Metacognitive Therapy in Patients with Obsessive-Compulsive Disorder: A review

ABSTRACT

Metacognitive therapy is a relatively novel and growing psychotherapeutic approach. Within the last 20 years, several metacognitive-oriented therapy methods have been developed. They are metacognitive therapy which was developed by Wells, metacognitive training which was produced by Moritz et al. especially for patients with psychotic disorder, and metacognitive reflection and insight therapy for psychotic patients. Among them, the most structured one seems the metacognitive therapy. The main notion of metacognitive therapy is to alter the dysfunctional metacognitive interpretations and strategies underlying psychopathology. However, it should be emphasized that it has some fundamental differences from cognitive behavioral therapy because metacognitive therapy is a relatively new school of cognitive therapy, its effectiveness in the treatment of many psychiatric disorders continues to be evaluated intensively. Obsessive-compulsive disorder is one of these disorders. As obsessive-compulsive disorder is a lifelong disorder that causes significant loss of workforce and pharmacotherapy is sometimes insufficient, psychotherapeutic approaches are of great importance. In this context, exposure and response prevention still seems to be an important treatment option in terms of psychotherapeutic approaches. However, it is clear that a new approach is required in psychiatry practice in cases where exposure and response prevention and classical cognitive behavioral therapy are not sufficient and remain with residual symptoms. In this respect, metacognitive therapy can be an important alternative to fill this gap. However, more evidence needs to be created with studies with much larger samples.

Keywords: MCT, metacognitive therapy, obsessive-compulsive disorder

Introduction

Obsessive-compulsive disorder (OCD) is a common psychiatric disorder that impairs the quality of life of those who have it. It is categorized in Obsessive-Compulsive and Related Disorders in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. It can also be seen as a public health problem, as it is a very common disorder that impairs the quality of life and causes loss of workforce on the other hand. Although the exact mechanism of emergence has not been fully elucidated, some data have contributed to its explanation. While Freud defined OCD as a disorder resulting from the overuse of certain defense mechanisms within the framework of classical psychoanalysis, neurobiological studies drew attention to the importance of changes in the brain. Genetic studies have emphasized the importance of familial transmission in the formation of the disorder. A look at structural and functional imaging studies revealed that some key brain areas stood out, namely the anterior cingulate, thalamus, frontal cortex, and caudate nucleus. Among these areas, 2 areas, in particular, stood out more, the orbitofrontal cortex and the thalamus. In association with this, our study team has previously investigated key brain regions including orbitofrontal cortex (OFC), caudate nucleus, thalamus, and anterior cingulate cortex volumes in which we comparatively examined treatment-resistant and well-responding OCD patient groups. In these studies, on the one hand, we found that OCD patients had statistically significantly reduced OFC and enlarged thalamus volumes than those of healthy subjects; on the other hand, we detected that refractoriness to the OCD might be associated with OCD and thalamus regions. Another support for augmenting the notion that OFC could be one of the refractoriness-related brain regions also...
came from our study team who examined the relationship between OFC volumes and defense styles of the ego in patients with OCD and found it not to be a relationship between the right OFC volumes and their scores of mature, neurotic, or immature defense styles but to be an important relationship between the scores of immature defense mechanism and the left OFC volumes in the patient group, commenting that left OFC might be related to the refractoriness to the treatment in OCD patients.

Despite it being an important patient group that makes us happy in terms of treatment, there is an important patient group that we have difficulty in treatment of OCD. Drugs that function through serotonin provide important benefits in the treatment of OCD. However, 40–60% of patients with OCD respond to the first group of serotoninergic drugs, and the remaining part resists to treatment. Resistance to treatment is an important problem in patients with OCD, as well as pharmacotherapy with serotonin reuptake inhibitors. Cognitive behavioral therapy (CBT) is the preferred psychotherapy for this disorder, for both adults and teenagers. Despite CBT providing significant benefits in the treatment of OCD, treatment remains below optimal levels in a significant proportion of patients. Furthermore, it has been reported that in reality, only 25% of the patients remain completely asymptomatic.

Metacognition has been defined as thinking about thinking. The term “metacognition” was defined by Flavell in the 1970s, with the implication that metacognition is “knowledge and cognition about cognitive phenomena.” Nowadays, it has been converted to the implication of “thinking about thinking.” In fact, before Flavell, terms “knowledge about knowledge” and “memory monitoring” which were close to the meaning of metacognition were used. As Flavell mentions, metacognition is more than an objective and subjective cognitive performance comparison because relevant studies have already been carried out before Flavell. Metacognition indicates cognitive processes and structures that observe and control a person’s own cognition. In this context, a pattern has been suggested for OCD, and based on this pattern, it has been emphasized that intrusive thought can stimulate the metacognitive beliefs which are related to the meaning of thought and simultaneously are linked to those instrumental beliefs that are associated with the behavioral responses and can reduce the evaluated danger association with obsessional thoughts.

Within the last 20 years, several metacognitive-oriented therapy methods have been developed. They are metacognitive therapy (MCT) which was developed by Wells, metacognitive training which was produced by Moritz et al, especially for patients with psychotic disorder, and metacognitive reflection and insight therapy for psychotic patients. Among them, the most structured one seems to be the MCT. The main notion of MCT is to alter the dysfunctional metacognitive interpretations and strategies underlying psychopathology. However, it should be emphasized that it has some fundamental differences from cognitive-behavioral therapy (CBT). While the CBT focuses on the content of thought and emphasizes that the change in thought content will reduce psychopathology, the MCT changes the person’s inappropriate response to thought rather than the content of thought. The MCT does not deal with the content of the thoughts; instead of dealing with and fighting thoughts, it just focuses on simply accepting them.

The MCT uses a model of transdiagnosis and it can be applied from depression to anxiety disorders and from psychotic disorders to personality disorders. The MCT suggests that cognitive attention syndrome (CAS) plays the main role in the formation of mental disorders and that CAS consists of 4 basic components: excessive anxiety, rumination, danger monitoring, and inappropriate coping strategies. The CAS is believed to be the gasoline of mental disorders and therefore should be eliminated. It is emphasized that positive and negative dysfunctional metacognitive beliefs also feed the CAS. In MCT, the main target is to remove the CAS. To remove the CAS, positive and negative dysfunctional metacognitive beliefs should be changed.

So far, the MCT has been used for a variety of psychiatric disorders, with a wide range of spectrum from generalized anxiety disorder to patients with a psychotic disorder. Obsessive-compulsive disorder is one of these disorders. The MCT has been used for patients with OCD. According to Wells’s model, 2 metacognitive steps lead to the occurrence and continuation of OCD. In the first step, obsessions occur through metacognitive beliefs that cause intrusions to be interpreted as dangerous and harmful because obsessional intrusions are mixed with events, actions, and objects, and this situation is named as “fusion.” In Wells’s theory, the system works as follows: when the thought-event, thought-action, thought-object fusion is activated, patient with OCD begins to give importance to their intrusions and shows a trend to interpret these intrusions as threatful. At this point, second step is stimulated. In the second step, a patient with OCD is forced to realize some relaxing behaviors to omit this threat and worry that arises, like “if I don’t turn around the tree three times my mother will die.” As a consequence, the patient finds herself/himself in an open and secret spiral of ritual, not knowing how to end this spiral, and thinks that stopping it will cause her/his anxiety to not control. What does MCT basically try to do in OCD? MCT aims to enable patients with OCD to recognize, be aware of, and acquire some skills to change their metacognitive processing.

In this paper, we reviewed the studies that used the MCT or its various techniques that have been used for patients with OCD.

**Methods**

To search the studies that used MCT or its various techniques that have been used for patients with OCD, a detailed internet search of the PubMed platform was realized. For this search, the time interval was between 1980 and 2021 November. All papers in the English and French languages found in this time interval were incorporated in this review. Some searching terms were preferred. They were as follows: “obsessive-compulsive disorder and MCT,” “obsessive-compulsive disorder and DM,” “obsessive-compulsive disorder and ATT,” “OCD and MCT,” “obsession and MCT,” “OCD and DM,” “CD and ATT,” “compulsive behavior and MCT,” “compulsive behavior and DM,” “compulsive behavior and ATT.”

Meanwhile, all investigations on adult and adolescent patients with OCD...
without any comorbidity were included. The current review included all papers in this area and involved patients with OCD, including single case reports, open-ended studies, and randomized controlled trials. Additionally, a review article is included to enrich the discussion.

Results

Although the MCT has been used more in patients with OCD compared to other anxiety disordered patients, there is still a dearth of investigations because the MCT is a relatively novel psychotherapeutic approach.

In a most recent investigation in randomized-controlled design, Hansmeier et al31 studied the consequences of alterations in OCD-specific metacognitions of thought fusion beliefs, beliefs about rituals and stop signals in 24 patients with OCD treated with the MCT or exposure and response prevention (ERP) and examined if these alterations were related to the treatment outcome in terms of patient- and therapist-rated OCD symptoms.31 In that study, the authors found that pre-test, post-test, and follow-up scores of patients showed important changes compared to baseline for all 3 metacognitions during both treatment modalities. However, the MCT had a better outcome on thought fusion beliefs compared to the ERP. The authors concluded that the metacognitions could change during both the MCT and ERP treatments, with the fact that alterations in stop signals might be associated with the treatment outcome on the symptom level in OCD. In another study, the authors evaluated session-specific effects of the Metacognitive Group Training for Obsessive-Compulsive Disorder (MCT-OCD).32 In that study, patients with OCD were treated with the MCT-OCD for 8 weeks, evaluating various cognitive and metacognitive beliefs throughout the study. A significant improvement on the general clinical picture, thought control, and thought fusion beliefs was found which are the main dysfunctional metacognitions of the OCD in the course of the group training. The authors determined that there was a session-specific effect for thought control only. Park et al33 prospectively investigated whether metacognitions could be used to predict treatment response following initiation of serotonin reuptake inhibitors in patients with OCD. They followed 132 patients under serotonin reuptake inhibitor (SRI) treatment for 4 weeks with the Yale-Brown Obsession Compulsion Scale (Y-BOCS) and investigated the treatment response. The authors reported that the low level of dysfunctional positive metacognitions related to anxiety predicts the emergence of an early response to SRI therapy.33 In another study, patients with OCD were enrolled in an 8-week metacognitive training program (MCT-OCD) as a group, attempting to strengthen their metacognitive competence and compared with healthy controls. The authors stated that they expected MCT-OCD group therapy to offer a promising option in this ongoing study which was informed about the study design. Ecological momentary assessment is accepted as an important and reliable evaluation in demonstrating the efficacy of treatment of OCD.34 In this context, in a study, the authors compared the effectiveness of detached mindfulness (DM) and cognitive restructuring in patients with OCD received in a randomized manner to the treatment groups. As a result of this study, the researchers reported that DM and cognitive restructuring methods showed similar results.35 In a controlled study in a randomized manner on patients with OCD, a study team compared the efficacy of the MCT with ERP in 100 patients diagnosed with OCD in an outpatient setting and planned to examine the treatment effect of 2 modalities, measured by Y-BOCS at the beginning, after the treatment period, and at 6 and 30 months follow-up.36 In this ongoing registered trial, investigators aimed to see that the MCT would have a potential effect compared to the ERP which is the gold standard psychotherapeutic approach in OCD treatment. Winter et al wondered about the neuronal base of the MCT and investigated the short-term effect of the MCT on neuronal local field potentials at baseline and after 5 sessions of the MCT treatment period by using bilateral electrodes in the patient who suffered from the implantation of deep brain stimulation.37 They found that the symptoms of OCD reduced after 5 sessions of the MCT treatment, accompanying a reduction in the relative power of theta-band activity and an increase in alpha, beta, and gamma-band activity. Rupp et al38 in another study examined the efficacy of the DM and cognitive restructuring as stand-alone interventions in patients with OCD.37 In that study, while 43 patients with OCD were randomly included in the DM or cognitive restructuring groups, 21 participants were assigned to a waiting list for 2 weeks. Group MCT was investigated for efficacy in the treatment of OCD in a comparative study.38 Group MCT was also investigated for efficacy in the treatment of OCD in a comparative study. In this study, performed in a real-life clinical set, MCT was found to have significantly higher response rates, with a ratio difference of 64% versus 86.3%. In a study from Iran, the efficiency of the MCT was examined for patients who had a pure obsession.39 Researchers have revealed that MCT reduces obsessions and covert compulsions in this group of patients, and on the other hand, it provides the change of metacognitive drugs, especially thought-fusion metacognitions, showing that the MCT seemed to be effective in the treatment of pure obsessions. An open study carried out by Rees et al40 evaluated 8 adult patients with OCD by using the MCT. Seven out of 8 patients (87.5%) demonstrated a significant clinical improvement in that study identified by Y-BOCS at follow-up at month 3, while all others showed improvement on measures of OCD symptom severity and metacognitive beliefs. Finally, in a case series, Fisher and Wells41 evaluated the efficacy of MCT in 4 consecutive cases with OCD. The authors reported that all of the cases in the case series benefited from MCT as determined by standard scales, and this benefit continued in the 6-month follow-up.

Conclusion

Metacognitive therapy is a relatively new school of cognitive therapy. In this context, its effectiveness in the treatment of many psychiatric disorders continues to be evaluated intensively. Obsessive-compulsive disorder is one of these disorders. Because OCD is a lifelong disorder that causes significant loss of workforce and pharmacotherapy is sometimes insufficient, psychotherapeutic approaches are of great importance. In this context, ERP still seems to be an important treatment option in terms of psychotherapeutic approaches. However, it is clear that a new approach is required in psychiatry practice in cases where ERP and classical CBT are not sufficient and remain with residual symptoms. In this respect, MCT can be an important alternative to fill this gap. It can be said that MCT can be an important alternative in patients with OCD, especially in cases where ERP is not sufficient and obsessions are prominent. However, more evidence needs to be created with studies with much larger samples.

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