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Relationship between Latent Aggression, Inflated Responsibility, Guilt Feeling and Reaction Formation with Severity of Obsessive-Compulsive Symptoms

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Abstract

***Background*:** This research aims to study previous findings about interpersonal ambivalence in people with obsessive compulsive disorders that shows itself as hidden aggression, excessive responsibility, feelings of guilt, and reverse reaction formations.
***Materials and Methods*:** In this correlational study, 60 individuals (33 women and 27 men) with obsessive-compulsive disorders who were referred to psychologists' offices and clinics of the city of Shiraz were selected through available sampling. Participants completed the Padua Inventory, Spielberger's State-Trait Anger Inventory, the Responsibility Attitude Scale, the Guilt Inventory, and the Defense Mechanisms Inventory. SPSS-16 software was used to analyze the data.
***Results*:** The results showed that the Pearson correlation coefficient was significant between excessive responsibility, hidden aggression, feelings of guilt, and reverse reaction formations with the severity of obsessive-compulsive symptoms. Based on the results of the regression analysis, feelings of guilt were the strongest predictor of obsessive-compulsive symptoms (β=0.388). Also, the results of path analysis suggest that hidden aggression had predicted feelings of guilt (β=0.47), which was also a predictor of excessive responsibility (β=0.30).
***Conclusion*:** According to the results, it seems that a high interpersonal ambivalence exists among people with obsessive-compulsive disorders. Therefore, this structure has the eligibility to be considered in research, especially in the treatment.

Introduction

The obsessive-compulsive disorder (OCD) is a psychological disorder resistant to treatment. Lifetime prevalence in the general population was estimated at 2-3% [1]. The disorder is characterized by persistent distressing thoughts associated with self-conscious repetitive and compulsive actions such as washing or mental counting. Although there is evidence that even healthy people are often busy thinking about issues common in OCD, however, compared with the normal population, OCD symptoms are more severe, more constant, and more debilitating. These symptoms interfere with individuals' daily functioning [2].

In all models of anxiety disorders psychodynamic, the role of defense mechanisms is outstanding. Defense emerges during the growth sequence and can be matured or overgrown. The selection of obsessions and compulsions in the OCD disorder is the function of defenses used by people against annoying shocks. One of the most common defense mechanisms in the OCD is reverse reaction formation [3].

Those persons who resort to reverse reaction formation mechanisms choose a kind of lifestyle that is opposed to the repressed attractors and is like a reaction against it. In other words, reactive organization is an anti-investment in a conscious element which is opposed to unconscious investment [4]. In this defense mechanism, the individual uses opposite impulses and behaviors such as extreme ethics and excessive responsibility, rather than self-unconscious aggressive impulses [5].

While the cognitive bases of the obsessive-compulsive disorder are not fully understood, recently some cognitive biases are added to the OCD pathogenesis model [6]. Cognitive biases are distortions in memory evaluation and information processing, as compared with biological cognitive deficits [7]. One of these biases is excessive responsibility, upon which extensive research has been done. Excessive responsibility is a belief and mental state in which the person assumes he/she has the power to create or prevent negative outcomes [8]. People with the OCD feel strong responsibility and fear of making mistakes and being known as guilty [9].

The idea that the OCD is due to excessive responsibility and fear of guilt has its primary roots in psychodynamic theories which assume that the obsessive-compulsive disorder is associated with obstinate and punishing superego [8].

According to these theories, the humanitarian aspect includes the exaggeration of concerns about others and defense against hidden aggression [10]. People with the OCD obtain higher aggression scores compared with normal subjects and patients with other psychiatric disorders, on questions such as, "Sometimes I like to hurt strangers in the street." They also worry simultaneously about the welfare of others and gain high scores in

questions like "if I cannot do my job as comfortably as others, I feel bad" [11].

Classical psychoanalysis has regarded the role of ambivalence in the OCD disorder as of importance; this ambivalence may be due to obstinate superego associated with high levels of aggression. Obstinate superego is derived from imitating important, punishing and expecting people, while high levels of aggression are relatively innate and partly due to extreme repressions of anger [5]. Salkovskis et al. stated that it is probably excessive responsibility that feeds the hidden aggression through several major biases [8].

Moritz et al. like Salkovskis et al. believe that punishing and expecting obstinate style of education, which is determined with excessive ethics and perfectionism, causes normal aggressive attitude not to be mixed with the individual's personality, and therefore holds him/her in a childish and immature stage of growth. Aggressive obsessions in OCD persons are socially unacceptable and may be related to the excessive responsibility (fear of injury to themselves or others) [10].

Patients with OCD experience hidden aggressions and aggressive obsessions. Due to such thoughts, they either feel responsibility or guilt; this matter leads them to suicide decisions [12]. Since defense mechanisms, ambivalence, and cognitive and emotional constructs such as excessive responsibility, hidden aggression, and feelings of guilt play an important role in the etiology and continuation of this disorder, understanding these factors seems to be essential in the diagnosis and the treatment process of the OCD. The present research is a preliminary step toward understanding these factors. In this regard, the following hypotheses are presented:

1- There is a significant relationship between extreme responsibility, hidden aggression, feelings of guilt, and reverse reaction formations with the intensity of obsessive-compulsive symptoms.

2- In obsessive-compulsive patients, hidden aggression is the predictor of feelings of guilt, which in turn predicts excessive responsibility.

In addition, this study seeks to answer the question that, which variable among excessive responsibility, hidden aggression, feel guilt, and reverse reaction formation is better predictor of the severity of obsessive-compulsive symptoms?

Materials and Methods

In this correlation study, the statistical population included all OCD patients (both male and female) who were referred to psychological offices and counseling and psychotherapy clinics of the city of Shiraz from March 2011 to September 2011 (6 months) and OCD was diagnosed based on the Diagnostic and Statistical Manual of Mental Disorders, fourth Edition (DSM-IV). Obviously, according to these conditions and time constraints, random sampling was not possible.

Thus, probability sampling was used to select the individuals of the sample. Questionnaires were given to psychologists and psychiatrics; then, they were asked to explain to patients who were diagnosed and met the required conditions, that a research is being conducted, and if they are interested, they can take part in this study, but it's nothing to do with the usual treatment. After collecting the questionnaires and eliminating 16 incomplete questionnaires, 60 subjects with OCD (33 women and 27 men) with an age range of 18 to 60 (M=31.96), (18 single and 42 married) formed the sample group. The tools used for research data collection are as follows:

1- Spielberger's State-Trait Anger Expression Inventory-2 (STAXI-2): This 57-item inventory designed by Speilberger consists of six scales, five subscales, and an anger expression index, and measures the total anger expression and control level. The scales of the STAXI-2 include state anger, trait anger, anger expression-out, anger expression-in, anger control-out, and anger control-in. The two subscales of trait anger include anger/temperament and anger/reaction. Cronbach's alpha coefficients were reported as 88% and 85% for state anger and trait anger scales respectively, on average 76% for the subscales of these two scales, and on average 71% for anger expression, anger control, and total anger expression index. The concurrent reliability of the Trait Anger Scale was calculated through calculating its correlation with the Buss and Durkee Hostility Inventory and the MMPI Hysteria Scale; in another study, these factors ranged 31-66% and all the obtained coefficients were statistically significant [13]. To assess hidden aggression, the Trait Anger Scale and the anger expression-in was used in this research.

2- Guilt Inventory: The Guilt Inventory was made, completed, and corrected by Kugler and Jones. This inventory contains 45 items and three subscales of state guilt, trait guilt, and moral standards. Kugler and Jones had mentioned the internal consistency coefficient of the inventory for state guilt as 79%, and for trait guilt as 89%. In Iran, its reliability was evaluated by Naziri through the test-retest method within 3 weeks on 30 students and the reliability coefficient was obtained as 83% for the whole inventory [14].

3- The Defense Mechanism Inventory: This test consists of 77 items and was performed and preliminarily normalized on 200 students of Behshahr University by Hosseini in 2007. The results of the normalization showed that the inventory has good validity and reliability. The answers of the test was set on a 5-grade Likert's scale (completely agree to completely disagree) and included 14 cases of the most popular and most used defense mechanisms **(**repression**,** compensation, identification, introjection**,** projection, rationalization, reaction formation, undoing, displacement, denial, fantasy, sublimation, conversion, and intellectualization**)**. Grading was as "totally agree=4," "agree=3," "somewhat agree=2," "disagree=1," and "totally disagree=0." Test reliability was obtained as 84% for students through calculating Cronbach's alpha [15].

4- Responsibility Attitude Scale: This scale was developed by Salkovskis et al. In this test, the subjects rate their agreement with each item in a seven-grade

Likert's scale (from totally disagree=1 to totally agree=7). This scale lacks subscales and its items from the total responsibility attitude. The Responsibility Attitude Scale has an acceptable reliability and validity. Cronbach's alpha coefficient (92%) and test-retest coefficient (94%) of this scale has been rated in a four-week period [16].

5- Padua Inventory: This inventory includes 60 items that measure both the number and severity of OCD symptoms in patients as well as non-patients. Each item measures the patient's distress level from a score of zero for lack of distress to a score of four for very high distress, based on a 0-4 points scale. In his factor analysis, Sanavio has suggested four factors for this inventory – impaired control over mental activities, becoming contaminated, checking behavior, and tendency to worry about losing control over motor activities [17]. The psychometric properties of this scale were studied by Goodarzi and Firouzabadi and its alpha Cronbach's coefficient was measured as 95%; the scale's reliability coefficient was also obtained as 79%, during a four-week test-retest method [17]. The data were analyzed using Pearson correlation coefficient, multivariate regression, and path analysis. The SPSS-16 software was used for data analysis.

Results

To study the relationship between the excessive responsibility, hidden aggression, feelings of guilt, and reverse reaction formations with the severity of obsessive-compulsive symptoms, Pearson correlation test was used. As seen in table 1, there was a direct correlation between excessive responsibility and OCD symptoms severity at level $p\leq0.01$; and the relationship between hidden aggression and reverse reaction formations with the severity of OCD symptoms was positive and significant at level $p\leq0.0001$ in OCD patients. Also, the correlation coefficient between the feelings of guilt and OCD symptoms severity was significant at level $p\leq0.012$, which indicates the confirmation of the first hypothesis.

We used path analysis to examine the second hypothesis of the study. Figure 1 depicts the proposed model of the relationship between the variables and the path coefficients between them. As seen in figure 1, hidden aggression has an impact of 0.47 on feelings of guilt, and feelings of guilt have an impact of 0.3 on excessive responsibility. Since the indirect effect of hidden aggression on excessive responsibility was obtained to be 0.139, one can decide that feelings of guilt could be mediated between hidden aggression and excessive responsibility. Table 2 shows the indices of the model.

As shown in table 2, the amount of χ^2 was 7.12 and significant with 1 degree of freedom at level 0.008. Also, the goodness of fit index (GFI) of the model was 0.93, which is acceptable when higher than 0.9; also, the RMSEA index was equal to 0.32, which is better when closer to zero. According to the above indices, one can conclude that the above model is confirmed and feelings of guilt can be regarded as a mediator between hidden aggression and excessive responsibility. In addition, to answer the research question, multivariate regression analysis was used for statistical analysis. As the results of Table 3 show, the multivariate correlation coefficient between predictive variables (excessive responsibility, hidden aggression, feel guilt, and reverse reaction formation) and the criterion variable (severity of obsessive-compulsive symptoms) was equal to 0.601, and since the coefficient of determination (r^2) was 0.36, predictor variables were able to predict 36% of the variations of compulsive symptoms, which was significant with respect to the F value. Among these variables, the feelings of guilt variable was the strongest predictor of obsessive-compulsive symptoms (β=0.388). The next strong predictor was hidden aggression, then reverse reaction formation and finally excessive responsibility. Among these variables, only feelings of guilt were able to predict obsessive-compulsive symptoms alone through controlling other factors.

Table 1. Correlation coefficients between the variables of the first hypothesis

Variable	Coefficient of correlation with obsessive-compulsive symptoms	*p*-Value
Excessive responsibility	0.329	0.01
Hidden aggression	0.464	0.0001
Feelings of guilt	0.536	0.012
Reverse reaction formation	0.324	0.0001

Table 2. Indices of the proposed model about mediation of feelings of guilt between hidden aggression and responsibility

RMSEA	GFI	*p*-Value	df	χ^2
0.32	0.93	0.008	1	7.12

Table 3. The results of multivariate regression analysis on the variables in the study

Predictor variable	R	R^2	F	F significant	β	t	t significant
Excessive responsibility	0.601	0.36	7.77	0.0001	0.079	0.6	0.55
Hidden aggression					0.215	1.62	0.11
Feelings of guilt					0.388	3.15	0.003
Reverse reaction formation					0.083	0.63	0.529

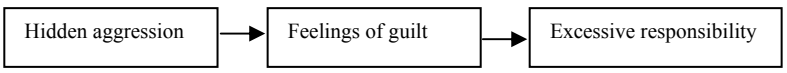

Figure 1. The proposed model with path coefficients about intermediacy of feelings of guilt between hidden aggression and excessive accountability

Discussion

The findings of this study showed a significant relationship between excessive responsibility, hidden aggression, feelings of guilt, and the reverse reaction formations and the severity of obsessive-compulsive symptoms; the results obtained from testing this hypothesis is consistent with the study conducted by Moritz et al [11, 12].

In explaining these findings, it can be stated that people with the OCD experience significant feelings of anger and aggression, but are unable to express these feelings [13]. Therefore, they convert these aggressive feelings and impulses to high ethical standards such as excessive responsibility; and this extreme responsibility may be a counter-reaction against those impulses [10]. In fact, people with the OCD feel guilt due to anger experiences, and instead of expressing anger, show excessive responsibility in order to avoid painful feelings of aggression. Therefore, it can be assumed that according to the psychoanalytic theory, people with the OCD have simultaneously a sense of hate and love to the important people of their lives and interpersonal ambivalence is high among them. Furthermore, the path analysis results showed that in people with the OCD, hidden aggression, predicted feelings of guilt (path coefficient=0.47), and feelings of guilt influenced excessive responsibility as 0.3. Thus, in people with the obsessive-compulsive disorder, hidden aggression predicts feelings of guilt, which are the predictor of excessive responsibility (i.e. in these patients, feelings of guilt are a mediator of hidden aggression and feelings of guilt).

The confirmation of this hypothesis is consistent with previous studies [10-12]. It can be stated that people with the OCD experience a hidden anger and hence feelings of guilt and subsequently feel responsibility [18]. Rachman stated that people with the OCD usually feel guilt due to having negative thoughts like no harming others. They feel a great responsibility about their aggression impulses. They blame themselves due to having such aggressive thoughts and cannot express their anger, which in turn can be due to excessive responsibility and tendency to feel guilty.[19] In patients with the OCD, aggressive thoughts and impulses are considered ego-dystonic and anxiety-provoking, and patients try to control these impulses [20].

Following these thoughts, they feel guilty, blame others less, and tend to express empathic concern for others [21]. Therefore, we can conclude that feelings of guilt make people apologize and regret for what they have done and to compensate for it. In other words, guilt is an evident protective against aggression.

In addition, the results of this study showed that all studied constructs were able to predict obsessive-compulsive symptoms; this finding is consistent with the research conducted by Moritz et al. In patients with the OCD, the humanitarian aspect such as excessive responsibility and concern about others are defenses against hidden aggression, because patients feel guilt about having aggressive behavior toward others [10].

Among the studied constructs, only feeling guilty was able to predict obsessive-compulsive symptoms; this result is also compatible with evidences of previous researches [22-24], but it is not consistent with the study done by Steketee et al [25]. Therefore, people with the obsessive-compulsive disorder experience high ethical trait, state, and standards. Thus, feelings of guilt are a perfect component in the OCD. Hence, the patients use self-punishment as a thought control strategy in order to confront with annoying aggressive thoughts. Rachman states that guilt is a sustaining factor of the OCD vicious circle in obsessive patients. Thus, guilt, anxiety, and depressed moods are the negative consequences of assessment that patients have from their unwanted thoughts, imaginations, and impulses and guilt is considered as the warning factor for threatening content of a situation and stimulate the person to take an action in order to perceive the integrated and good self [26].

According to the proposed explanations about the hypotheses and the research question, one can conclude that when an OCD patient feels anger toward important persons of his/her life, and since this new experience is contrary with his/her basic assumption (e.g. I must keep others from damage), the reverse reaction formation defense mechanism is used; therefore, the person avoids remembering this new experience that is like a trauma for him/her, thus his/her tension reduces, and as this defense mechanism does not work in longtime for him/her and this new experience does not integrate with the underlying assumptions, annoying thoughts (e.g. "I must keep others from injury") are called to the individual's consciousness, and obsessions such as ensuring and subsequently compulsions such as checking are generated [27].

In other words, since OCD patients simultaneously love and hate a person, this causes the patients to feel weakness and doubt. On the other hand, since the patient is angry about the most important people of his/her life, he/she feels guilty because the person imagines himself/herself as bad and dangerous. Therefore, he/she tries to avoid the smallest mistake and painful emotions such as anger and guilt through compulsive behaviors like excessive responsibility. According to the research conducted by Mancini et al. people with the OCD experience a lot of guilt, which in turn increases the inaccuracy of experiences. Hence, it can be noted that guilt is a warning factor that increases a person's sense of being threatened and induces that it does not work to avoid damage. Therefore, patients show excessive responsibility in order to prevent feel guilt again and to defend the sense of integrity [9].

The correlational nature of the present study makes it difficult to definitively conclude its findings; also; researchers' lack of access to the required facilities for high-volume sampling is another limitation of the research. Obviously, the small number of samples makes the interpretation and generalization of the results be done with caution. The lack of research literature in the field of hidden aggression is another constraint of this research. Given the above limitations, we suggest the use of broader clinical groups in future researches, if possible, in order to allow the study of OCD structures through the

use of methods such as structural equation modeling, and also that researchers clarify the causal role of these variables (concurrently) in creation and continuity of the OCD. Since there is no research literature about hidden aggression in Iran, and given that this structure has a negative impact on health and life quality of patients with obsessive-compulsive disorder and plays an important role in the interpersonal stress of sufferers and in suicidal behavior associated with the OCD, hidden aggression deserves more attention for research, especially for treatment [12].

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Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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