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Intensive residential treatment for obsessive-compulsive disorder: Outcomes and predictors of patient adherence to cognitive-behavioural therapy

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ABSTRACT

Obsessive-compulsive disorder (OCD) is often a severe and highly debilitating disorder, in which many patients inadequately respond to standard outpatient care. While specialized intensive residential treatment (IRT) for OCD provides promise, factors to improve treatment adherence in these settings is currently unknown but crucial to optimize treatment response. This naturalistic study examined the rates and predictors of patient adherence to exposure and response preventions (EX/RP) for 49 patients attending IRT. A therapist assessed between-session adherence to EX/RP, and participants completed self-report measures at pre- and post-treatment, and 1-month follow-up. Linear mixed effects models analyses revealed that IRT resulted in significant improvements in OCD and comorbid symptoms. Treatment readiness, specific obsessional beliefs, depression and stress symptoms, level of insight, avoidance, and responsibility for harm were significantly associated with patient adherence. Directions for future research that may interact with adherence to EX/RP and lead to targeted interventions are discussed.

1. Introduction

Both pharmacological and cognitive-behavioural approaches for OCD have demonstrated efficacy and effectiveness (National Institute for Health and Clinical Excellence; NICE, 2006). However, 40–60% of patients have only a partial response to medication and 30% remain clinically unchanged (Albert et al., 2013). With only up to 50% of patients achieving minimal symptoms following treatment (Simpson et al., 2008), risk of relapse after ceasing medication remains high (Tolin, Maltby, Diefenbach, Hannan, & Worhunsky, 2004). Cognitive-behaviour therapy (CBT), consisting of exposure and response (ritual) prevention (EX/RP), remains the most prominent psychological treatment for OCD with substantial empirical support (Abramowitz, Taylor, & McKay, 2009). Research suggests that up to 85% of those who receive a sufficient dose of EX/RP experience clinical benefit (Barrett, Healy-Farrell, & March, 2004). A series of randomized clinical trials demonstrated that specialized EX/RP alone, or in combination with serotonin reuptake inhibitors (SRIs), can be equally effective for significantly improving OCD symptoms (Foa et al., 2005), and is more effective than placebo, stress management training (SMT), antidepressant monotherapy (Simpson et al., 2008), or antipsychotic augmentation (Simpson et al., 2013). Further, augmenting EX/RP to SRIs may yield superior long-term outcomes compared to other augmentation strategies (i.e. SMT; Foa et al., 2013; or low dose risperidone or aripiprazole; Veale et al., 2014) during the acute and maintenance treatment phases (Foa et al., 2015; McLean et al., 2015).

Despite the efficacy of EX/RP, a recent meta-analysis of 37 RCTs reported that an average of 15% of patients decline treatment, and 15% dropout (Öst, Havnen, Hansen, & Kvale, 2015). Some patients are reluctant or unwilling to engage in exposure tasks due to their perceived confronting nature (Franklin & Foa, 1998), others are ambivalent about treatment engagement (Simpson & Zuckoff, 2011), and some fail to fully implement treatment procedures as recommended (Abramowitz, Franklin, Zoellner, & Dibernardo, 2002). It is also questioned how well results from strict clinical trials generalize to patients in naturalistic settings (Otte, 2011). Nevertheless, the effectiveness of EX/RP in clinical practice has

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demonstrated support (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000). In a systematic review of clinical predictors of response to CBT, Knopp, Knowles, Bee, Lovell, and Bower (2013) found that OCD symptom severity, duration, subtype, obsessive beliefs, and age of onset, were more frequently identified. Other factors, such as hoarding pathology, comorbidity (i.e. severe depression or anxiety), medication use, treatment history, age, gender, education, relationship status, and treatment expectancy, were also associated with response. However, due to inconsistency and discrepancies in methodology and findings, and varied results more generally, best practice to improve treatment response in naturalistic settings remain unclear.

For many patients, intensive residential treatment (IRT) provides promise (Brennan et al., 2014; Stewart, Stack, Farrell, Pauls, & Jenike, 2005). IRT is usually reserved for those with severe and treatment refractory symptoms, may experience significant self-neglect or disability, and/or are unable to access or have difficulties adhering to outpatient care. A recent review of inpatient/residential treatment settings demonstrated that patients can experience significant improvements to OC symptoms and psychosocial functioning with large effect sizes (Veale et al., 2016). While factors associated with treatment outcomes within these settings were again highly varied, similar to that reported by Knopp et al. (2013), OCD symptom severity, marital status, hoarding pathology, and alcohol misuse were identified as predictors (Veale et al., 2016). This suggests that intensive doses or modalities of EX/RP may serve as an opportunity to address prior difficulties and optimize response to CBT.

Recent research has focused on how patient adherence to CBT may lead to avenues of more personalized care and improved outcomes (Simpson et al., 2010a). Abramowitz et al. (2002) examined treatment compliance to EX/RP in 28 adults with OCD and found that greater within and between-session compliance was associated with significant clinical improvements to symptoms following 15 outpatient sessions. Similarly, Simpson et al. (2011) found that between-session adherence significantly predicted reductions to post-treatment OCD severity in a sample of 30 adults with OCD following acute treatment and at 6-month follow-up (Simpson, Marcus, Zuckoff, Franklin, & Foa, 2012). This suggests that assessing and identifying predictors of patient adherence may be beneficial to optimizing treatment response. Simpson et al. (2012) found that greater patient adherence to EX/RP, and thereby better treatment outcomes, was significantly predicted by treatment readiness to EX/RP and a strong therapeutic alliance, whereas hoarding pathology predictor poorer adherence (Maher et al., 2012). Whilst these findings are noteworthy, sample sizes were relatively small and remained limited to outpatient settings. Moreover, participants demonstrated good insight and were relatively free of depression, and may not be representative of clinical reality in specialized IRT settings for OCD.

Our study aimed to examine treatment effectiveness of a brief group-based IRT program for OCD, and assess for predictors of adherence to EXRP in a naturalistic setting. We hypothesized that the group-based IRT would result in significant improvements of OCD symptom severity at post-treatment and 1-month follow-up and that patient adherence to EX/RP procedures while in IRT would predict reductions on OCD symptoms. Based on recent literature of predictors to CBT (Knopp et al., 2013; Öst et al., 2015; Veale et al., 2016), we hypothesized treatment readiness would be associated with treatment adherence. We also hypothesized that OCD severity, subtype, obsessional beliefs, psychological distress, lower insight, higher avoidance, and hoarding pathology would be associated with treatment adherence.

2. Method

2.1. Participants

Participants diagnosed with OCD by a psychiatrist, according to the Diagnostic and Statistical Manual of Mental Disorders, Forth Edition criteria, Text-Revision (DSM-IV TR; APA, 2000), were recruited between July 2013 and July 2014 from a metropolitan psychiatric hospital's specialized inpatient group-based IRT program. The program is available to those with suitable private health insurance who are admitted to the program due to an inadequate response to outpatient treatments, significant symptom severity, and interruption to daily living. Fifty-five patients were admitted to the program during the recruitment period (excluding 16 repeat admissions), of whom 52 provided informed consent to research. Consecutive program patients were invited to participate in the research, following informed consent, requiring assessments throughout treatment and at 1-month follow-up. Approval was obtained from hospital and university ethics committees.

2.2. Treatment

The OCD treatment team consists of a psychiatrist, two clinical psychologists, a psychiatric occupational therapist, psychiatric nursing staff, and a postgraduate clinical psychology student (under specialized supervision). All staff have specialized training and experience in EX/RP. The fixed 3-week IRT program utilizes a CBT approach, with a primary emphasis of EX/RP approach, as well as other secondary adjunctive interventions (such as psychoeducation, cognitive therapy, mindfulness etc.). Group treatment runs five days per week, generally 9 am to 4 pm, with breaks. Initial group sessions consist of psycho-education regarding OCD symptoms and treatment rationale, and development of individualized hierarchies. Subsequent group sessions consist of group-based EX/RP and self-directed EX/RP and discharge planning. Patients are assigned EX/RP tasks during weekends to consolidate learning, as well as adjunctive wellbeing tasks, though no therapist directed group sessions were conducted. Each weekday exposure tasks are collaboratively assigned between patient and clinician for self-directed exposure. A typical treatment day consists of 2-hour group-based therapist-directed EX/RP, 2-hour self-directed EX/RP, as well as other add-on psycho-education group-based treatment practices. In total, the program included a minimum of 10 h of CBT each week. Treatment and exposure sessions are primarily group-based, though individualized treatment (i.e. assigning and modeling exposure tasks, cognitive therapy, developing graded hierarchies) are utilized when possible Psychotropic medications are monitored weekly by the patient's treating psychiatrist.

2.3. Measures

The *YBOCS-SR* (Goodman et al., 1989; Steketee, Frost, & Bogert, 1996) is a self-report measure of OCD severity. The scale includes a symptom checklist and a 10-item severity scale on a 5-point scale ranging from 0=*none* to 4=*extreme*. The YBOCS-SR has demonstrated high internal consistency, test re-test reliability, and strong convergent validity with the clinician-administered interview (Steketee, Frost, & Bogert). The internal consistency in this study was α=.88.

The *Dimensional Obsessive-Compulsive Scale* (*DOCS;* Abramowitz et al., 2010) is a 20-item self-report measure of OCD severity across four symptom dimensions: a) contamination, b) responsibility for harm or injury, c) unacceptable thoughts, and d) symmetry, completeness and exactness. Items are rated on a 5-point scale from 0 to 4 across five severity parameters: a) time occupied