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Obsessive Compulsive Personality Disorder as a Predictor of Exposure and Ritual Prevention Outcome for Obsessive Compulsive Disorder

Anthony Pinto^{1,2}, Michael R. Liebowitz^{1,2}, Edna B. Foa³, and H. Blair Simpson^{1,2}

¹New York State Psychiatric Institute, New York, NY, USA

²Department of Psychiatry, Columbia University, New York, NY, USA

³Department of Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, PA, USA

Abstract

Despite elevated rates of obsessive compulsive personality disorder (OCPD) in patients with obsessive compulsive disorder (OCD), no study has specifically examined comorbid OCPD as a predictor of exposure and ritual prevention (EX/RP) outcome. Participants were adult outpatients ($n = 49$) with primary OCD and a Yale-Brown Obsessive Compulsive Scale (YBOCS) total score ≥ 16 despite a therapeutic serotonin reuptake inhibitor dose for at least 12 weeks prior to entry. Participants received 17 sessions of EX/RP over 8 weeks. OCD severity was assessed with the YBOCS pre- and post-treatment by independent evaluators. At baseline, 34.7% of the OCD sample met criteria for comorbid DSM-IV OCPD, assessed by structured interview. OCPD was tested as a predictor of outcome both as a diagnostic category and as a dimensional score (severity) based on the total number of OCPD symptoms coded as present and clinically significant at baseline. Both OCPD diagnosis and greater OCPD severity predicted worse EX/RP outcome, controlling for baseline OCD severity, Axis I and II comorbidity, prior treatment, quality of life, and gender. When the individual OCPD criteria were tested separately, only perfectionism predicted worse treatment outcome, over and above the previously mentioned covariates. These findings highlight the importance of assessing OCPD and suggest a need to directly address OCPD-related traits, especially perfectionism, in the context of EX/RP to minimize their interference in outcome.

Keywords

obsessive compulsive disorder; obsessive compulsive personality disorder; perfectionism; exposure and ritual prevention; exposure and response prevention; treatment outcome

DSM-IV defines obsessive compulsive personality disorder (OCPD) as an enduring pattern that leads to clinically significant distress or functional impairment, marked by four or more of the following: preoccupation with details; perfectionism; excessive devotion to work; inflexibility about morality and ethics; inability to discard worn-out or worthless items;

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Correspondence to: Anthony Pinto, Ph.D., Columbia University, New York State Psychiatric Institute, 1051 Riverside Drive, Unit 69, New York, NY 10032. Tel: 212-543-5427. Fax: 212-543-6515. Anthony_Pinto@columbia.edu.

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reluctance to delegate tasks; miserliness; and rigidity and stubbornness (American Psychiatric Association, 2000). With regard to functional impairment, OCPD is associated with poor spouse/partner relationships and overall social functioning (Costa, Samuels, Bagby, Daffin, & Norton, 2005), and hostility and anger outbursts at home and work (Villemaire-Pittman, Stanford, Greve, Houston, & Mathias, 2004). Furthermore, depressed patients with OCPD report more frequent, chronic suicidal ideation and more frequent attempts (Diaconu & Turecki, 2009).

There is compelling evidence for a relationship between OCPD and obsessive compulsive disorder (OCD) based on comorbidity and familiarity. Rates of DSM-IV OCPD in OCD samples range from 23 to 32% (Albert, Maina, Forner, & Bogetto, 2004; Garyfallos, et al., 2010; Pinto, Mancebo, Eisen, Pagano, & Rasmussen, 2006; Samuels, et al., 2000) in comparison to rates of OCPD of 1 to 3% in community samples (Albert, et al., 2004; Samuels, et al., 2002; Torgersen, Kringlen, & Cramer, 2001). In a personality disorder sample, 21% of subjects with DSM-IV OCPD met criteria for OCD (McGlashan, et al., 2000). In a family study, the first-degree relatives of OCD probands were twice as likely to have OCPD as compared to the relatives of control probands (Samuels, et al., 2000). In addition, several studies have reported increased frequencies of OCPD traits in the parents of pediatric OCD probands versus the parents of healthy children (Calvo, et al., 2009; Lenane, et al., 1990; Swedo, Rapoport, Leonard, Lenane, & Cheslow, 1989).

Recent data and clinical observations suggest that the presence of comorbid OCPD increases the morbidity of OCD. Compared to those without comorbid OCPD, OCD subjects with comorbid OCPD experience younger age at onset of first OCD symptoms, poorer psychosocial functioning despite no difference in OCD severity (Coles, Pinto, Mancebo, Rasmussen, & Eisen, 2008; Garyfallos, et al., 2010), more severe cognitive inflexibility (Fineberg, Sharma, Sivakumaran, Sahakian, & Chamberlain, 2007), and lower likelihood of OCD remission after two years (Pinto, 2009).

The presence of OCPD has been shown to adversely impact the prognosis of other Axis I disorders. In a large epidemiological study, OCPD and paranoid personality disorder were the only personality disorders associated with reduced probability of remission from early-onset chronic depression (Agosti, Hellerstein, & Stewart, 2009). In prospective studies of adolescent-onset anorexia nervosa, OCPD has been associated with longer duration of illness (Strober, Freeman, & Morrell, 1997; Wentz, Gillberg, Anckarsater, Gillberg, & Rastam, 2009). In a randomized controlled trial of adolescent anorexia nervosa, patients with high levels of OCPD traits did more poorly in short-term rather than long-term family therapy (Lock, Agras, Bryson, & Kraemer, 2005). OCPD has also been associated with higher risk of relapse in both depression (Grilo, et al., 2010) and generalized anxiety disorder (Ansell, et al., in press).

Given these findings, does OCPD adversely impact treatment outcome in OCD? The two studies that examined the impact of comorbid OCPD on serotonin reuptake inhibitor (SRI) treatment outcome in OCD were equivocal. Baer et al. (1992) found no effect for DSM-III OCPD; only schizotypal, borderline, and avoidant personality disorders predicted poorer clomipramine outcome. In contrast, Cavedini et al. (1997) reported poorer response to SRI treatment for patients with comorbid DSM-III-R OCPD. Fricke et al. (2006) examined the impact of specific personality disorders on outcome of an individually tailored multimodal cognitive-behavioral therapy (CBT) (with or without medication) for OCD; only schizotypal and passive-aggressive traits were predictive of nonresponse (at trend level).

The present study is the first to examine whether OCPD predicts outcome of exposure and ritual prevention (EX/RP) for OCD. We hypothesized that OCPD, both as a diagnostic

category and a dimensional severity score, would impede outcome. We also explored whether individual OCPD criteria are predictive of treatment outcome, consistent with the view of pathological traits as potential prognostic indicators in the proposed personality disorder revisions for DSM-5 (Skodol, et al., 2011).

Method

Overview of Study Design

Data for this study came from a two-site randomized controlled trial described fully elsewhere (Simpson, et al., 2008). Briefly, 108 adults with OCD participated; all were on a stable, therapeutic dose of an SRI for at least 12 weeks prior to entry and reported at least minimal improvement from the SRI trial yet remained at least moderately ill (Yale-Brown Obsessive Compulsive Scale (YBOCS) ≥ 16). While continuing their SRI, they were randomized to EX/RP (N=54) or stress management training (N=54). The main finding of the trial was that only EX/RP was an effective augmentation of SRI pharmacotherapy for reducing OCD symptoms. Only patients assigned to EX/RP who had been assessed for personality disorders via structured interview (n = 49) are presented here because of our interest in the effect of OCPD on EX/RP outcome for OCD.

Participants

Participants were 49 adults (> 18 years of age; 35% female; 84% Caucasian) with a diagnosis of OCD for at least one year. Patients were excluded for mania, psychosis, prominent suicidal ideation, substance abuse or dependence in the past 6 months, an unstable medical condition, pregnancy or nursing, or prior EX/RP (≥ 15 sessions within 2 months) while receiving an adequate SRI trial based on doses recommended in the literature (detailed definition provided in Simpson et al. (2008)). Other comorbid diagnoses were permitted if clearly secondary. Psychiatric and personality disorder diagnoses were confirmed by the Structured Clinical Interview for DSM-IV Axis I Disorders – Patient version (SCID-I/P) (First, Spitzer, Gibbon, & Williams, 1996) and the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II) (First, Gibbon, Spitzer, Williams, & Benjamin, 1997), respectively. Treatment history was confirmed by the clinician who prescribed the SRI and chart review. Patients were assessed as having a past SRI trial if they were prescribed and took SRI medication for any duration. Participants provided written informed consent prior to entry.

Procedures

EX/RP was provided by experienced clinicians who received weekly supervision throughout the study. Therapy sessions were audio- or videotaped and sent to supervisors for review. A random selection of tapes was also coded for protocol adherence by a separate group of experienced CBT clinicians not otherwise involved in the study.

While continuing their SRI, participants received two treatment-planning sessions and 15 exposure sessions over eight weeks. Sessions were twice weekly, for 90–120 minutes plus daily homework assignments. Independent evaluators (who were all experienced clinicians) conducted patient assessments. Symptom severity was evaluated pre- and post-treatment using the YBOCS (Goodman, et al., 1989) for OCD (range 0–40 with higher scores representing greater severity). Quality of life was also assessed at baseline using the self-report Quality of Life Enjoyment and Satisfaction Questionnaire (QLESQ) (Endicott, Nee, Harrison, & Blumenthal, 1993).

Data Analysis

Six participants dropped out before the post-treatment assessment ($n = 43$ at post-treatment): two dropped out shortly after baseline, one dropped in week 1, one in week 2, one in week 3, and one in week 5 of the 8-week EX/RP trial. Intention-to-treat analyses were utilized, where the last available YBOCS score for each dropout was carried forward to represent post-treatment status. OCPD was tested as a predictor of outcome both as a diagnostic category and as a dimensional score (severity). OCPD severity was operationalized as the total number of DSM-IV OCPD symptoms coded as present and clinically significant at baseline. Using a dimensional score allows us to examine the effects of degree of OCPD rather than being limited to the presence or absence of the diagnosis. Hierarchical regression was used to test whether OCPD diagnosis or severity accounts for post-treatment YBOCS over and above covariates (gender, number of comorbid Axis I disorders, number of prior SRI trials, baseline QLESQ score) previously demonstrated to be predictive of EX/RP outcome in this sample (Maher, et al., in press). We also controlled for number of comorbid Axis II disorders (besides OCPD) because of its relevance to OCPD diagnosis and severity. Given evidence that hoarding does not cohere well with other OCPD traits (Nestadt, et al., 2006) and since hoarding has been removed from the proposed DSM-5 description of OCPD (see dsm5.org for the complete proposal), we tested the predictive value of OCPD severity both with and without the inclusion of the “inability to discard” criterion. In exploratory analyses, eight hierarchical regressions were conducted to test whether the presence of individual baseline OCPD criteria are predictive of post-treatment YBOCS over and above the set of covariates mentioned above. An α level of .05 determined statistical significance. We did not correct for possible Type I error because analyses were exploratory and intended for hypothesis generation.

Results

Table 1 describes the sample in terms of baseline demographics and clinical variables. Patients presented with moderately severe OCD and impaired quality of life. On average, patients met criteria for one additional Axis I as well as one Axis II disorder. More than a third met criteria for OCPD, by far the most prevalent personality disorder in the sample (see Table 2). Among the OCPD criteria, inability to discard, perfectionism, and preoccupation with details were most common (see Table 3).

At baseline, there was no difference in YBOCS between subjects with versus without OCPD ($t(47)=1.03$, $p = .311$), and OCPD severity did not correlate with YBOCS ($r(47) = .20$, $p = .157$). In addition, we found no difference in OCPD severity between those who dropped out and those who completed the trial ($t(47)=1.48$, $p = .146$). Both OCPD diagnosis (see Table 4) and greater OCPD severity (see Table 5) at baseline predicted poorer EX/RP outcome independent of covariates previously demonstrated to be predictive of outcome. OCPD severity continued to predict worse EX/RP outcome (controlling for the same set of covariates) even when “inability to discard” was excluded as an OCPD criterion.

When the individual OCPD criteria were tested separately, only perfectionism predicted EX/RP outcome, over and above the previously mentioned covariates (see Table 6). The presence of perfectionism was associated with poorer treatment outcome. As a preliminary test of whether perfectionism predicts outcome independent of OCPD diagnosis, we reran the analysis restricted to patients without comorbid OCPD ($n = 32$). Perfectionism did not predict outcome in the non-OCPD patients, though the rate of perfectionism (22%) was considerably lower than in patients with comorbid OCPD (88%).

Discussion

The present study is the first to examine OCPD as a specific predictor of EX/RP outcome. Over a third of our primary OCD sample met criteria for OCPD. Our findings show that both OCPD diagnosis and greater OCPD severity at baseline predicted worse EX/RP outcome, controlling for baseline OCD severity, Axis I and II comorbidity, prior SRI treatment, quality of life, and gender. When the individual OCPD criteria were tested separately, only perfectionism predicted worse EX/RP outcome, over and above the previously mentioned covariates.

Our results are consistent with several studies that show that OCD patients with a comorbid personality disorder are less responsive to CBT (AuBuchon & Malatesta, 1994; Steketee, Chambless, & Tran, 2001). However, the sole prior study to examine the effect of specific personality disorders on CBT outcome for OCD utilized an individually tailored multimodal CBT and found that only baseline schizotypal and passive-aggressive traits were predictive of later treatment failure at trend level (Fricke, et al., 2006). The present investigation improves upon this prior work by: (1) examining the specific effect of OCPD (both diagnosis and severity) on outcome; (2) utilizing a highly structured, intensive, manualized (with quality control) version of EX/RP; (3) studying a sample with a higher rate of comorbid OCPD; and (4) assessing personality disorders with a structured diagnostic interview.

Our findings suggest that comorbid OCPD impedes EX/RP outcome in OCD. One possible explanation for this finding is that the interpersonal dysfunction associated with OCPD (Costa, et al., 2005) may interfere with the collaborative nature of this treatment and hamper working alliance between therapist and patient, thereby affecting engagement in and adherence to EX/RP assignments. Therapists may require more time to create a therapeutic relationship with these patients since individuals with OCPD have been described as having difficulty with trust and commitment (Gibbs & Oltmanns, 1995). As a result, patients with comorbid OCPD may need a longer, more comprehensive treatment than standard EX/RP (e.g., with adjunctive interventions to address interpersonal functioning).

Our data further suggest that one of the most important aspects of OCPD for predicting poorer EX/RP outcome for OCD is perfectionism. The presence of this single OCPD trait was as predictive of outcome as the total number of OCPD criteria endorsed. Perfectionism is one of the most prevalent and stable OCPD features (McGlashan, et al., 2005) and has consistently emerged as an important component in factor analytic studies of OCPD (Ansell, et al., 2010; Ansell, Pinto, Edelen, & Grilo, 2008; Hummelen, Wilberg, Pedersen, & Karterud, 2008).

Our finding that perfectionism negatively impacted EX/RP outcome is consistent with treatment studies of depression and anorexia nervosa in which the trait was also associated with poorer treatment outcome. In the Treatment of Depression Collaborative Research Program, perfectionism negatively impacted treatment outcome, regardless of treatment modality (Blatt, Quinlan, Pilkonis, & Shea, 1995). Higher pretreatment perfectionism was associated with lower treatment gain and lower patient satisfaction with treatment (Blatt, et al., 1995), as well as less satisfying interpersonal relationships, fewer coping skills, and greater self-criticism (Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998). A systematic review of the anorexia nervosa literature indicates a negative impact for perfectionism in both longitudinal studies of course and acute treatment trials (Crane, Roberts, & Treasure, 2007). Some explanations for the negative impact of perfectionism on outcome include difficulty developing strong therapeutic alliances (Zuroff, et al., 2000) and a heightened sense of failure in response to slow treatment gains (Blatt, et al., 1998).

In the context of EX/RP, perfectionism can interfere in treatment outcome in various ways, including the following scenarios: (1) Patient tries “too hard” to do the treatment “perfectly” and fixates (“gets stuck”) on the specifics of EX/RP technique, perseverating on whether or not he/she is doing the treatment “correctly,” as opposed to focusing on the overall cognitive-behavioral model of OCD and the purpose of doing exposures; (2) Patient avoids or does not adhere to between-session EX/RP assignments for fear of not doing them perfectly. (OCD patients with a need for the “just right”/perfect feeling before completing an action may not comply with EX/RP assignments in order to avoid the discomfort associated with “incompleteness.”); (3) Patient adopts a narrow view of EX/RP assignments and does not attempt to generalize to related situations for fear of failure or discomfort; (4) Patient gives up on treatment or withdraws effort if he/she believes progress is suboptimal (“If the treatment is not going perfectly, why should I bother at all?”).

Recently a focused, brief, manualized cognitive-behavioral intervention has shown promise in reducing clinical perfectionism (with a large effect size) and reductions were maintained at follow-up (Riley, Lee, Cooper, Fairburn, & Shafran, 2007). It may be useful to incorporate such an intervention into EX/RP for OCD in patients with prominent perfectionism that interferes with treatment. The treatment consists of four elements originally developed by Fairburn, Cooper, and Shafran (2003): (1) identifying perfectionism as a problem and understanding how it is maintained (e.g., repeated performance checking or over-training); (2) conducting behavioral experiments to learn more about the nature of the patient’s perfectionism and alternative ways of coping (e.g., the impact of checking repeatedly vs. checking only occasionally); (3) applying psychoeducation and cognitive restructuring (in combination with behavioral experiments) to modify personal standards, self-criticism, and cognitive biases such as selective attention to perceived failure; and (4) broadening the patient’s capacity for self-evaluation, by identifying and adopting alternative cognitions and behaviors.

By focusing on patients that have already received an adequate SRI trial, the study was designed to recruit patients similar to those seen in routine clinical practice. We believe our findings are broadly applicable to OCD patients on SRIs who seek to augment their treatment with EX/RP. A limitation of the present study is the reliance on DSM-IV criteria for OCPD. Grilo et al. (2001; 2004) found the psychometric strength and diagnostic efficiencies of these criteria to vary, with some criteria having questionable utility. DSM-IV also does not adequately capture all problematic aspects of OCPD, including its cognitive, affective, and interpersonal domains. Moreover, the criteria-level exploratory analyses employed in this study were problematic in that they were based on individual dichotomous (present/absent) items. Future studies of OCPD would benefit from a more comprehensive and dimensional characterization of the disorder and its components. Given our findings, we also recommend further research with more sensitive dimensional measures of perfectionism to explore the impact of this trait on treatment outcome in patients with versus without OCPD. A dimensional approach is emphasized in the proposed personality disorder revisions for DSM-5 (Skodol, et al., 2011). For example, the new system would allow clinicians to rate the degree to which a patient matches narrative descriptions of personality disorder types (including OCPD) and the degree to which particular pathological personality traits (including perfectionism) describe the patient.

In summary, in this sample of OCD patients who were stable on SRIs and received EX/RP treatment, both OCPD diagnosis and greater OCPD severity predicted worse EX/RP outcome, controlling for other known predictors of EX/RP outcome. Of all the OCPD criteria, the presence of perfectionism was most strongly associated with poor EX/RP outcome. Our results underscore the importance of considering the impact of personality pathology on the course and treatment of Axis I disorders. Future studies should examine

whether OCPD has similar effects on EX/RP outcome in non-medicated samples. Incorporating interventions that directly address OCPD-related traits, especially perfectionism, into EX/RP would be one way to personalize care and potentially improve treatment outcome.

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Table 1Sample Characteristics at Baseline ^a

| | M | SD |
|---|----------|-----------|
| Age at baseline (years) | 37.4 | 13.5 |
| Baseline YBOCS | 25.7 | 4.7 |
| # of comorbid Axis I disorders | 1.0 | 1.2 |
| # of personality disorders | 1.1 | 1.6 |
| Number of SRI trials (including current trial) (n = 46) | 2.2 | 1.2 |
| Baseline QLESQ (n = 45) | 55.9 | 20.0 |

Note. YBOCS = Yale-Brown Obsessive Compulsive Scale; SRI = serotonin reuptake inhibitors; QLESQ = Quality of Life Enjoyment and Satisfaction Questionnaire.

^a n = 49 unless otherwise indicated.

Table 2

Rates of DSM-IV Personality Disorders at Baseline (n = 49)

| Personality Disorder | % |
|-----------------------------|----------|
| Obsessive-Compulsive | 34.7 |
| Avoidant | 14.3 |
| Paranoid | 12.2 |
| Dependent | 8.2 |
| Narcissistic | 6.1 |
| Schizoid | 4.1 |
| Antisocial | 4.1 |
| Schizotypal | 2.0 |
| Borderline | 2.0 |
| Histrionic | 2.0 |

Table 3

Rates of DSM-IV OCPD Symptoms at Baseline (n = 49)

| DSM-IV Criteria | % |
|------------------------------|----------|
| Inability to discard | 57.1 |
| Perfectionism | 44.9 |
| Preoccupation with details | 42.9 |
| Reluctance to delegate tasks | 36.7 |
| Hypermorality | 36.7 |
| Rigidity and stubbornness | 30.6 |
| Excessive devotion to work | 26.5 |
| Miserliness | 8.2 |

Table 4

Linear Regression Model to Test OCPD Diagnosis as a Predictor of EX/RP Outcome (week 8) for OCD (n = 49)

| Predictors of Post-YBOCS | β | t | p |
|---|---------|------|------|
| OCPD Diagnosis ^a | .34 | 2.56 | .015 |
| Baseline YBOCS | .04 | .25 | .808 |
| # of Comorbid Axis I | .37 | 2.70 | .011 |
| # of Personality Disorders ^b | -.11 | -.99 | .327 |
| # of SRI Trials | .21 | 1.91 | .064 |
| Baseline QLESQ | -.004 | -.03 | .978 |
| Gender (female) | .34 | 2.59 | .014 |

Note. Covariates are presented in shaded section of table. R^2 (for covariates-only model) = .51, $F(6, 36) = 6.34$, $p < .001$.

YBOCS = Yale-Brown Obsessive Compulsive Scale; SRI = serotonin reuptake inhibitors; QLESQ = Quality of Life Enjoyment and Satisfaction Questionnaire.

^aOCPD diagnosis = presence of 4 or more clinically significant DSM-IV OCPD symptoms at baseline; $R^2 \Delta = .08$, $F \Delta(1, 35) = 6.53$, $p = .015$.

^bRefers to number of DSM-IV personality disorders present at baseline besides OCPD.

Table 5

Linear Regression Model to Test OCPD Severity as a Predictor of EX/RP Outcome (week 8) for OCD (n = 49)

| Predictors of Post-YBOCS | β | t | p |
|---|---------|------|------|
| OCPD Severity ^a | .29 | 2.21 | .034 |
| Baseline YBOCS | -.01 | -.04 | .966 |
| # of Comorbid Axis I | .36 | 2.62 | .013 |
| # of Personality Disorders ^b | -.14 | 1.19 | .241 |
| # of SRI Trials | .22 | 1.91 | .064 |
| Baseline QLESQ | -.05 | -.33 | .746 |
| Gender (female) | .41 | 3.08 | .004 |

Note. Covariates are presented in shaded section of table. R^2 (for covariates-only model) = .51, $F(6, 36) = 6.34$, $p < .001$.

YBOCS = Yale-Brown Obsessive Compulsive Scale; SRI = serotonin reuptake inhibitors; QLESQ = Quality of Life Enjoyment and Satisfaction Questionnaire.

^aOCPD severity = number of clinically significant DSM-IV OCPD symptoms present at baseline; $R^2 \Delta = .06$, $F \Delta(1, 35) = 4.89$, $p = .034$.

^bRefers to number of DSM-IV personality disorders present at baseline besides OCPD.

Table 6

Individual Linear Regression Models to Test Each OCPD Symptom as a Predictor of EX/RP Outcome (week 8) for OCD (n = 49)

| Predictors of Post-YBOCS | β | t | R ² Δ | F Δ | p |
|------------------------------|---------|------|------------------|------|------|
| Preoccupation with details | .20 | 1.58 | .03 | 2.50 | .123 |
| Perfectionism | .29 | 2.24 | .06 | 5.02 | .031 |
| Excessive devotion to work | .09 | .66 | .01 | .43 | .517 |
| Hypermorality | .21 | 1.70 | .04 | 2.90 | .097 |
| Inability to discard | .03 | .26 | <.01 | .07 | .796 |
| Reluctance to delegate tasks | .17 | 1.33 | .02 | 1.78 | .191 |
| Miserliness | -.07 | -.57 | .01 | .33 | .570 |
| Rigidity and stubbornness | .13 | 1.06 | .02 | 1.13 | .295 |

Note. The following covariates were included: baseline YBOCS, number of comorbid DSM-IV Axis I disorders present at baseline, number of DSM-IV personality disorders present at baseline besides OCPD, number of SRI trials, baseline QLESQ, and female gender.

R² (for covariates-only model) = .51, F (6, 36) = 6.34, p < .001.

YBOCS = Yale-Brown Obsessive Compulsive Scale; SRI = serotonin reuptake inhibitors; QLESQ = Quality of Life Enjoyment and Satisfaction Questionnaire.