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Review article

Cognitive-behavioral therapy for pediatric obsessive-compulsive disorder: Empirical review and clinical recommendations

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ABSTRACT

The efficacy of cognitive-behavioral therapy (CBT) for pediatric obsessive-compulsive disorder (OCD) has been the subject of much study over the past fifteen years. Building on a foundation of case studies and open clinical trials, the literature now contains many methodologically sound studies that have compared full CBT protocols to waitlist controls, pill placebo, psychosocial comparison conditions, active medication, combined treatments, and brief CBT. This review is part of a series commissioned by The Canadian Institute for Obsessive Compulsive Disorders (CIOCD) in an effort to publish in one place what is known about the efficacy of treatments for OCD. A total of fourteen studies were identified; collectively their findings support the efficacy of CBT for youth with OCD. CBT protocols that emphasized either strictly behavioral or cognitive conceptualizations have each been found efficacious relative to waitlist controls. Efforts to enhance CBT's efficacy and reach have been undertaken. These trials provide guidance regarding next steps to be taken to maximize efficacy and treatment availability. Findings from studies in community clinics suggest that significant treatment benefits can be realized and are not reported only from within academic contexts. These findings bode well for broader dissemination efforts. Recommendations for future research directions are provided.

Contents

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1. Introduction

Epidemiological studies estimate that up to one in 100 children and adolescents suffers from clinically relevant obsessive-compulsive disorder (OCD; Flament et al., 1988). Left untreated, OCD often continues until adulthood and leads to many negative consequences (Rasmussen and Eisen, 1990; Piacentini et al., 2003; Micali et al., 2010). Therefore, effective treatment of pediatric OCD is crucial. Fortunately, significant advances have been made over the past two decades in developing and empirically evaluating treatments for OCD in children and adolescents. As with adult OCD and as has been chronicled in several comprehensive and recent pediatric OCD review papers and meta-analyses, cognitive-behavioral therapy (CBT), either alone or in combination with pharmacotherapy, has emerged as the initial treatment of choice for pediatric OCD (March et al., 1997; Abramowitz et al., 2006; O'Kearney et al., 2007; Rosa-Alcazar et al., 2008; Watson and Rees, 2008; Freeman et al., 2014; Sanchez-Meca et al., 2014).

As has been the case with other pediatric internalizing disorders, the building of the CBT outcome literature in pediatric OCD began with age-downward extension of protocols found efficacious with adults, then publication of single case studies, case series, and open clinical trials involving these protocols. Collectively the published uncontrolled evaluations (Franklin et al., 1998, 2001; March, 1998) yielded remarkably similar and encouraging findings across settings and cultures: at post-treatment, the majority to the vast majority of patients were responders, with clinically meaningful and statistically significant symptom reductions reported. This pilot work set the stage for randomized studies evaluating the efficacy of CBT.

The empirical evidence upon which these expert opinions are based has strengthened considerably in the last decade and has provided further support for experts' recommendation that families seek CBT for children and adolescents suffering from this often disabling condition. The current review is part of a series of papers commissioned by The Canadian Institute for Obsessive Compulsive Disorders (CIOCD), in an effort to publish in one place what is known about the efficacy of treatments for OCD across the developmental spectrum. Ready access in one centralized location, in our view, would promote use of this information by the scientific and clinical communities interested in the topic. By doing so, it is our expectation that consolidation of scientific review papers of a refined topic such as OCD treatment would help support efforts to make these treatments more available in Canada and beyond by making clearer the case that the field now has developed viable pharmacotherapy and psychotherapy options to address this condition in sufferers, and that the next critical step is to disseminate these empirically supported interventions so that more may avail themselves of them.

The challenge, of course, is that there remains a paucity of mental health treatment providers properly trained in the provision of CBT for pediatric OCD (Valderhaug et al., 2004; Lewin et al., 2005b; Goldfried et al., 2014). Thus, despite the collective urging of highly knowledgeable professionals and the availability of several empirically supported treatments, many families still cannot access the treatment modality that provides affected youth with the best chance of avoiding the deleterious effects of OCD. Addressing this gap in treatment availability is an overarching goal of the CIOCD. In this review paper, we aim to make the empirical case that, given the preponderance of the evidence supporting the efficacy of CBT for pediatric OCD, closing this chasm in pediatric OCD in particular is a matter of significant public health importance. To do this, we will review the evidence base for CBT for pediatric OCD specifically, and use that information to draw conclusions regarding what we already know and what we still need to know with respect to the efficacy of this form of treatment.

2. Method

We chose to concentrate our review efforts on the most methodologically rigorous studies conducted in the last fifteen years, which is when the first randomized trial examining CBT for pediatric OCD appeared in the literature (de Haan et al., 1998). In selecting clinical trials for consideration, we employed a system first presented in a review evaluating studies of CBT for OCD across the developmental spectrum that was published most recently in the third edition of Nathan and Gorman's seminal book "Treatments that Work" (Franklin and Foa, 2007). We have expanded upon that contribution here by including more recent papers; we also have focused our review here exclusively on studies that have employed pediatric samples.

In accordance with our approach in the Nathan and Gorman OCD review chapter, the following initial criteria were used to screen studies for inclusion in this review: (1) the sample comprised pediatric OCD patients (age < 18); (2) at least one comparison group; (3) at least 10 patients per experimental cell; (4) clearly defined inclusion/exclusion criteria; (5) reliable and valid diagnostic methods; (6) random assignment to treatment condition; (7) appropriate statistical analyses; and (8) inclusion of exposure plus response prevention that meets acceptable clinical practice standards as suggested by expert consensus (March et al., 1997). Numerous open trials of CBT for pediatric OCD have been conducted around the world over the past two decades (e.g., March et al., 1994), and they set the stage for the more methodologically rigorous studies that we discuss below. For the purpose of the current review, initial literature searches were conducted for individual clinical trials through PsychINFO and PubMed (keywords: obsessive, compulsive, obsessive-compulsive, OCD, cognitive behavior therapy, cognitive-behavioral therapy, cognitive behavioural therapy, youth, child, adolescent, or pediatric); the dates for the search were January 1, 1998 through December 31, 2013. Relevant publications were then vetted by the first and second authors. Upon completion of this process, fourteen studies were identified that met all inclusion criteria described above. Only English language publications were considered.

We included studies with and without no-treatment control conditions. For those without no-treatment conditions, this methodological omission leaves it impossible to disentangle non-specific effects (e.g., passage of time, repeated assessment, treatment expectancy) from the treatment signal. Accordingly, findings from studies comparing one psychotherapy to another without an adequate control group that can account for effects that could be attributed to the factors highlighted above should be interpreted with greater caution (for discussion see Klein, 1996). Nevertheless, their inclusion is warranted because such studies can be used to ask, and answer, questions about treatments other than efficacy. We did not include reviews of review papers, as this process would appear to be redundant.

3. Results

A total of 14 studies met all of the criteria for above and are discussed in detail below; their methodological and procedural details are also summarized in Table 1. All effect sizes are presented as Cohen's d (Cohen, 1988). Specifically, within-group effect sizes were calculated with the formula $d=(X_{post}-X_{pre})/s_{pooled}$ and between-group effect sizes with $d=(\bar{x}_t-\bar{x}_c)/\sqrt{(n_t-1)s_t^2+(n_c-1)s_c^2/n_t+n_c}$.