OTJHS
Online Turkish Journal of Health Sciences

e-ISSN: 2459-1467

OTSBD
Online Türk Sağlık Bilimleri Dergisi

Online Turkish Journal of Health Sciences 2023;8(4):510-517 *Online Türk Sağlık Bilimleri Dergisi 2023;8(4):510-517*

Patients' Perceptions of the Increase in Severity of Obsessive-Compulsive Disorder Symptoms during the COVID-19 Pandemic

COVID-19 Pandemisi Sırasında Obsesif-Kompulsif Bozukluk Belirtilerinin Şiddetindeki Artışa İlişkin Hastaların Algısı

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ABSTRACT

Objective: This study aimed to examine how patients with obsessive-compulsive disorder perceived changes in their symptoms during the COVID-19 pandemic and what factors influenced those changes.

Materials and Methods: The sample of the study consists of 262 individuals diagnosed with obsessive-compulsive who were reached through social media between 08.04.2021 and 08.10.2021. A descriptive information form and a 41-item questionnaire based on the Padua Inventory were used to collect the data.

Results: During the pandemic, anxiety about not being able to access cleaning products and doctors/therapists was high in the patients who reported a rise in disease symptoms. During the pandemic, 79% of the sample reported an increase in symptoms of obsessive-compulsive disorder.

Conclusions: It is essential to conduct regular screenings of patients with obsessive-compulsive disorder by the psychiatric nurses in the rehabilitation services team. These patients should be encouraged to express their concerns, and any psychological stress or distress should be identified. When necessary, patients should be referred to secondary care services for further assistance.

Keywords: Anxiety, COVID-19, obsessive-compulsive disorder, padua inventory

ÖZ

Amaç: Bu çalışmanın amacı, obsesif kompulsif bozukluğu olan hastaların COVID-19 pandemisi sırasında semptomlarındaki değişiklikleri nasıl algıladıklarını ve bu değişiklikleri hangi faktörlerin etkilediğini incelemektir.

Materyal ve Metot: Çalışmanın örneklemini 08.04.2021-08.10.2021 tarihleri arasında sosyal medya aracılığıyla ulaşılan 262 obsesif-kompulsif tanılı birey oluşturmaktadır. Verilerin toplanmasında tanımlayıcı bilgi formu ve 41 maddelik Padua Envanteri kullanılmıştır.

Bulgular: Pandemi süresince hastalık belirtilerinde artış olduğunu bildiren hastaların temizlik ürünlerine ulaşamama ve doktor/terapiste ulaşamama kaygısı yüksekti. Pandemi sırasında, örneklemin %79'u obsesif-kompulsif bozukluk semptomlarında artış olduğunu bildirmiştir.

Sonuç: Obsesif-kompulsif bozukluğu olan hastaların rehabilitasyon hizmetleri ekibindeki psikiyatri hemşireleri tarafından düzenli olarak taranması önemlidir. Bu hastalar endişelerini ifade etmeye teşvik edilmeli ve herhangi bir psikolojik stres veya sıkıntı tanımlanmalıdır. Gerektiğinde, hastalar daha fazla yardım için ikinci basamak sağlık hizmetlerine yönlendirilmelidir.

Anahtar Kelimeler: Anksiyete, COVID-19, obsesif-kompulsif bozukluk, padua envanteri

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Yayın Bilgisi / Article Info:
Gönderi Tarihi/ Received: 07/08/2023
Kabul Tarihi/ Accepted: 01/12/2023
Online Yayın Tarihi/ Published: 18/12/2023

Atıf / Cited: Koroglu S and et al. Patients' Perceptions of the Increase in Severity of Obsessive-Compulsive Disorder Symptoms during the COVID-19 Pandemic. *Online Türk Sağlık Bilimleri Dergisi* 2023;8(4):510-517. doi: 10.26453/otjhs.1337917

INTRODUCTION

Changing living conditions due to COVID-19 have led to concerns that are not limited to physical health. Due to measures such as quarantine, closure of national and international borders, and social isolation, the economic, educational and mental health fields have also been affected.[1] In particular, infected individuals, individuals with chronic diseases, psychiatric patients, and healthcare professionals experienced greater vulnerability to the negative consequences of the pandemic.[2] People in this group are at risk of experiencing psychological distress, symptoms of depression, anxiety disorders and symptoms of post-traumatic stress disorder.[3-4] During the pandemic, in which more importance has been placed on hygienic practices, individuals with obsessive-compulsive disorder (OCD) have emerged as a group that needs specific attention due to the nature of the disease.[5]

Individuals with OCD have obsessions that affect their functionality and compulsions that aim to neutralize the strain brought on by these obsessions.[6] In order to try to suppress the fear of contamination, one of the most common obsessions, individuals engage in ritualistic practices such as excessive hand washing and cleaning.[7] It has been suggested that the severity of symptoms of individuals with contamination-related obsessions and washing-related compulsions have increased during the pandemic. Although some studies have argued that symptom severity has grown,[8,9] there are also studies stating that it has not changed.[10,11] Moreover, the washing behaviors that have become a ritual for these individuals, or the desire to maintain social distance, have themselves become part of the rules that national and international organizations and official institutions have standardized for protection from coronavirus.[12] Contrary to this transformation, which could be considered as providing an opportunity, excessive exposure to the media discourse about coronavirus and concerns about not being able to obtain cleaning products can negatively affect the mental health of individuals.[8,12]

Although there are some studies on the severity or consequences of symptoms in the international literature, no studies have addressed the relationship between symptom severity and sociocultural factors (access to health services, government guidelines).[13,14]

The study aimed to screen patients with OCD as to whether they perceived their symptoms had increased during the pandemic and to investigate what factors were associated with OCD symptom severity scores.

MATERIALS AND METHODS

Ethics Committee Approval: The study was approved by the Sakarya University Non-Interventional Research Ethics Committee (Date: 07/04/2021, Decision no: 267). In addition, this study was performed according to the principles expressed in the Declaration of Helsinki. Since the study was related to COVID-19, scientific research approval was also obtained from the Ministry of Health of the Republic of Türkiye.

Design: The data for this descriptive-cross-sectional study were collected online between 08.04.2021 and 08.10.2021 via Google Forms.

Participants: The study included 266 people who were reached through their social media accounts, diagnosed with OCD and voluntarily agreed to participate in the study. Four people were excluded from the study due to incomplete data. Individuals over the age of 18 and diagnosed with OCD were included in the study. The power analysis of the study was carried out with G*POWER 3.1.9.7. When the effect size is .694, and the alpha is .05, the sample size is 262, and the power is .99. According to this power level, the sample size was considered sufficient.[15]

Measures: In the study, Descriptive Information Form and the 41-item Padua Inventory (PI), which measures the distribution and severity of obsessive-compulsive symptoms based on self-report, were used as data collection tools. The voluntary participation of the participants in the study was confirmed electronically.

The Descriptive Information consisted of three parts and 24 items. The first part covered the sociodemographic characteristics of the participants, the second covered the disease and treatment information (medication, therapy), and the third covered statements about the pandemic.

Padua Inventory (PI), which measures the distribution and severity of obsessive-compulsive symptoms, was developed by Sanavio in 1988 as a 60-item original scale. It was converted into a 41-item short form by van Oppen in 1992. It consists of five sub-dimensions: cleaning, rumination, impulses, control, and precision.[16] The reliability and validity study of the Turkish version of the scale was carried out by Besiroğlu et al.[17] In this study, the Cronbach's alpha reliability coefficient of the scale was found to be .95, and the Cronbach's alpha reliability coefficients of the sub-dimensions ranged from .82 to .92.

Data Analysis: The study data were analyzed using the IBM SPSS Statistics 25 software. The Shapiro-Wilk test was used to determine the distribution normality of the data. In order to determine the normal

distribution, it was accepted that the skewness and kurtosis coefficients should be within ±1 limits, and the skewness and kurtosis indices should be within ±1.96 limits.[17] Parametric tests were used in the normally distributed data set. A multiple linear regression model was used to determine pandemic-era experiences affecting the severity of OCD symptoms. Six models were created between the pandemic experiences and the PI total score: control, precision, impulses, rumination, and cleaning subdimensions. Normality and multicollinearity assumptions were assessed prior to analysis. Statistical significance was accepted as $p \leq 0.05$.

RESULTS

The mean age of the participants was 26.34±3.58 (min: 19; max: 37); 91.6% were female, 88.5% were single, and 91.6% lived in a nuclear family. While the rate of non-working participants was 64.1%, 80.2% reported that their income level was medium. While 13.7% of the participants reported that they had a chronic disease (asthma, diabetes, hypertension), 22.9% (n=60) reported that they had a mental disorder accompanying OCD, and 3.44% (n=9) reported that they had a diagnosis of multiple diseases. A total of 53 patients were receiving psychotropic medications and 31 were receiving psychotherapy, and only 10 were receiving both psychotherapy and psychotropic drugs. Therefore, only 74 of the 262 patients (about one-third) were receiving treatment. It was found that 22.1% (n=58) of the participants had COVID-19, and 1.1% had a history of hospitalization due to COVID-19.

Table 1 shows the effects of the COVID-19 pandemic on the individuals with OCD. While 64.1% of the participants reported that they were worried about not being able to access doctors/therapists/treatment services adequately during the pandemic period, 74.4% reported that they did not feel safe in relation to society's compliance with hygiene and social distancing rules. Among the participants, 79% stated that their obsessive and compulsive symptoms increased during the pandemic.

Table 1. Descriptive information about the effect of the COVID-19 pandemic on individuals with OCD.

Variables		n (%)
Did you think you would have trouble obtaining cleaning/hygiene products?	Yes	94 (35.9)
Have you had any concerns about not being able to access doctors/therapists/ treatment services in an adequate way?	Yes	168 (64.1)
Does society's compliance with hygiene and social distancing rules make you feel safe?	Yes	67 (25.6)
What kind of change do you think has occurred in your obsessive and compulsive symptoms during the pandemic?	Increased	207 (79.0)
	Not increased	55 (21.0)
How do the individuals you have a close relationship with (family, friends, etc.) assess your OCD symptoms?	Increased	163 (62.2)
	Not increased	99 (37.8)

Table 2 shows the relationship between demographic variables and increase and not increase in OCD symptoms in the population under study. There was a statistically significant relationship between medical treatment and OCD symptoms, so people who do not receive psychotropic medications have reported an increase in OCD symptoms (17.4% vs. 82.6%) (p value<0.05).

However, there was no statistically significant relationship between gender, marital status, education, income status, presence of chronic disease, comorbid psychiatric disorders, psychotherapy and COVID-19 with the increase and not increase in OCD symptoms (p-value> 0.05)

Table 2. The relationship between demographic variables and increase and not increase in OCD symptoms.

Variable		OCD symptoms		p- value*
		Increased n (%)	Not Increased n (%)	
Gender	Female	193 (93.2)	47 (85.5)	0.096
	Male	14 (6.8)	8 (14.5)	
Marital Status	Single	183 (88.4)	49 (89.1)	0.887
	Married	24 (11.6)	6 (10.9)	
Educational status	High school graduate	7 (3.4)	0 (0.0)	0.372
	Bachelor's degree	98 (47.3)	28 (50.9)	
	Postgraduate (Master's;doctorate)	102 (49.3)	27 (49.1)	

*Chi-square test

Table 2. Continue.

Income Status	High (income more than expenses)	21 (10.1)	5 (9.1)	0.941
	Moderate (income equivalent to expense)	165 (79.7)	45 (81.8)	
	Low (income less than expenses)	21 (10.1)	5 (9.1)	
Employment Status	Employed	73 (35.3)	21 (38.2)	0.689
	Unemployed	134 (64.7)	34 (61.8)	
Presence of	Yes	27 (13.0)	9 (16.4)	0.514
Chronic Disease	No	180 (87.0)	46 (83.6)	
Co-Morbid	Yes	46 (22.2)	12 (21.8)	0.555
Psychiatric Disorders	No	161 (77.8)	43 (78.2)	
Psychotropic	Yes	36 (17.4)	17 (30.9)	**0.024**
Medications	No	171 (82.6)	38 (69.1)	
Psychotherapy	Yes	27 (13.0)	5 (9.1)	0.426
	No	180 (87.0)	50 (90.9)	
Had COVID-19	Yes	41 (19.8)	17 (30.9)	0.060
	No	166 (80.2)	38 (69.1)	

*Chi-square test

Table 3 shows the comparison of the Padua inventory sub-dimension and total scores according to increased and not increased OCD symptoms. Participants who reported increased OCD symptoms were found to be associated with the Padua inventory total score and sub-dimensions of cleaning and control obsessions (p-value < 0.05).

Multiple regression analysis was used to evaluate the effect of demographic, clinical and pandemic-associated factors variables on the PI total scores. For model 1, concerns about not being able to obtain cleaning/hygiene products and access doctor/ therapist positively while spending 1-3 hours with media about the pandemic negatively explain 20% of the PI total score variance. The calculated p-values for model 1 showed that the results were statistically significant for the concern about not being able to obtain cleaning/hygiene products, access doctors/therapists and spend 1-3 hours with media about the pandemic (p<0.005) (Table 4).

Table 3. Comparison of Padua inventory sub-dimension and total scores according to increased and not increased OCD symptoms.

Quantitative variable		n	Mean±SD	p- value*
Cleaning	Increased	207	24.67±9.64	0.000
	Unchanged/Decreased	55	18.76±9.01	
Rumination	Increased	207	25.57±9.18	0.095
	Unchanged/Decreased	55	23.20±10.01	
Impulses	Increased	207	9.67±6.70	0.397
	Unchanged/Decreased	55	8.82±6.37	
Control	Increased	207	18.10±8.24	0.000
	Unchanged/Decreased	55	12.95±6.88	
Precision	Increased	207	8.65±6.37	0.023
	Unchanged/Decreased	55	6.78±5.017	
Total	Increased	207	86.66±30.82	0.000
	Unchanged/Decreased	55	70.51±25.02	

*Independent sample t-test

Table 4. Multiple linear regression analysis results for the effect of experiences during the pandemic on obsessive-compulsive symptoms.

Dependent Variable	Independent Variable	B	Standard Error	Beta	t	p	VIF	F	Model (p)	R^2_{adj}	Durbin Watson
PI Total Score	Constant	99.93	20.64		4.84	0.000		2.66	0.00	0.20	0.65
	Concern about obtaining cleaning products	14.46	4.79	0.23	3.01	0.003	1.46				
	Concern about accessing doctors/therapists	14.67	4.82	0.22	3.04	0.003	1.35				
	Spending 1-3 hours with media about the pandemic	-15.52	6.73	-0.17	-2.30	0.022	1.37				

PI: Padua Inventory; B: Unstandardized coefficients; Beta: Standardized coefficients; VIF: Variance inflation factors; F: Anova; R^2adj: Adjusted R-squared

Multiple regression analysis was used to evaluate the effect of demographic, clinical and pandemic-associated factors variables on the cleaning sub-dimension total scores. For model 2, concerns about not being able to obtain cleaning/hygiene products while receiving psychotherapy treatment and spending 1-3 hours with media about the pandemic negatively explain 20% of the cleaning sub-dimension total score variance. The calculated p-values for model 2 showed that the results were statistically significant for the concern about not being able to obtain cleaning/hygiene products, receiving psychotherapy treatment and spending 1-3 hours with media about the pandemic ($p<0.005$) (Table 5).

Table 5. Multiple linear regression analysis results for the effect of experiences during the pandemic on cleaning sub-dimension.

Dependent Variable	Independent Variable	B	Standard Error	Beta	t	p	VIF	F	Model (p)	R^2_{adj}	Durbin Watson
Cleaning sub-dimension	Constant	32.24	6.43		5.01	0.000		2.66	0.000	0.20	1.35
	Receiving psychotherapy treatment	-4.83	2.04	-0.17	-2.37	0.019	1.297				
	Concern about obtaining cleaning products	5.76	1.49	0.29	3.85	0.000	1.461				
	Spending 1-3 hours with media about the pandemic	-4.78	2.098	-0.17	-2.28	0.024	1.371				

PI: Padua Inventory; B: unstandardized coefficients; Beta: standardized coefficients; VIF: variance inflation factors; F: Anova; R^2adj: adjusted R-squared

DISCUSSION AND CONCLUSION

Our study aimed to investigate demographic data and factors affecting the perceptions of changes in symptoms of adults with OCD during the pandemic period. Many studies have reported that COVID-19 has increased the overall severity of symptoms, although 79% of people diagnosed with OCD themselves reported that their symptoms had worsened.[8,12,18] Also, results of a longitudinal study of adolescents and adults with OCD found that OCD symptoms also worsened during the pandemic.[5,19] These results confirm our study's hypothesis.

Specific psychotherapy and psychotropic medications, especially serotonin reuptake inhibitors, are the gold standard treatment for OCD.[20] In our study, individuals who received psychotropic medications reported that they did not experience increased OCD symptoms. While medical treatment affected the increase in OCD symptoms, taking psychotherapy was not effective. This may be due to the small number of people receiving psychotherapy. While OCD symptoms were found to worsen in non-clinical studies,[21,22] were found to be unchanged in clinical studies in which patients were followed up regularly.[10,23] It is noteworthy that the worsening is relatively low in clinical samples. According to these data, follow-up interviews in the sample may have made people feel more secure, making them less anxious.[23]

In our study, individuals who reported an increase in OCD symptoms had significantly higher scores on cleaning, control and precision. Fontenelle and Miguel (2020) stated that the most common obsessions of OCD are fear of contamination and washing compulsions in their study titled The Effects of COVID-19 on the Diagnosis and Treatment of OCD. In the study by Jelinek (2021), the negative effects of the COVID-19 pandemic were more pronounced in people compelled to wash. An obsession with contamination can lead to a compulsion to clean.[12] People may believe that by cleaning objects or rooms in a particular order or frequency, they can avoid or recover from contamination or infection. Precision obsessions include counting and repetitive behaviors. The frequent repetition of care given to patients in the hospitals increased the need for patients to know that they were well, causing them to perceive taking temperature and saturation as repetitive behavior patterns and thus increasing OCD symptoms.[25] In accordance with the treatment protocol of Türkiye, regular and repeated administration of 200 mg Favipiravir doses applied as eight tablets in the morning and evening on the first day and three tablets in the morning and evening on the second-fifth days, or the loading and maintenance doses of other drugs used, may also cause the patient to experience

an increase in OCD symptoms related to counting.[26] According to other important findings obtained in our study, there was no statistically significant relationship between "gender, marital status, education status, income status, presence of chronic disease, co -morbid psychiatric disorder", and OCD symptoms decreased or remained unchanged. While the gender variable was not considered a distinguishing factor affecting OCD symptoms and severity in our study, Abba-Aji et al. found that males had more obsessive and compulsive symptoms.[18] In studies conducted in Canada and Saudi Arabia during the pandemic, it was concluded that adults with a high level of education experienced more intense cleaning obsessions and compulsions related to microbes and contamination.[7,18] This may be related to the relationship between knowing the ways to access instructions regarding COVID-19, understanding and interpreting them, and higher education levels.[19]

Anxiety, an emotion experienced by many people during the pandemic, also emerges in individuals diagnosed with OCD. The current study determined that anxieties about not being able to obtain cleaning/hygiene products and access doctors/therapists were positive predictors of the severity of symptoms related to obsessions and compulsions. Similarly, a study conducted on medical school students in China showed that both anxiety and fear contributed significantly to "Yale-Brown Obsessive-Compulsive Scale" scores.[27] Curfews and stockpiling of products may have created concerns about obtaining these products in the OCD group with contamination obsessions and washing compulsions, where cleaning products are much more critical. The fact that individuals avoid visiting the doctor for fear of contagion leads to concerns about accessing health services.[28] The fact that hospital units only work with coronavirus patients during the pandemic, except for urgent and necessary interventions, the inability to intervene in the patient group with mental health problems, or the perceived high risk of contamination may have caused the OCD patients to feel unsafe. In our study, exposure to media related to the pandemic for 1-3 hours was found to be a negative predictor of symptom severity. Increasing media images of repetitive washing of hands and news media reporting disasters related to the pandemic lead to worsening symptoms.[8] However, limiting the increased media about the pandemic to 1-3 hours may have negatively predicted the increase in symptom severity. In our study, it was observed that patients receiving psychotherapy were a negative predictor of symptom severity. Although hospital-based mental health services were disrupted during the pandemic period, internet-based psychotherapy was provided.[8] Ensuring continuity may have reduced anxiety and depression in the OCD patient group by acting as a protective function against the harmful effects of the pandemic. Receiving psychotherapy may have negatively predicted the severity of symptoms by protecting the patient group from co-morbid mental problems.

In conclusion, the results of our study revealed that the gender variable did not affect the increase in OCD symptoms. However, an increase in education level also increased the experience of cleaning obsessions and compulsions related to microbes and contamination. At the same time, anxiety about not being able to obtain the cleaning products and access a doctor/therapist during the quarantine period were important factors that increased OCD symptoms. During this period, it is important that individuals diagnosed with OCD, a population that constitutes a particularly vulnerable group, should not be ignored; their concerns should be noted, and they should be supported psychologically. In this context, psychiatric nurses should play an active role in developing and implementing mental health intervention programmes to protect psychological well-being. In centres where rehabilitation services are provided, patients diagnosed with OCD should be screened regularly, patients with OCD and their families should be encouraged to express their concerns and fears about the pandemic, symptoms of psychological stress and distress should be followed up, and they should be referred to treatment services when necessary. The limitations of the study include the fact that the change in symptom severity was monitored only by self-report, patients could not be followed longitudinally over different periods, the survey questions were online, and the participation of groups in which women were more sensitive to the issue.

Ethics Committee Approval: Our study was approved by the Sakarya University Non-Interventional Research Ethics Committee (Date: 07/04/2021, Decision no: 267). The study was conducted in accordance with the principles of the Declaration of Helsinki.

Conflict of Interest: No conflict of interest was declared by the authors.

Author Contributions: Concept – SK, CST, GD; Supervision – SK, CST, GD; Materials – SK, CST; Data Collection and/or Processing – SK, CST; Analysis and/or Interpretation – SK, CST; Writing – SK, CST.

Peer-review: Externally peer-reviewed.

Acknowledgements: The authors would like to thank patients with OCD who participated in the study.

Other Information: This study was presented at the International Congress on Reflections of the Pandemic on Mental Health and Psychosocial Care, Ata-

türk University/Türkiye, 2021.

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