Cognitive and Clinical Characteristics of Sexual and Religious Obsessions

Jedidiah Siev, Ph.D.[1,*], **Gail Steketee, Ph.D.**[2], **Jeanne M. Fama, Ph.D.**[1], and **Sabine Wilhelm, Ph.D.**[1]

[1]Massachusetts General Hospital and Harvard Medical School

[2]Boston University

Abstract

Sexual and religious obsessions are often grouped together as unacceptable thoughts, symptoms of obsessive-compulsive disorder hypothesized to be maintained by maladaptive beliefs about the importance and control of thoughts. Although there is empirical justification for this typology, there are several reasons to suspect that sexual and religious obsessions may differ with respect to associated obsessional beliefs and personality traits. In this study, we examined the associations between sexual and religious obsessions (separately) and (a) putatively obsessional cognitive styles, especially beliefs about the importance and control of thoughts, and responsibility, (b) obsessive-compulsive personality traits, and (c) schizotypal personality traits. Whereas sexual obsessions were predicted only by increased beliefs about the importance and control of thoughts, and contamination obsessions were predicted only by inflated responsibility appraisals and threat estimation, religious obsessions were independently predicted by both of these constructs. In addition, only religious obsessions were related to self-reported obsessive-compulsive personality traits. Researchers and clinicians should be cognizant of potentially important distinctions between sexual and religious obsessions, and the possibility that scrupulous OCD shares processes with both autogenous and reactive presentations.

Keywords

obsessive-compulsive disorder; obsessive-compulsive personality disorder; obsessive beliefs; autogenous obsessions; religious obsessions; sexual obsessions

Among individuals with obsessive-compulsive disorder (OCD), the presence of sexual or religious obsessions is relatively common, with nearly 25% reporting the former (e.g., Grant et al., 2006) and 10–33% reporting the latter in Western cultures (Eisen et al., 1999; Mataix-Cols, Marks, Greist, Kobak, & Baer, 2002). Sexual and religious obsessions are experienced as particularly aversive and ego-dystonic. Furthermore, they are associated with negative outcomes in several trials of cognitive-behavior therapy (CBT) and pharmacotherapy (Alonso et al., 2001; Ferrão et al., 2006; Mataix-Cols et al., 2002; Rufer, Grothusen, Maß, Peter, & Hand, 2005; but see Abramowitz, Franklin, Schwartz, & Furr, 2003). Considering

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[*]Corresponding author: Jedidiah Siev, Ph.D., OCD and Related Disorders Program, Simches Research Building, 185 Cambridge Street, 2nd Floor, Boston, MA 02114, jsiev@partners.org, Tel: 617-643-3065, Fax: 617-643-3080.

the apparent difficulty in treating such obsessions, there is a notable paucity of research about characteristics associated with them.

Sexual and religious obsessions are often conceptualized together as unacceptable or repugnant thoughts, and efforts to identify nosological categories within OCD provide an empirical basis for a sexual/religious obsessional subtype (Mataix-Cols, Rauch, Manzo, Jenike, & Baer, 1999), perhaps including aggressive obsessions, as well (cf. Abramowitz et al., 2003; Bloch, Landeros-Weisenberger, Rosario, Pittenger, & Leckman, 2008; Pinto et al., 2007). Similarly, Lee and Kwon (2003) suggest that autogenous obsessions (i.e., about sex, religion, and aggression) differ fundamentally from reactive obsessions (i.e., about contamination, doubts, symmetry, etc.) experientially (internally versus externally generated), as well as in terms of associated appraisal and control strategies. Some research has supported the distinction between autogenous and reactive obsessions (e.g., Lee, Kwon, Kwon, & Telch, 2005; Lee & Kwon, 2003), but there are reasons to suspect that combining sexual, religious, and aggressive obsessions into a single category may mask differences in phenomena related to these symptoms.

First, some but not all studies have borne out fundamental predictions with respect to cognitions presumed to be associated with the autogenous versus reactive distinction, such as the importance and control of thoughts (cf. Lee, Kwon et al., 2005; Lee & Kwon, 2003). This gives rise to the possibility that there are variations in such domains among individuals with autogenous symptoms, perhaps as a function of their particular obsessional concerns. Second, Lee and colleagues categorize individuals as autogenous versus reactive on the basis of the Revised Obsessional Intrusion Inventory (Purdon & Clark, 1993), which does not include any non-sexual questions about uniquely religious or explicitly moral intrusions. Hence, characteristics of autogenous individuals may not generalize to those with scrupulosity, an OCD presentation in which primary obsessional fears are religious (e.g., hell, Divine punishment) or moral (e.g., being bad for not recycling a soda can). Third, some studies looking separately at sexual and religious obsessions have identified clinical processes unique to one or the other. For example, Tolin, Abramowitz, Kozak, and Foa (2001) found that religious but not sexual obsessions predicted poor insight and magical thinking relative to other types of obsessions, and Steketee and colleagues (in press) found that sexual but not religious obsessions predicted a greater rate of improvement from cognitive therapy. The purpose of this study was therefore to examine clinical and cognitive features associated with sexual and religious obsessions separately, in a sample of individuals diagnosed with OCD. Aggressive obsessions were not included because they may cluster more with other types of harm obsessions than with sexual or religious obsessions (e.g., Abramowitz et al., 2003). By way of contrast with sexual and religious obsessions, we also examined correlates of contamination obsessions which are common and prototypical.

A typical characteristic of sexual and religious obsessions is that individuals consider their thoughts unacceptable and may therefore experience shame and embarrassment, in addition to anxiety and fear. They also often engage in rituals designed to neutralize or eliminate the thought itself, rather than just to prevent a subsequent consequence. Therefore, it seems plausible that beliefs about the importance and control of thoughts are particularly relevant

to sexual and religious obsessions. Similarly, Lee and Kwon (2003) hypothesize that autogenous obsessions are associated with such meta-cognitions, whereas other types of obsessions are associated with greater perceived responsibility. Consistent with this prediction, Wheaton and colleagues (Wheaton, Abramowitz, Berman, Riemann, & Hale, 2010) recently found that contamination symptoms were predicted by responsibility and threat estimation, whereas unacceptable thoughts were predicted by beliefs about the importance and control of thoughts. However, they did not distinguish between sexual and religious obsessions, both of which were captured by the unacceptable thoughts symptom dimension. Moreover, the results of other studies comparing autogenous and reactive obsessions were mixed with respect to beliefs about the importance and control of thoughts (Lee, Kwon et al., 2005; Lee & Kwon, 2003). Furthermore, although autogenous obsessions, as a group, were associated with less perceived responsibility than were reactive obsessions, blasphemous/immoral obsessions in particular were rated similarly to reactive obsessions with respect to inflated responsibility (see Study 3 in Lee & Kwon, 2003). Indeed, Nelson and colleagues (Nelson, Abramowitz, Whiteside, & Deacon, 2006) found that symptoms of scrupulosity were correlated positively with inflated responsibility, as well as with meta-cognitions about the importance and control of thoughts, and moral thought-action fusion. It therefore seems possible that beliefs about the importance and control of thoughts and inflated responsibility are relevant to religious obsessions, whereas only the former are relevant to sexual obsessions.

Accordingly, one aim of this study was to examine the relationships between sexual and religious obsessions and cognitive styles and beliefs related to OCD. We examined all cognitive domains relevant to OCD identified by the Obsessive Compulsive Cognitions Working Group (OCCWG; 1997), but were particularly interested in beliefs about the importance and control of thoughts, as well as responsibility.

In addition, features of obsessive-compulsive personality disorder (OCPD) may be related to scrupulosity. Diagnostic criteria for OCPD include being "overconscientious, scrupulous, and inflexible about matters of morality, ethics, or values" (American Psychiatric Association, 2000, p. 729), as well as preoccupation with rules and perfectionism, which seem to overlap with features of scrupulosity. However, in a recent study, individuals with OCD and comorbid OCPD were no more likely than those without comorbid OCPD to endorse religious obsessions (Coles, Pinto, Mancebo, Rasmussen, & Eisen, 2008), although it is still possible that religious symptoms are associated with elevations in OCPD traits. A second aim of this study, therefore, was to evaluate whether religious obsessions were more closely associated with OCPD traits than were sexual obsessions for which we have no reason to predict an association with OCPD traits.

Finally, schizotypal personality features may be associated with sexual and religious obsessions. In two studies, autogenous obsessions were associated with increases in schizotypal features and thought disorder (Lee, Kim, & Kwon, 2005; Lee & Telch, 2005). Furthermore, Tolin and colleagues (2001) found that individuals with primary religious, but not sexual, obsessions had more perceptual distortions, magical thinking, and relatively poor insight. Together these studies suggest that sexual and religious obsessions are related to schizotypal personality features, but that there may be differences between the symptom

types. In light of research demonstrating that schizotypal features predict poor treatment outcome (e.g., Fricke et al., 2006; Minichiello, Baer, & Jenike, 1987; Moritz et al., 2004), this could account for the apparent attenuated treatment outcome in individuals with sexual and religious obsessions. A third aim of this study was to examine the relationships between sexual and religious obsessions with schizotypal personality features.

In sum, the aims of this study were to examine the associations between sexual, religious, and contamination obsessions (separately) and (a) putatively obsessional cognitive styles, especially beliefs about the importance and control of thoughts, and responsibility, (b) OCPD personality traits, and (c) schizotypal personality traits. We predicted that (a) sexual obsessions would be predicted by importance and control of thoughts and schizotypal personality traits, (b) religious obsessions would be predicted by importance and control of thoughts, inflated responsibility, and both OCPD and schizotypal personality traits, and (c) contamination obsessions would be predicted only by inflated responsibility beliefs.

Method

Participants

Participants were 38 adults with OCD who enrolled in two treatment outcome studies of cognitive therapy for OCD (Wilhelm et al., 2009; Wilhelm et al., 2005). Participant characteristics (described in Steketee et al., in press) were similar for the two samples, which were therefore combined for the purposes of this investigation. Briefly, all participants received a primary DSM-IV diagnosis of OCD without primary hoarding on the basis of a semi-structured clinical interview, and scored greater than 16 on the Yale-Brown Obsessive Compulsive Scale. Exclusion criteria were Tourette's disorder, symptoms requiring psychiatric hospitalization, dementia, brain damage, mental retardation, or severe cognitive dysfunction. Because participants were recruited for a treatment study, they were also excluded if they had received CT for OCD or 10 or more sessions of behavior therapy for OCD, or were currently in psychotherapy. An additional participant in the treatment studies was not included in the present investigation because of missing data. The sample was 53% ($n = 20$) women, 95% Caucasian ($n = 36$), with a mean age of 32.7 ($SD = 10.2$). In addition, 47% ($n = 18$) had at least one current comorbid Axis I disorder.

Measures

Structured Clinical Interview for DSM-IV – Patient Version (SCID)—The SCID (First, Spitzer, Gibbon, & Williams, 1995) is a semi-structured diagnostic clinical interview to evaluate Axis I psychiatric diagnoses. Interrater reliability on the SCID calculated for the larger treatment study was high (kappa = 1.00) (Wilhelm et al., 2009).

Yale-Brown Obsessive Compulsive Scale (Y-BOCS)—The Y-BOCS (Goodman, Price, Rasmussen, & Mazure, 1989) is a 10-item clinician-administered measure of OCD symptom severity with good psychometric properties. Interrater reliability on the Y-BOCS calculated as for the SCID above was high ($r = .97$).

Obsessive Compulsive Checklist Rating Scales—This measure comprises self-report rating scales of the severity of specific types of obsessions and compulsions, and was derived from the Y-BOCS Symptom Checklist (Wilhelm & Steketee, 2006). Participants rated the severity (i.e., frequency and distress) of various types of OCD symptoms on an 11-point scale from *no problem* (*0*) to *very severe* (*10*). In this investigation, we examined patient ratings of religious, sexual, and contamination obsessions. Preliminary psychometric analyses suggest that the measure is reliable and valid (Yovel et al., 2003).

Obsessive Beliefs Questionnaire – 44 (OBQ-44)—The OBQ-44 (OCCWG, 2005) is a 44-item self-report measure of cognitions and meta-cognitions associated with OCD. Three factor-analytically derived scales measured beliefs about the importance and control of thoughts (ICT), inflated responsibility and threat estimation (RT), and perfectionism and intolerance of uncertainty (PC). Participants in this investigation completed the earlier 87-item version of the OBQ (OCCWG, 2001), which includes all of the 44 items of the shortened version. The OBQ-44 has good reliability and validity. In this sample, internal consistency was $a = .91$, $.90$, and $.91$ for the ICT, RT, and PC subscales, respectively. The intercorrelations among the subscales were as follows: $r = .29$ between ICT and RT, $r = .31$ between ICT and PC, and $r = .60$ between RT and PC.

Interpretation of Intrusions Inventory (III)—The III (OCCWG, 2001) is a 31-item self-report measure of appraisals of unwanted intrusive thoughts. The rater identifies the degree of his/her belief in the validity of the obsessions, with particular reference to occasions when they are bothered by the intrusions. In contrast to the OBQ-44, which measures general beliefs, the III assesses immediate appraisals following specific idiographic unwanted mental intrusions. Factor analysis of the III revealed a single factor for which reliability and validity are good (OCCWG, 2005). In the present sample, internal consistency was $a = .94$.

Personality Diagnostic Questionnaire-4th edition (PDQ-4)—The PDQ-4 (Hyler, 1994) is a 99-item questionnaire that measures personality disorder traits. Its psychometric properties are not extensively studied, although there is some evidence that the PDQ-4 is useful as a screening measure for personality disorders (e.g., Okada & Oltmanns, 2009). Of particular interest were the OCPD and schizotypal subscales, as well as the total score. Of note, the PDQ-4 is particularly inclusive in identifying individuals with possible OCPD (Okada & Oltmanns, 2009). Hence, meeting threshold on a PDQ-4 subscale does not necessarily imply the presence of a clinical personality disorder, but rather traits associated with that disorder.

Results

Preliminary Data

Measures of central tendency on symptom and cognition assessment instruments are presented in Table 1, with medians and interquartile range (IQR) reported for variables whose distributions appeared non-normal. The mean Y-BOCS score indicates that overall the sample was moderately severe. Of the 38 participants, 20 endorsed experiencing at least

some degree of religious obsessions (i.e., score greater than 0 on the OC checklist), 15 endorsed some degree of sexual obsessions, and 27 endorsed some degree of contamination obsessions. 18 patients exceeded threshold on the PDQ-4 for OCPD, and 3 exceeded threshold for schizotypal PD.

Religious and sexual obsession scores were moderately correlated with each other, $r = .32$, $p = .05$, and were both unrelated to contamination obsession scores, $r = .12$ and $-.10$ for religious and sexual obsessions respectively, $ps > .47$. None of the OC Checklist scores were associated with Y-BOCS severity, $|r|s < .11$, $ps > .52$.

Cognitions

Following the analytic strategy of Wheaton and colleagues (2010), we conducted correlational analyses to examine the zero-order relationships between obsessional content on the one hand, and specific cognitive domains on the other. We then conducted multiple regression analyses to see which cognitive domains from the OBQ-44 independently predicted each type of obsession (religious, sexual, and contamination). Indices of multicollinearity were not concerning. Although the OC Checklist distributions appeared non-normal, diagnostic tests of the assumptions of multiple regression (including examinations of the residual plots) were not concerning.

Correlations among clinical and cognitive measures are presented in Table 2. Religious obsessions were significantly associated with stronger beliefs about the importance and control of thoughts (OBQ-44 ICT), $r = .47$, $p = .003$, as well as inflated responsibility appraisals and threat estimation (OBQ-44 RT), $r = .48$, $p = .002$. In contrast, the correlation between religious obsessions and perfectionism and intolerance of uncertainly (OBQ-44 PC) was non-significant, $r = .26$, $p = .12$. When religious obsessions were regressed on all three OBQ-44 subscales, both importance and control of thoughts ($\beta = .38$, t [34] $= 2.61$, $p = .01$) and responsibility and threat estimation ($\beta = .45$, t [34] $= 2.60$, $p = .01$) emerged as significant, independent predictors. In contrast, perfectionism and intolerance of uncertainty did not predict religious obsession scores ($\beta = -.13$, t [34] $= -0.75$, $p = .46$).

Sexual obsessions were significantly associated with increased beliefs about the importance and control of thoughts, $r = .53$, $p = .001$, but not the other cognitive domains (responsibility and threat estimation, $r = -.11$, $p = .51$; perfectionism and intolerance of uncertainty, $r = -.04$, $p = .81$). When sexual obsessions were regressed on all three OBQ-44 subscales, only importance and control of thoughts was a significant predictor ($\beta = .63$, t [34] $= 4.32$, $p < .001$); again, neither responsibility and threat estimation ($\beta = -.23$, t [34] $= -1.33$, $p = .19$) nor perfectionism and intolerance of uncertainty ($\beta = -.10$, t [34] $= -0.57$, $p = .57$) predicted sexual obsession scores.

Finally, contamination obsessions were related only to inflated responsibility appraisals and threat estimation, $r = .51$, $p = .001$ (importance and control of thoughts, $r = .03$, $p = .84$; perfectionism and intolerance of uncertainty, $r = .16$, $p = .35$). When contamination obsessions were regressed on all three OBQ-44 subscales, again, only responsibility and threat estimation was a significant predictor ($\beta = .67$, t [34] $= 3.72$, $p = .001$), and neither

importance and control of thoughts ($\beta = -.09$, t [34] $= -0.59$, $p = .56$) nor perfectionism and intolerance of uncertainty ($\beta = -.22$, t [34] $= -1.22$, $p = .23$) were predictive.

Examination of the III indicated that sexual obsessions were associated with participants' immediate negative cognitive appraisals of unwanted intrusive thoughts, $r = .42$, $p = .01$.[1] In contrast, religious and contamination obsessions were not significantly correlated with the III, rs $= .24$ and .08, ps $> .16$.

Personality Symptoms

As hypothesized, religious obsessions were associated with higher OCPD scores on the PDQ-4, $r = .41$, $p = .01$. Similarly, a point-biserial correlation indicated that individuals who met threshold on the PDQ-4 for OCPD endorsed more frequency and distress from religious obsessions than did individuals who scored below the OCPD threshold on the PDQ-4, $r = .37$, $p = .02$. Neither sexual nor contamination obsessions predicted PDQ-4 OCPD scores (rs $= .16$ and $-.04$, $p = .34$ and .82, respectively). In addition, none of the obsessional domains were correlated with schizotypal scores on the PDQ-4 (rs $= .24$, $-.10$, and .10 for religious, sexual, and contamination obsessions, ps $> .14$). The total PDQ-4 score, indicating overall endorsement of traits associated with personality disorders, was not significantly associated with any of the three obsessive domains ($r = .20$, .04, and $-.23$ for religious, sexual, and contamination obsessions, ps $> .16$).

Discussion

The purpose of this study was to examine cognitive and clinical characteristics associated with sexual and religious obsessions. For comparison, we also examined those related to contamination obsessions. As expected, sexual obsessions were related only to beliefs about the importance and control of thoughts, and contamination obsessions were related only to inflated responsibility appraisals and threat estimation. Similarly, sexual obsessions were predicted by general beliefs about the importance and control of thoughts, and also by similar appraisals immediately following specific unwanted mental intrusions. These findings are consistent with clinical experience and theory (e.g., Lee & Kwon, 2003) suggesting that individuals suffering from sexual obsessions are distressed by the presence and meaning of the thoughts per se, whereas those with contamination fears are more concerned with potential harm or danger that could derive from contamination than about the thought content. Results are also consistent with a recent investigation of symptom dimensions and obsessive beliefs (Wheaton et al., 2010). In contrast, from a cognitive standpoint religious obsessions were a hybrid, independently predicted both by general beliefs both about the importance and control of thoughts, as well as inflated responsibility and threat estimation.

With respect to personality, religious but not sexual or contamination obsessions were moderately correlated with traits of OCPD. This is consistent with clinical experience and is intuitive considering that being scrupulous is a diagnostic criterion of OCPD. In addition, religious obsessions were predicted by OCPD diagnosis (to the extent that the PDQ-4

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[1]Due to missing data, $n = 36$ for analyses with the III.

criteria were met), suggesting that the correlation between religious obsessions and OCPD traits is not attributable entirely to endorsement of a single scrupulous criterion. However, we note that exceeding the PDQ-4 cutoff for any PD diagnosis does not necessarily imply the presence of a clinical personality disorder, although it does suggest elevations in associated traits. Contrary to expectation, neither schizotypal traits nor the PDQ-4 total score were associated with religious, sexual, or contamination obsessions.

The results of this investigation are broadly consistent with previous research on cognitive characteristics related to various obsessional presentations (e.g., Lee & Kwon, 2003; Wheaton et al., 2010). However, the present results suggest that sexual and religious obsessions, which are often conceptualized together as a unitary phenomenon, are in fact associated with different cognitive and personality characteristics. Lee and colleagues have distinguished between autogenous and reactive obsessions and argued that the former are associated with beliefs about the importance and control of thoughts, whereas the latter are associated with inflated responsibility (e.g., Lee, Kwon et al., 2005; Lee & Kwon, 2003). Researchers have categorized religious obsessions as autogenous, often without direct assessment of religious content, and even when obsessions about blasphemy/morality appear more similar to reactive obsessions (see Study 3 in Lee & Kwon, 2003). Additionally, Wheaton and colleagues (2010) found that unacceptable thoughts as a group were independently predicted only by beliefs about the importance and control of thoughts. On the basis of the present study, however, religious obsessions – which were independently predicted by both beliefs about the importance and control of thoughts as well as responsibility and threat appraisals – share cognitive correlates with both autogenous and reactive obsessions. In fact, other investigations have also demonstrated that symptoms of scrupulosity are related to cognitions about inflated responsibility (Lee & Kwon, 2003; Nelson et al., 2006).

That religious obsessions are related to various obsessional beliefs may indicate that all such cognitive processes have a role in the pathogenesis of scrupulosity in OCD. However, religious obsessions are heterogeneous in form and it is possible that some religious obsessions are associated particularly with importance and control of thoughts whereas others are related to responsibility and threat beliefs. For example, in some cases distress from religious obsessions derives from the very presence of a "bad" thought (e.g., blasphemous image of Jesus), whereas in other cases religious obsessions mimic contamination or accidental harm obsessions, with a religious consequence (e.g., contamination fears related to ritual purity laws) (e.g., Huppert & Siev, 2010).

It is important to note that religious and sexual obsessions may overlap, and we do not mean to imply that they are unrelated. Indeed, in this study they were moderately correlated. Moreover, clinically they may not only co-occur, but a single obsession may be both religious and sexual, such as an intrusive sexual image of Jesus. Nevertheless, in this study, participants rated the severity of their religious and sexual obsessions separately. Various symptoms often co-occur (e.g., anxiety and depression), and we believe there is utility in exploring separately cognitive processes associated with the two types of obsessions even when some individuals undoubtedly experienced both.

There are several limitations in this study. First, because the sample of 38 is relatively small, non-significant hypothesis tests may not necessarily imply the absence of other meaningful relationships. Nevertheless, the magnitudes of effect sizes are consistent with the interpretations that were based on hypothesis tests. In addition, we did not have a large enough sample to categorize participants on the basis of their primary obsessional presentation (e.g., scrupulosity); instead we examined characteristics associated with obsessional content across all participants. Second, traits of personality disorders were assessed by a self-report measure whose psychometric properties have not been extensively characterized, and which is known to be over-inclusive in identifying OCPD. Hence, analyses of personality traits should be interpreted as relevant to elevations in perceived traits rather than clinical diagnostic status. Finally, the results of this cross-sectional study do not provide direct evidence for the potential role of cognitive and personality traits in the pathogenesis or maintenance of OCD or specific obsessional symptoms.

In sum, this study demonstrates that sexual and religious obsessions may be associated with distinct cognitive processes and clinical characteristics. Whereas sexual obsessions were predicted only by increased beliefs about the importance and control of thoughts, and contamination obsessions were predicted only by inflated responsibility appraisals and threat estimation, religious obsessions were independently predicted by both. Researchers and clinicians should be cognizant of potentially important distinctions between sexual and religious obsessions, and the possibility that scrupulous OCD shares processes with both autogenous and reactive presentations. In addition, religious obsessions were related to self-reported OCPD traits, a finding that may pose challenges in treatment. Considering that the presence of sexual and religious obsessions may be related to poorer treatment outcome, understanding better the unique cognitive and personality processes related to these symptoms may allow clinicians to tailor treatments to maximize therapeutic benefit. With respect to maladaptive cognitions in particular, cognitive therapy might focus specifically on the relevant belief domains pertinent to patients' obsessive fears, which may lead to better outcomes. A careful assessment of each patient's unique fears and associated cognitions can facilitate the development of a case conceptualization and treatment plan tailored best to the patient's idiographic presentation.

Acknowledgments

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Table 1

Sample Characteristics

	Mean/Median	Standard Deviation (SD)/Interquartile Range (IQR)
Y-BOCS (mean, SD)	25.6	4.4
OC Checklist (median, IQR)		
religious obsessions	2.5	9.0
sexual obsessions	0	7.3
contamination obsessions	5.0	8.0
OBQ-44 (mean, SD)		
importance and control of thoughts	44.0	18.2
responsibility and threat estimation	67.8	21.7
perfectionism and intolerance of uncertainty	63.6	19.8
III (mean, SD)	1652.7	714.1
PDQ-4		
OCPD (mean, SD)	3.4	1.6
schizotypal (median, IQR)	1.0	3.0
total (mean, SD)	27.9	12.2

Note. Y-BOCS = Yale-Brown Obsessive Compulsive Scale; OBQ-44 = Obsessive Beliefs Questionnaire – 44; III = Interpretation of Intrusions Inventory; PDQ-4 = Personality Diagnostic Questionnaire – 4th edition; OCPD = obsessive-compulsive personality disorder.

Table 2

Zero-Order Correlations between Clinical and Cognitive Measures

	OC Checklist		
	Religious	**Sexual**	**Contamination**
OBQ-44 ICT	.47**	.53**	.03
OBQ-44 RT	.48**	−.11	.51**
OBQ-44 PC	.26	−.04	.16
III	.24	.42*	.08
PDQ-4 OCPD	.41*	.16	−.04
PDQ-4 Schizotypal	.24	−.10	.10
PDQ-4 Total	.20	.04	−.23

Note. OBQ-44 = Obsessive Beliefs Questionnaire – 44; ICT = importance and control of thoughts; RT = responsibility and threat estimation; PC = perfectionism and intolerance of uncertainty; III = Interpretation of Intrusions Inventory; PDQ-4 = Personality Diagnostic Questionnaire – 4th edition; OCPD = obsessive-compulsive personality disorder.

*
$p < .05$

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$p < .01$