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Cognitive-coping therapy for obsessive–compulsive disorder: A randomized controlled trial

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ABSTRACT

Pharmacotherapy and cognitive-behavioral therapy (CBT) are widely used to treat obsessive–compulsive disorder (OCD). These treatments have helped many patients with OCD, but there still is room for improvement. Recently, a promising psychotherapy for OCD, cognitive-coping therapy (CCT), has been developed. Pharmacotherapy plus CCT (PCCT) demonstrates higher efficacy in a shorter period of time and lower relapses than pharmacotherapy or pharmacotherapy plus CBT. In this randomized controlled trial, we investigated the efficacy of CCT for OCD treatment. One hundred and forty-five OCD patients were randomly assigned into two groups: pharmacotherapy ($N = 72$) and PCCT ($N = 73$). In each group, drug-resistant (DR) and non-drug-resistant (NDR) OCD were further analyzed to examine the efficacy of CCT. Some clinical features and the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) were blindly assessed pre-treatment and post-treatment at week 1, 2, 3, 4, and 12. The Y-BOCS scores were significantly lower in PCCT than in the pharmacotherapy group at any post-treatment time-point ($P < 0.001$). Compared with pre-treatment, the Y-BOCS scores were significantly reduced at any time-point ($P < 0.001$) in PCCT group, but only at week 12 ($P < 0.001$) in the pharmacotherapy group. In the PCCT group, there were no differences between DR and NDR groups' Y-BOCS scores at any post-treatment time-point. The response rates and remission rates were higher in PCCT than in the pharmacotherapy group. Three variables, the number of weeks of treatment, insight, and disregarding of obsessions, were significantly correlated with the Y-BOCS score. Therefore, CCT might be a potential treatment for OCD.

1. Introduction

Obsessive–compulsive disorder (OCD) is a chronic and disabling disorder characterized by recurrent, intrusive thoughts that cause distress and interfere with normal function, and by repetitive behaviors or mental acts performed in response to obsessions. OCD occurs at a frequency of ~2% in the U.S. population (Stein, 2002). Often of early onset, OCD affects patients throughout their lives, leading to diminished quality of life for patients and families, reduced productivity, and contributing to higher health care costs (Koran, 2000).

Based on the understandings of the etiology, two major treatment options for OCD, pharmacotherapy and cognitive-behavioral therapy (CBT), have been developed for several decades (Bonchek, 2009; Maher et al., 2010; Taylor, 2005). However, these two state-of-the-art therapies still have room for improvement (Bjorgvinsson et al., 2007; Greist et al., 1995). Almost 60% of patients with OCD do not respond adequately to medications and are considered to be refractory to pharmacotherapy (Bjorgvinsson et al., 2007). Relapse rates are still high among OCD patients undergoing pharmacotherapy, from 24% to 89%, in part because of differences in study design and definitions of relapse (Hollander et al., 2003; Koran et al., 2002; Romano et al., 2001). CBT provides promise for OCD patients, with effectiveness rates ranging from 60% to 85% (Abramowitz, 1997). However, in addition to the 15%–40% of patients who do not respond to exposure with ritual prevention (ERP), about 25% of patients refuse ERP and 3%–12% drop out of CBT (Foa et al., 1983; Stanley and Turner, 1995; Whittal et al., 2005). Relapse rates three months after discontinuation of intensive CBT are up to 50% (Simpson et al., 2005). Furthermore, certain types of compulsions have been found to be particularly difficult to treat with ERP, including covert compulsions and hoarding (Clark, 2004; Salkovskis and Westbrook, 1989). These

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indicate that psychiatrists still do not know how best to select treatment for patients with OCD to bring about maximal and speedy symptom relief or to prevent relapse, and that it is necessary to develop more efficacious treatment for OCD.

Recently, Hu has developed an efficacious psychotherapy, named cognitive-coping therapy (CCT) for OCD (Hu, 2010, 2012; Hu and Ma, 2011; Hu et al., 2012). It combines cognitive therapy and application of coping strategies or skills to treat the patients with OCD. Folkman and Lazarus (Vogel et al., 2012) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing" or "exceeding the resources of the person." Snyder and Dinoff (Snyder and Dinoff, 1999) define coping as "a response aimed at diminishing the physical, emotional, and psychological burden that is linked to stressful life events and daily hassles". Common coping strategies include three subtypes: problem-focused coping (information seeking and problem solving), emotion-focused coping (expressing emotion and regulating emotions) (Lazarus and Folkman, 1984), and appraisal focused coping (denial, acceptance, social comparison, redefinition, and logical analysis) (Callan and Hennessey, 1989). In clinical practice since 1996, the responding author of this paper has considered the OCD symptoms of obsessions, compulsions, anxiety, and fear (of negative events), to be stressors (Hu, 2010, 2012; Hu et al., 2012). It is observed that anxiety level decreases after cognitive restructuring focusing on the fear, and that the severity of the symptoms can decrease significantly and quickly when appropriate coping strategies are used. It should be noted that the outcome of CCT has to do with its enhanced cognitive therapy. The cognitive therapy focuses on the *fear* first, obsessions second, and then compulsions. The goals of cognitive therapy are to identify the role of fear in the onset of OCD and to make the patients change their attitude and the point of view towards their symptoms, especially the fear of negative events. During cognitive therapy the patients are taught to apply the appraisal-focused coping strategies, because appraisal-focused strategies occur when individuals modify the way they think by altering goals and values (Lazarus and Folkman, 1984). The basic logic of CCT is that compulsions result from the fear rather than from obsession, and the compulsions will disappear if the fear disappears (Hu et al., 2012). CCT has several characteristic that differ from other psychotherapies. First, CCT takes the fear as a treatment target. Second, CCT involves coping strategies. Third, CCT encourages patients not to "talk back" to OCD, but to untangle with obsessions or compulsions. Finally, CCT does not use exposure and response prevention (ERP).

Previously, Hu et al. have reported that pharmacotherapy plus CCT (PCCT) treats OCD symptoms with better compliance, higher response or remission rates, lower relapse rate, and higher levels of social-occupational function during a 12-month follow-up, comparing with pharmacotherapy and pharmacotherapy plus CBT (Hu et al., 2012). In the present study, the efficacy of CCT for OCD treatment was further investigated in a larger sample size of drug-resistant or non-drug-resistant OCD patients in a double blind, randomized controlled trial. PCCT for OCD treatment was expected to effectively produce substantial reductions in symptom severity in the patients with or without drug-resistance and to be more effective than pharmacotherapy only.

2. Methods

2.1. Participants

One hundred and forty-five OCD patients were recruited successively by clinical referral and randomly assigned into pharmacotherapy ($N = 72$) and pharmacotherapy plus CCT ($N = 73$) in the Outpatient Department of the Second Affiliated Hospital of Xinxiang Medical University and the first affiliated hospital of Zhengzhou University in P. R. China from August 2008 to August 2012. OCD was defined by the Diagnostic and Statistical Manual of Mental Disorders (fourth edition, test revision) (DSM-IV-TR) and by total score in the Yale-Brown Obsessive Compulsive Scale Severity Rating (Y-BOCS) $\geq$16. Patients were excluded if they met criteria for bipolar disorder, pervasive developmental disorder, thought disorder, current major depression, attention-deficit disorder, or $<$18 years old. All patients provided written informed consent. The study protocol was approved by the Committee on Human Research at the Xinxiang Medical University. In each group, the OCD patients were further divided to two groups, drug-resistant (DR) and non-drug-resistant OCD (NDR). The DR was defined as those patients who had shown less than 25% reduction on the Y-BOCS to at least two adequate SRIs (Mishra et al., 2007) and three months for each SRI.

2.2. Treatment

Medications were prescribed by psychiatrists who were blind to CCT assignment. They offered encouragement and support, but did not conduct CCT. Prescript medication for all patients was chlorimipramine. After six weeks, patients who would not tolerate or din not benefit from the higher dosage of chlorimipramin were administered chlorimipramine in combination with paroxetine, fluvoxamine, or sertraline.

CCT has been described previously (Hu, 2010, 2012; Hu and Ma, 2011; Hu et al., 2012). CCT had an average of 4.5 (ranging from 2 to 12) sessions in four weeks, depending on whether the OCD symptoms were relieved. Each session had four steps, lasting 30–40 min. Step One was information collecting. In the first session clinical information about OCD was collected. In each following session, information collecting mainly focused on whether or not the patients could follow the guidance correctly to cope with fear, obsessions, and compulsions. Step Two involved identifying fear of negative events and coping with the *fear*. Cognitive therapy included attributing the fear to obsessions and compulsions, recognizing that the fear is caused by overestimation of negative events, understanding the idea of no-fear-no-OCD, and reconstructing the opinion of the fear. Then, appropriate appraisal-focused coping strategies were taught to cope with the fear of negative events, based on patient's characteristics. Step Three dealt with coping with intrusive thoughts, but avoiding using ERP. It was pivotal to make the patients understand (I) the more efforts put into controlling the obsessions, the more frequently and intensely they intruded into the patients' mind; (II) the obsessions had nothing to do with the occurrence of negative events. Therefore, to cope with them, the patients were taught to disregard their obsessions, but not to try to increase the willing to accept, to control them, and/or to respond to them. Step Four was coping with compulsions to eliminate OCD symptoms. The key issue was to cope with an impulse (obsession) to perform compulsions. In addition to disregarding the impulse, the patients were directed to engage in productive activities that would help recover their social-occupational function. All the coping strategies were practiced under the therapist's guidance at least three times in the therapeutic room.

2.3. Assessments

Two trained psychiatrists who had no other contact with participants evaluated all assessments. The inter-rater reliability was high enough for the study ($r > 0.85$, $p < 0.001$). The Y-BOCS (Goodman et al., 1989) was blindly evaluated before treatment and