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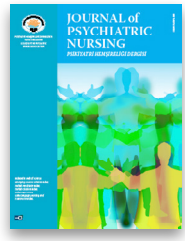

Original Article

# The relationship of insight with obsessive beliefs and metacognition in obsessive compulsive disorder

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## Abstract

**Objectives:** The treatment of obsessive-compulsive disorder (OCD) aims to neutralize obsessions and improve insight, in consideration of the information that OCD patients have positive beliefs about anxiety and do not rely on their attention and memory. Nevertheless, there are a limited number of studies about the relationship of insight with metacognitions and types of obsessive beliefs among OCD patients. This study aims to investigate those relationships.

**Methods:** This study was conducted with a patient group, 101 OCD patients, and 52 healthy volunteers in the control group. All participants were given the Sociodemographic Data Form, Hamilton Depression Rating Scale (HDRS), Obsessional Beliefs Questionnaire (OBQ-44) and Metacognition Questionnaire (MCQ-30). The patient group also received the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and the Overvalued Ideas Scale (OVIS). According to OVIS scores, the patient group was separated into two groups; poor insight and good insight.

**Results:** The average scores of positive beliefs and cognitive confidence subscales of MCQ-30 were credible among the patient and healthy control groups. Patients with poor and good insight did not differ with regard to severity of obsessions, compulsions, depression, duration and beginning type of the disorder and other clinical and demographic variables and average scale scores. Patients with poor insight had higher average scores of MCQ positive beliefs than patients with good insight; however, the difference was not significant despite being close to the statistical significance verge. Depression severity of patients was higher than controls.

**Conclusion:** Study results demonstrates that, contrary to common belief, certain metacognitions of patients and controls were comparable. No significant relationship was found between insight and metacognition in OCD. There is a need for qualitative studies with larger samples and more demographic and clinical data regarding insight. Additionally, the role of insight in OCD is arguable and the deterministic role of the level of insight in clinical approach and treatment should be questioned.

**Keywords:** Insight; metacognition; obsessive-compulsive disorder.

Obsession is a term used to define involuntarily thoughts, images, or impulses persistently repeated despite an individuals' effort to prevent this repetition. Furthermore, clinically, this causes explicit distress in the individual. Among the factors that play a role in the development of obsession; specifically putting excessive importance on thinking, an exaggerated feeling of responsibility and metacognition have significant places. The classical cognitive-behavioral theory argues that interpretations for the encountered situations are the most significant variable determining the feeling at the time and the behavioral response against it afterward. "Metacognition" can also be defined as "thinking about thinking" which is a term that can be understood by focusing on the process of the thought, not the content.[1] In the literature, there have

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**What is known on this subject?**

- There are limited number of studies examining the relationship between insight in patients diagnosed with Obsessive Compulsive Disorder (OCD) with metacognition and the type and severity of obsessive beliefs. These studies generally state a decrease in insight is associated with an increase in the severity of obsessive and compulsive symptoms and stronger metacognition.

**What is the contribution of this paper?**

- Contrary to the limited literature, this study shows no significant relationship found between the insight level in OCD and the type and severity of obsessions, as well as metacognitive beliefs. Even with the implications of the common belief that worry is useful and one should not rely on ones' own attention and memory, these two beliefs among the patients and healthy volunteers were found at similar levels.

**What is its contribution to the practice?**

- This study does not resemble the limited literature on insight in OCD. Therefore, it is argued that the term insight in OCD should be re-evaluated with its different aspects and the deterministic role of insight level in the approach and treatment of OCD should be questioned.

been studies on the role of metacognitive factors governing cognitive functions.[2–4] Metacognitive processes have an explicit effect generating and continuing the intrusive thoughts.[5,6] An individual's negative approach to their own intrusive thoughts increases the obsession risk, and the attempts to control these thoughts are seen as creating anxiety.[7] Thus, there is a general assumption that intrusive thoughts that are sometimes observed in healthy individuals as well, could turn into obsession with the effects of metacognition. Based on this assumption, the literature reported that metacognition is stronger in OCD patients than healthy volunteers.[8]

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (Diagnostic and Statistical Manual of Mental Disorders- 5: DSM-5) defines obsessive and compulsive disorder as the presence of obsessions and compulsions identified as physical and mental actions reducing distress caused by obsessions, and also defines it as a distinctive loss of functionality because of obsessions and compulsions.[9] The metacognitive structure of OCD is explained with the model of Self-Regulatory Executive Functions: S-REF.[10] According to this model, the negative interpretation of intrusive thoughts is based on metacognition. Metacognitive beliefs focus on the meaning of having certain thoughts and their possible dangerous outcomes. Deviations from metacognitive beliefs may cause ruminations by affecting the meaning and function of cognition. According to the S-REF model, metacognitive beliefs regarding the intrusive thoughts may be divided into three groups as thought-action fusion, thought-event fusion, and thought-object fusion.[11–13] Thought-action fusion is the belief that having certain thoughts causes uncontrolled and unwanted actions. For instance, if the idea comes to mind that one may physically harm a loved one, that person might believe that they will definitely do this action in the end. Thought-event fusion is the belief that having a thought will cause an event, has caused an event or is causing an event to happen. For instance, after using a public toilet, a patient may get the idea that she got pregnant due to sperm transmission, consequently she believes that this definitely happened. Thought-object fusion is the belief that thoughts, memories and feelings can be passed into or caught from an object.[11–13]

In addition to the metacognitive mechanisms associated with fusion, it is also known that other metacognitive mechanisms causes obsessive compulsive symptoms to continue and to worsen like the beliefs about rituals (for instance, the belief of the need to control thought), unfunctional internal criteria (for instance, the belief of feeling or knowing exactly the right time when the neutralization attempts will end) and the beliefs of the compulsion benefits.[11–13]

Insight is the ability to be aware of the causes and meanings of one's own experiences, and as it is understood from the definition, it also includes the awareness of one's mental illness.[14,15] It is accepted that the insight of the OCD patients constitutes a range between weak and strong boundaries.[16] As a new characteristic which has not been included in the previous DSM editions, the determinant of "poor insight" was added to OCD in DSM-IV[17] while the determinant of insight added to OCD has been extended in DSM-5 as good insight, poor insight, and no insight/illusive beliefs.[8] Although a standard tool to evaluate insight level in OCD has not been found yet, for this purpose the Overvalued Ideas Scale (OVIS) and the Brown Assessment of Beliefs Scale (BABS) were used in the literature.[18,19] In addition to the studies stating that there is a relationship between the insight level and the severity of OCD,[20–22] there are also studies reporting no significant relationship among them.[23,24] Similarly, besides the studies reporting the presence of a linear relationship between the response to cognitive behavioral therapy and medical treatment and insight in OCD,[25] there have also been studies reporting that no significance is determined in such a relationship.[26] In this regard, it might be stated that no sufficient evidence was found for the clinical predictive of insight in OCD.

There are a limited number of studies examining the relationship of insight with metacognition and type and severity of obsessive beliefs in patients diagnosed with OCD.[27,28] This study aimed to contribute to the literature by examining the relationship of insight with metacognition and the content and severity of obsessive beliefs.

## Materials and Method

### Participants

The study population included 101 patients present at the psychiatrics polyclinics of the Bezmialem Foundation University Hospital between September 2016 and April 2017, who met research inclusion criteria, agreed to participate in the study, and were diagnosed with OCD according to the DSM-5 diagnosis criteria, and 52 healthy volunteers.

The research inclusion criteria included:

- Being between 18 and 50 years old
- Knowing how to read and write
- Volunteering to participate in the study

- Diagnosed with OCB according to the DSM-5 diagnosis criteria.

The research exclusion criteria included:

- Active use of alcohol and/or substance abuse

- The presence of an active psychiatric disease comorbid to OCD

- The presence of a visual and/or auditory disorder.

**The Research Tools**

All volunteers were given the Sociodemographic Data Form, Hamilton Depression Rating Scale (HDRS), Obsessional Beliefs Questionnaire (OBQ-44), and Metacognition Questionnaire (MCQ-30). In addition, the patient group also received the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and the Overvalued Ideas Scale (OVIS). Of the 101 patients in the sample group, according to the OVIS, 31 patients were classified as "OCD with poor insight" and the remaining 70 patients were classified as "OCD with good insight". Three groups were included in the sample of the study.

*Sociodemographic Data Form:* This form was prepared by the researcher and included 23 questions regarding variables of age, gender, marital status, educational status, employment status, age at diagnosis and the severity of obsessive-compulsive symptoms, duration of the disease, and the use of alcohol-cigarettes.

*Yale–Brown Obsessive Compulsive Scale (Y-BOCS):* This scale was developed by Goodman et al.[29,30] to assess the severity of obsessive-compulsive symptoms. Y-BOCS consists of 19 Likert-type items rated by the analyst. The Y-BOCS is evaluated by the score of the first 10 items. The sum of items 1–5 represents obsession while the sum of items 6–10 represents compulsion. The scores of obsession and compulsion give the total scale score. The Turkish validity and reliability study of the scale was carried out by Karamustafalıoğlu et al.[31] It was found that the scale also exhibited a high-level of internal consistency (Cronbach's alpha= 0.925).

*The Overvalued Ideas Scale (OVIS):* This scale was developed by Neziroğlu et al.[32] to assess the degree of insight in OCD. OVIS consists of 11 Likert-type items that are rated between 1 and 10. The patients with an OVIS score equal to or higher than six were considered to have "OCD with poor insight". The predictor validity of the scale in the treatment of OCD and Body Dysmorphic Disorder was conducted.[33] It was found that the scale also exhibited a high-level internal consistency (Cronbach's alpha= 0.820).

*Hamilton Depression Rating Scale (HDRS):* HDRS was initially developed by Max Hamilton to measure the degree of depressive symptoms[34] and Williams developed the structured form.[35] The validity and reliability of the Turkish questionnaire version was conducted by Akdemir et al.[36] The scale was administered by a clinician to individuals with depressive symptoms. The scaler is a 17-item Likert-type scale where each item is scored between zero and four points. A total HDRS score between 8 and 13 indicates mild depression, 14–18 indicates moderate, higher than 19 indicates severe depression.[37] It was found that the scale also exhibited a high-level of internal consistency (Cronbach's alpha= 0.905) in this study sample.

*The Obsessive Beliefs Questionnaire (OBQ-44):* OBQ-44 was developed by the Obsessive-Compulsive Cognitions Working Group. The questionnaire is a 7-point Likert-type scale consisting of 44 items.[38,39] There are three sub-scales that cluster the main symptoms of OCD. These sub-scales are perfectionism/flawlessness, responsibility/the fear of disaster, and giving excessive importance/controlling thoughts. The Turkish validity and reliability study of the questionnaire was conducted by Boysan et al.[40] The questionnaire was also found to exhibit a high-level internal consistency (Cronbach's alpha= 0.910) in this study sample.

*The Metacognitions Questionnaire (MCQ-30):* MCQ-30 was developed by Cartwright-Hatton and Wells.[41] The questionnaire is a 4-point Likert-type scale with five sub-scales identified as positive beliefs about worry (PB), cognitive confidence (CC), uncontrollability and danger (UD), cognitive self-consciousness (CS), and need to control thoughts (NCT). PB consists of items relating to the belief that worrying helps to plan and solve problems, in other words worrying is actually useful; CC consists of items concerned with the efficacy of one's attentional and memory functioning, UD includes items tapping the belief that one's worry is uncontrollable and that it is necessary to control one's worrying in order to function well as a person and be safe. NCT includes items to control negative beliefs around the themes of responsibility, punishment, and superstition. CS includes items relating to the degree to which an individual focuses on their own thinking processes. The Turkish validity and the reliability of the questionnaire was carried out by Tosun and Irak.[42]

**Process**

This study was conducted with volunteer patients present at the psychiatric polyclinics of the Bezmialem Foundation University and diagnosed with OCD, and with a healthy control group. The patients were chronologically received into the study according to the date they presented to the polyclinic and the date that they agreed to participate in the study. The control group consisted of voluntary participants among hospital employees and their relatives who did not have any psychiatric complaint and were not diagnosed with any pathology in their mental examination. The patient group was separated into two groups as patients with "poor insight" and patients with "good insight".

**Statistical Evaluation**

The variables in the OCD group with good insight and poor insight and in the healthy control group were evaluated through statistical analyses. The groups were compared in terms of

variables, the ANOVA test was used for numerical data such as age and scale scores, and chi-square test was used for categorical data such as gender, marital status, and education status. The independent sampling t-test was used in the pairwise comparison of the patient groups and the healthy group in terms of scale scores of MCQ-30, OBQ-44, and HDRS.

Of the control group, educational status information was missing for one participant. Information was missing for one patient in the group with poor insight and two patients in the group with good insight regarding the presence of a significant life event before the disease started, how the disease started, family history of mental health disease, the use of alcohol and/or smoking. These volunteers could not be contacted again; however, as this missing data was at a negligible level, there was no need to apply the data placement process.

### Research Ethical Dimension

The study participation was voluntary. A signed consent form was received from all the individuals who agreed to participate in the study. The study was approved by the Bezmialem Foundation University's Non-Interventional Research Ethics Committee (Date of approval: 09.09.2016, number: 3/55).

## Results

Table 1 presents demographic data of the patient group and the control group.

Comparing three groups (two different patient groups and one control group) in terms of the mean scale scores, significant differences were found between the groups for the scores of all sub-scales of the OBQ, and HDRS and the subscales of UD, NCT, and CS of the MCQ (Table 2).

**Table 1. Demographic data of the control group and two separate patient groups**

| Demographic data | Poor insight in OCD (n=31) | Good insight in OCD (n=70) | Control (n=52) |
|---|---|---|---|
| Age | 31.0±10.4 | 31.3±10.2 | 28.8±9.9 |
| Marital status | | | |
| Single | 15 | 33 | 38 |
| Married | 16 | 34 | 13 |
| Widowed/divorced | 0 | 3 | 1 |
| Education status | | | |
| Literate | 0 | 1 | 2 |
| Primary school | 13 | 23 | 4 |
| High school | 7 | 22 | 5 |
| College-university | 11 | 25 | 40 |
| Gender | | | |
| Female | 26 | 39 | 35 |
| Male | 5 | 31 | 17 |

OCD: Obsessive Compulsive Disorder; p: Probability value; n: Sample size.

**Table 2. Comparison of the control group and two separate patient groups according to the mean scale scores**

| Scale | Poor insight in OCD (n=31) | Good insight in OCD (n=70) | Control (n=52) | Statistics |
|---|---|---|---|---|
| HDRS | 10.4±6.6 | 10.4±5.8 | 1.9±2.3 | p<0.01* |
| OBQ-44 | | | | |
| Perfectionism | 72.5±23.2 | 68.1±23.4 | 52.9±16.7 | p<0.01* |
| Responsibility | 68.5±22.2 | 63.9±20.1 | 44.8±15.4 | p<0.01* |
| Excess importance | 47.1±17.7 | 43.9±15.7 | 29.2±13.3 | p<0.01* |
| MCQ-30 | | | | |
| Positive belief | 13.7±4.0 | 11.8±4.7 | 11.7±4.2 | p=0.095 |
| Uncontrollability and danger | 17.0±5.0 | 15.7±4.4 | 11.0±3.7 | p<0.01* |
| Cognitive confidence | 13.3±5.3 | 12.9±5.5 | 11.6±4.5 | p=0.279 |
| Need to control thoughts | 17.5±4.8 | 18.2±4.2 | 10.6±4.2 | p<0.01* |
| Cognitive self-consciousness | 17.3±4.5 | 18.2±4.3 | 14.3±4.6 | p<0.01* |

The comparisons were done using one-way ANOVA test. The results with significant difference are represented by *. OCD: Obsessive Compulsive Disorder; p: Probability value, n: Sample size; HDRS: Hamilton Depression Rating Scale; OBQ: Obsessional Beliefs Questionnaire; MCQ: Metacognition Questionnaire.

Comparing the two separate patient groups in terms of the mean scale scores, no significant difference was found between the groups. In addition, it was found that the sub-scale mean score of the MCQ-PB was higher in the OCD group with poor insight, and the difference between them was close to the significance level (Table 3).

Comparing the poor insight group with the good insight group in terms of the years of duration of the disease, no statistically significant difference was found (Table 4). Similarly, no significant difference was found between the two patient groups in terms of the presence of a significant life event before the symptoms started, how the symptoms started (acute onset or chronic), the presence of mental health disease in the immediate family, and demographic characteristics like the use of alcohol and/or smoking (Table 4).

Comparing both groups (patients and volunteers), done by

**Table 3. Comparison between two patient groups according to mean scale scores**

| Scale | Poor insight in OCD (n=31) | Good insight in OCD (n=70) | Statistics |
|---|---|---|---|
| Y-BOCS | | | |
| Obsession | 13.3±3.9 | 13.1±3.2 | p=0.781 |
| Compulsion | 13.2±3.6 | 12.3±3.4 | p=0.240 |
| Total | 26.5±7.1 | 25.5±6.2 | p=0.498 |
| HDRS | 10.4±6.6 | 10.4±5.8 | p=0.950 |
| OBQ-44 | | | |
| Perfectionism | 72.5±23.2 | 68.1±23.4 | p=0.383 |
| Responsibility | 68.5±22.2 | 63.9±20.1 | p=0.307 |
| Excess importance | 47.1±17.7 | 43.9±15.7 | p=0.375 |
| MCQ-30 | | | |
| Positive belief | 13.7±4.0 | 11.8±4.7 | p=0.058 |
| Uncontrollability and danger | 17.0±5.0 | 15.7±4.4 | p=0.184 |
| Cognitive confidence | 13.3±5.3 | 12.9±5.5 | p=0.690 |
| Need to control thoughts | 17.5±4.8 | 18.2±4.2 | p=0.456 |
| Cognitive self-consciousness | 17.3±4.5 | 18.2±4.3 | p=0.368 |

The comparisons were done by independent samples t-test. OCD: Obsessive Compulsive Disorder; p: Probability value; n: Sample size; Y-BOCS: Yale-Brown Obsessive Compulsive Scale; HDRS: Hamilton Depression Rating Scale; OBQ: Obsessional Beliefs Questionnaire; MCQ: Metacognition Questionnaire.

**Table 4. Comparison between two patient groups according to the history of the disease and clinical characteristics**

| Scale | Poor insight in OCD (n=31) | Good insight in OCD (n=70) | Statistics |
|---|---|---|---|
| Duration of the disease (year) | 10.4±8.4 | 10.1±8.5 | p=0.863 |
| The presence of a significant life event | | | |
| Yes | 16 | 27 | p=0.289, $x^2$=2.485 |
| No | 14 | 41 | |
| How the disease started | | | |
| Acute onset | 8 | 22 | p=0.685, $x^2$=0.758 |
| Chronic | 22 | 46 | |
| Family history of mental health disease | | | |
| Yes | 13 | 36 | p=0.385, $x^2$=1.906 |
| No | 17 | 32 | |
| Alcohol use | | | |
| Yes | 2 | 5 | p=0.739, $x^2$=0.605 |
| No | 28 | 63 | |
| Smoking | | | |
| Yes | 9 | 16 | p=0.775, $x^2$=0.509 |
| No | 21 | 52 | |

The comparison of the duration of disease was done by the independent samples t-test, and the comparison of other demographic data was done by chi-square test.
OCD: Obsessive Compulsive Disorder; p: Probability value; n: Sample size; $x^2$: Chi-square test result.

**Table 5. The comparison of patients with the control group according to the mean scale scores**

| Scale | Patients (n=101) | Controls (n=52) | Statistics |
|---|---|---|---|
| HDRS | 10.4±5.9 | 1.9±2.3 | p<0.01* |
| OBQ-44 | | | |
| Perfectionism | 69.4±23.3 | 52.9±16.7 | p<0.01* |
| Responsibility | 65.3±21.2 | 44.8±15.4 | p<0.01* |
| Excess importance | 44.9±16.3 | 29.2±13.3 | p<0.01* |
| MCQ-30 | | | |
| Positive belief | 12.4±4.6 | 11.7±4.2 | p=0.348 |
| Uncontrollability and danger | 16.1±4.6 | 11.0±3.7 | p<0.01* |
| Cognitive confidence | 13.0±5.4 | 11.6±4.5 | p=0.123 |
| Need to control thoughts | 18.0±4.4 | 10.6±4.2 | p<0.01* |
| Cognitive self-consciousness | 17.9±4.4 | 14.3±4.6 | p<0.01* |

The comparisons were done using one-way ANOVA test. The results with significant difference are represented by *.
p: Probability value; n: Sample size; HDRS: Hamilton Depression Rating Scale; OBQ: Obsessional Beliefs Questionnaire; MCQ: Metacognition Questionnaire.

addressing all patients as one group and the control group as another group, it was found that the mean scale scores of the patients were higher than the control group. The mean sub-scale scores of the MCQ-PB and MCQ-CC were found similar in the patient and control groups (Table 5).

## Discussion

This study examined the relationship of insight levels with metacognition and types and severity of obsessive beliefs among OCD diagnosed patients.

In the study, the mean depression scores in the OCD patients were found higher than the control group. This finding can be explained by the fact that OCD is accompanied by depressive symptoms and major depressive disorders (MDD).[43]

The mean scores of all sub-scales of the Obsessive Beliefs Questionnaire were found higher in the patients than in the control group which is expected considering the nature of the OCD.

In the patient groups, the mean scores of the metacognition of uncontrollability, danger and the need to control thoughts in the Metacognitions Questionnaire were found higher than the control group. This result indicated the significant excessive need to control in the OCD patients. The mean score of the metacognition of cognitive self-consciousness was found higher in the patients as well. This result indicates that these patients are apparently interested in their own world of thought in a ruminative way. According to the S-REF model, metacognition in OCD patients is defined as basic factors causing the unsettling thoughts that all people have to transform into obsessions in OCD patients.[10] However, in this study, contrary to expectations, the sub-scale mean scores of Positive Beliefs about Worry and Cognitive Confidence of the Metacognitions Questionnaire were found similar in the patient and control groups. This result suggests that the metacognition regarding worry as being useful and that one should not only rely on attention and memory may not be common only in the OCD patients, but also common in society as a whole. Acting with suspicion towards other people with foresight may be often accepted as a safe and a self-protective attitude not only in OCD patients, but also in society as a whole.

Comparing the OCD group with poor insight and the OCD group with good insight according to the mean scores of the questionnaires of depression, metacognition and obsessive beliefs, no significant difference was found. Some studies examining the prevalence of depression among OCD patients reported that a decrease in insight is associated with an increase in the risk of depression.[21,44] In a study conducted in Turkey, the severity of depression was found significantly higher in OCD patients with poor insight than the OCD patients with good insight. In addition, in the same study, while conducting the study and before that, Major Depressive Disorder (MDB) accompanying the group with poor insight was found higher.[21] In this study, the number of female subjects was higher in the group with poor insight. Although depression is much more common in women, it is crucial to consider the result that depressive symptoms accompanying OCD were observed more in the group with poor insight. However, in this study, the severity of depression was similar in the both groups; poor insight and good insight. From this aspect, the findings regarding the relationship of depression in OCD patients with insight were generally inconsistent with the literature. However, considering there was no significant difference between the group with poor insight and the group with good insight according to the duration of the disease (Table 4), it might be argued that depression accompanying OCD may be linked to the disease duration rather than insight and gender. Moreover, as the duration of disease was found similar in both groups, the severity of depressive symptoms was found at same levels. This finding was also supported as no significant difference was found between the two patient groups regarding demographic characteristics such as the presence of a sig-

nificant life event before the symptoms started, the onset of symptoms, and the presence of mental disease in the family.

Y-BOCS obsession, compulsion, and total scale scores were found similar for the two patient groups. Besides the studies suggesting that a decrease in insight is associated with more severe obsessive and compulsive symptoms in OCD,[20–22] there were also studies that found no relationship between insight and severity of symptoms.[23,24] There are differences in the literature regarding the relationship between the insight in OCD and the severity and types of obsessive-compulsive symptoms and accompanying depressive symptoms. The differences in the patient selection criteria, as well as the variability in the definition of the term insight and the method of measurement might have an effect.

Comparing the two patient groups in terms of the OBQ mean scores, no significant difference was found; and the Y-BOCS subscale and total scores were similar between the two groups.

The mean scores of the metacognitive questionnaire did not show significant differences between the two patient groups which does not coincide with the limited literature regarding the subject published up until now. In a study conducted in Turkey, the sub-scale scores of UD, CS, NCT, and CC of the MCQ-30 were found lower in OCD patients with poor insight.[28] There are statements in the literature stating that positive beliefs on worrying (the sub-scale of PB in MCQ-30) are related with the continuation of dysfunctional coping methods, and the need to control thoughts (the sub-scale of NCT in MCQ-30) is a good determinant of worrying on repetition.[45,46] In our study, it was found that the score of positive beliefs (PB) as one of the sub-scales of the MCQ-30 was higher in the group with poor insight, but although the difference was close to the statistical significance level it was not at significance level (p= 0.058). The sub-scale of PB represents the belief that worrying is beneficial. As insight decreases, the risk of realizing obsessions may be perceived as higher, therefore it is possible to be alert to the possibility of obsessions and make plans to respond quicker. This may help to increase the belief about the benefits of worry as insight decreases.

In another study conducted in Turkey, in addition to the Y-BOCS, the dimensional Y-BOCS, that measures OCD symptoms in six different dimensions, the Beck Cognitive Insight Scale (BCIS) to measure cognitive insight, the insight item of Y-BOCS (item 11) to evaluate the insights of patients for their own OCD symptoms, the Thought–Action Fusion Scale for the thought-action fusion in the S-REF model, and the MCQ-30 to evaluate metacognitions were used. In that study, it was found that cognitive insight is weak in the cases where both remission occurs and remission does not occur and the weakness of insight for their own symptoms are related with the increase in symptom severity. Additionally, there is a relationship between the sub-scales of MCQ-CC and MCQ-CS and the scale of "self-reflectiveness" of the BCIS, the obsession score of Y-BOCS and the sub-scale of "self-reflectiveness" of the BCIS, and the compulsion and insight score of the Y-BOCS and the sub-scale of "self-certainty" of the BCIS.[28]

This study has some limitations. First, the adequacy of the sample size might be questioned. The use of OVIS to assess the insight level might have caused a limitation. It may be suggested that insight evaluation may be done in more detail by using a scale that evaluates the cognitive dimension of insight separately like BCIS. Also, detailed information regarding the treatment of OCD was not included in the scope of the study. The variables such as the presence and duration of medical treatment and/or psychotherapy, and the response to therapies were not evaluated which may be considered as a limitation.

In conclusion, this study found that the severity of depressive symptoms in OCD patients was higher than the healthy control group. Possibly, with the effect of the common belief in our society that worry is useful and someone should not rely solely on attention and memory, no difference was found between the OCD patients and healthy volunteers in these two metacognitive areas. Among the patient groups with poor insight and good insight, no significant difference was found in terms of the severity of obsession and compulsion, the severity of depression, and metacognition. Between these two groups, also no significant difference was found according to demographic characteristics such as the duration of disease, the presence of a significant life event before the symptoms started, the onset of symptoms, and the presence of mental health disease in family. Only, the metacognition regarding worrying is useful was found higher as close to the significance level in the group with poor insight.

Taking into consideration the limitation of the literature regarding the relationship of metacognition in OCD with insight level, the variation in the measurement tools to assessing insight level, the variety of selection criteria for the patients included in studies, the variability of the ways to assess obsessions (severity, type, etc.), it is understood that new studies with extensive samples including more demographics and clinical data are required to examine the relationship of insight with metacognition and type and severity of obsessive beliefs in the OCD patients. Also, added as a determinant to OCD in DSM-IV, and extended in DSM-5, the content of the term of insight is still open to discussion. It is necessary to more broadly examine the role of insight in OCD, if possible by including structural and functional neuroimaging as well. In OCD, it might be suggested that it is necessary to question the prediction of insight level in treatment and clinical approaches.

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