IJBS
International Journal of Behavioral Sciences

Original Paper 97

The Relationship between Self-ambivalence and Obsessive Compulsive Disorder Symptoms: The Mediating Role of Relevant Beliefs in Obsessive Compulsive Disorder

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Submitted: 12 September 2019
Accepted: 21 October 2019

Int J Behav Sci. 2019; 13(3): 97-103

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Abstract

Introduction: Based on the cognitive model, Obsessive-Compulsive Disorder (OCD) is maintained by various belief factors. Despite much support for this hypothesis, little is understood about the role of self-concept in the maintenance or treatment of OCD. Researchers believe that individuals who are ambivalent about their self-worth, use OCD-related beliefs and behaviors to restore self-esteem. The present study investigates the association between self-ambivalence and OCD-related beliefs and symptoms. Also, it is expected that OCD-relevant beliefs mediate the association between self-ambivalence and OCD symptoms.
Method: Non-clinical participants (280) were recruited for this research. Each participant completed the self-reported versions of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), the Self-Ambivalence Scale (Y-BOCS), and the Obsessive Beliefs Questionnaire-44(OBQ-44). The data were analyzed using path analysis in SPSS 18.
Results: Findings revealed that self-ambivalence had a significant positive correlation with OCD-relevant beliefs and OCD symptoms. The OCD-relevant beliefs also showed a significant positive association with OCD symptoms. Analysis of the data revealed that OCD-beliefs mediated the relationship between self-ambivalence and OCD-symptoms.
Conclusion: Results indicate that individuals who are ambivalent about their self-worth, develop a morally and socially ideal self and relevant beliefs to resolve the self-ambivalence. These beliefs create a vulnerability for developing OCD. To conclude, interventions addressing the self-ambivalence and OCD-relevant beliefs can be effective in the prevention and treatment of OCD.

Keywords: Obsessive Compulsive Disorder, Self-ambivalence, Obsessive Beliefs

Introduction

The concept of self is complex and has a central role in many psychological theories about human behavior, emotion, motivation and thinking. Accordingly, this concept has been increasingly used to explain the underlying mechanisms of mental disorders, such as anxiety, affective and personality disorders [1-5]. Although, the concept of self has been extensively investigated in normal experiences, psychopathology, and psychological treatment, little is understood about its importance in the development and maintenance of obsessive-compulsive symptoms.

Guidano and Liotti [3, 4] propose that individuals suffering from OCD hold opposite and competing views about themselves. So, such individuals don't have an integrated self-image, continuously hesitate whether they are loved, moral and worthwhile [6]. Due to their self-ambivalence, intrusive thoughts are perceived by OCD patients as the evidence of internal conflict. The frequency and persistence of intrusive thoughts are exacerbated by preoccupation with these thoughts, which can then turn into obsessions [6]. The association

between OCD and obsessive–compulsive personality traits with ambivalent beliefs about self-worth, particularly moral virtue and lovability, is strongly supported in literature [7-11]. After understanding the association between self-ambivalence and OCD, the important step is to find the factors and processes that may be responsible for this strong correlation.

According to literature, OCD is developed and maintained by specific maladaptive beliefs and appraisals [12-17]. Cognitive models of OCD focused on the role of these beliefs in vulnerability to OCD. Salkovskis [18] argues that individuals with OCD automatically interpret intrusive thoughts as a threat for which they are personally responsible for. Rachman [19, 20] states that intrusive thoughts are considered in contrast to negative moral standards or real world outcomes. Consequently, compulsions are performed in order to decrease the sense of threat of such interpretations.

Six belief domains have been identified in regards to OCD. These domains are (a) overestimation of threat, (b) intolerance for uncertainty, (c) inflated sense of personal responsibility, (d) perfectionism (e) beliefs about the over-importance of thoughts and (f) beliefs about controlling thoughts [21].

Overestimation of threat refers to beliefs that increase the probability and severity of harm. Intolerance for uncertainty has been defined as "a dispositional characteristic that results from a set of negative beliefs about uncertainty and its implications and involves the tendency to react negatively on an emotional, cognitive, and behavioural level to uncertain situations and events". These individuals believe that it is necessary to be certain, in order to avoid unpredictable events. Inflated sense of personal responsibility is the belief that one is pivotal in causing or preventing negative outcomes. These people perceive themselves as agents of harm, regardless of whether they are actively or passively involved in negative outcomes. Perfectionism, is a belief that perfection should be strived for. In its pathological form, it is an unhealthy belief that anything less than perfect is unacceptable. Beliefs about the over-importance of thoughts play an important role in the cognitive formulation of OCD. Individuals vulnerable to OCD, interpret their intrusive experiences as personally significant, and they have beliefs about the importance of having control over intrusive thoughts, images or impulses [9, 10].

On the other hand, According to cognitive theorists such as Salkovskis [19] and Rachman [20], these maladaptive beliefs are originated from beliefs and assumptions about the self, world and others, which in turn are shaped by early life experiences and relationships. Guidano and Liotti argued that self-ambivalence causes tendency to develop morally and socially ideal self and relevant beliefs to resolve the ambivalence about self-worth. It can be said the OCD symptoms and the belief factors related to the vulnerability of OCD are mechanisms that provide relief from self- ambivalence [5].

According to the above, OCD-relevant belief domains are expected to mediate the association of self-ambivalence with OCD symptoms. The present study investigates the association of self-ambivalence with OCD-relevant beliefs and OCD symptoms and also the mediating role of OCD-relevant-beliefs.

Method

The present study had a descriptive correlational design. According to Stevens's method, the sample size included 100 people [22]. Stevens suggested a ratio of 15-20 subjects for each variable. Considering the missing data, 280 students (160 female, 120 male) from Shiraz Universities (2017-2018) were selected by using convenience sampling. The inclusion criteria of the research included: aged 18-25 years old, desiring to participate in the research and completing the questionnaire. The exclusion criteria included: substance abuse and psychotic disorders.

Each participant completed the self-reported versions of the Yale–Brown Obsessive Compulsive Scale (Y-BOCS), the Self-Ambivalence Scale (SAM), and the Obsessive Beliefs Questionnaire-44 (OBQ-44). From the original sample of 280, 40 cases were removed that contained ≥ 10% of missing data based on the premise that these data would likely bias the statistical analyses .The data were analysed using path analysis with SPSS 18 .

The tools used in this study are as follows:

The Self-reported Yale-Brown Obsessive Compulsive Scale (Y-BOCS;1989) [23]

This scale is a version of the Y-BOCS designed by Goodman et al. [24]. Participants first identify their main OCD symptoms from a list of 58 possible obsessions and compulsions, and then respond to 10 questions about the severity of their primary obsessions and compulsions (e.g., time spent, degree of interference, distress, resistance, and perceived control over the symptoms). These questions are evenly distributed between an obsessions subscale and a compulsions subscale. Each item is rated on a scale ranging from 0 (no symptoms) to 4 (extreme symptoms), yielding subscale scores from 0 to 20 and a total score from 0 to 40. Steketee et al. [25] found an excellent internal consistency and test–retest reliability using the interview format of the YBOCS (α=0.79; r=0.88) for an OCD sample group, while the convergence between the self-reported and interview versions of the YBOCS was high (r=0/73 for obsessions, r = 0/78 for compulsions, and r = 0/79 for the total score). Furthermore, the study found that the self-reported version discriminates well between OCD and non-OCD patients [25]. For the Persian version of the Y-BOCS, the optimal levels of the internal consistency scores (symptom checklist 0/97, severity scale 0/95), split-half reliability (symptom checklist 0/93, severity scale 0/89), and test–retest reliability (r =0/99) were calculated. The concurrent reliability was examined and established by correlating the Y-BOCS with the SCL-90-R-OCS and SCID-I. A cut-off point value of 9 was also determined [13]. In this study, only the total score was considered to determine the severity of the OCD symptoms.

Self-Ambivalence Measure (SAM; 2007)

This instrument was designed to measure the ambivalence about one's general sense of self-worth. The

scale is unifactorial and includes 19 items. The items are comprised of statements about self-uncertainty (e.g., "I have mixed feelings about my self-worth"), self-dichotomy (e.g., "I tend to move from one extreme to the other in how I think of myself"), and self-preoccupation (e.g., "I think about my worth as a person"). Participants indicate their agreement for each item on a five-point scale (0 = not at all to 4 = agree totally). The SAM is associated with adequate internal consistency, criterion validity, and construct validity [9]. For the Persian version of the SAM, in a sample of 280 students from an Iranian university, the optimal levels of the internal consistency scores (0/91), split-half reliability (0/88) were calculated. The concurrent reliability was examined and established by correlating the SAM with the Rumination-Reflection Scale (RRS) and also the Self steem scale (SES) [26].

Obsessive Beliefs Questionnaire (OBQ-44; 2001)

This questionnaire is a self-reported measure of beliefs on 44 items related to OCD. The OBQ-44 is a shortened version of the OBQ-87 [27, 28]. In a study on the factor analysis of the OBQ-87, three factors emerged and the scale was shortened to 44 items based on item loadings on the identified factors across clinical and non-clinical cohorts. The OBQ-44 consists of three subscales: inflated responsibility and threat estimation (16 items including "not preventing harm is as bad as causing harm"); importance and control of thoughts (12 items including "having nasty thoughts means I'm a terrible person"); and perfectionism and intolerance of uncertainty (16 items including "I must be certain of my decisions"). Respondents rate the extent to which they agree with each item using a 7-point rating scale (1 = strongly disagree to 7 = strongly agree). The internal consistency for all the subscales of the OBQ-44 is high. The standardized alphas for the subscales ranged from 0/88 to 0/93 for the OCD cohort and from 0/88 to 0/92 for the mixed non-OCD cohort. All three subscales were found to differentiate OCD patients from non-clinical controls, although the perfectionism/certainty subscale failed to significantly differentiate OCD patients from anxious patients. In a sample of 222 medical students from an Iranian university, each factor was found to have adequate test–retest (0/87) and internal consistency reliability (0/91). Each factor was associated with O-C symptoms. In addition, adequate convergent validity was found with a measure of obsessive compulsive symptoms and discriminate validity was found with measures of depression and anxiety [29].

Results

The mean and standard deviation of participants' age were 22/3 and 2/8, respectively. Also, 57% of the participants were female and 43% was male.

The descriptive statistics of the key variables, which included obsessive beliefs, self-ambivalence, and the severity of OCD symptoms, are presented in Table 1.

Zero-order correlations were calculated between all continuous variables; these correlations are presented in Table 2. As predicted, the correlations among the latent variables were all significant; self-ambivalence was positively correlated with each OBQ-44 subscale and with OCD symptoms (0.33). In addition, each OBQ-44 subscale was positively correlated with OCD symptoms.

Path analysis was used to test the mediating role of obsessive beliefs in the relationship between self-ambivalence and OCD symptoms. Path analysis assumptions were confirmed, variables were measured on interval scale, all relations were linear, the causal flow is one way and the residuals were uncorrelated with the variables in the model and with each other.

The fit indices of the hypothetical model are presented in Table 3. If X^2/df is less than 2 and RMSEA is less than 0.1, the model has a better goodness of fit.

As shown, X2/df equals 25.77, which was relatively large, and, thus, the goodness-of-fit assumption was not accepted. In addition, the RMSEA was 0.277, which was high. However, the indicators of the suitability of the model were relatively high, including GFI, which was 0.838, and the values of CFI, IFI, and NFI, which were greater than 0.7. Thus, the model fit was largely acceptable. As shown in the table 3, X^2/df and RMSEA were relatively large. However, according to the values of GFI, NFI, IFI, and CFI, which were close to 1, it can be stated that the model had an acceptable goodness of fit.

Table 1. Descriptive statistics for obsessive beliefs, self-ambivalence, and the severity of OCD symptoms

Variables	N	Min	Max	Mean	SD
Inflated Responsibility and Threat Estimation	240	25	100	58.79	14.96
Perfectionism and Intolerance of Uncertainty	240	27	100	63.69	17.34
Importance and Control of Thoughts	240	17	72	44.86	11.15
Self-ambivalence	240	3	69	25.87	14.03
OCD Symptoms	240	0	24	7.79	6.04

Table 2. Zero-order correlations between measures of obsessive beliefs, self-ambivalence, and the severity of OCD symptoms

Variable	RT	PC	ICT	SA	OCD
RT	1.00				
PC	0.79**	1.00			
ICT	0.65**	0.68**	1.00		
SA	0.44**	0.48**	0.29**	1.00	
OCD	0.38**	0.31**	0.29**	0.33**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

RT= inflated responsibility and threat estimation, PC= perfectionism and intolerance of uncertainty, ICT= importance and control of thoughts, SA=self-ambivalence

The structural standardized coefficients of the path analysis of the hypothetical model are shown in Table 4.

As shown in Figure 1, the following path coefficients for this model were significant: the impact of the self-ambivalence variable on the responsibility variable (r=0.812; p=0.0001), perfectionism variable (r=0.874; p=0.0001), and the control of thought variable (r=0.676; p=0.0001). The effect of the severity of OCD symptoms variable on the self-ambivalence variable was also significant (r=1.38; p=0.017). However, among the factors of OCD beliefs, only the effect of the control of thoughts was significant (r=-0.046; p=0.0001).

Thus, OCD beliefs mediate the association between self-ambivalence and the severity of OCD symptoms through the control of thoughts. Given the correlation between the three characteristics of OCD beliefs (responsibility, perfectionism, and control of thoughts), it can be deduced that the factors of responsibility and perfectionism influence the severity of OCD symptoms only through the control of thoughts (Table 4).

Table 3. Fit indices of the hypothetical model

Indices	X^2	df	CMIN	RMSEA	GFI	IFI	CFI
	25.77	3	40.055	0.277	0.895	0.738	0.715

Table 4. The test results of the regression weights in the hypothetical model

	Standardized Coefficients	SE	T	Sig.
SA-RT	0.81	0.04	3.55	0.001
SA-PC	0.87	0.03	0.02	0.001
SA-ICT	0.67	0.05	0.45	0.001
OCD-RT	-0.12	0.07	4.61	0.62
OCD-PC	-0.71	0.04	-0.82	0.06
OCD-ICT	-0.28	0.05	0.99	0.05
SA-OCD	1.39	0.05	1.89	0.01

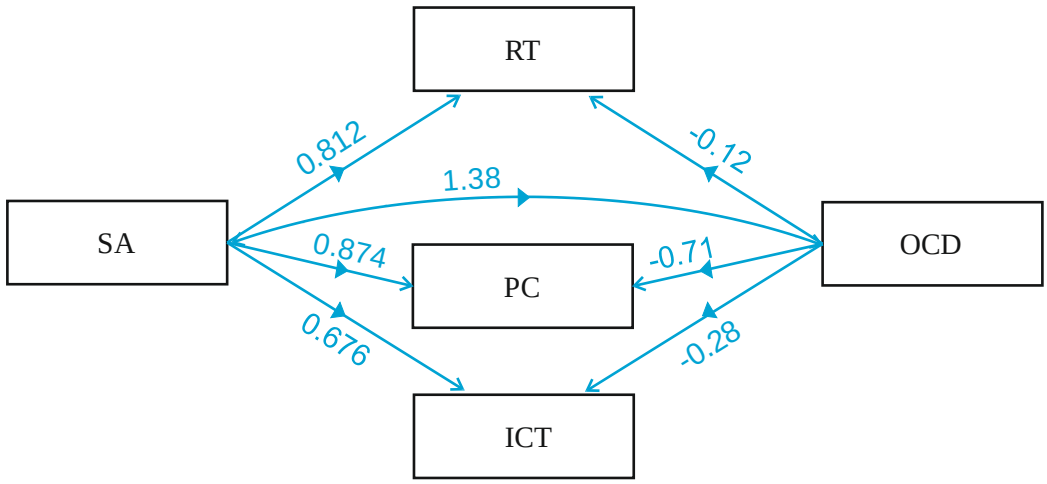

Figure 1. Path diagram showing the relationship between OCD, SA (Self-Ambivalence), and each OBQ-44 subscale.
* Self Ambivalence (SA): Exogenous variable, OBQ-44 subscale: Moderator variable, OCD symptom: Endogenous variable

Discussion

In the present study, the correlation between self-ambivalence and OCD was significant. This finding was consistent with the theoretical conjectures presented by Guidano and Liotti [3] who proposed that individuals who are ambivalent about their self-worth use compulsive strategies to protect themselves from becoming aware of negative self-representations. In other words, compulsive strategies are designed to maintain an intact positive self-concept. Consistent with this theory, Bhar et al. [10] found that individuals with OCD were more ambivalent than community participants and, thus, correlated the phenomena of OCD with self-ambivalence.

It should be noted that self-uncertainty and self-esteem are essentially different. Self-ambivalence predicts OCD phenomena irrespective of self-esteem. Thus, self-ambivalence contributes important information about self-concept that is not addressed by self-esteem. Summerfeldt et al. [30] stated that an individual's OCD symptoms are motivated by the desire to avoid harm and/or feelings of incompleteness. Using this framework, the desire for certainty about self-worth may reflect one's perfectionism. Thus, it can be expected that there would be significant positive correlations between self-ambivalence and perfectionism.

As predicted, the present study found that self-ambivalence was positively correlated with perfectionism and each of the other OBQ-44 subscales. Guidano et al. [3] stated that self-ambivalence is a common theme in OCD-related cognitions. A person with obsessive beliefs marked by perfectionism, responsibility significance, and control of thoughts may have specific criteria for his/her moral and/or social standards of self-esteem. If these criteria are met, it allows the person to have a sense of self-worth. Thus, individuals with high levels of self-ambivalence have strict criteria for their standards of self-

esteem. In order to feel worthwhile or lovable, the individual may try to be perfect, responsible, and moral. However, with increasing levels of self- ambivalence, these rules become increasingly rigid and, thus, the person's vulnerability to OCD increases.

The findings of the present study regarding the correlation between obsessive beliefs and OCD agreed with existing research. For example, Abramowitz et al. [18] reported that individuals with high levels of OC symptoms had more obsessive beliefs than those with low levels of OC symptoms even when general levels of psychological distress were taken into account. Obsessive beliefs significantly contributed to the prediction of OC checking and obsessing symptoms after accounting for experiential avoidance [14]. Specifically, contamination symptoms were predicted by responsibility/threat estimation beliefs, symmetry symptoms were predicted by perfectionism/certainty beliefs, unacceptable thoughts were predicted by importance/control of thoughts beliefs, and symptoms related to being responsible for harm were predicted by responsibility/threat estimation beliefs. In support of this finding the cognitive approach proposes that obsessions are "normal" intrusive thoughts, that the vulnerable individual interprets as indicating that they could be responsible for avoidable harm to themselves or others, and that their reactions to this appraisal (neutralizing, selective attention, suppression, affective reactions) serve to maintain the negative interpretation [31].

Regarding hypothesis 4, in this study, only the control of thoughts was found to mediate the relationship between self-ambivalence and OCD. Thus, for a person who is ambivalent about his/her self-worth, intrusive and/or distressing thoughts are more significant and fearful. When the person tries to control these thoughts, the frequency of the thoughts increases. Therefore, to avoid these thoughts, the person resorts to avoidant or compulsive strategies, which maintains the strength of the obsessive thoughts.

There is an emerging body of research that suggests that OCD patients are characterized by a belief that the control of thoughts is both necessary and possible, have a tendency to use maladaptive forms of thought control, and have a high likelihood of failed thought control attempts. Tolin et al. [14] reported that, when depression and anxiety were controlled, patients with OCD and patients with Anxiety Controls (AC)) only differed in the belief that it was possible and necessary to control one's thoughts. When the results of the present study were combined with the results of previous studies, a pattern emerged that suggested that obsessive beliefs about the importance of and the need to control one's thoughts may have a stronger relationship with OCD than other "obsessive" beliefs. This pattern of results was broadly consistent with the current cognitive behavioral theories of OCD [32] which emphasized the appraisal of the control of thoughts and the use and effectiveness of varying thought control strategies.

According to the findings of this research, it can be stated that OCD symptoms and related belief domains were significantly related to self-ambivalence. Given the potential importance of self-ambivalence in the recovery process of OCD, it is useful to speculate on some techniques that may purposefully be used to address self-ambivalence. The premise underlying this treatment approach is that individuals with OCD engage in compulsions in order to protect against self-loathing. Thus, an important step in the treatment is to help the patient make the connection between compulsions and self-definition. It would be useful for the therapist to probe into the motivations underlying compulsions that relate to the protection of self-worth, moral virtues or social approval. Such probes may be accomplished by the downward arrow technique [33]. This part of the treatment aims to help the patient recognize their compulsions as continuous efforts to maintain a positive sense of self.

The patient's ambivalent experience of self is hypothesized to originate from early mixed messages of approval and rejection. Thus, the client may have difficulty accepting the therapist as empathic, genuine or trustworthy. Therefore, it is important that the therapist relate to the patient in a consistent, caring, non-judgmental manner that validates important aspects of the client's being [34, 35]. This style of relating allows the patient to feel accepted and understood. The feeling of being understood in a manner that mirrors one's own appraisals of self is helpful to establishing a sense of attunement in the relationship, where the client accepts the therapist as a sensitive and accepting parental symbol. This type of interaction on the part of therapist is consistent with Young's notion of 'limited re-parenting" which aims to provide the client with a new relationship in which to develop a sense of self-worth [36].

There are three positive outcomes that may come from this experience. First, from an objects-relations point of view [37], the patient can incorporate the therapist as a positive self-object, substituting parental objects with the therapist's more permissive and accepting stance. Second, through the consistency and transparency of the therapist's relational style, the client's sense of self which is highly dependent on relational cues becomes increasingly stable. Third, the patient's self-esteem is likely to increase when he or she feels accepted, validated, and when progress towards goals becomes apparent [35]. According to Guidano and Liotti [6], the choice between ideal and feared self-concept is seen by the patient, in dichotomous terms. Actually, the OCD patterns are maintained by the desire to affirm the self as good, responsible and lovable, rather than bad, irresponsible and unlovable. Therefore, the treatment needs to loosen the rigidity imposed on this way of thinking, and encourage a more integrated view about human qualities. Through gradual discovery, the patient should be invited to consider that positive and negative aspects are present in every person and fall on a continuum. These techniques may be easily incorporated within the CBT framework. In fact, it is likely that these interpersonal and insight building strategies are employed by competent CBT therapists [9] .

This study was limited by the use of self-reported measures, which are inherently prone to demand characteristics and idiosyncratic interpretation. Future experimental research may help clarify these findings by manipulating the beliefs about the possibility or importance of controlling one's thoughts and examining the effect of this manipulation on the use of various thought control strategies, as well as the success of the use of such -strategies. In addition, due to the cross sectional questionnaire used in the current research, the causal aspects of this proposal were not established. It would be important for future research to employ prospective longitudinal designs to explore whether self-ambivalence proceeds the onset of OCD symptoms or not.

Conclusion

In summary, this study provides initial support for Guidano and Liotti's [6] claim that OCD is an escape from unwanted feelings and conceptions about the self. It suggests that people with OCD ritualize and suppress negative intrusions, because these behaviors help negate unwanted self-representations. It shows OCD as a disorder built around the defense against self-loathing. At its core, OCD is maintained by ambivalence about self-worth.

On the other hand, since increasing evidence indicates that clinicians get done to treat OCD without paying attention to theoretical models [38], the findings of this study can be useful for presenting an affective therapeutic model. This model and its techniques should reframe OCD as related to the tension between competing images of self-worth. Their aim would be to provide corrective attachment experiences for the person, so that he or she can alter cognitive structures that maintain dichotomous appraisals of self. These findings are based on the framework offered by Young et al. [36] and Rogers [35].

Acknowledgement

The authors would like to express their gratitude to all the students of the universities in Shiraz who participated in this research.

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