

Personality organization in patients with obsessive-compulsive disorder and its relationship with functionality

Fikret Ferzan GIYNAŞ,¹ Medine YAZICI GÜLEÇ,¹ Özlem KAZAN KIZILKURT,¹
Yücel YILMAZ,¹ Serhat ÇITAK,² Hüseyin GÜLEÇ¹

ABSTRACT

Objectives: The aim of this study is to investigate the level of personality organization in obsessive-compulsive disorder (OCD), to determine the effect of personality organization dimensions on functioning, and to show the relation with insight important in DSM-5. **Methods:** One hundred patients with OCD diagnosed according to DSM-5 were included in the study. Yale Brown Obsessive-Compulsive Disorder Questionnaire (Y-BOCS), Personality Organization Diagnosis Form (PODF) and Global Assessment of Functioning (GAF) scales were administered to all participants. Correlation analysis was performed to test the relationship between total insight score and the PO dimensions with global functionality level in patients with OCD. Hierarchical linear regression models were conducted. After controlling other variables, the predictability of PODF components on global functionality was assessed. **Results:** In the neurotic personality spectrum of individuals with OCD 24%, 62% were in the spectrum of borderline personality organization, and 14% were in the spectrum of psychotic personality organization. Correlation analyses showed that the total GAF and Y-BOCS insight scores were positively correlated with the total score on the PODF mature defenses and the total PODF identity score, but negatively correlated with the total score from the PODF primitive defenses and the total PODF reality testing score. In the hierarchical regression model in which functionality was a dependent variable, the Y-BOCS insight score, the total score from PODF primitive defenses, and the total PODF reality testing score were inverse predictors of global functioning, and the total PODF score from mature defenses predicted global functioning in a linear direction. **Discussion:** It was concluded that dimensions of the PODF (with the exception of identity dimension) could be used to predict functionality, even if it was a confounding factor with insight. The variable of insight in OCD was a concept that differs from the reality-testing dimension. Assessing the level of personality organization in patients with OCD will help to create areas that can be remediated in the design of functionality and treatment plans. (*Anatolian Journal of Psychiatry* 2019; 20(1):38-46)

Keywords: functionality, insight, object relations, obsessive-compulsive disorder, personality organization

Obsesif kompulsif bozukluk hastalarında kişilik örgütlenmesi ve kişilik örgütlenmesinin işlevsellikle ilişkisi

ÖZ

Amaç: Bu çalışmanın amacı, obsesif kompulsif bozuklukta (OKB) kişilik örgütlenmesini araştırmak, kişilik örgütlenme düzeylerinin işlevsellik üzerindeki etkisini belirlemek ve DSM-5'te önemli olan iç görü ile ilişkisini göstermektir. **Yöntem:** Çalışmaya, DSM-5'e göre OKB tanısı konmuş toplam 100 hasta alındı. Tüm katılımcılara Yale Brown

¹ University of Health Sciences Erenköy Training and Research Hospital for Psychiatric and Neurological Diseases, Department of Psychiatry, İstanbul

² İstanbul Medeniyet University, Department of Psychiatry, İstanbul

Correspondence address / Yazışma adresi:

Dr. Fikret Ferzan GIYNAŞ, Erenköy Training and Research Hospital for Psychiatric and Neurological Diseases, Department of Psychiatry, 19 Mayıs Mah. Sinan Ercañ Cad. No.29 34736 Kazasker, Kadıköy/İstanbul, Turkey

E-mail: dr_ferzan13@yahoo.com.tr

Received: May, 28th 2018, Accepted: July, 18th 2018, doi: 10.5455/apd.300344

*Obsesif Kompulsif Bozukluk Ölçeđi (Y-BOCS), Kişilik Örgütlenmesi Tanı Formu (KÖTF) ve İşlevselliđin Genel Deđerlendirilmesi (İGD) ölçekleri uygulandı. Toplam iç görü puanı, kişilik örgütlenmesi boyutları ve işlevsellik düzeyi arasındaki ilişkiyi test etmek için korelasyon analizi yapıldı. Hiyerarşik lineer regresyon modelleri oluşturuldu. Diđer deđişkenleri kontrol ettikten sonra, KÖTF bileşenlerinin global işlevsellik üzerindeki öngörülebilirliđi deđerlendirildi. **Bulgular:** OKB hastalarının 24%'ünün nevrotik, 62%'sinin sınır, 14%'ünün psikotik kişilik örgütlenmelerinde yer aldığı saptandı. Korelasyon analizlerinde, toplam İGD ve Y-BOCS iç görü puanlarının, KÖTF olgun savunmalar puanı ve KÖTF kimlik puanı ile pozitif korelasyon gösterdiği, ancak KÖTF ilkel savunmaları puanı ve KÖTF gerçeđi deđerlendirme puanı ile negatif korelasyon gösterdiği bulundu. İGD düzeyinin bađımlı deđişken olarak alındığı hiyerarşik regresyon modelinde iç görü boyutunun pozitif yönde yordayıcı olduđu, bununla birlikte iç görüden bađımsız olarak, PODF ilkel savunmalar puanı ve KÖTF gerçeđi deđerlendirme puanının ters yönde, KÖTF olgun savunma puanı toplam puanın dođrusal yönde yordayıcı olduđu görülmüştür. **Tartışma:** İç görünün ve iç görüden bađımsız olarak kişilik örgütlenmesi boyutlarının (kimlik boyutu hariç) OKB'de işlevselliđi yordayabileceđi sonucuna varılmıştır. Ayrıca iç görü yapısının, gerçeđi deđerlendirme yapısından farklı bir kavram olabileceđi desteklenmektedir. OKB hastalarında kişilik örgütlenmesinin deđerlendirilmesi, işlevsellik ve kişiye özgü tedavi planlarının tasarımında iyileştirilebilecek alanlarının yaratılmasında önemli olabilir. (Anadolu Psikiyatri Derg 2019; 20(1):38-46)*

Anahtar sözcükler: İşlevsellik, iç görü, nesne ilişkileri, obsesif kompulsif bozukluk, kişilik örgütlenmesi

INTRODUCTION

Obsessive-compulsive disorder (OCD) is characterized by obsession and compulsions, and chronic and periodic exacerbations that lead to significant impairment in the social and professional functioning of the individual.¹ It is ranked tenth among physical and psychological disorders that negatively affect functionality and fifth in disorders among women between 15 and 44 years old.²⁻⁷ The variable nature of the OCD presentation causes uncertainty in clinical, course, and treatment response studies, making it difficult to compare with gene studies⁸ so there is still a need for conducting studies on OCD.

Personality structure and high comorbidity rates, and insight are among the factors leading to a poor response to treatment/poor prognosis and loss of functionality in patients with OCD.⁹⁻¹¹ Although different scales were used in previous studies, patients with OCD have been demonstrated to have a lower level of functionality and quality of life¹²⁻¹⁴ and a greater loss of power in familial, social, and professional areas¹⁵ compared to a control group.

OCD is accompanied by personality disorders at variable rates (9%-75%)¹⁶⁻¹⁸ Due to the high prevalence rate, it is important to define the effects of personality disorders. It is widely accepted that Cluster C personality disorders are more common but there is no OCD-specific personality disorder.¹⁹⁻²² When personality is examined dimensionally in patients with OCD, low self-directedness,^{23,24} low novelty seeking,^{24,25} and high harm-avoidance^{23,24,26,27} have been reported in studies based on Cloninger's psychobiological model. In studies carried out with the revised NEO Personality Inventory, patients with OCD have high neuroticism and low extroversion

and conscientiousness scores.²⁸ Categorical (DSM and ICD) and dimensional (Five Factor Model) approaches used for personality disorders have been integrated in the personality organization (PO) model of Kernberg. PO includes normal and pathological conditions that vary between psychotic personality organization (PPO), in which reality is impaired, borderline personality organization (BPO), in which reality is relatively conserved, and Neurotic Personality Organization (NPO) in which reality is conserved.²⁹ PO addresses normal and pathological as a spectrum and is based on object relations theory that gathers etiological, developmental, structural, and impulse-action elements in an axis. These dimensions are in a strong and complex relationship with each other.³⁰ The concept of PO plays a key role in psychodynamic recognition of the development of personality disorders and their treatment.³¹

In the context of criticism on the classification of personality disorders, a new hybrid model has been developed by the Personality and Personality Disorders Task Force in the new edition of fifth edition Diagnostic and Statistical Manual (DSM-5) to include both categorical and dimensional approaches given above for the assessment of personality disorders and their characteristics. Skodol et al. brought forward the personality functioning upon introduction of a novel hybrid personality model presented in the DSM-5 section III.³² (DSM-5 Alternative Model for Personality Disorders). As noted by Bender et al., PODF is one of the scales used in studies investigating the personality function level, a hybrid model for DSM-5 within dimensional scales.³³ As a result, the hybrid model was left to the researchers to use for studies on personality disorders.

The primary goal of this study was to evaluate PO in patients with OCD. Detecting the effect of organization on functionality and demonstrating its relationship with insight that is important in DSM 5 would help to show that this disorder has distinct clinical presentations. Our hypothesis is that PO can affect functioning in this disorder, which has different clinical manifestations, and it may even predict independently from insight.

METHODS

Sample and design

Our study was cross-sectional and conducted at the University of Health Sciences Erenköy Training and Research Hospital for Psychiatric and Neurological Diseases. The study was given ethical approval by the Erenköy Scientific Research Center and Education Planning Board (date: 12.01.2014, decision no: 19/9). All of the patients studied were confirmed by one of the researchers (FFG) according to DSM-5 and verbal and written consents were obtained to participate in the study.

The study was composed of all patients who were admitted to the Anxiety Outpatient Polyclinic consecutively and treated after hospitalization due to an OCD diagnosis. Their diagnoses were confirmed according to the DSM-5 and their verbal and written consent were obtained to participate in the study. All participants were given the Yale Brown Obsessive-Compulsive Disorder Scale (Y-BOCS), the Personality Organization Diagnosis Form (PODF), and the Global Assessment of Functioning (GAF). Exclusion criteria were <18 years and >65 years, having mental retardation or a cognitive defect at a level understandable during an interview, having a severe overall medical condition-associated disease at a level understandable during an interview, and having a diagnosis of schizophrenia or other psychotic disorders that are related with obsessional thoughts and that have a psychotic theme. One hundred and fourteen patients were contacted for the study. Some patients were not enrolled in the study, including nine patients who did not approve participation in the study, one patient who withdrew her consent, and four patients who described active hallucinations.

Measurements

Data Collection Form: It included age, sex, marital status, education level, income and habits of the participants, the medications they used, history of concomitant disease, duration of

OCD, time passed until treatment, presence of any psychiatric disease in the family, history of hospitalization.

Yale Brown Obsessive-Compulsive Disorder Scale (Y-BOCS): The Y-BOCS has been used in many studies since 1989.³⁴ The scale is assessed by the clinician using a score of 0-4. Then, the clinician calculates the general obsession score, general compulsion score, and a total score. Item 11 was considered an insight variable. The increase in the score of the item indicates that the level of insight is decreasing. This tool has been adapted to the Turkish language.³⁵

Erenköy Personality Organization Diagnosis Form: A scale that was developed to measure PO based on Kernberg's model³⁶ and marked by the observer. PODF is scored based on several clinical items, such as therapy sessions, objective and self-descriptions, psychiatric and psychological assessments, and relationships. It has perfect reliability, good structural validity, and good internal consistency.³⁷⁻³⁹ PODF is a scale that includes 21 items and assesses five different PO subdimensions, such as identity, primitive defense mechanisms, mature defense mechanisms, reality testing, and object relations. Turkish version of the scale, Cronbach alpha value was found to be 0.91 and it was determined that it showed sufficient internal consistency. The convergent validity and the reliability between the practitioners were found to be useful in the Turkish sample.⁴⁰

Global Assessment of Functioning: The GAF is a rating that reports the clinician's judgement of a person's ability to function in daily life. It reflects the clinician's subjective judgement about the severity of symptoms and psychological, social, and occupational functioning. The GAF Axis V rating in the DSM⁴¹ was used as a measure of clinical outcome success.

Statistical analysis

SPSS-15 software (SPSS Inc., Chicago, IL, USA) was used for all statistical analyses. Mean, standard deviation, median, and range values were used as descriptive statistics for the socio-demographic, clinical features, global functionality levels, and PO dimensions. Correlation analysis was performed to test the relationship between total insight score and the PO dimensions with global functionality level in patients with OCD. Hierarchical linear regression models were generated to evaluate predictiveness of global functionality level as a dependent variable and of clinical, and PO variables as independent

variables. P-values <0.05 were considered to indicate statistical significance in all analyses.

RESULTS

One hundred patients with OCD between 18 and 64 years old were included in the study, and 58% were women. The sociodemographic variables of the patients are given in Table 1, and the results of the clinical features are given in Table 2. Mean total scores from the PODF dimensions and the rating of the PODF object relations dimensions are given in Table 3.

The total GAF score was negatively correlated with the total Y-BOCS insight, total PODF primitive defense, and total PODF reality testing scores ($r=-0.81$, $p<0.001$; $r=-0.59$, $p<0.001$; $r=-0.72$, $p<0.001$, respectively) and positively correlated with the total PODF identity and total PODF mature defense scores ($r=0.61$, $p<0.001$; $r=0.62$,

$p<0.001$, respectively) (Table 4).

Table 1. Demographic features of patients (n=100)

	%
Gender	
Male	58
Female	42
Marital status	
Single	40
Married	48
Legally divorced	11
Separated	1
Socioeconomic status	
Middle/upper income	5
Middle/lower income	67
Low income	28
Work status	
Actively working	69
Unemployed	31

Table 2. Clinical features of patients with obsessive-compulsive disorder (n=100)

	Mean±SD	Median (range)
Age	35.3±10.6	35 (18-64)
Average years of education	11.2±3.7	11 (1-15)
Age of illness onset	21.9±9.3	19 (14-54)
Average years of illness	14.9±10.1	14 (4-48)
Time elapsed until beginning of treatment (month)	62.3±76.8	24 (0-396)
Global Assessment of Functioning score	61.0±16.4	65 (21-87)
YBOCS subscales		
YBOCS total (GTOS)	23.0±8.9	24.00 (1-38)
YBOCS obsessions total (GOS)	11.8±4.5	12.00 (1-20)
YBOCS compulsions total (GCS)	11.2±4.9	12.00 (0-20)
Insight	1.7±1.3	1.00 (0-4)
	%	
Presence of hospitalization	23	
Presence of diagnosed medical condition	32	
Presence of a smoking habit	29	
1-10 cigarettes/day	11	
11-20 cigarettes/day	9	
>20 cigarettes/day	9	
Presence of an alcohol habit	16	
weekly-monthly	3	
<monthly	13	
Presence of a substance abuse habit	1	
<monthly	1	
Presence of a psychiatric family history	9	
mother	6	
father	14	
siblings	10	
other relatives	18	
Presence of insight	23	

42 Personality organization in patients with obsessive-compulsive disorder and its ...

Table 3. Levels of personality organizations in patients with OCD (n=100)

Personality Organization Diagnostic Form (PODF) dimensions	Mean±SD	Median (range)
PODF Identity dimension total	1.26±11.6	2.00 (-16.0/-75.0)
Feeling of emptiness vs. feeling of secure self-identity	-0.52±1.50	-1.00 (-3.0/-6.0)
Split vs. integrated self-perceptions	0.18±1.70	1.00 (-3.0/-3.0)
Discontinuous vs. continuous experience of self in time	0.35±1.73	1.00 (-3.0/-3.0)
Nonintegration vs. integration of behavior and emotion	0.22±1.77	1.00 (-3.0/-3.0)
Split vs. integrated object perceptions	0.35±1.69	1.00 (-3.0/-3.0)
Shallow, flat vs. empathic perception of others (empathy)	0.07±1.68	1.00 (-3.0/-3.0)
PODF Primitive defenses dimension	6.27±2.34	6.50 (1-11)
Primitive defenses-Denial	1.89±0.66	2.00 (1-3)
Primitive defenses-Splitting	1.75±0.62	2.00 (0-3)
Primitive defenses-Omnipotence	0.96±0.70	1.00 (0-3)
Primitive defenses-Omnipotent control	0.79±0.67	1.00 (0-2)
Primitive defenses-Primitive devaluation	0.89±0.70	1.00 (0-3)
PODF Mature defenses dimension	6.43±1.88	7.00 (0-10)
Mature defenses-Mature idealization	0.89±0.73	1.00 (0-2)
Mature defenses-Mature devaluation	0.75±0.57	1.00 (0-2)
Mature defenses-Isolation	1.63±0.59	2.00 (0-3)
Mature defenses-Rationalization	1.59±0.71	2.00 (0-3)
Mature defenses-Denegation or suppression	1.54±0.57	2.00 (0-2)
PODF Reality testing dimension	0.93±1.53	0.00 (0-6)
Lack of differentiation between self and others	0.90±0.35	0.00 (0-2)
Failure to identify the origins of perceptions	0.20±0.14	0.00 (0-1)
Lack of the capacity to evaluate one's experience in terms of social norms	0.46±0.75	0.00 (0-2)
Grossly inappropriate affects, thoughts, or behaviors	0.35±0.62	0.00 (0-2)
PODF object relation dimension	n	
- Psychotic	14	
- Symbiotic	14	
- Borderline	62	
- Paranoid	2	
- Schizoid	1	
- Schizotypal	9	
- Malignant narcissistic	2	
- Antisocial	2	
- Dependent	13	
- Histrionic	4	
- Sadomasochistic	8	
- Narcissistic	6	
- Borderline	15	
- Neurotic	24	
- Hysterical	8	
- Depressive-masochistic	3	
- Obsessive-compulsive	13	

In the hierarchical model using GAF as the dependent variable and the total Y-BOCS insight and PO dimension scores as independent variables, the model predicted Y-BOCS insight score ($\beta=-0.809$, $p<0.001$), total PODF primitive defense score ($\beta=-0.14$, $p=0.04$), and total PODF reality testing score ($\beta=-0.19$, $p=0.03$) in an inverse direction and total PODF mature

defenses score ($\beta=0.14$, $p=0.48$) in a positive linear direction. The total PODF identity score ($\beta=0.07$, $p=0.36$) did not show a predictive effect in this model (Table 5). Predictive values of the Y-BOCS insight and total identity scores for GAF were investigated by establishing a model addressing GAF scores as the dependent variable and the Y-BOCS insight and total identity score

Table 4. Correlations between domains of the Personality Organization Diagnostic Form (PODF) and Global Assessment of Functioning (GAF) and insight in patients with OCD (n=100) (r)

	GAF	Insight	PODF identity total	PODF primitive defense-total	PODF mature defense-total	PODF reality testing-total
GAF	1.000	-0.809*	0.608*	-0.590*	0.623*	-0.724*
Insight	-0.809*	1.000	-0.568*	0.537*	-0.549*	0.696*
PODF identity total	0.608*	-0.568*	1.000	-0.582*	0.492*	-0.600*
PODF primitive defense total	-0.590*	0.537*	-0.582*	1.000*	-0.435*	0.464*
PODF mature defense total	0.623*	-0.549*	0.492*	-0.435*	1.000	-0.639*
PODF reality testing total	-0.724*	0.696*	-0.600*	0.464*	-0.639*	1.000

Pearson's correlation analyses, *: $p < 0.001$

Table 5. Results of hierarchical linear regression the Personality Organization Diagnostic Form (PODF) and the Global Assessment of Functioning (GAF) after controlling for other variables

Variable	B	β	ΔR^2	ΔF	p
Model 1			0.655	185.77	
Insight	-10.292	-0.809			<0.001
Model 2			0.087	7.96	
Insight	-6.180	-0.486			<0.001
PODF identity total	0.095	0.067			0.361
PODF primitive defense total	-0.979	-0.140			0.043*
PODF mature defense total	1.222	0.141			0.048*
PODF reality testing total	-2.028	-0.190			0.026*

*: $p < 0.05$; Dependent variable: Global Assessment of Functioning Insight/(PODF) identity total scores in regression model: $B=0.310$; $\beta=0.219$; $\Delta R^2=0.033$; $\Delta F=10.119$; $p < 0.001$

as independent variables. As results, the Y-BOCS insight score ($\beta=-0.81$, $p < 0.001$) had an inverse effect and the total PODF identity score ($\beta=0.22$, $p < 0.001$) had a positive linear predictive effect on the GAF score (Table 5).

DISCUSSION

This study attempted to look at the insight that is thought to be confounding in the clinical appearance of this disorder and the level of PO to be investigated in DSM-5, and to look at the relationship between these two conceptual structures, thinking that functional studies to be performed with OCD patients are still needed. It was concluded that the PODF dimensions predicted functionality, although they were confounding factors with insight. Our study supports the idea that the insight variable of OCD constituted a different concept to that of reality testing. To our knowledge, this is the first study to investigate PO in patients with OCD based on Kernberg's model.

The majority of patients with OCD were clustered in BPO (62%) according to the total scores. However, the percentage of patients who had low-level borderline object relations with a fear of object in PODF (schizotypal, schizoid, and paranoid subtypes, which are among Cluster A personality disorders according to the DSM) was 12%. The percentage of patients who had symbiotic object relations with a fear of annihilation in PPO was substantial (14%).

There was a positive correlation between GAF total score and PODF identity score, PODF mature defenses score and a negative correlation with PODF primitive defenses score. Psychodynamics-oriented authors agree that the feeling of identity is an important manifestation of the level of personality integration. Psychoanalytical theorists, such as Kernberg,^{42,43} advocated that identity confusion emerged due to the division of self-representations at the end of using the 'splitting' mechanism as the main defense procedure.⁴⁴ A negative correlation was d

observed between the total functionality score and the total PODF reality evaluation score. According to the DSM-IV, at least one of the symptoms of hallucinations, delusions, disorganized speaking, or disorganized behavior is required to define psychosis.⁴¹ Studies investigating the validity of the dimensional approach show that psychotic symptoms are also present in individuals without psychotic disorders, within a continuity, and at varying dimensions. In our study, patients with a psychotic disorder and patients whose obsession was related to hallucinations and/or delusions were excluded; and in the reality-testing dimension of PODF, the items of 'evaluation of social norms (lack the capacity to evaluate experience in terms of social norms)' and 'inappropriateness (grossly inappropriate effects, thoughts, and behaviors)' were scored. Some assumptions have been made in the literature that subclinical psychotic symptoms such as 'common social norms' and 'nonconformity' are part of schizotypal thought processes rather than a formal thought disorder.⁴⁵ This significant relationship reveals that the patients with OCD included in our study would show deficiencies in reality testing although they were not completely 'psychotic'.

In our hierarchical regression analysis, the insight score predicted functionality in Model 1. Insight in OCD found in the studies related to the loss of functionality may contribute to both clinical picture and treatment outcome.⁴⁶ In Model 2, all of the PODF dimensions (with the exception of identity dimension) predicted functionality regardless of the insight score. This supports the approach claiming that insight structure seen in the OCD clinic differed from reality testing.⁴⁷ In reality testing, especially in dangerous, highly stressful, and unexpected situations, some disruptions leading to confusion in representations of self and object may be observed.⁴⁸ Although some researchers have emphasized that psychotic symptoms are rare in the borderline personality structure, psychotic symptoms are essential symptoms of borderline organization according to Kernberg.⁴⁹ In our study, the majority of patients with OCD were included in BPO. The high scores taken from the reality-testing subdimension may have a confounding role due to psychosis-like symptoms that may develop at some periods of BPO. The findings that were obtained for the reality-testing subdimension in our study were interpreted in light of literature data. The general PO of patients with OCD that were indicated by their

identity, defense mechanisms, reality testing, and object relations level, their psychological nature and their tendency to be fragile, may predispose them to 'psychosis'.

The DSM-5 recommends using a dimensional approach under the heading of personality disorders part 3. This study is important because it investigated the PO level based on Kernberg's model that provides a dimensional assessment in patients with OCD. Moreover, it addressed the effects of OCD on functionality through insight and PO dimensions. When OCD is evaluated, considering studies on functionality, functionality constitutes the focus of treatment. Finding the areas showing lack of functionality and developing treatments for these areas were evaluated in a more comprehensive and efficient approach.⁵⁰

Our results confirmed that evaluating PO with its dimensions is related to global functionality. Accordingly, evaluating the causes of OCD, which is a chronic disorder, in the axis of PO, as with other psychological disorders, and developing different treatment strategies for OCD, which is difficult to treat, are very important. However, there is still a need for larger scale and longitudinal studies.

Limitations

The hospital included in the study was a tertiary hospital and served patients who were relatively more resistant to treatment; thus, the results may not be generalizable. Due to the cross-sectional design of the study, cause and effect relationships could not be established. Although there were active OCD findings in the patient groups included in the study, individuals who were thought to have comorbid mood disorders during the structured interviews were not excluded. However, since Kernberg defined PO as a dynamic structure that was generated by the effect of decisive, unconscious, and early experiences, we do not think that comorbidities would change PO. In addition, an examination of comorbidities would add value to the study. Another limitation of the study lies in a possible interaction of global functioning and the drugs used by the patients at the time of the study. In the present study, the patients were taking antidepressants, and/or antipsychotic drugs and the vast majority receiving combination therapy. It is ethically unacceptable to cease medication of patients for the purposes of the research.

Authors' contributions: F.F.G.: data collection, literature review, analysis, writing and revision manuscript; M.Y.G.: the design of the study, planning, revision on manuscript, critically review of the manuscript; Ö.K.: literature review, analysis, writing manuscript; Y.Y.: the design of the study, planning, literature review; S.Ç.: study conception and design, technical assistance; H.G.: analysis, revision on manuscript, critically review of the manuscript.

REFERENCES

- Öztürk MO, Uluşahin A. *Ruh Sağlığı ve Bozuklukları*. Ankara: Nobel Tıp Kitabevi, 2015.
- Organization WWH. *The 'Newly Defined' Burden of Mental Problems*. Presented at the 1999.
- Hollander E, Greenwald S, Neville D, Johnson J, Hornig CD, Weissman MM. *Uncomplicated and comorbid obsessive-compulsive disorder in epidemiological sample*. *Depress Anxiety* 1996; 4(June 1995):111-119.
- Bobes J, González M, Bascarán M, Arango C, Sáiz P, Bousoño M. *Quality of life and disability in patients with obsessive-compulsive disorder*. *Eur Psychiatry* 2001; 16(4):239-245.
- Pallanti S, Hollander E, Bienstock C. *Treatment non-response in OCD : methodological issues and operational definitions. Introduction : non-response is a clinical challenge and theoretical puzzle*. *Int J Neuropsychopharmacol* 2002; 5:181-191.
- Catapano F, Perris F, Fabrazzo M. *Obsessive-compulsive disorder with poor insight: a three-year prospective study*. *Prog Neuro-Psychopharmacology Biol Psychiatry* 2010; 34(2):323-330.
- Koran LM, Thienemann ML, Davenport R. *Quality of life for patients with obsessive-compulsive disorder*. *Am J Psychiatry* 1996; 153(6):783.
- Miguel EC, Leckman JF, Rauch S. *Obsessive-compulsive disorder phenotypes: Implications for genetic studies*. *Mol Psychiatry* 2005; 10(3):258-275.
- Tot Ş, Yazıcı K, Yazıcı A, Erdem P, Bal N, Buturak V. *Obsesif kompulsif bozuklukta tedaviye cevapla ilişkili etkenler. TT - Factors associated with treatment response in obsessive compulsive disorder*. *Anadolu Psikiyatri Derg* 2003; 4(4):197-200.
- Moritz S, Fricke S, Jacobsen D. *Positive schizotypal symptoms predict treatment outcome in obsessive-compulsive disorder*. *Behav Res Ther* 2004; 42(2):217-227.
- Keeley ML, Storch EA, Merlo LJ, Geffken GR. *Clinical predictors of response to cognitive-behavioral therapy for obsessive-compulsive disorder*. *Clin Psychol Rev* 2008; 28(1):118-130.
- Masellis M, Rector NA, Richter MA. *Quality of life in OCD: Differential impact of obsessions, compulsions, and depression comorbidity*. *Can J Psychiatry* 2003; 48(2):72-77.
- Beşiroğlu L, Uğuz F, Yılmaz E, Ağargün MY, Aşkin R, Aydın A. *Obsesif kompulsif bozuklukta psiko-farmakolojik tedavinin yaşam kalitesine etkisi*. *Turk Psikiyatri Derg* 2008; 19(1):38-45.
- Steketee G. *Disability and family burden in obsessive compulsive disorder*. *Can J Psychiatry* 1997; 42:919-928.
- Pinto A, Mancebo MC, Eisen JL, Pagano ME, Rasmussen SA. *The Brown Longitudinal Obsessive Compulsive Study: Clinical features and symptoms of the sample at intake*. *J Clin Psychiatry* 2006; 67(5):703-711.
- Bejerot S, Ekselius L, Knorrning L. *Comorbidity between obsessive-compulsive disorder (OCD) and personality disorders*. *Acta Psychiatr Scand* 1998; 97(6):398-402.
- Melca IA, Yücel M, Mendlowicz MV, de Oliveira-Souza R, Fontenelle LF. *The correlates of obsessive-compulsive, schizotypal, and borderline personality disorders in obsessive-compulsive disorder*. *J Anxiety Disord* 2015; 33:15-24.
- Pigott TA, L'Heureux F, Dubbert B, Bernstein S, Murphy DL. *Obsessive compulsive disorder: comorbid conditions*. *J Clin Psychiatry* 1994;55:15-27.
- Kara H, Yazıcı MK, Sayar MK, Ağargün MY, Verimli A. *Obsesif kompulsif bozuklukta kişilik özellikleri ve kişilik bozuklukları*. *Yeni Symposium* 1996; 34(3-4):55-59.
- Matsunaga H, Kiriike N, Miyata A, et al. *Personality disorders in patients with obsessive-compulsive disorder in Japan*. *Acta Psychiatr Scand* 1998; 98(2):128-134.
- Samuels J, Nestadt G, Bienvenu OJ. *Personality disorders and normal personality dimensions in obsessive-compulsive disorder*. *Br J Psychiatry* 2000; 177(5):457-462.
- Bejerot S, Schlette P, Ekselius L, Adolfsson R, Von Knorrning L. *Personality disorders and relationship to personality dimensions measured by the Temperament and Character Inventory in patients with obsessive-compulsive disorder*. *Acta Psychiatr Scand* 1998; 98(3):243-249.
- Lyo IK, Lee DW, Kim YS, Kong SW, Kwon JS. *Patterns of temperament and character in subjects with obsessive-compulsive disorder*. *J Clin Psychiatry* 2001; 62(8):637-641.
- Alonso P, Menchón JM, Jiménez S. *Personality dimensions in obsessive-compulsive disorder: Relation to clinical variables*. *Psychiatry Res* 2008; 157(1-3):159-168.

25. Pfohl B, Black D, Noyes R, Kelley M, Blum N. A test of the tridimensional personality theory: Association with diagnosis and platelet imipramine binding in obsessive-compulsive disorder. *Biol Psychiatry* 1990; 28(1):41-46.
26. Kim SJ, Kang JI, Kim CH. Temperament and character in subjects with obsessive-compulsive disorder. *Compr Psychiatry* 2009; 50(6):567-572.
27. Rector NA, Hood K, Richter MA, Michael Bagby R. Obsessive-compulsive disorder and the five-factor model of personality: distinction and overlap with major depressive disorder. *Behav Res Ther* 2002; 40(10):1205-1219.
28. Diguier L, Gamache D, Laverdière O. Development and initial validity of the Object Relations Rating Scale. *Psychother Res* 2012; 22(4):402-416.
29. Kernberg OF. A psychoanalytic theory of personality disorders. MF Lenzenweger, JF Clarkin, (Eds.), *Major Theories of Personality Disorders*, Newyork: The Guilford Press, 1996, p.106-140.
30. Caligor E, Clarkin JF. *An Object Relations Model of Personality and Personality Pathology*. 2010.
31. Skodol AE, Bender DS, Oldham JM. An alternative model for personality disorders: DSM-5 section III and beyond. *American Psychiatric Press Textbook of Personality Disorders*, second ed., Washington, 2014, p.511-544.
32. Bender DS, Morey LC, Skodol AE. Toward a model for assessing level of personality functioning in DSM-5, part I: A review of theory and methods. *J Pers Assess* 2011; 93(4):332-346.
33. Goodman WK, Price LH, Rasmussen SA. Yale-brown obsessive compulsive scale (Y-BOCS). *Arch Gen Psychiatry* 1989; 46:1006-1011.
34. Kaan KO, Murat ÜA, Mehmet U. Yale-Brown Obsesyon-Kompülsiyon Derecelendirme Ölçeğinin geçerlik ve güvenilirlik çalışması. 29. Ulusal Psikiyatri Kongresi Program ve Bildiri Özetleri Kitabı, Bursa, 1993, s.86.
35. Diguier L, Lefebvre R, Drapeau M. The core conflictual relationship theme of psychotic, borderline, and neurotic personality organizations. *Psychother Res* 2001; 11(2):169-186.
36. Hébert É, Diguier L. Construct validity and interrater reliability of the Personality Organization Diagnostic Form (PODF). *Annual Meeting of the Society for Psychotherapy Research*, 1999.
37. Hébert É, Diguier L, Descôteaux J. The Personality Organization Diagnostic Form (PODF): A preliminary report on its validity and interrater reliability. *Psychother Res* 2003; 13(2):243-254.
38. Gamache D, Laverdiere O, Diguier L, Hebert E, Laroche S, Descoteaux J. *The Personality Organization Diagnostic Form-II. Interrater Reliability and Internal Validity Study*. Rome, 2004.
39. Yılmaz Y, Saygılı İ, Bilge D. Erenköy kişilik örgütlenmesi tanı formu faktör yapısı güvenilirliği ve geçerliği. 48. Ulusal Psikiyatri Kongresi, 2012.
40. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*. 2000.
41. Kernberg OF. *Borderline Conditions and Pathological Narcissism*. New York: Jason Aronson, 1975.
42. Kernberg OF. *Object Relations Theory and Clinical Psychoanalysis*. New Jersey: Jason Aronson, 1976.
43. Demir HK, Dereboy F, Dereboy Ç. Gençlerde kimlik bocalaması ve psikopatoloji. *Türk Psikiyatr Derg* 2009; 20(3).
44. Dowson JH, Sussams P, Grounds AT, Taylor J. Associations of self-reported past "psychotic" phenomena with features of personality disorders. *Compr Psychiatry* 2000; 41(1):42-48.
45. Kamaradova D, Prasko J, Latalova K, et al. Correlates of insight among patients with obsessive compulsive disorder. *Act Nerv Super REDIVIVA* 2015; 57(4):98-104.
46. Oulis P. Differential diagnosis of obsessive-compulsive symptoms from delusions in schizophrenia: A phenomenological approach. *World J Psychiatry* 2013; 3(3):50.
47. Diguier L, Hébert É, Gamache D, Laverdière O, Daoust JP, Pelletier S. *Personality Organization Diagnostic Form, II: Manual for Scoring* (unpublished manuscript). Québec Univ Laval, 2006.
48. Spitzer RL, Endicott J. Justification for separating schizotypal and borderline personality disorders. *Schizophr Bull* 1979; 5(1):95.
49. Schwartzman CM, Boisseau CL, Sibrava NJ, Mancebo MC, Eisen JL, Rasmussen SA. Symptom subtype and quality of life in obsessive-compulsive disorder. *Psychiatry Res* 2017; 249:307-310.