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Investigation of the Relationship Between Suicide Probability and Distress Tolerance in Obsessive Compulsive Disorder

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Abstract

The risk of suicide is higher in obsessive-compulsive disorder (OCD) than in the general population. There are several risk factors associated with suicidality in OCD. Distress tolerance is the capacity to experience and withstand negative psychological states. The aim of this study was to investigate the relationship between distress tolerance and suicidality in OCD. This study was conducted on 83 patients diagnosed with OCD. OCD-related data were obtained with the Yale Brown Obsession Compulsion Scale (YBOCS) and the Dimensional Obsession Compulsion Scale (DOCS). Suicide Probability Scale (SPS) was used to assess suicide risk. Distress Tolerance Scale (DTS) was used to measure the level of distress tolerance. Severity of anxiety and depression symptoms was assessed with the Beck Anxiety Inventory (BAI) and Beck Depression Inventory (BDI). The proportion of patients with a history of attempted suicide at any point in their lives was 13.3%. As a result of the regression analysis, DTS score, YBOCS score, BDI score, history of suicide attempt, and having a diagnosis of any personality disorder were associated with SPS score. Decreased distress tolerance (DT) capacity was associated with increased suicide probability. Distress tolerance capacity is a predictive factor for suicide probability in OCD. Suicidality in OCD is an important clinical entity that requires attention. Close monitoring of patients with risk factors that increase the likelihood of suicide may provide an opportunity for early intervention. Psychological interventions aimed at increasing DT capacity may be useful in reducing the suicide probability.

Keywords: obsessive compulsive disorder, suicide, distress tolerance

Öz

Obsesif Kompülsif Bozuklukta İntihar Olasılığı ile Sıkıntıya Dayanma Arasındaki İlişkinin İncelenmesi

Obsesif kompülsif bozukluk (OKB)'de suisid riski genel popülasyona göre daha fazladır. OKB'de suisidalite ile ilişkili çeşitli risk faktörleri mevcuttur. Sıkıntıya dayanma olumsuz psikolojik durumları yaşantılama ve bunlara dayanma kapasitesidir. Bu çalışmanın amacı sıkıntıya dayanma kapasitesi ve suisid arasındaki ilişkiyi araştırmaktır. Bu çalışma 83 OKB hastası ile gerçekleştirildi. Obsesif kompülsif bozukluk ile ilgili veriler Yale Brown obsesyon kompülsiyon ölçeği (YBOKÖ) ve Boyutsal obsesyon kompülsiyon ölçeği (BOKÖ) ile elde edildi. İntihar olasılığının değerlendirilmesi için İntihar Olasılığı Ölçeği (İOÖ) kullanıldı. Sıkıntıya dayanma düzeyi ölçümü içim Sıkıntıya dayanma ölçeği (SDÖ) kullanıldı. İçgörü düzeyi Brown inançların değerlendirilmesi ölçeği (BİDÖ) ile değerlendirildi. Anksiyete ve depresyon belirti şiddeti Beck anksiyete envanteri (BAE) ve Beck depresyon envanteri (BDE) ile değerlendirildi. İntihar girişimde bulunma öyküsü olan hasta oranı %13,3 idi. Regresyon analizi sonucunda DTS, YBOKS puanı, BDI puanı, suisid girişimi öyküsü, kişilik bozukluğu tanısına sahip olmak İOÖ ile ilişkili faktörler olarak bulundu. Sıkıntıya dayanma kapasitesinin azalması intihar olasılığı artışı için yordayıcı bir faktördür. Obsesif kompülsif bozukluk hastalarında suisidalite dikkate edilmesi gereken önemli bir klinik durumdur. Suisid olasılığını artıran risk faktörlerine sahip hastaların yakından izlenmesi erken müdahale için imkân sağlayabilir. Sıkıntıya dayanma kapasitesini artırmayı amaçlayan psikolojik müdahaleler intihar olasılığının azalması için faydalı olabilir.

Anahtar Kelimeler: obsesif kompülsif bozukluk, intihar, sıkıntıya dayanma

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INTRODUCTION

Obsessive-compulsive disorder (OCD) is a common mental illness with a 2–3% lifetime prevalence (Ruscio, Stein, Chiu, & Kessler, 2010). OCD causes significant impairment in social functioning and quality of life (Eisen, Mancebo, Pinto, Coles, Pagano, Stout, & Rasmussen, 2006). Suicide is one of the most serious and tragic consequences of OCD, which is a disorder with low treatment response and high psychiatric comorbidity.

Suicide can be classified on a behavioral scale as suicidal ideation, suicide attempt and completed suicide. Approximately 90% of deaths resulting from suicide are related to any mental illness (Arsenault-Lapierre, Kim, & Turecki, 2004; Nock, Hwang, Sampson, & Kessler, 2010). Recent studies have obtained data showing the opposite of the classical view that suicidal behavior is not common in OCD. A metanalytic study reported that suicidal behavior in OCD was significantly higher than in the general population. In this study, it was stated that the rate of patients who had suicidal ideation at any point in their life was approximately 27.9%, and the rate of patients who attempted suicide was approximately 10.3% (Angelakis, Gooding, Tarrier, & Panagioti, 2015). The International College of Obsessive-Compulsive Spectrum Disorders analyzed the follow-up data of 425 OCD patients in different countries and reported that the rate of patients who attempted suicide was 14.6% (Dell'Osso, Benatti, Arici, Palazzo, Carlo Altamura, Hollander, et al., 2018).

There are various findings on factors associated with suicidal behavior in OCD. It has been reported that severity of OCD, having obsessions in the dimension of unacceptable thoughts, comorbidity of psychiatric illness, severity of comorbid depression and history of previous suicide attempt may be related to the risk of suicidal behavior (Albert, De Ronchi, Maina, & Pompili, 2019). A limited number of studies examining the cognitive and emotional characteristics associated with suicidal behavior in OCD have found that hopelessness and alexithymia were potential risk factors for increased suicidal behavior (Albert et al., 2019; De Berardis, Serroni, Campanella, Rapini, Olivieri, Feliziani, et al., 2015).

Distress Tolerance (DT) is the capacity to experience and tolerate negative psychological states. Individuals with a low DT quickly make excessive efforts to escape from aversive emotional states. Distress tolerance is also an emotion regulation component in this respect. Individuals with low distress tolerance tend to act impulsively to get rid of their distress as soon as possible (Simons & Gaher, 2005). Distress tolerance is a feature that may lead to suicidal tendencies and is associated with suicidal behavior (Capron, Norr, Macatee, & Schmidt, 2013). It has been stated that low distress tolerance is linked to disorders with high suicidal behavior such as borderline personality disorder and substance use disorders (Howell, Leyro, Hogan, Buckner, & Zvolensky, 2010; Linehan, 1993). In addition, individuals with non-suicidal self-injury also show low distress tolerance skills (Nock & Mendes, 2008).

Existing data on suicidality in OCD, as mentioned above, are mostly related to the patients' past suicide attempt, OCD severity or comorbid mental illnesses. Investigation of cognitive and emotional features that may be related to suicide may provide new data in terms of revealing potential intervention targets in order to prevent suicidal behavior in OCD.

To the best of our knowledge, there is no data on the relationship between suicidality and DT in OCD. The aim of this study was to investigate the relationship between suicide probability and DT in patients with OCD. The hypothesis of this study was that there would be a relationship between suicide probability and DT in OCD and that suicide probability would increase as SD capacity decreased.

MATERIAL AND METHODS

Participants and Procedure

This study was carried out in Dışkapı Yıldırım Beyazıt Training and Research Hospital, Psychiatry outpatient clinic Psychiatry outpatient clinic between June and October 2022. All patients who applied with OCD complaints were informed about the study. Ninety-two patients who volunteered for the study and met the inclusion criteria were included in the study. Inclusion criteria were to have a diagnosis of OCD according to DSM-V, to be between the ages of 18–65, and to be literate. Exclusion criteria were schizophrenia and other psychotic disorders, bipolar disorder, alcohol and substance use disorder, mental retardation, organic mental disorder, neurological disorder that may affect scale scores (stroke, head trauma, epileptic seizure recurring frequently in the last 3 months). Of the 92 patients, 9 met the exclusion criteria, so the study was conducted with 83 individuals. All patients were given detailed information about the study, and informed consent was obtained. Ethical approval was obtained from the Ethics

Committee of the Dışkapı Yıldırım Beyazıt Training and Research Hospital (date: June 06, 2022, number 139/16)

The Structured Clinical Interview for DSM-5, Clinician Version (SCID-5-CV) (Elbir, Alp Topbaş, Bayad, Kocabaş, Topak, Çetin, et al., 2019; First, Williams, Karg, & Spitzer, 2016b) and The Structured Clinical Interview for DSM-5 Personality Disorders (SCID-5-PD) (Bayad, Topbaş, Kocabaş, Elbir, Ulusoy, Korkmaz, et al., 2021; First, Williams, & Benjamin, 2016a) were applied to patients by a psychiatrist experienced in OCD to confirm the diagnosis of OCD and to identify comorbid psychiatric disorders.

Sociodemographic data form, Yale Brown Obsessive Compulsion Scale (YBOCS), Brown Assessment of Beliefs Scale (BABS), Dimensional Obsessive Compulsion Scale (DOCS), The Suicide Probability Scale (SPS), and Distress Tolerance Scale (DTS) were applied for data on OCD, suicide probability, distress tolerance and sociodemographic. Anxiety and depression symptom severity was evaluated with the Beck Anxiety Inventory and Depression Inventory.

Measures

Yale-Brown Obsessive Compulsion Scale (YBOCS)

It is a semi-structured scale that evaluates the severity of obsessive-compulsive symptoms. It consists of 10 items. 5 items measure obsession severity and 5 items measure compulsion severity. Each item is scored between 0 and 4. The sum of 10 items indicates the total severity. Total score ranges between 0 (none) and 40 (severe) (Goodman, Price, Rasmussen, Mazure, Fleischmann, Hill, et al., 1989). Turkish validity and reliability study was performed by Karamustafalıoglu, Üçışık, et al. (1993).

The Dimensional Obsession Compulsion Scale (DOCS)

It is a self-report tool consisting of 20 items and evaluates obsessive compulsive disorder in 4 different dimensions: 1) contamination, 2) responsibility for harm or mistakes, 3) incompleteness, and 4) unacceptable thoughts. There are 5 items scored between 0–4 in each dimension. A score between 0–20 can be obtained from each dimension. A high score on any dimension indicates that the symptoms related to that dimension are more sever (Abramowitz, Deacon, Olatunji, Wheaton, Berman, Losardo, et al., 2010). The adaptation study to the Turkish population was carried out by Şafak, Say Öcal, Özdel, Kuru, & Örsel, (2018).

The Brown Assessment of Beliefs Scale (BABS):

It is a clinician-administered scale designed to determine insight according to the strength of belief in psychiatric disorders. It evaluates belief about delusions and obsessions within a continuous spectrum. It consists of 7 items. Each item is scored between 0–4. The total score (0–24) is obtained by adding the first 6 items. A higher score indicates weakened insight, and if the total score is 12 or higher and 3 or more points are obtained from the first item, the patient is considered to have poor insight (Eisen, Eisen, Phillips, Baer, Beer, Atala, & Rasmussen, 1998). The Turkish version of BABS demonstrates excellent psychometric properties (Özcan, Kuru, Şafak, Karadere, Yavuz, & Turkçapar, 2013).

Suicide Probability Scale (SPS)

It was developed by Cull and Gill to assess the risk of suicide in adolescents and adults (Cull & Gill, 1988). It is a self-report scale consisting of 36 items. It has a 4-point Likert structure, scored between 1–4. A total scale score is obtained with the sum of 36 items (36–144 points). High scores on the scale indicate a high probability of suicide. The Turkish validity and reliability study was performed by Atlı, Eskin and Dereboy, (2009).

Distress Tolerance Scale (DTS)

It is a 15-item self-report scale that measures the capacity to withstand negative psychological states (Simons & Gaher, 2005). Items are scored between 1 and 5 (1=strongly agree to 5=strongly disagree), and the total score is between 1–75. Lower scores indicate lower distress tolerance, or greater difficulties tolerating negative emotions. Turkish validity and reliability study was carried out by Sargin, Özdel, Utku, Kuru, Yalçinkaya Alkar, & Türkçapar (2012).

Beck Depression Inventory (BDI)

It is a 21-item self-report scale used to measure the severity of depressive symptoms. Each item is scored from 0 to 3. The total score is between 0–63. Higher total score indicates more severe depression symptoms (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Hisli, 1988).

Beck Anxiety Inventory (BAI): It is a self-report scale consisting of 21 items that measures the severity of anxiety symptoms. Each item is scored between 0 and 3 and the total score is between 0–63. A higher total score indicates more severe anxiety symptoms (Beck, Epstein, Brown, & Steer, 1988; Ulusoy, Sahin, & Erkmen, 1998).

Statistical Analysis

Research data were evaluated using IBM Statistical Package for Social Sciences (SPSS) program version 22.0 (IBM Inc. Chicago, IL). Descriptive statistics were presented as mean (±) standard deviation, frequency distribution, and percentage. Whether the data was normally distributed was tested using the Z test. Absolute Z value <3.29 was considered normal distribution (Kim, 2013). Pearson's correlation analysis was used to investigate the relationship between variables. The predictive powers of the variables that were significant in bivariate analyzes were determined by regression analysis. Before the regression analysis, the assumptions of normal distribution of variables, linear relationship between dependent and independent variables, and absence of multicollinearity between independent variables were checked. In order to control the effect of OCD severity and depression symptoms on suicide, these two variables were included in the model as covariate and multivariate hierarchical regression analysis was performed. The statistical significance level was set at p <0.05.

RESULTS

This study included 83 patients diagnosed with OCD. The mean age of the patients was 36.8±12.1. Of the patients, 45 (54.2%) were female and 38 (45,8) were male. Forty-two patients were married and mean education duration of the patients was 11.3±3.9. Of all OCD patients, 11 (13.3%) had at least one lifetime suicide attempt (Table 1). Various demographic and clinical data of the patients are shown in Table 1.

Table 1: Various sociodemographic and clinical data of the patients

N=83	*Mean ± SD / n (%)*
Age (years)	36.8±12.1
Gender (women)	45 (54.2)
Marital status (married)	42 (50.6)
Years of education	11.3±3.9
Age at OCD onset	22.1±8.0
Duration of OCD	14.6±9.9
Medication	
Antidepressants (AD)	47 (56.6)
AD+atipsychotics (AP)	9 (10.8)
AD+AP+benzodiazepines	3 (3.6)
Level of insight	
Good	55 (66.3)
Poor	28 (33.7)
History of suicidal attempt/yes	11 (13,3)
Personality disorder comorbidity/yes	29 (34,9)

N: number; **SD:** standard deviation; **OCD:** Obsessive-compulsive disorder.

Table 2: Results on the Suicide Probability Scale, Distress Tolerance Scale and Obsessive-compulsive disorder

N=83	*Mean ± SD / n (%)*
Type of obsessions N (%)	
Contamination	53 (63,9)
Aggressive	12 (14,5)
Sexual	8 (9,6)
Religious	19 (22,9)
Symmetry	20 (24,1)
Somatic	8 (9,6)
Hoarding	2 (2,4)
Miscellaneous	19 (22,9)
Type of compulsions N (%)	
Cleaning/washing	49 (59,0)
Repeating	14 (16,9)
Arranging/ordering	18 (21,7)
Counting	25 (30,1)
Hoarding	5 (6,0)
Miscellaneous	30 (36,1)
Y-BOCS-Total	22.8±7.9
Y-BOCS-Obsession	11.5±4.1
Y-BOCS-Compulsion	11.2±4.1
DOCS (OCD dimensions)	
Contamination	7.7±6.2
Responsibility for harm or mistakes	6.2±4.1
Unacceptable thoughts	4.2±4.7
Incompleteness	3.1±3.9
BABS-Total	9.3±3.7
SPS	77.7±22.3
DTS	37.9±14.2
BDI	18.2±12.2
BAI	16.3±13.8

N: number; **SD:** standard deviation; **OCD:** Obsessive-compulsive disorder; **Y-BOCS:** Yale-Brown Obsessive Compulsion Scale; **DOCS:** Dimensional Obsession Compulsion Scale; **BABS:** Brown Assessment of Beliefs Scale; **SPS:** Suicide Probability Scale; **DTS:** Distress Tolerance Scale; **BDI:** Beck Depression Inventory; **BAI:** Beck Anxiety Inventory.

The most common obsession was contamination obsession (63.9%) and the most common compulsion was washing compulsion (59%). The mean SPS score was 77.7±22.3 and the mean DTS score was 37.9±14.2 (Table 2). Various clinical data of the patients, such as Y-BOCS, SPS, and DTS scores, are shown in Table 2.

In the correlation analysis, a significant relationship was found between the SPS score and the DTS, Y-BOCS-Total, BDI, BAI, BABS-T scores, having a history of suicide attempt, and having any personality disorder. As distress tolerance scores decreased and OCD symptoms worsened, suicide probability scale scores increased (Table 3).

Multivariate hierarchical regression analysis was performed to determine the factors associated with suicide

Table 3: Correlations between Suicide Probability Scale and various variables

N=83	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
	r	*r*	*r*	*r*	*r*	*r*	*r*	*r*	*r*	*r*	*r*	*r*
1-SPS	1											
2-DTS	-0.813**	1										
3-Y-BOCS-Total	0.606**	-0.586*	1									
4-DOCS-C	-0.036	-0.019	0.245*	1								
5-DOCS-R	0.200	-0.237*	0.351**	-0.032	1							
6-DOCS-U	0.067	-0.200	0.028	-0.119	0.300**	1						
7-DOCS-I	0.046	-0.063	0.290**	0.237*	0.228*	0.120	1					
8-BDE	0.324**	-0.367**	0.566**	0.548**	0.279*	0.293**	0.026	1				
9-BAE	0.605**	-0.618**	0.561**	0.262*	0.223*	0.158	0.040	0.627**	1			
10-BABS-T	0.379**	-0.440**	0.449**	0.444**	0.011	0.129	0.385**	0.344**	0.445**	1		
11-Suicide attempt	0.458**	-0.318**	0.203	0.200	0.174	-0.044	0.044	0.240*	0.292**	0.335**	1	
12-Personality disorder	0.612**	-0.475**	0.395**	0.022	0.232*	0.059	-0.059	0.336**	0.574**	0.343**	0.459**	1

N: number; ***r:*** correlation coefficient; *: p<0.05; **: p<0.01; **OCD:** Obsessive-compulsive disorder; **Y-BOCS:** Yale-Brown Obsessive Compulsion Scale; **DOCS:** Dimensional Obsession Compulsion Scale; **C:** Contamination; **R:** Responsibility for harm or mistakes; **U:** Unacceptable thoughts; **I:** Incompleteness; **BABS:** Brown Assessment of Beliefs Scale; **SPS:** Suicide Probability Scale; **DTS:** Distress Tolerance Scale; **BDI:** Beck Depression Inventory; **BAI:** Beck Anxiety Inventory.

Table 4: Regression analysis for predicting suicide probability in OCD patients

		Unstandardized coefficients		*Standardized coefficients*	*t*	*p-value*
		B	*Std. error*	*Beta*		
Step 1	(Constant)	38.874	6.030		6.447	0.000
	Y-BOCS-Total	1.735	0.301	0.622	5.767	0.000
	BDI	-0.045	0.173	-0.028	-0.261	0.795
Step 2	(Constant)	97.017	8.748		11.090	0.000
	Y-BOCS-Total	0.672	0.217	0.241	3.092	**0.003**
	BDI	-0.266	0.122	-0.165	-2.183	**0.032**
	BABS-Total	-0.554	0.393	-0.092	-1.412	0.162
	BAE	0.203	0.174	0.105	1.169	0.246
	DTS	-0.874	0.121	-0.559	-7.198	**0.000**
	Suicide attempt	11.914	4.152	0.183	2.869	**0.005**
	Personality disorder	9.010	3.374	0.194	2.670	**0.009**

Dependent variable: Suicide Probability Scale score; Step 2=R^2:0; 778 F: 37; 442 P <0; 001; **OCD:** Obsessive-compulsive disorder; **Y-BOCS:** Yale-Brown Obsessive Compulsion Scale; **BABS:** Brown Assessment of Beliefs Scale; **DTS:** Distress Tolerance Scale; **BDI:** Beck Depression Inventory; **BAI:** Beck Anxiety Inventory.

probability. Suicide Probability Scale score was accepted as the dependent variable and DTS, Y-BOCS-Total, BDI, BAI, BABS-T scores, having a history of suicide attempt, and having any personality disorder, which were significant in bivariate analyses, were accepted as independent variables. Y-BOCS-T and BDI scores were included in the model as covariates to control effect of OCD severity and depression severity on suicide probability in step 1. DTS, BEI, BABS-T, 'having suicide attempt' and 'having any personality disorder' were added to the model in step 2. Regression model was significant (Step 1; R^2:0.368 F: 23.266 P <0.001. Step 2; R^2:0.778 F: 37.442 P <0, 001). As a result of the regression analysis, we found that DTS, Y-BOC-T, BDI, diagnosis of personality disorder, and having a history of suicide attempt were predictors for suicide probability. Decreased DT capacity was associated with an increased suicide probability. This relationship was also valid when the effect of OCD and depression severity was controlled. (Table 4)

DISCUSSION

In this study, we investigated several factors that may be associated with suicide probability in OCD. The unique aspect of our study is that the relationship between DT capacity and suicide probability was investigated. We found that low distress tolerance, severity of OCD and depressive symptoms, previous suicide attempt, and having any personality disorder (PD) were associated with increased suicide probability.

Suicidal behavior in OCD is an underestimate phenomenon. Recently, several data have emerged that contradict the classical view that suicidal behavior is not common in OCD. Obsessive-compulsive disorder patients have a 3–10 times higher risk of dying from suicide than the general population (Nagy, El-serafi, Elrassas, Abdeen, & Mohamed, 2020). A population-based study conducted in Sweden in which the data of 36788 OCD patients were examined, reported that 11.6% of the patients attempted suicide (De La Cruz, Rydell, Runeson, D'Onofrio, Brander, Rück, et al., 2017). In addition, The International College of Obsessive-Compulsive Spectrum Disorders examined the follow-up data of 425 OCD patients from 11 different countries and reported that 14.6% of the patients had attempted suicide at any point in their lives (Dell'Osso et al., 2018). In our study, the rate of patients who attempted suicide was 13.3%, which is consistent with the recent data in the literature. The rates of suicidal behavior, which are much higher than the rate in the general population, support that suicidal behavior should be an important focus of clinical attention in patients with OCD.

In this study, we found that there was a relationship between OCD severity and increased suicide probability. However, any obsession type, compulsion type, or obsessive-compulsive symptom dimension was not associated with the suicide probability. Although there are few contradictory results, the majority of studies show that OCD severity is a risk factor for suicidality in patients with OCD, consistent with our result. In several individual studies, it has been shown that the severity of OCD is associated with suicidal ideation and history of suicide attempt (Balci & Sevincok, 2010; Dhyani, Trivedi, Nischal, Sinha, & Verma, 2013; Gupta, Avasthi, Grover, & Singh, 2014; Nagy et al., 2020). In addition, Albert, De Ronchi, Maina, and Pompili (2018) reported that OCD severity was a predictor of suicide risk in a recent systematic review. Close follow-up of patients with severe OCD symptoms in terms of suicidality and inquiring about suicidal thoughts may be beneficial in terms of taking precautions for possible suicide attempts. The results of studies on the relationship between obsessive-compulsive symptom type and suicidality are inconsistent. Alonso, Segalàs, Real, Pertusa, Labad, Jiménez-Murcia, et al. (2010) stated that the severity of the unacceptable thought dimension was similar in the patient groups with and without suicidal attempt, and the symmetry dimension was more severe in patients who had attempted suicide. Various studies have reported that sexual, religious or aggressive obsessions and unacceptable thought dimension are related to suicidal ideation and suicide attempt (Albert et al., 2018; Balci & Sevincok, 2010; Nagy et al., 2020; Torres, Ramos-Cerqueira, Ferrão, Fontenelle, Do Rosário, & Miguel, 2011). However, systematic meta-analysis of 61 studies found that any type of obsession and compulsion was not associated with suicidal behavior. Moreover, this meta-analytic study reported that aggressive sexual and religious obsessions are associated with less severe suicidal ideation and are protective against suicidal behavior (Pellegrini, Maietti, Rucci, Casadei, Maina, Fineberg, & Albert, 2020). These inconsistent results between OCD symptom types and suicidality shows that there is a need for new research on this topic.

In this study, we found that low DT capacity was a predictor of an increased suicide probability in OCD. When the effect of OCD and depressive symptom severity on suicide was controlled as a covariate, significant relationship between DT and suicide probability was valid. Individuals with low DT have maladaptive behaviors such as substance misuse, non-suicidal self-injury and suicide (Anestis, Pennings, Lavender, Tull, & Gratz, 2013; Howell et al., 2010; Nock & Mendes, 2008). It has been reported that low DT was associated with increased suicidal attempt and suicidal ideation in populations such as patients with substance use disorders, firefighters with PTSD, and college students (Bartlett, Jardin, Martin, Tran, Buser, Anestis, & Vujanovic, 2018; Howell et al., 2010; Thomas & Brausch, 2022). Distress tolerance (DT) is a kind of emotion regulation concept and people with low DT have difficulties in emotion regulation. Individuals with low distress tolerance tend to act impulsively in order to alleviate distress as soon as possible (Simons & Gaher, 2005). Individuals who unable tolerate distress may use suicidal behavior as a suboptimal escape route or relaxation method from aversive psychological situations (Anestis et al., 2013). The relationship between DT and suicidality in OCD may

have important clinical implications. Distress tolerance can be considered a modifiable risk factor for prevention of suicidal behavior. Distress tolerance is a specific treatment target for dialectical behavior therapy (DBT) (Abootorabi Kashani, Naderi, Safar Zadeh, Hafezi, & EftekharSaadi, 2020; Rezaie, Afshari, & Balagabri, 2021). Strengthening the DT capacity may enable the individual to cope with aversive emotional situations more easily. Thus, treatment strategies aimed at increasing DT skills in OCD patients at risk for suicide may be beneficial for reducing suicidality.

In our study, severity of depressive symptoms and having a diagnosis of any personality disorder were associated with an increased suicide probability. It has been reported that the rate of suicide increases in patients with OCD when comorbid psychiatric disease is present (Albert et al., 2018). One of the most common comorbid conditions associated with suicidality in patients with OCD is depressive symptoms or major depressive disorder. Balci and Sevincok (2010) suggested that there is a significant correlation between the severity of depressive symptoms and current suicidal ideation. Moreover, Torres et al. (2011) stated that the diagnosis of comorbid major depressive disorder is a predictor of suicidal ideation and suicidal plan in OCD. A recent systematic review reported that depressive symptom severity was associated with increased rates of suicide in OCD (Pellegrini et al., 2020). This relationship is actually to be expected, since depression itself is an independent factor that increases the risk of suicidality. In addition, when comorbid depressive disorder is present, OCD is more severe and these severe symptoms may increase the probability of suicide (Viswanath, Narayanaswamy, Rajkumar, Cherian, Kandavel, Math, & Reddy, 2012). The results of 2 studies, one a community-based study with a very large sample and the other a systematic review, showed that when PD comorbidity in OCD is present, probability of suicidal ideation, suicide attempt and death due to suicide increases significantly. Further, PD comorbidity is a predictive factor for suicide attempt and completed suicide (De La Cruz et al., 2017; Pellegrini et al., 2020). The results of our study also support this data. Personality disorders often have features such as impulsivity, aggression, and neuroticism, which may lead to increased suicidal rates in OCD patients with PD comorbidity (Alonso et al., 2010; Baud, 2005). Clinicians treating OCD should keep in mind that there is an increased likelihood of suicide when OCD and PD coexist.

This study has several limitations. First, the cross-sectional design of the study makes it difficult to establish a precise causal relationship. This study was conducted in a tertiary healthcare facility with a relatively limited number of patients, which precludes generalizability of the results to the entire OCD population. Impulsivity, which is another factor known to have an effect on suicidality, was not measured in this study. This is another limitation of our study.

CONCLUSION

We found that low DT was a predictor factor for increased suicide probability in patients with OCD. In addition, OCD severity, depressive symptom severity, having attempted suicide, and having any PD diagnosis were associated with suicide risk. In our study, 13% of the patients had attempted suicide at any time of their lives. Suicidality in OCD is an important clinical condition that should be followed carefully. Keeping in mind the possibility of suicide in OCD patients with above-mentioned risk factors, monitoring these patients more closely and inquiring clearly their suicidal thoughts may be beneficial for prevention of suicide in OCD. In addition, psychotherapeutic interventions (e.g., DBT) aimed to strengthening DT in patients with low DT may be beneficial in reducing suicidality in OCD.

Ethics Committee Approval: The study was approved by the Ethics Committee of the Dışkapı Yıldırım Beyazıt Training and Research Hospital (date and number of approval: 06.06.2022 / 139-16).

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