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Secondary outcomes from the pediatric obsessive compulsive disorder treatment study II

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ABSTRACT

The Pediatric Obsessive-Compulsive Disorder Treatment Study II (POTS II) investigated the benefit of serotonin reuptake inhibitor (SRI) augmentation with cognitive behavioral therapy (CBT). Primary outcomes focused on OCD symptom change and indicated benefit associated with a full course of CBT. Given that the majority of youth with OCD suffer from significant comorbid symptoms and impaired quality of life, the current study examined POTS II data for effects on secondary outcomes. Participants were 124 youth ages 7–17 years with a primary diagnosis of OCD who were partial responders to an adequate SRI trial. Participants were randomized to medication management, medication management plus instructions in cognitive behavioral therapy (CBT), or medication management plus full CBT. Acute effects on non-OCD anxiety, depression, inattention, hyperactivity, and quality of life were examined across treatment conditions. Improvement across treatment was observed for non-OCD anxiety, inattention, hyperactivity, and quality of life. Changes were generally significantly greater in the group receiving full CBT. Child-rated depression was not found to change. OCD-focused treatment lead to improvement in other areas of psychopathology and functioning. For youth who are partial responders to SRI monotherapy, augmentation with full CBT may yield the greatest benefit on these secondary outcomes.
Clinical trials registration: Treatment of Pediatric OCD for SRI Partial Responders, Clinicaltrials.gov Identifier: NCT00074815, http://clinicaltrials.gov/show/NCT00074815.

1. Introduction

Two primary forms of treatment, namely cognitive behavioral therapy (CBT) and pharmacological agents, effectively reduce symptoms of obsessive-compulsive disorder (OCD) in youth (Freeman et al., 2014; Watson and Rees, 2008), but less is known about the effect of these treatments on other domains of functioning. Empirical evidence suggests that CBT involving exposure with response prevention (ERP), either alone or in combination with a serotonin reuptake inhibitor (SRI), is the best choice for initial treatment of pediatric OCD (Pediatric, 2004). In community settings, however, pharmacotherapy with SRI alone is very commonly used as an initial and sole treatment due to limited dissemination of CBT (Rushton and Whitmire, 2001). Given that most patients with OCD who receive SRI alone continue to experience clinically significant residual symptoms after a full course of pharmacotherapy (March et al., 1998; Riddle et al., 2001), the Pediatric Obsessive-Compulsive Disorder Treatment Study II (POTS II) was conducted to investigate the effects of two CBT augmentation

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approaches in children who demonstrated partial response to pharmacotherapy with SRI (Franklin et al., 2011).

The overarching goal of POTS II was to examine the benefit of SRI augmentation using CBT strategies, including an instructional CBT protocol that could be easily disseminated by child psychiatrists (Freeman et al., 2009). To investigate this, participants in POTS II were randomized to one of three conditions: A) Medication Management (MM): medication management visits with a study psychiatrist; B) Medication Management plus OCD-specific CBT (MM + CBT): same medication management visits as in MM plus a full dose of CBT from a second provider (a study psychologist using established CBT manual); C) Medication Management plus Instruction in CBT skills (MM + iCBT): extended medication management visits in which the study psychiatrist provided instructions in CBT during the visit (Freeman et al., 2009). Primary outcomes, based on changes in the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS; Scahill et al., 1997), indicated that those receiving MM + CBT had significantly greater symptom reduction compared with those receiving MM alone (ES = 0.85), whereas those receiving MM + iCBT did not show greater symptom reduction compared to MM alone (ES = 0.16; Franklin et al., 2011). Importantly, these results provided additional support for CBT augmentation in a sample of partial responders but only limited support for delivery of an abbreviated version of CBT skills over medication management alone. Authors postulated that lack of effect in the MM + iCBT group may have been due to lower intensity of treatment, less contact time with a provider, and/or omission of key treatment elements (i.e. in-session exposures, Franklin et al., 2011).

Despite the important implications of POTS II results for improving OCD symptoms in children who have experienced partial response to SRI treatment, the impact of these treatments on secondary outcomes has yet to be explored. The majority of youth with OCD suffer from significant comorbid symptoms and experience considerable impairments in quality of life (Palermo et al., 2011; Piacentini et al., 2003; Selles et al., 2014; Valderhaug and Ivarsson, 2005). Common psychiatric comorbidities include non-OCD anxiety disorders (e.g., separation anxiety, specific phobia, social phobia, generalized anxiety disorder), depressive disorders, and externalizing disorders (e.g., attention deficit hyperactivity disorder, oppositional defiant disorder; Alvarenga et al., 2016). Although not the primary treatment target, comorbid symptoms and quality of life represent important measures of a child's functioning, and the impact of treatment on such “secondary outcomes” is of great relevance in determining a treatment's broader impact on patient's lives. Researchers have argued that reporting outcome only in terms of primary symptom change is overly simplistic and yields suboptimal clinical information about treatment effects (Westen and Morrison, 2001). For example, treatment effects may generalize to other clinically important outcomes, comorbidities may be related to treatment moderation or mediation (Eddy et al., 2004), and information on secondary factors improves the generalizability of clinical trials (Westen and Morrison, 2001). Some evidence already appears to support the positive impact of treatment, particularly CBT, on these domains in youth with OCD, including decreases in depressive and anxiety symptoms, as well as reductions in impairment/improvements in quality of life (Bolton et al., 2011; Storch et al., 2013).

CBT's effects on secondary outcomes have generally supported the broader impact of treatment (e.g., Saavedra et al., 2010; Suveg et al., 2009), and examining such effects in the POTS II trial is our overarching goal here. More specifically, our current study aimed to compare children receiving MM, MM + CBT, or MM + iCBT as part of POTS II for effects on secondary (i.e. non-OCD) outcomes including other psychiatric symptoms (e.g., anxiety, depression, and behavioral symptoms) and broad psychosocial functioning (e.g., impairment and quality of life). It was hypothesized, that similar to the primary outcomes, the MM + CBT condition would be associated with the greatest benefit in secondary outcomes when compared to both the MM and MM + iCBT conditions, which would not be hypothesized to differ from one another. As an exploratory aim, we also sought to understand whether changes in these secondary outcomes were related to change in OCD symptoms across the entire sample.

2. Methods

2.1. Study design

POTS II was a 12-week, randomized, parallel group, controlled trial examining the efficacy of CBT augmentation strategies for youth who were partial responders to an optimal SRI dosage. The study rationale, design, methods, and primary outcomes have been reported elsewhere (Franklin et al., 2011; Freeman et al., 2009). POTS II participants were recruited from three sites (University of Pennsylvania, Duke University, and Brown University) between 2004 and 2009 and randomized to one of three treatment strategies, briefly described below (for more detail see Freeman et al., 2009):

1) Medication Management (MM, n = 42): Participants received seven medication management visits with a study psychiatrist over 12 weeks focused on monitoring of clinical status. Pharmacotherapists offered general encouragement to resist OCD but did not instruct participants or parents in specific OCD-management strategies or provide other psychotherapeutic interventions (e.g., family therapy).
2) Medication Management plus OCD-specific CBT (MM + CBT, n = 42): Participants received the same medication management visits plus a full dose of CBT occurring in 14 hourly visits over 12 weeks from a second provider (a study psychologist using a previously established CBT manual; March and Mulle, 1998). CBT components included psychoeducation, cognitive training, detailed hierarchy development, therapist-assisted exposure practice in the office, and exposure homework. Parent training elements were incorporated into CBT sessions and focused on differential attention, exposure procedures, reducing family accommodation, reward systems to bolster compliance, and skills generalization.
3) Medication Management plus Instruction in CBT skills (MM + iCBT, n = 40): Participants received extended medication management visits in which the study psychiatrist provided instructions in CBT during the visit. iCBT included didactic information about the main psychoeducational and ERP components of the full CBT protocol, but did not include therapist-assisted exposure practice, cognitive training (except for bossing back metaphors and externalizing techniques), imaginal exposure instructions, reward system development, or dyadic parent sessions. Hierarchy development was comparatively simpler than full CBT and involved creation of a single ordinal hierarchy, rather than multiple hierarchies addressing different aspects of OCD.

The institutional review board at each site approved the study protocol, and informed consent/assent was obtained from all participants. The Consolidated Standards of Reporting Trials diagram was originally reported in Franklin et al. (2011). The current study focused on treatment-related change in secondary (i.e., non-OCD) psychiatric symptoms and psychosocial functioning as measured from baseline to week 12.