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Remote cognitive–behavior therapy for obsessive–compulsive symptoms: A meta-analysis

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HIGHLIGHTS

- This study synthesizes the findings on remote treatment for obsessive–compulsive symptoms using a meta-analytic approach.
- Eighteen controlled and uncontrolled studies were included in the meta-analysis.
- Remote treatment for OCD produces a large effect size.
- Remote treatment for OCD is significantly more effective than control.
- Outcomes from remote treatment do not differ from face-to-face treatment.

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ABSTRACT

Obsessive–compulsive disorder (OCD) is a chronic mental health condition that results in a significant societal burden. Remote treatments do not require the patient to attend traditional face-to-face treatment services and can be used as a way to overcome barriers to accessing face-to-face treatment. The aim of the current study was to synthesize the current literature on remote treatment for OCD using a meta-analytic approach. Relevant articles were identified through an electronic database search and the references of previously completed reviews on the topic of remote treatment for OCD were also reviewed. Eighteen studies ($n = 823$; mean age = 31.20 (SD = 10.36); 56.2% female) were included in the meta-analysis. Within-group findings indicate that remote treatment for OCD produces a decrease in symptoms of a large magnitude ($g = 1.17$; 95% CI: 0.91–1.43). Between-group findings indicate that remote treatment for OCD is more effective than control ($g = 1.06$; 95% CI: 0.68–1.45) and outcomes are not meaningfully different from face-to-face treatment ($g = -0.21$; 95% CI: −0.43–0.02). Those methodologies that are low intensity produce a decrease in symptoms of a large magnitude ($g = 1.36$, 95% CI: 1.00–1.72), as do higher intensity treatments ($g = 1.64$, 95% CI: 1.33–1.95). These findings have important implications for the development of stepped-care treatments, which may be able to be delivered in a purely remote fashion.

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Obsessive–compulsive disorder (OCD) is a common psychological condition that is characterized by the experience of obsessions and compulsions (American Psychiatric Association, 2013). The symptoms and clinical features of OCD have been documented for hundreds of years (Burton, 1989) and the disorder is characterized by significant symptom heterogeneity. Obsessive–compulsive disorder is a relatively common disorder, with a lifetime prevalence rate of approximately 2–3% (Australian Bureau of Statistics, 2007; Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). Age of onset appears to be bimodal, with a peak at mean ages of 12.8 years and 24.9 years (Anholt et al., 2014). In adult samples the disorder is more commonly seen in females (3.6% lifetime prevalence rate) than males (1.8% lifetime prevalence rate) (Kessler et al., 2012), however males appear to be over-represented in childhood presentations of OCD, with approximately one quarter having an onset of symptoms prior to age 10, in contrast to females who are more likely to develop symptoms during adolescence (Ruscio, Stein, Chiu, & Kessler, 2010). Symptoms of OCD tend to wax and wane in response to life stressors, but rarely remit spontaneously without treatment (Pinto, Mancebo, Eisen, Pagano, & Rasmussen, 2006). The diagnosis of OCD is associated with considerable disability in various domains of functioning and individuals with OCD are significantly more impaired than community samples (Eisen et al., 2006). The extent of impairment in functioning and quality of life also appears positively correlated with the severity of symptoms (Eisen et al., 2006).

1. Measurement of obsessive–compulsive symptoms

The Yale–Brown Obsessive–Compulsive Scale (Y-BOCS) (Goodman et al., 1989) is a 10-item measure of the severity of obsessive–compulsive symptoms regardless of symptom presentation and is the gold-standard outcome measure in the OCD literature. The Y-BOCS is usually completed as a clinician-administered measure, however a self-report version of the scale is also available, and responses on the self-report Y-BOCS correlate highly with those on the clinician-administered scale ($r = .76$) (Steketee, Frost, & Bogart, 1996). The Y-BOCS demonstrates good internal consistency in both clinician administered (range $\alpha =$ .75–.87) (Anholt et al., 2010; Tolin et al., 2007) and self-report administration (range $\alpha = .73$–0.92) (Ólafsson, Snorrason, & Smári, 2010; Wootton, Dear, Johnston, Terides, & Titov, 2014). Total scores on the measure range from 0 to 40 and a cut score of 16 is generally used to determine a clinical level of symptoms.

2. Cognitive–behavioral treatment for obsessive–compulsive disorder

Cognitive–behavioral models of OCD are largely based on the body of research that demonstrates that intrusive thoughts are a universal phenomenon which becomes problematic only when individuals misinterpret those intrusions as threatening (Rachman & de Silva, 1978). These cognitive–behavioral models hypothesize that symptoms of OCD are maintained by cognitive biases, engagement in compulsive behaviors, and avoidance of triggers (Rachman, 1997; Salkovskis, 1985, 1999). Best practice cognitive behavior therapy (CBT) addresses these maintaining factors through a particular CBT technique, exposure and response prevention (ERP). Specific cognitive interventions can sometimes be used in addition to ERP (Van Oppen et al., 1995). While the exact mechanisms of this treatment are unknown it is hypothesized that ERP for OCD is effective because of the resultant 1) cognitive change (correction of faulty assumptions); 2) habituation to the conditioned fear; or 3) increases in self-efficacy (Abramowitz, 2006).

In its contemporary administration ERP involves four components; 1) exposure in vivo, where the individual confronts feared stimuli in real life; 2) exposure in imagination, where fears are confronted in imagination; 3) response prevention, which involves instructing the individual to cease any overt or covert behaviors that they would normally do to eliminate their anxiety; and, 4) a processing component, which Foa (2010) describes as reviewing with the client what they have learnt from completing an exposure task. For example an individual with contamination obsessions and cleaning/washing compulsions may be exposed to touching progressively more 'dirty' objects in real life (in-vivo exposure), may be instructed to imagine contracting a deadly disease (imaginal exposure), will be instructed to refrain from hand washing and other cleaning behaviors (response prevention), and may discuss with the therapist after the exposure whether their fears (i.e., of contracting a deadly disease) occurred (processing).

The initial literature on the efficacy of exposure based treatment for OCD emerged in the late 1960s to early 1970s (Meyer, 1966; Rachman, Hodgson, & Marks, 1971). Since this time traditional face-to-face exposure based treatments have consistently demonstrated clinical efficacy (Eddy, Dutra, Bradley, & Westen, 2004; Gava et al., 2007; Olatunji, Davis, Powers, & Smits, 2013; Sánchez-Meca, Rosa-Alcázar, Iniesta-Sepúlveda, & Rosa-Alcázar, 2014). For instance, a recent meta-analysis of 16 randomized controlled trials (RCTs), spanning both child/adolescent and adult samples, found a large effect size at post-treatment ($g = 1.39$) (Olatunji et al., 2013). Similar results were also found in a recent meta-analysis of pediatric OCD (Sánchez-Meca et al., 2014). While CBT treatments for OCD can differ slightly depending on the emphasis