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An open trial of videoconference-mediated exposure and ritual prevention for obsessive-compulsive disorder

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ABSTRACT

The gold-standard treatment for OCD is exposure and ritual prevention (ERP), yet despite its well-established efficacy, only a small percentage of OCD patients have access to this treatment. Remote treatments (e.g., videoconferencing) are becoming increasingly popular avenues for treatment delivery and show promise in increasing patient access to evidence-based mental health care. The current pilot study utilized an open trial to examine the feasibility and preliminary efficacy of videoconference-mediated, twice weekly, ERP for adults ($n = 15$) with OCD. Results revealed that ERP was associated with significant improvements in OCD symptoms and large within-group effect sizes. Among the 10 individuals who completed a 3-month follow-up assessment, 30% of participants no longer met DSM-IV-TR criteria for OCD and 80% of participants were rated as very much or much improved on the CGI. This study adds to the growing body of literature suggesting that videoconference-based interventions are viable alternatives to face-to-face treatment.

1. Introduction

Obsessive-compulsive disorder (OCD), a debilitating disorder characterized by a waxing and waning course, rarely remits without treatment (Franklin & Foa, 2008). Exposure and ritual prevention (ERP) is the first line behavioral intervention for OCD, yet only a very small percentage of OCD patients have access to this treatment (Blanco et al., 2006).

Successful delivery of ERP is limited by insufficient graduate-level coursework and supervised clinical experience (Crits-Christoph, Frank, Chambless, Brody, & Karp, 1995), a relative dearth of specialized providers (i.e., a 2010 search of the members of the Association for Behavioral and Cognitive Therapies revealed that only 23% claim expertise in treating OCD), a geographic maldistribution of these providers (i.e., 90% of these providers are located in a metropolitan area), and continued use of non-evidence-based methods for treating OCD (Stobie, Taylor, Quigley, Ewing, & Salkovskis, 2007).

Remote interventions demonstrate promise in bridging this significant research-practice gap (Yuen, Goetter, Herbert, & Forman, 2012). Videoconferencing interventions may be superior to other remote interventions (e.g., self-help, telephone-mediated psychotherapy) because they enhance the face-to-face element of therapy and increase patient accountability. Moreover, they offer unique benefits in the treatment of OCD (Goetter et al., 2013). Although two studies applying videoconferencing-based treatment to adults with OCD (Himle et al., 2006; Vogel et al., 2012) have been conducted, they had small samples and treatment utilized expensive videoconference equipment. Furthermore, no study to date has examined the efficacy of intensive, twice-weekly ERP via videoconference, which is the traditional mode of delivery.

The current pilot study utilized an open trial to examine the feasibility and preliminary efficacy of in-home, videoconference-mediated, state-of-the-art, twice-weekly ERP therapy for adults with OCD. It was hypothesized that videoconferencing treatment of OCD would be rated as acceptable by participants and feasible to deliver by therapists and that OCD symptoms and quality of life would improve from pre- to post-treatment and from pre-treatment to 3-month follow-up.

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2. Method

2.1. Participants

Participants were 15 adults (86.7% female) with a mean age of 32.2 (SD = 11.41). Most were non-Hispanic white (53.3%), lived in non-metropolitan areas (53.3; 40% lived more than 45 min (by car) from a mental health practitioner claiming expertise in ERP for OCD), had previously been in therapy (73.3%), were not currently taking medication (86.7%) and had some familiarity with Skype (80%). Most (60%) were married or cohabitating. The sample was relatively highly educated with over half (73.3%) holding a college degree and 46.7% were employed full time. A notable percentage (20%) of the sample indicated that English was not their primary language, although 75% of these individuals learned English before the age of five. Exclusion criteria were subclinical level of OCD symptoms, primary hoarding, comorbid psychotic or developmental disorder, concurrent OCD treatment, and unstable medication regimen.

2.2. Measures

OCD symptoms and diagnosis were assessed using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-IV; First, Spitzer, Gibbon, & Williams, 1996), the Yale-Brown Obsessive Compulsive Scale (YBOCS; Goodman et al., 1989), and the Clinical Global Impressions Scale (CGI; NIMH, 1985). Quality of life was measured with the Quality of Life Enjoyment and Satisfaction Questionnaire short form (QLESQ; Endicott, Nee, Harrison, & Blumenthal, 1993). Acceptance and feasibility measures included the Reaction to Treatment Questionnaire (RTQ; Borkovec & Nau, 1972), the Working Alliance Inventory (WAI-S; Horvath & Greenberg, 1989), the Client Satisfaction Survey (CSS; Dalrymple & Herbert, 2007), the Telepresence in Videoconference Scale (TVS; Bouchard et al., 2004), and the Patient EX/RP Adherence Scale (PEAS; Simpson et al., 2010).

2.3. Procedure

Individuals underwent a brief telephone screening ($n = 110$), faxed or emailed a signed consent form, and then underwent a comprehensive diagnostic screening evaluation ($n = 21$). Following the diagnostic interview, eligible participants participated in a Skype test and tutorial ($n = 17$) with a research staff member. Following the Skype test, participants ($n = 16$) began treatment. ERP involved 16–18 twice-weekly, 90 min, individual sessions with between-session phone check-ins. Participants also received an additional maintenance session approximately two weeks after their final session. Participants were assessed at four different times: pre-treatment, mid-treatment, post-treatment, and 3-month follow-up.

2.4. Therapists

The treatment team consisted of nine clinical psychology doctoral students who had prior experience delivering evidence-based behavioral treatment for anxiety disorders. All therapists received two, 4-h trainings on the delivery of ERP for OCD and all therapists received weekly supervision from licensed psychologists and experts in exposure-based therapies for anxiety disorders.

2.5. Data analyses

IBM SPSS Statistics for Windows, Version 19.0 was used for all analysis. Participant characteristics and acceptability/feasibility scores (completers only) were represented using means and standard deviations (SD) and frequency counts. *T*-test and chi-square were used to compare the characteristics of completers and non-completers. Intent to treat (ITT) analyses were conducted using hierarchical linear models (HLMs) fitted by restricted maximum likelihood (REML). Missingness was accommodated by including all available data in the HLM models. Time was coded using sequential integers and a quadratic function of time was used to capture regression from post-treatment to follow-up. Linear slopes (i.e., change over time), were determined to vary by individual and were therefore treated as a random effect. The intercept and quadratic function of time were treated as fixed effects. Model estimates of means and standard errors (SE) were generated and compared for each outcome at each time point. Hedge's *g*, adjusted for the repeated administrations of the outcome measures, is reported in addition to standard tests of statistical significance.

3. Results

Fifteen participants began treatment. The attrition rate was 27%. There were no significant differences between completers and non-completers (i.e., treatment dropouts) at baseline on demographic variables, familiarity with videoconference, or symptom severity. However, dropouts experienced more severe technical problems than completers ($t = 2.86$; $p < .05$). Post-treatment data were only available for one of the four dropouts.

3.1. Feasibility/acceptability

Overall, participants were satisfied with their therapist and the treatment they received (83% were mostly or completely satisfied) and ratings of the therapeutic relationship were high, both early in treatment ($M = 6.17$, SD = 0.95) and at post-treatment ($M = 5.92$, SD = 1.04). Most participants found receiving therapy via Skype to be acceptable, with 92% reporting that receiving treatment in Skype was fairly or very easy. Participants reported that their conversation with their therapist was natural (95% reported at least 70% agreement), that they felt as though their exchange was happening in the physical presence of the therapist (89% reported at least 70% agreement). The observed mean total PEAS score was 5.19 (SD = 1.13; range = 3.19–7.00) indicating substantial homework adherence and good effort on exposure goals. Most therapists reported that delivering treatment through Skype was feasible (80% reported it was "very" or "fairly" feasible). Therapists reported no technical problems for just over half (56%) of all sessions, insignificant to minor technical problems for 33% of sessions, and moderate to severe technical problems for 11% of sessions.

3.2. Treatment outcome

There was significant change over time in YBOCS ($\beta_{TIME} = -10.3$, 95% CI_{TIME} [−13.9, −6.7], $SE_{TIME} = 1.8$, $p_{TIME} < .001$; $\beta_{TIME}{}^2 = 2.2$, 95% $CI_{TIME}{}^2$[1.0, 3.2], $SE_{TIME}{}^2 = 0.5$, $p_{TIME}{}^2 < .001$) and QLSESQ ($\beta_{TIME} = 15.9$, 95% CI_{TIME} [2.0, 29.7], $SE_{TIME} = 6.8$, $p_{TIME} = .026$; $\beta_{TIME}{}^2 = -3.5$, 95% $CI_{TIME}{}^2$[−7.2, 0.3], $SE_{TIME}{}^2 = 1.9$, $p_{TIME}{}^2 = .07$). The pre-post effect sizes were very large for the clinician-rated measures of OCD symptom severity (Hedges' $g = 2.56$) and quality of life (Hedges' $g = 1.27$) and were within the range seen in other outcome studies (see Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000). Within group effect sizes at the follow-up assessment remained large. Among the 10 individuals who completed a 3-month follow-up assessment, 30% of participants no longer met DSM-IV-TR criteria for OCD at post-treatment and 80% of participants were rated as very much or much improved on the CGI.

4. Discussion

The current study is the first to examine the feasibility, acceptance, and efficacy of a remote, home-based, videoconference-mediated delivery of twice-weekly, ERP for OCD. The treatment was feasible for both participants and therapists and the intervention was associated with reductions in OCD, improvements in quality of life, and large effect sizes. Of note, although many participants were much improved, most remained symptomatic and still met diagnostic criteria at the follow-up assessment. We treated a relatively diverse sample of adults, which is encouraging given that historically, clinical trials of OCD have included relatively few minority participants (Williams, Powers, Yun, & Foa, 2010). Attrition rates were commensurate with in-person studies of ERP for OCD (Franklin et al., 2000) and the technological aspects of the treatment were rated as manageable to both participants and therapists. However, attrition from the present study may have been mitigated by aggressively managing the technical problems that did arise. To date, this is the first study to examine the use of videoconferencing as a means to deliver the standard format of ERP for adults with OCD, and is one of the first investigations of the feasibility and efficacy of psychotherapy delivered via a free, home computer-based videoconferencing platform.

4.1. Limitations

Limitations include the small sample size and lack of an inactive control or in-person ERP comparison group. Treatment integrity and interrater reliability between independent raters were not assessed, posing possible threats to the study's internal validity. Additionally, recruitment for the study took place on the Internet and thus, there may have been a sampling bias favoring technologically savvy populations.

4.2. Conclusions

The current study adds to the growing body of literature suggesting that videoconference-based treatments are viable alternatives to in-person treatments. These methods increase the accessibility of evidence-based treatment and may provide hope to individuals who otherwise would not have access to quality mental health treatment. This is particularly important in the case of OCD – a complex anxiety disorder requiring a specialized intervention to treat it. Making a highly specialized therapy more available also improves the standard of psychotherapeutic care by removing the constraints associated with the lack of availability of trained clinicians in many communities.

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