-cognitive therapy while control group were just followed-up. Meta-cognition Questionnaire-Short Form (MCQ-30) and thought control questionnaire was used in pretest, posttest and 1 month follow-up as the study instrument. Data analyzed by descriptive indices and multivariate analysis of covariance using SPSS Software. The experimental group showed significant decrease in meta-cognitive beliefs and thought control general scores in post-test and follow-up, compared with control group. Well's meta-cognitive model proved to be beneficial in improving meta-cognitive beliefs and thought control in OCD patients. Current approach enables a deeper treatment of clinical functionality and we have to do to get a new set of strategies that can help patients to make a new relationship with the thoughts. Thus, the approach should be considered in future treatments of obsessive-compulsive patients.

Key words: Meta-cognitive therapy, Obsessive Compulsive Disorder (OCD), thought control, patients, Iran

INTRODUCTION

WHO has introduced the OCD as the tenth significant causes of global disability, reveled as disability in social functions and lower quality of life. In fact, the disorder is a complex nervous-psychological syndrome characterized with unwanted beliefs, repetitive and disturbing thoughts (obsessive thoughts) and systematic repetitive behaviors (obsessive behaviors) that is done in responding to anxiety (Khanipour *et al*., 2011). Though treatment seems easy, practically it is so difficult (Ghasemzadeh and Tavakkoli, 2010). Treatment studies on this disorder are of three types including, medication therapy, behavior therapy, cognitive therapy and a combination of cognitive-behavioral therapy plus medication therapy. OCD is one of the mental diseases most resistant to treatment (ibid). Evidence indicates that Wells Meta-cognitive therapy is considered one of the effective short-term treatments of OCD.

Meta-cognitive therapy is a modern approach introduced in recent years on understanding and treatment of emotional disorders. Results of different studies show that meta-cognitive intervention focusing on changes in relationship between patient and inefficient thoughts and feelings is significantly more effective than attempt to change the content of thought and belief. Therefore, it seems that current approach would compensate for the loss and drawbacks of cognitive theories. In fact, meta-cognition tries to investigate structures and processes which manage and control different dimensions of cognition, i.e., it is an aspect of information processing system revising and evaluating its own contents and processes. It was Wells and Mathews that for the first time combined the schema and information processing approach to introduce a meta-cognitive pattern based on their own executive functional model. The system was influential in reducing the distance between goals and reality (Shirinzadeh *et al*., 2008). This treatment approach believes that people fall in the trap of anxiety problems because their meta-cognition in response to internal experiences lead to a paradigm continuing and strengthening their negative excitements and beliefs, that is called "Cognitive-Attentional Syndrome" characterized with worry, thought rumination,

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fixation of attention and self-regulated approaches or maladaptive coping behaviors. Current approach is a steady adjustment approach based on the fundamental theory of functional executive pattern. The model considers vulnerability to emotional disorders as a focused attention to self-exaggeration, maladaptive meta-cognitive beliefs and some special reflective processes. The process activated when person feels non-matching between his internal goals and the external circumstances in which he goes through special approaches including attracting information into his beliefs, thought rumination and worry to prevent the disturbing stimulants from entering into his conscious and to solve the problems resulting from lack of coordination, managing physical-mental states and being ready against risks. Several studies have evaluated the meta-cognitive model of anxiety disorders and depression which indicate that there is a positive and consistent relationship between meta-cognitive beliefs and emotional vulnerability with wide spectrum of psychological disorders. Huge amount of data obtained from broad spectra of methods on patient and non-patient samples support sub-structural theories and models of meta-cognitive therapy.

Though it's not the time to judge on the size and effectiveness of different treatment methods on framework of cognitive pattern, it seems that meta-cognitive therapy help to improve cognitive processes. Regarding the literature, it can be said that current approach makes clinical function of treatment much deeper, guiding us to develop set of approaches that help patients make a new relation with their thoughts and getting success in having improved health and adaptation with their surroundings. Therefore, current study seeks to investigate the effectiveness of short-term group therapy focused on meta-cognition in obsessive patients.

MATERIALS AND METHODS

In the current semi-experimental study, two groups were used. Statistical society included patients with OCD referring to counsel center of Imam Helping Committee of Ardebil accepted in the study after OCD diagnosis and clinical psychology interview. Following written consent, testees classified into two groups of 28. Inclusion criteria were having at least secondary school diploma and being aging range of 18-45. Pre and post-test taken from testees prior and after therapy interventions for 12 session of 90 min, respectively, structure of therapy sessions totally conformed with study goals including, review of duties, treatment and house works based on Wells Meta-Cognitive Therapy. Data gathered with descriptive and inferential statistics (mean, standard deviation, t-test and covariance) and analyzed using SPSS Statistical Software. Data gathering tools were: Semi-structured clinical interview for polar disorders (DSM-IV-IR) I.

Yale-Brown Obsessive-Compulsive Scale (Y-BOCS): It is part of Yale-Brown Obsessive-Compulsive Scale developed by Goodman in which there are two sub-scales to measure obsession. In both two 5-item question, severity of signs based on frequency, duration of anxiety resulting from interactive damage and interventions in patient's life, resistance and degree of control during 7 days prior to study were evaluated. The test proved to have good reliability and validity in evaluating the severity of signs. In Iran, Mohammadkhani (1993) reported the validity of scale in a sample of 5 OCD patients to be 0.85 with an interval of 2 weeks.

Thought control questionnaire: It is s 30-itemed questionnaire developed to identify the frequency of the use of 5 thought control approach and its sub-scales include lack of concentration, self-punishment, re-evaluation, social control and getting worry. Each sub-scale consists of 6 items and scoring is base on 4-scores lickert scale. Minor-scales of Cronbach alpha ranged 64-79%. Correlation of re-test, minor-scales in a 6 weeks interval were. Attention return (0.72), social control (0.79), worry (0.71) and punishment (0.64).

Therapy sessions

First session: Filling in meta-cognitive beliefs and thought control questionnaire by patients and getting familiar with group work.

Second session: Designing case formulation, making patients familiar with meta-cognitive model.

Third session: Implementing thought repulsion, exercising DM attention for neutral thoughts, exercising DM attention for obsessive thoughts

Fourth session: Making the patient face with and respond to (ERC) or delaying the patient's disciplines.

Fifth session: Verbal challenging with beliefs related to TEF, TAF and TOF, implementing behavioral experiments on beliefs related to TEF, TAF and TOF.

Sixth to tenth session: Continuing working on beliefs related to TEF, TAF and TOF (use of exposure experiments), changing the stop signs and replacing criteria, continuing modification of beliefs related to disciplines, identifying and initiating the changes in stop signs, house works.

Eleventh session: Working on remaining beliefs and behaviors, strengthen new processing plan to cope with future obsessions

Twelfth session: Review of exercises and strengthen of learning, completing questionnaire.

RESULTS AND DISCUSSION

Demographic results: Participants of the current study ranged 18-45 year of age in which mean age of control and test groups were 30 and 31, respectively. So, they were in a similar age range. Each group included 14 women with the least education level of secondary school diploma that 55% of test group had diploma, 26% had associate's degree and the rest had BA degree. in control group, 60% had diploma, 24% associate's degree and the rest had BA degree. non of the patients had history of psychotic drugs.

First hypothesis: Short-term therapy focused on meta-cognition has effects in improvement of meta-cognitive beliefs in obsessive patients.

Table 1 shows that regarding the control of the pre-test, there is a significant difference in improvement of meta-cognitive beliefs between the study group and control group (F = 192.312; p = 0.001). Therefore, the first hypothesis-short-term therapy focused on meta-cognition has effects on improved meta-cognitive beliefs in obsessive patients, i.e., there is 0.86% difference in post-test scores of improved meta-cognitive beliefs related to the effects of short-term therapy focused in meta-cognition.

Second hypothesis: Short-term therapy focused in meta-cognition has effects on thought control in obsessive patients.

As it is shown in Table 2, regarding the control of the pre-test, there is a significant difference in thought control between study group and control group (F = 135.636; p = 0.001). Therefore, the second hypothesis-short-term therapy focused on meta-cognition has effects on thought control in obsessive patients, i.e., there is 0.43% difference in post-test scores of thought control related to the effects of short-term therapy focused in meta-cognition.

According to figures of Table 3, the obtained significance level (0.524) has been higher than standard one (0.05) indicating that there is no difference in mean scores of improved meta-cognitive beliefs of study group in post-test and follow-up test.

According to Table 4, there was no significant difference in mean scores of thought control between post-test and follow-up test in testees and the sig. level (0.759) is higher than standard (0.05) indicating that there is no difference between mean scores of testees (study group) in two levels of post-test and follow-up.

The aim of the current study was investigating the short-term group therapy focused in Meta-Cognition (MCT) in improving meta-cognitive beliefs and Thought Control in treating patients with Obsessive-Compulsive Disorder (OCD). Results of the study indicated that Wells meta-cognitive model is effective in improvement of meta-cognitive beliefs and thought control in patients with OCD. Another important finding was that the results of follow-up can confirm that meta-cognitive therapy leads in therapy effects to be deeper and more stable. Results of current study conform to the findings of some other related studies. Ellis and Hudson showed that worry and anxiety are major components of anxiety disorders including general anxiety disorder and social phobia that are particularly related to positive and negative meta-cognitive beliefs. Therefore, it is likely that

Table 1: Results of one-way covariance analysis of comparing the mean post-test of meta-cognitive beliefs in study and control groups with pre-test control

Resource	Sum of squares	df	F-value	Sig.	η^2	Satistical power
Group with pre-test contol	1479/200	1	192/312	0/001	0/865	1
Group with pre-test contol	10/125	1	1/316	0/260	0/042	0/199
Error	7/692	12	-	-	-	-

Table 2: Results of one-way covariance analysis of comparing the mean post-test of thought control in study and control groups with pre-test control

Resource	Sum of squares	df	F-value	Sig.	η^2	Satistical power
Group with pre- test Contol	136/250	1	135/636	0/000	0/43	1
Group with pre- test Contol	280	1	2/624	0/053	0/093	0/561
Error	107/098	12	-	-	-	-

Table 3: Results of dependent t-test for comparing the mean post-test and follow-up test of improved meta-cognitive beliefs in study group

Experimental groups	Mean	SD	Mean error	Mean difference	t-value	df	Sig.
Post-test Score of improved meta-cognitive beliefs	76/64	1/55265	0/54894	0/63	0/188	13	0/524
Follow-up Scores of improved meta-cognitive beliefs	76/01	1/19523	0/42258				

Table 4: Results of t-test of independent groups to compare the mean difference of follow-up and post-test of thought control in study group

Experimental groups	Mean	SD	Mean error	Mean difference	t-value	df	Sig.
Post-test score of thought control	70/23	7/62983	2/69755	-0/27	0/054	13	0/759
Follow-up scores of thought control	70/50	7/85584	2/77746				

one the reasons beyond effectiveness of meta-cognitive therapy over anxiety disorder would be the efficacy of meta-cognitive therapy on these beliefs about worry.

Spade consider meta-cognitive dimensions such as positive meta-cognitive beliefs on worry and the low trust-making as causes of anxiety and worry. Thus, this finding conforms to the results of other studies, supporting the meta-cognitive model of obsession. Results of current study also parallels with the results of study by Fitt and Rees who showed the effectiveness of meta-cognitive model in treatment of obsessive-compulsive disorder, stress, anxiety and depression. Other researchers obtained valid evidence about the relationship between meta-cognition and the signs of OCD and had came to the conclusion that high self-consciousness intention to revise the thought- discriminates OCD group from anxiety disorder group. Results also conform to the results of study by Rees and Van Koesveldthat showed significant improvement in signs of OCD at the end of treatment and that there was significant descending in scores of some sub-scales of meta-cognitive beliefs particularly beliefs related to the necessity of thought control which continued to follow-up level, too.

CONCLUSION

In defining the effectiveness of meta-cognitive pattern it is to mention that in this approach, therapy includes making relationship with thought in such a way that harbors the resistance or a complex cognitive analysis instead of making challenge with disturbing thoughts and inefficient beliefs and being able to omit the non-adaptive thought approaches about worry and the non-flexible surveillance on threats.

Negative beliefs don't have any logical explanation for thinking pattern and the incoming responses. Therefore, factors controlling thought and change the condition of mind must be accounted that is the main difference between meta-cognitive therapy and the schema-therapy. Because, OCD patients act objective processing, regard the evaluation of disturbing thoughts as completely normal. Therefore, meta-cognitive therapy would be influential in such way that makes patients become aware of the process of meta-cognitive processing system and it is important because the emphasis is not upon stopping on obsessive thoughts but on the learning of the issue, meaning that obsessive thoughts or any other disturbing thoughts do not necessarily end to action. Therefore, it seems that this approach makes the clinical function of therapy deeper and directs us into developing new approaches to help patients making new relationship with their thoughts.

LIMITATIONS

In the current study, choosing of wells meta-cognitive model and its applying for group therapy was cost-effective and time-saving for participants but there were also limitations. The sampling was limited to counseling center of Imam Helping Committee of Ardebil; only women were chosen as study samples, short-time follow-up, limited age and academic education range.

SUGGESTIONS

Therefore, it is suggested that men samples, large population and a long-term follow-up period being considered to investigate the effectiveness of meta-cognitive approach. Regarding that most of the research investigated the direct effectiveness of the approach, it is suggested that future studies will investigate the indirect effectiveness of therapy on life quality, psychological welfare and etc.

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