

# Responsibility Attitudes in Obsessive-Compulsive Patients: The Contributions of Meta-Cognitive Beliefs and Worry

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## Abstract

**Background:** Obsessive patients are distressed by intrusive thoughts, which are related to unreal threats. These patients feel that they are responsible for harming themselves and others. While controlling worry and meta-cognitive beliefs, the present study aimed at comparing the responsibility attitudes in obsessive compulsive patients with those in normal subjects to determine whether the difference in responsibility attitudes between two groups was significant.

**Methods:** A group of 15 patients were compared with normal subjects (n=15) who matched the patient group in terms of gender, age and education. All subjects filled the Responsibility Attitude Scale, the Penn, State Worry Questionnaire and the Meta-cognition Questionnaire -30. The findings were analyzed using descriptive statistics as well as student t and ANCOVA tests.

**Results:** Responsibility attitudes in obsessive patients were significantly higher than those in normal subjects ( $P < 0.001$ ), when patient worries and meta-cognitive beliefs were not controlled. However, after controlling patient's worry and meta-cognitive beliefs there was no significant difference between responsibility attitudes in normal and obsessive-compulsive group.

**Conclusion:** The findings might suggest that responsibility attitude is not strongly related to obsessive-compulsive symptoms. It seems that it is a characteristic caused by basic meta-cognitive beliefs, because the relationship between the responsibility and the symptoms was dependent on meta-cognition. Therefore, in studying the etiology and treatment of obsessive compulsive disorders focus on the responsibility attitudes alone cannot be very helpful.

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**Keywords** • Obsession-compulsion • Responsibility Attitude • worry

## Introduction

According to cognitive theories, obsessive thoughts are normal intrusive thoughts of obsessive patients. Such thoughts are misinterpreted as dangerous signs, and therefore, the patients should protect themselves from their harm. These misinterpretations

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are due to general assumptions, which make one attribute the responsibility of intrusive thoughts and their harms to him or herself.<sup>1</sup> It is argued that there is a difference between intrusive thoughts and their appraisal by people.<sup>2</sup> In fact, obsessive patients are distressed by intrusive thoughts, which are related to unreal threats. Also, they feel they are responsible for harming themselves and others. This can cause inappropriate mood such as anxiety or depression, or arousal. Therefore, the patients do a range of obsessive behaviors in order to neutralize intrusive thoughts. Inappropriate mood and neutralizing behaviors can increase the probability of reinforcing intrusive thoughts, perception of threats and responsibility. According to Salkovskis model, Intrusive thoughts may increase when they are able to activate dysfunctional beliefs about the degree of responsibility for the health of the patient or others.<sup>2</sup> Based on this model, these behaviors have a fundamental role in developing obsession, and are caused by negative appraisal of thoughts. Salkovskis conceptualization of obsession is consistent with Rachman's findings that changing obsessive behaviors of checkers is associated with their perception of responsibility.<sup>3</sup>

It has been reported that a reduction in responsibility is caused by a significant decrease in worry, willingness to check, and probability of predicting threat and criticism.<sup>4</sup> It seems that the impact of responsibility on the maintenance of catastrophic thoughts is related to patient's mood, and its impact on the disorder is not simple and explicit.<sup>5</sup> Therefore, in patients who have negative moods, a high responsibility does not have more impact on the continuity of the disorder than a low responsibility. Some studies reported that there was not any relationship between meta-cognitive beliefs and responsibility.<sup>6</sup>

A new study reported that meta-cognitive beliefs had a direct relation with obsessive symptoms, but responsibility was in fact a characteristic resulting from meta-cognitive beliefs.<sup>7</sup> Some investigators believed that meta-cognitive beliefs could predict obsessive symptoms, but responsibility could not predict the symptoms after controlling the internal relations between these two constructs.<sup>8</sup> Also, the examination of the relationship between obsessive symptoms and meta-cognitive beliefs showed that meta-cognitive factors were associated with a range of obsessive symptoms, and there were variable patterns of predictors for the different types of obsession.

Recent studies have shown that there is a significant difference between obsessive

patients, anxious control group and normal subjects in terms of beliefs associated with the evaluating threat, uncertainty of memory and the importance of controlling thoughts and perfectionism. However, such a difference does not exist for responsibility. Moreover, only after controlling for depression and anxiety, the belief in the need to control thoughts can differentiate obsessive patients from anxious ones.<sup>9</sup> A criticism to Salkovskis model of obsession is that this model ignores the role of more general meta-cognitive beliefs.<sup>10</sup> This model does not pay attention to one's beliefs about the meaning of thoughts, risk or power of thoughts, emotions' outcome and feeling of distress.<sup>11</sup>

The degree of responsibility is assessed by Responsibility Attitude Scale inventory.<sup>12</sup> Using Responsibility attitude Scale Inventory on non-clinical subjects, Freeston and colleagues showed that there was a positive correlation between responsibility and obsession.<sup>13</sup> Since, the findings of Freeston and colleagues are used in the treatment of clinical patients it is necessary to replicate such a study using clinical samples. The present study was designed to compare the responsibility attitudes in obsessive compulsive patients with those in normal subjects in the absence and presence of controlling for worry and meta-cognitive beliefs to determine whether or not the difference in responsibility attitudes of the two groups was significant.

## Patients and Methods

The clinical participants were selected from patients attending psychiatric clinics in Shiraz, Iran, using stratified sampling method. They were 15 outpatients (6 men and 9 women), meeting DSM-IV criteria for obsessive-compulsive disorder (OCD), and 15 normal subjects (7 men and 8 women), who matched the clinical participants in terms of gender, age and education. The mean age of the clinical participants was 22.07 (SD=4.47) years, and that of the normal subjects was 21.67 (SD=2.69). Clinical participants were assessed using the structured Clinical Interview for DSM-IV. Those who met primary diagnosis of OCD for at least 6 months were included. They were excluded if they currently received psychotherapy and/or had another anxiety disorder, or had other psychological disorders, which met DSM-IV Axis I and II criteria. All non clinical participants were screened to rule out the presence of clinical conditions. They were excluded from the study if they met DSM-IV criteria for a psychological disorder, or reported a

psychiatric history.

All subjects filled Responsibility Attitude Scale, Penn. State Worry Questionnaire and Meta-cognition Questionnaire -30. Responsibility Attitude Scale (RAS),<sup>12</sup> was developed to assess the general attitude, beliefs and constituent characteristics of responsibility and worries about harm in OCD. Acceptable reliability and validity coefficients have been reported for this scale.<sup>14,15</sup> The Persian version of RAS was studied,<sup>15</sup> and demonstrated to possess acceptable split-half reliability ( $r=0.76$ ) and internal consistency ( $\alpha=0.89$ ). The RAS has been found to correlate significantly with Obsessive Compulsive Inventory,<sup>12</sup> Penn. State Worry Questionnaire (PSWQ) was designed to evaluate one's tendency to normal and extreme worries.<sup>16</sup> Acceptable reliability and validity coefficients have been reported for this Questionnaire,<sup>16</sup> Shirinzade examined psychometric properties of a Persian-language version of PSWQ in Iran, and showed that it had satisfactory internal consistency (Cronbach's  $\alpha=0.86$ ), test-retest reliability ( $\alpha=0.87$ ) and acceptable split-half reliability (0.90).<sup>16</sup> Examining PSWQ's concurrent validity, Beck and colleagues,<sup>17</sup> showed that the instrument correlated ( $r=0.48$ ) strongly with the Beck Anxiety Inventory. Meta-cognition Questionnaire- 30 (MCQ-30) assesses one's beliefs about his/her thoughts. This questionnaire was developed based on Wells and Matthews self – regulating executive function model for emotional disorders,<sup>17</sup> and meta-cognitive model of generalized anxiety.<sup>18,19</sup> Acceptable reliability and validity have been reported for this questionnaire.<sup>16,20</sup> The psychometric properties of Persian-language version of MCQ-30 were studied in Iran.<sup>16</sup> It was shown that Cronbach's coefficient alpha for the total score was 0.86. Reliability coefficient using test-retest procedure, with two weeks interval, was 0.87 and the split-half reliability was 0.90. Examining its concurrent validity, Spielberger,<sup>21</sup> reported that the instrument significantly ( $r=0.43$ ) correlated with "Trait-Anxiety Inventory for Adults".

Statistical analyses were performed using Statistical Package for Social Sciences (SPSS, version 16). The collected data, presented as mean±SD, were analyzed using descriptive

statistical methods, as well as independent t-test or one – way analysis of covariance (ANCOVA) where applicable. A P value of  $\leq 0.05$  was considered statistically significant.

## Results

Table 1 shows the responsibility attitudes, meta-cognitive beliefs and worry for clinical and normal groups.

Student t-test was used to examine the difference between the two groups in terms of responsibilities, without controlling worry and meta-cognitive beliefs. The responsibility attitude in obsessive patients ( $100.27\pm 8.04$ ) was significantly ( $P<0.001$ ) higher than that in the normal group ( $86.07\pm 7.63$ ) when the worry and meta-cognitive beliefs were not controlled.

One-way analysis of covariance was used to examine the difference of responsibility attitude between two groups after controlling for worry and meta-cognitive beliefs. Under this circumstance, there was no significant ( $F=1.5$  and  $P=0.32$ ) difference between normal and obsessive–compulsive groups in terms of responsibility attitudes.

## Discussion

Some studies have reported a significant relationship between obsessive-compulsive symptoms and responsibility, but some others have not demonstrated the presence of such a relationship.<sup>9,22-24</sup> The present study aimed at comparing the responsibility attitudes in obsessive compulsive patients and in normal subjects in the presence and absence of control for worry and meta-cognitive beliefs to determine whether the difference in responsibility attitudes between the two groups was significant.

The finding of the study showed that while worry and meta-cognitive beliefs were not controlled, responsibility attitudes were significantly different between obsessive–compulsive patients and normal subjects. Such a finding is consistent with a number of previous findings,<sup>9,22,23</sup> but not with others.<sup>24</sup> The finding indicated that responsibility significantly contributed to the prediction of obsessive-compulsive symptoms, and appeared to provide

**Table 1:** Values (Means ± SD) of responsibility attitude, meta-cognitive beliefs and patients' worry for clinical and normal groups

		Dependent Variables	Mean±SD
Obsessive-compulsive Patients	N=15	Responsibility Attitude	100.27±8.04
		Meta-cognitive beliefs	101.07±5.11
		Worry	51.20±3.72
Normal subjects	N=15	Responsibility Attitude	86.07±7.63
		Meta-cognitive beliefs	83.73±8.53
		Worry	45.20±4.49

some support for the Salkovskis (1985) model. It does not, however, agree with a previous study which showed that responsibility was not associated with obsessive-compulsive symptoms when meta-cognition and worry were controlled in nonclinical subjects.<sup>7</sup>

The study also showed that after controlling for worry and meta-cognitive beliefs, the responsibility attitudes was not significantly different between the two groups. Such a finding is in harmony with the findings of some studies,<sup>3,6-9,22</sup> but inconsistent with those of some others.<sup>12,24-26</sup> This result does not support the view that responsibility is a factor that is necessary in determining the obsessive-compulsive symptoms. Moreover, it is in contrast with Salkovskis' model of responsibility,<sup>2</sup> which states that beliefs and appraisals concerning responsibility have a central role in OCD. Salkovski supposed that beliefs about obsessions were critical in the development and persistence of the disorder.<sup>2</sup> It is possible that responsibility is concerned in special kinds of OCD. Moreover, it has been reported that there is a connection between specific factors of responsibility and certain kinds of obsessive-compulsive behavior.<sup>14</sup> In addition, the intensity of responsibility appraisal, which leads to mood disturbance such anxiety, is under the effect of patients' mood status.<sup>5</sup> Some studies,<sup>27</sup> reported that, although inflated responsibility appeared to influence the perseveration of checking behaviors, its effects are significantly modulated by concurrent mood conditions. In particular, inflated responsibility significantly facilitates checking perseveration in the context of a negative mood. In a recent study,<sup>28</sup> it was reported that distraction, social control, reappraisal, and worry strategies were shown to be the control strategies that were not specifically used by OCD participants or by those with anxiety and depressive disorders. On the other hand, it was reported,<sup>22</sup> that, after controlling for depression and anxiety, there was no significant association between responsibility and certain kinds of obsessive-compulsive behavior.

The strongest explanation for this finding may be a meta-cognitive one. According to Wells' meta-cognitive theory,<sup>29</sup> responsibility attitude is a characteristic caused by basic meta-cognitive beliefs that links intrusive thoughts to obsessive behaviors. It has been shown that that responsibility was not associated with obsessive-compulsive symptoms when meta-cognitions and worry were controlled, and the relationship between meta-cognitive beliefs and obsessive-compulsive symptoms was independent of responsibility and worry.<sup>7</sup> Furthermore,

responsibility did not add anything to the variance in symptoms explained by meta-cognitions.<sup>7</sup> In a recent study,<sup>30</sup> the relationship between the obsessive-compulsive symptoms and the cognitive constructs including importance/control of thoughts, inferential confusion/threat estimation, perfectionism/certainty and responsibility for preventing harm was investigated. They found that except for the responsibility for preventing harm, the cognitive constructs under investigation were quite strongly related to the obsessive-compulsive symptoms. Moreover, the responsibility for preventing harm acted to be a negative predictor of obsessive-compulsive symptoms.<sup>30</sup> In a fairly recent study,<sup>31</sup> the relations among responsibility attitudes, meta-cognitive beliefs, and obsessive-compulsive symptoms were examined in youths. Participants did endorse a range of responsibility and meta-cognitive beliefs, and both responsibility and meta-cognition were positively correlated with obsessive-compulsive symptoms. However, when age, sex, and depression were controlled, only meta-cognition was a predictor of obsessive-compulsive symptoms.<sup>31</sup>

## Conclusion

On the basis of present findings, it might be possible to suggest that responsibility attitude is not strongly related to obsessive-compulsive symptoms. It seems that it is a characteristic caused by basic meta-cognitive beliefs, because the relationship between the responsibility and the symptoms was dependent on meta-cognition. The findings of present study are consistent with meta-cognitive conceptualizations of obsessive-compulsive disorders. Therefore, in studying the etiology and treatment of obsessive compulsive disorders, focus on the responsibility attitudes alone cannot be much helpful. Further research is needed to clarify the role of responsibility attitudes and meta-cognition in obsessive-compulsive subtypes.

**Conflict of Interest:** None declared

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