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Editorial

# Obsessive-Compulsive Disorder during the COVID-19 Pandemic

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### 1. Introduction

The COVID-19 pandemic was followed by lifestyle changes worldwide. Many studies have widely assessed the harmful effects of the pandemic, including the preventive measures enforced by governments, such as lockdowns, on people with mental health issues [1]. Obsessive compulsive disorder (OCD) is one of the psychiatric disorders that showed a significant increase in incidence with the outbreak of COVID-19 [2]. The procedures suggested to prevent the infection could act as triggers for OCD. COVID-19 has neuroinflammatory and neurotrophic effects. These consequences could actively favor the onset of OCD [3].

## 2. OCD and COVID-19

The high number of public health messages encouraging the lay public to frequently wash their hands and minimize contact with others to reduce the risk of contamination can exacerbate the symptoms of OCD [4]. Uncertainty intolerance related to the pandemic is a well-documented feature of OCD [5,6]. The COVID-19-related infodemic could have a detrimental effect on those who are already behaviorally impaired due to excessive concern in these areas, worsening their symptoms when already present at a clinically meaningful level [7]. It seems that COVID-19 is less tolerated in OCD patients (OCDs) with contamination symptoms [8]. OCDs who previously feared HIV and tuberculosis now fear they could be infected by COVID-19 and respond with increasing handwashing and social avoidance rituals [9]. OCDs may wash their hands more frequently than those who stick to COVID-19 prevention guidelines. They may even delusionally believe being already infected with COVID-19 despite evidence for the contrary. OCDs may have developed methods to clean up groceries with antibacterial gel. They may display compulsions, such as showering for hours and handling everything with gloves. Some OCDs report that despite adopting the recommended precautions, they continue to feel that COVID-19 has contaminated their homes and feel the need to completely decontaminate them, even down to drastic choices such as removing wallpaper and floors. Most people without OCD display increased distress and safety-seeking behaviors, and this can turn into typical OCD symptomatology [10]. However, other OCDs, namely those with more severe symptoms [11], may show clinical improvement during a pandemic because they consider cleaning rituals or avoiding crowds and the fear of being infected as common and acceptable, as they feel not so different from others [12], perceiving themselves as less different from others. At any rate, more studies identified worsening than improvement in OCDs [12].

## 3. Pathophysiology of OCD and COVID-19

Although a pathophysiological link between COVID-19 and OCD development has not yet been advanced, it seems likely that the neuroinflammatory effects of the infection



Citation: Fiaschè, F.; Kotzalidis, G.D.; Alcibiade, A.; Del Casale, A. Obsessive-Compulsive Disorder during the COVID-19 Pandemic. *Psychiatry Int.* **2023**, *4*, 102–104. https://doi.org/10.3390/ psychiatryint4020013

Received: 14 March 2023 Accepted: 13 April 2023 Published: 21 April 2023



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play an important role. COVID-19 leads to a loss of smell and taste, due to the inflammatory invasion of the olfactory nerve [11], which directly links to the orbitofrontal cortex and plays a role in the pathophysiology of OCD [13–17]. OCDs show increased plasma levels of IL-1 $\beta$ , IL-6, and TNF- $\alpha$ 16 [18].

## 4. Treatment Strategies

A recent consensus paper from the International College of Obsessive Compulsive Spectrum Disorders (ICOCS) recommended drug therapy as the first option for OCDs with fears of contamination and washing compulsions during the pandemic [19]. Fluvoxamine in patients with COVID-19 and OCD [20] reduced psychiatric and infectious symptoms by reducing the release of proinflammatory cytokines [21]. Clomipramine has anti-inflammatory properties that can reduce peripheral and central inflammation and relieving the symptoms of COVID-19 and OCD [22]. Anticytokine treatments, such as tocilizumab, could be used to treat neuropsychiatric comorbidities in COVID-19 [23], but, to date, the monoclonal antibody approach has received only one trial with rituximab, the results of which were less satisfactory for treatment-resistant OCD patients than for treatment-resistant schizophrenia patients. However, in the former, subtherapeutic doses were used [24].

#### 5. Conclusions

The awareness and knowledge of OCD and its development has increased; we may hope that we can use COVID-19 as an opportunity to educate people to identify symptoms at an early OCD stage and seek help.

Conflicts of Interest: The authors declare no conflict of interest.

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