



## Derleme Makale/Review Article

### Investigation of the Effect of COVID-19 Period on People with Obsessive-Compulsive Disorder

*Covid-19 Döneminin Obsesif Kompulsif Bozukluğu Olan Kişiler Üzerindeki Etkisinin Araştırılması*

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## ABSTRACT

*The COVID-19 pandemic has affected people with psychiatric illnesses to varying degrees, especially those who fall into groups that are more sensitive to the effects of the pandemic. This study aims to investigate to what extent patients diagnosed with obsessive-compulsive disorder (OCD) are affected by the restrictions and measures imposed during the COVID-19 pandemic compared to healthy people and whether their attitudes about the pandemic are different from society in general. It also aims to learn how obsessive-compulsive symptoms have changed during the pandemic and the factors that may be related to this change. This study will analyze the effects of the pandemic on OCD by scanning the available literature and synthesizing the findings of previous studies. In addition, based on the research findings, this study aims to gain an in-depth understanding of the following: it determines the experiences of individuals with OCD during the pandemic and the appropriate support and interventions for these experiences. It is thought that it will make an important contribution to understanding the experiences of individuals with OCD during the pandemic and providing appropriate support for these experiences. This study will be an important step to better support this population by considering the unique circumstances during the pandemic when addressing the difficulties experienced by individuals with OCD.*

**Keywords:** Covid-19 Pandemic, Obsessive Compulsive Disorder, Obsession, Compulsion

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## ÖZ

*COVID-19 salgını, özellikle pandeminin etkilerine daha duyarlı gruplara giren psikiyatrik hastalıkları olan kişiler bu salgından değişik derecelerde etkilenmiştir. Obsesif Kompulsif Bozukluk (OKB) tanısı konan hastaların COVID-19 pandemisinde pandeminin uyguladığı kısıtlama ve önlemlerden sağlıklı insanlara göre ne ölçüde etkilendiğini ve pandemi hakkındaki tutumlarının genel toplumdan farklı olup olmadığını araştırmayı amaçlamaktadır. Ayrıca pandemide obsesif kompulsif semptomların nasıl değiştiğini ve bu değişikliklerle ilişkili olabilecek faktörleri öğrenmeyi amaçlamaktadır. Bu çalışma, mevcut literatürü tarayarak ve önceki çalışmaların bulgularını sentezleyerek pandeminin OKB üzerindeki etkilerini analiz edecektir. Ek olarak, araştırma bulgularına dayanarak, bu çalışma aşağıdakiler hakkında derinlemesine bir anlayış kazanmayı amaçlamaktadır: Pandemi sürecinde okb'li bireylerin deneyimlerini ve bu deneyimler için uygun destek ve müdahaleleri belirler. Pandemi sürecinde okb'li bireylerin deneyimlerinin anlaşılmasına ve bu deneyimlere uygun desteğin sağlanmasına önemli katkı sağlayacağı düşünülmektedir. Bu çalışma, okb'li bireylerin yaşadığı zorlukları ele alırken pandemi sürecindeki benzersiz koşulları dikkate alarak bu popülasyonu daha iyi desteklemek için önemli bir adım olacaktır.*

**Anahtar Kelimeler:** Covid-19 Salgını, Obsesif Kompulsif Bozukluk, Saplantı, Zorlanti

## 1.Introduction

The COVID-19 pandemic has become a crisis straining health systems worldwide and deeply affecting societies. This epidemic has affected not only the physical health but also the mental health of individuals. Especially for individuals struggling with certain mental disorders, such as obsessive-compulsive disorder (OCD), the pandemic has revealed greater difficulties and sources of stress. Feelings of increased uncertainty and loss of control during the pandemic can exacerbate or trigger OCD symptoms. In addition, increased sensitivity to hygiene and the need for frequent washing can worsen cleaning obsessions in individuals with OCD. However, social isolation and restrictions during the pandemic can also lead to the emergence of additional psychological problems, such as anxiety and depression in individuals with OCD. The COVID-19 pandemic has caused unexpected and profound effects on individuals with OCD. The importance of this study is to understand the effects of the pandemic on OCD symptoms and provide the information needed to provide better support to these individuals. It is important to increase our understanding of how OCD symptoms change and are triggered during the pandemic. This study aims to compile the available data to determine how OCD symptoms are affected during the pandemic process.

In this study, we aim to examine the impact of the COVID-19 pandemic on individuals with OCD in more detail. In this context, we will discuss the effects of the pandemic on OCD symptoms, the difficulties experienced by individuals with OCD, and strategies for coping with these difficulties. In addition, we will make recommendations on the support and interventions that can be provided for individuals with OCD during a pandemic.

## 2.Literature Review

### 2.1. Obsessive Compulsive Disorder (OCD)

Obsessive Compulsive Disorder (OCD) is a mental disorder characterized by repetitive obsessions and/or compulsions. In some periods, flare-ups are observed and affect the functionality of the individual. Obsessions are persistent thoughts, impulses, or images that are constantly recurring and disturbing and are uncontrollable in a person's mind. Compulsions, on the other hand, are repetitive behaviors or mental actions performed to eliminate or reduce obsessions. However, these behaviors

are often unreasonable or excessive. OCD symptoms can usually have a significant negative impact on a person's life and limit their daily activities.

The lifetime prevalence of OCD is reported as 1.3% according to a meta-analysis conducted in 2020 (Fawcett et al., 2020). Various studies on the frequency of OCD have also been published in our country. In the 'Mental Health Profile of Turkey', a survey conducted in 1998, the total incidence rate of OCD in society over one year was found to be 0.5% (Erol et al., 1998). It is reported that the lifetime prevalence of OCD is 1.5% for women and 1% for men; the incidence rate of OCD in women is 1.6 times higher than in men (Fawcett et al., 2020). In an epidemiological study conducted in our country, the rate of OCD in society over one year was found to be 0.6% in women and 0.2% in men (Erol et al., 1998). A study conducted on the onset of OCD showed a bimodal distribution expressed as the age of early onset in the form of  $11.1 \pm 4.1$  and the age of late-onset in the form of  $23.5 \pm 11.1$ . The disease begins at an earlier age in men, and it has been shown that the disease begins before the age of 10 in about a quarter of them (Ruscio et al., 2010). In women, OCD usually occurs during adolescence, and it is more likely to occur during peripartum or postpartum periods (Russell et al., 2013).

Dysfunctions in familial, occupational, and social areas are observed in individuals with OCD diagnosis. In the 'British National Psychiatric Morbidity Survey' study, it was shown that OCD patients were unemployed at a higher rate than those in the control group (Torres et al., 2006). In our country, according to a study conducted in Konya, there was no significant difference in the working status of people diagnosed with OCD compared to healthy controls. In the studies conducted on the educational level of patients with OCD, a common conclusion could not be reached. According to a study conducted by Fontenelle et al., it has been reported that those diagnosed with OCD are less likely to be married than those who are not (Fontenelle et al., 2004). According to a study conducted in our country, it has been reported that divorced, separated, or widowed individuals are 4.2 times more likely to be diagnosed with OCD than married individuals (Cillicilli et al., 2004).

Obsession and compulsive experiences have been mentioned for the first time in the Diagnostic and Statistical Manual of Mental Disorders I (DSM I). It has been formally identified with print. All symptoms were evaluated as a single reaction, and the content and form of symptoms were not defined (Grob, 1991). The most appropriate definition for today's diagnostic criteria is included in the DSM-III for the first time. A distinction was made between obsession and compulsion, and the symptoms were defined in terms of content and form. The DSM-III is also the first official classification that distinguishes the symptoms of obsession and compulsion from other psychopathologies such as delirium and rumination with the expression 'alien to the self' (Spitzel et al., 1980). Subsequently, this term was abolished by the DSM-III-R (Pichot, 1986). In the DSM-IV and DSM-IV-R versions, the term obsessive-compulsive disorder was included under the heading of anxiety disorders. Later, in the DSM-5, published by the American Psychiatric Association (APA) in 2013, OCD disease was included under a new title created under the name of 'ObsessiveCompulsive and Related Disorders'. The reason for this innovation is that the clinical manifestations and pathophysiological mechanisms of obsessive-compulsive disorder are different from anxiety disorders, which have been shown by research (Van Ameringen et al., 2014).

A recent meta-analysis of lifelong concomitant psychiatric diagnoses of OCD patients has shown that 69% of them did not have any psychiatric co-diagnosis. Among the concomitant diseases, mood disorders were found to be the disease with the highest frequency at 48%; anxiety disorders were found to be the most common concomitant disease with the second highest frequency. It has been shown that attention deficit hyperactivity disorder is accompanied by 16%, tic disorders by 14%, and obsessive-compulsive and related disorders by 14%. While anxiety disorder is the most frequently co-diagnosed anxiety disorder in children, autism spectrum disorder was detected at a rate of 6%,

and oppositional disorder was detected at a rate of 12%. In addition, in the subgroup of adults, the co-diagnosis of obsessive-compulsive personality disorder was detected at a rate of 35% (Sharma et al., 2021).

There are various symptom dimensions in OCD with different clinical appearances. A study conducted in our country on the frequency of symptom type in OCD found contagion in 76% of patients, symmetry in 68%, aggression in 44%, religious in 26%, somatic in 17%, sexual in 16%, and other symptoms in 34%. At the same time, the average number of symptom type of people were shown to be one in 21%, two in 29%, and three or more in 50%. While religious and sexual symptom dimensions are observed more often in men; contagionclearing, hoarding, and aggression symptom dimensions are more frequent in women (Torresan et al., 2013).

### **2.1.1.. Types of Obsessions and Compulsions**

Obsessions related to contamination involve intrusive and unwanted thoughts concerning the transmission or potential transmission of microorganisms such as viruses, bacteria, bodily waste and secretions, sticky substances or residues, animals and animal-derived materials, and environmental pollutants. To mitigate the anxiety provoked by these obsessions, individuals may engage in avoidance behaviors and compulsions, including excessive washing, an inordinate focus on cleaning household items, or maintaining a physical distance from perceived sources of contamination (Samuels, 2021). Aggression obsessions and their associated compulsions are characterized by intrusive thoughts about harming oneself or others, committing acts of violence, engaging in behavior that could lead to shame, uttering insults, or displaying aggressive behavior. In response to these obsessions, individuals may perform various checking behaviors to ensure the non-occurrence of these feared actions or to prevent their potential manifestation. Additionally, mental rituals such as praying and counting may be employed to alleviate the distress associated with these thoughts (Wholistic Health, 2023). Sexual obsessions are characterized by intrusive and unwanted sexually explicit thoughts concerning individuals such as acquaintances, family members, or children, as well as thoughts about unintentionally committing homosexual acts. These thoughts often conflict with the individual's moral values, eliciting feelings of shame and distress. The person experiencing these obsessions may feel profound guilt, akin to having committed the act itself, and may also fear that the mere presence of these thoughts increases the likelihood of their actual occurrence (Altın, 2009). Religious obsessions involve intrusive thoughts such as blaspheming God, doubting His existence, or showing disrespect toward religious values. These obsessions may also include a fear of saying or doing things that contravene religious principles. Individuals with these obsessions may engage in behaviors such as seeking reassurance from religious authorities to confirm they are not sinning or performing compulsive acts of worship that deviate from their usual religious practices (Altın, 2009). Symmetry, sorting, counting, and arranging obsessions and compulsions involve a person's need for objects to be in a specific order and alignment. These obsessions may include thoughts that harm will come to loved ones if things are not perfectly arranged and a compulsion for tasks to be completed flawlessly. Individuals with these obsessions may engage in compulsive behaviors such as arranging items, repetitive counting, and other repetitive actions to achieve the desired order and completeness (Stein et al., 2019). Somatic obsessions and related compulsions involve excessive anxiety and preoccupation with bodily symptoms and illnesses. Individuals with these obsessions may constantly worry about having contracted a disease and may frequently seek reassurance through research or by consulting medical professionals. This behavior is driven by the intense anxiety and fear associated with their obsessive thoughts about health and illness (Schiffer, 2018).

### **2.1.2. OCD Treatment**

OCD treatment is a process consisting of components such as neuromodulation, and neurosurgery for OCD patients who are resistant to treatment and who follow approaches such as psychotherapy and pharmacotherapy, starting with the formation of a collaboration aimed at treating the patient by providing psychoeducation. While there may be significant delays in OCD patients starting treatment for possible reasons such as lack of information about the disease, embarrassment about their symptoms, or anxiety about exposure to feared stimuli, there may also be problems in continuing treatment due to lack of insight.

### **2.1.3. Types of Therapy**

Cognitive Behavioral Therapy (CBT), recognized as a first-line treatment for OCD, has been shown to significantly reduce symptoms in both children and adults through meta-analyses of randomized controlled trials (Öst et al., 2015). CBT involves exposure exercises to provoking anxiety-provoking stimuli and response prevention, aiming to habituate patients to these stimuli without performing anxiety-reducing compulsions. This process helps patients realize that their anxiety can diminish without engaging in compulsive behaviors and that feared consequences do not occur, thereby increasing their tolerance to anxiety (Craske et al., 2008). Additionally, psychodynamic psychotherapy, although limited in evidence, is suggested by the APA's 2007 treatment guide to assist with resistance to treatment and improve interpersonal relationships affected by OCD symptoms. Supportive psychotherapy, which focuses on reinforcing patients' strengths, explaining the disease's formation process, and affirming the treatment process, can also provide benefits for OCD patients.

Pharmacotherapy involves the use of selective serotonin reuptake inhibitors (SSRIs), which are more effective at higher doses in treating OCD compared to other anxiety disorders or depression, though they come with higher rates of discontinuation due to side effects (Bloch et al., 2010). Transcranial Magnetic Stimulation (TMS) and Deep Transcranial Magnetic Stimulation (Deep TMS) are non-invasive techniques that regulate neuron activity through electrical currents induced by a magnetic coil. Studies have shown that TMS and Deep TMS are effective for OCD treatment compared to sham treatments, targeting regions such as the dorsolateral prefrontal cortex, medial prefrontal cortex, and anterior cingulate cortex (Liang et al., 2021; Carmi et al., 2019). Deep Brain Stimulation (DBS) and stereotactic lesion formation, such as anterior cingulotomy, are more invasive treatments for severe, treatment-resistant OCD. DBS involves placing stimulating electrodes in specific brain regions, showing significant reductions in Y-BOCS scores, while stereotactic lesion formation creates lesions in the brain to regulate the neuronal network, used as a last resort after evaluating the patient's suitability and disease severity (Vicheva et al., 2019; Mashour et al., 2005).

## **2.2. COVID 19**

Pandemic is a word that means "covering all people"; it is derived from the ancient Greek words 'pan', which means 'all', and 'demos', which means people. A pandemic can be defined as an epidemic that occurs worldwide or over a very wide area, crosses international borders, and usually affects many people.

At the end of December 2019, a hospital in the Wuhan region of China admitted cases of pneumonia with an unknown cause, and it was determined that all these people worked in the seafood market (Li, 2020). On January 7, 2020, the Chinese Center for Disease Control and Prevention announced that the causative agent of this disease was identified as SARSCoV-2. Later, the WHO named the disease COVID-19 and declared the outbreak an

“International Public Health Emergency” on January 30, 2020 (World Health Organization [WHO], 2022). On March 11, 2020, the WHO declared COVID-19 a pandemic, and on the same day, the first COVID-19 case was detected in Turkey. Following the detection of the first case in Turkey, education was suspended, cultural and scientific activities were postponed, restaurants were closed, flights were canceled, and curfews were imposed. Between March 30 and December 31, 2020, Turkey implemented the first full lockdown of the pandemic. During this period, measures were taken such as curfews, travel restrictions, opening grocery stores at certain hours, restaurants only providing takeaway services, and necessitating purchasing goods only from nearby stores. With the decrease in the number of cases, a controlled normalization process began in June 2020. On January 14, 2021, the vaccination program started in Turkey (Republic of Türkiye Ministry of Health, 2022). Due to the increase in the number of cases, the second full lockdown period began from April 29 to May 17, 2021. The highest recorded daily number of cases was 111,157 on February 4, 2022 (Republic of Türkiye Ministry of Health, 2022). In March 2022, with the decrease in the number of cases, the obligation to wear masks outdoors was abolished. Until October 14, 2022, a total of 16,919,638 COVID-19 cases and 101,203 related deaths were reported in Turkey. By the same date, the WHO had reported 620,878,405 COVID-19 cases worldwide, and 6,543,138 deaths due to COVID-19 (World Health Organization [WHO], 2022).

According to current WHO data, the disease is transmitted between people in several different ways. The virus is mainly spreading between people who are in close contact. The virus can spread in small particles from the mouth, or the nose of an infected person when coughing, talking, or breathing, while another person may be exposed to the agent in aerosol form. At the same time, in crowded indoor spaces with poor ventilation, the virus can be transmitted even farther than a speaking distance since aerosols can hang in the air. Another way of transmission is when people touch their noses or mouths after touching surfaces contaminated with the virus. Infected people can be contagious regardless of the presence of symptoms. Studies show that infected people are most contagious just before they develop symptoms and in the early stages of their illness (World Health Organization [WHO], 2022).

The disease clinic has a wide range of conditions that can range from an asymptomatic disease process to acute respiratory failure and multi-organ failure. Fever, cough, weakness, and loss of taste and smell are the most common symptoms of the disease; it can also lead to various symptoms such as sore throat and headache, widespread pains, diarrhea, skin rash, or redness of the eyes (World Health Organization [WHO], 2022). Although COVID-19 is mainly a lung disease, the emerging data shows that it also leads to cardiac, dermatological, hematological, hepatic, neurological, renal, and other complications. A study conducted on 72314 patients diagnosed with COVID-19 in China reports that 81% of patients had the disease with mild symptoms, 14% had a severe illness, and 1% showed a very severe illness in the clinic. In the study conducted on these patients, the mortality rate of the disease was found to be 2.3%. In the same study, the effects of other concomitant diseases on the mortality rate were also examined; mortality rates were found as cardiovascular disease at 10.5%, diabetes at 7.3%, hypertension at 6%, and cancer at 5.6% (Wu & McGoogan, 2020).

Polymerase chain reaction (PCR) test for COVID-19 is a method that is considered the gold standard in the diagnostic process, in which the genetic material of the SARS-CoV-2 virus that causes COVID-19 disease is searched by analyzing the sample taken from the upper respiratory tract. In cases where the possibility of access to such a molecular test is limited, an antigen test with a lower sensitivity is performed (Treggiari et al., 2022). In cases where the PCR test is negative while the patient’s clinical features suggest COVID-19 infection, it is recommended to evaluate imaging and laboratory methods.

Regarding the COVID-19 disease, there is still no antiviral treatment that has proven its effectiveness and reliability. Due to the lack of a specific treatment for the disease in the early stages of the pandemic, the disease could be fatal, therefore drugs such as favipiravir, hydroxychloroquine, lopinavir/ritonavir, redeliver, tocilizumab, corticosteroids were used in the treatment based on experience. Although studies on this issue are continuing in the COVID-19 treatment guide updated by the Republic of Türkiye Ministry of Health in April 2022, molnupiravir treatment is recommended for people who are admitted in the first 5 days of the disease and who are at risk of developing serious diseases. Due to the lack of an antiviral agent that has yet to be shown to be effective, the most important method in the fight against COVID-19 disease is currently vaccination.

The implementation of the COVID-19 disease-related vaccine in Turkey began on January

14, 2021, with the approval of emergency use of the inactive coronavirus vaccine. On April 12 BioNTech, which is also the mRNA vaccine, and in December 2021, the domestic inactive vaccine Turkovac vaccines, with the approval of emergency use, began to be administered. As of 05.10.2022, the rate of first-dose vaccination in the population aged 18 and older in Turkey is 93.3%, and the rate of second-dose vaccination is 85.65% (Republic of Türkiye Ministry of Health, 2022).

### **3. RESEARCH METHOD**

This study is based on two main hypotheses and one sub-hypothesis. Firstly, the COVID-19 pandemic significantly differentiates individuals with OCD symptoms according to sociodemographic data. Secondly, the symptom severity of patients diagnosed with OCD has increased during the COVID-19 pandemic. The sub-hypothesis is that the COVID-19 pandemic has increased the compulsion to wash hands. To collect data on the verification of these hypotheses, research articles and research reviews conducted between 1986 and 2023 were compiled. The keywords OCD, The Psychology of Pandemics, COVID-19, and OCD Prevalence Worldwide were used in ScienceDirect, The American Journal of Psychiatry, Translational Psychiatry, Psychiatrist, National Library of Medicine, Annual Review of Clinical Psychology, and Holistic Health platforms.

### **4. DISCUSSION**

During the pandemic, various psychosocial stressors emerged alongside the health threat to individuals and their loved ones. Disruptions in daily routines, separation from loved ones, shortages of food and medicine, unemployment, economic losses, disruptions in healthcare services, and social isolation all contributed to the deterioration of mental health. The uncertainty surrounding the severity of the disease, effective prevention methods, treatment efficacy, transmission mechanisms, and the pandemic's duration increased anxiety. Contradictory information from news and social media further exacerbated this uncertainty (Taylor, 2022). Initial recommendations for social distancing, self-isolation, and quarantine added stress, especially during prolonged quarantine periods, as individuals faced fear of infection, loss of freedom, insufficient resources, and lack of information. These factors, combined with the economic impact on businesses, increased job insecurity and further contributed to mental health issues. Difficulties in adapting to sudden losses, inability to perform traditional mourning rituals, and reduced social support due to the restrictions also played a role. Meta-analyses revealed significant mental health impacts, with higher levels of depression, anxiety, distress, and insomnia among individuals, particularly those with chronic diseases, those in quarantine, and COVID-19 patients (Wu & McGoogan, 2020). Additionally, healthcare workers were more affected by the pandemic's psychological effects compared to those in other professions (Silva Neto et al., 2021).

For individuals with OCD, the pandemic's uncertainties posed additional challenges, especially for those with severe intolerance to uncertainty and heightened perceptions of danger. The exaggerated sense of responsibility in OCD patients increased anxiety about infecting loved ones, leading to more reassurance-seeking and control behaviors. A metaanalysis indicated that people with psychiatric illnesses, especially those with eating disorders and OCD, experienced more psychological distress and anxiety during the pandemic than healthy individuals (Carvalho et al., 2022). Further studies reported worsening OCD symptoms, with some indicating a significant percentage of patients experiencing symptom exacerbation (Benatti et al., 2020). The WHO's recommendations for frequent handwashing and avoiding contact while necessary heightened anxiety in OCD patients with contamination-related symptoms, reinforcing irrational beliefs and normalizing symptoms. Comparisons between individuals with OCD and healthy controls showed that those with OCD had more suicidal thoughts, sleep and appetite changes, and COVID-19 related anxiety (Wheaton et al., 2021). The effects of the pandemic on OCD were not solely psychosocial but also potentially due to the direct impact of COVID-19 on the brain, as seen in acute onset OCD symptoms triggered by infections (Nezgovorova et al., 2021). Treatment disruptions, especially in psychotherapy, posed additional challenges for OCD patients. Concerns about the applicability of exposure and response prevention therapy, particularly for those with contamination-related symptoms, highlighted the need for alternative treatment options with pharmacotherapy recommended as a first-line treatment during this period (Sheu et al., 2020). Studies also highlighted the broader impact of various demographic factors among OCD patients, underscoring the comprehensive effects of the pandemic on this population.

## 5. RESULTS

This study examined the impact of the COVID-19 pandemic on individuals with symptoms of obsessive-compulsive disorder (OCD) and found that the pandemic significantly exacerbated OCD symptoms due to increased uncertainty, fear, and stress. The epidemic social isolation and restrictions heightened the severity and frequency of OCD symptoms, underscoring the pandemic's profound psychological effects. Compared to existing literature, this study provides a more comprehensive analysis of how pandemic-induced uncertainty and fear specifically affect OCD symptoms. Practically, these findings can help health professionals develop targeted psychosocial support and treatment programs for individuals with OCD. Theoretically, this study contributes to understanding the long-term psychological effects of the pandemic, highlighting the need for future research to confirm and expand upon these findings.

In conclusion, the COVID-19 pandemic significantly exacerbated obsessive-compulsive disorder (OCD) symptoms, driven by heightened uncertainty, fear, and stress, as well as the increased severity and frequency of symptoms due to social isolation and restrictive measures. This study not only underscores the profound psychological impact of the pandemic on OCD but also provides a comprehensive analysis that informs targeted interventions and supports future research into the long-term psychological effects of such global crises.

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