Grabowy, Paulina, Drożak, Martyna, Milanowska, Joanna. The impact of COVID-19 on obsessive-compulsive disorder - literature review. Journal of Education, Health and Sport. 2022;12(9):202-209. eISSN 2391-8306. DOI http://dx.doi.org/10.12775/JEHS.2022.12.09.025 https://apcz.umk.pl/JEHS/article/view/39563 https://zenodo.org/record/7035815

The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32343.

Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical Culture Sciences (Field of Medical sciences and health sciences); Health Sciences (Field of Medical Sciences and Health Sciences).

Punkty Ministerialne v 2019 - aktualny rok 40 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32343. Posiada Unikatowy Identyfikator Czasopisma: 201159.

Przypisane dyscypliny naukowe: Nauki o kulturze fizycznej (Dziedzina nauk medzycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu).

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 08.08.2022. Revised: 10.08.2022. Accepted: 28.08.2022.

## The impact of COVID-19 on obsessive-compulsive disorder - literature review

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#### ABSTRACT

**Introduction:** COVID-19 appeared in 2019. The first outbreak of the disease was in China, but it quickly spread to other countries, thus becoming a pandemic. This caused a tremendous stress and anxiety among the public, which also had a negative impact on their mental health. People with obsessive-compulsive disorder are especially sensitive in this respect.

The aim of the study: Paying attention to the correlation between exacerbation of obsessivecompulsive symptoms and COVID-19 pandemic.

Material and method: The research was done using PubMed and Google Scholar articles about the topic of: obsessive-compulsive disorder, COVID-19 pandemic, stress, mental health.

**Description of the state of knowledge:** According to many studies, the COVID-19 pandemic has negatively impacted mental health of people with obsessive-compulsive disorder. The stress related to the pandemic resulting from concerns about being infected exacerbated the symptoms of obsessive-compulsive disorder. Doctors should pay close attention to OCD patients during pandemic and provide them with the treatment they need.

Summary: Research results confirmed that COVID-19 contributed to the deterioration of symptoms in people with obsessive-compulsive disorder.

Key words: COVID-19, obsessive-compulsive disorder, OCD, stress

### INTRODUCTION

COVID-19 first appeared in December 2019 in Wuhan, China [1]. The disease appeared in over 200 countries and the mortality rate was approximately 5.7% [2]. Coronavirus disease mainly affects the respiratory system [3]. COVID-19 is mainly transmitted through direct human contact, which contributes to the rapid spread of the disease [4]. In order to reduce the number of infections, many countries have introduced mandatory masks, quarantine measures, travel restrictions and a ban on organization of collective events [5, 6]. It should also be noted that the COVID-19 pandemic has left its mark on mental health, which has worsened in many people due to stress and isolation [7].

### **OBSESSIVE COMPULSIVE DISORDER**

Obsessive-compulsive disorder affects approximately 4% of the population [8]. It is classified as a mental disorder characterized by the occurrence of unwanted repetitive thoughts, i.e. obsessions and compulsions [9, 10]. Obsessions include, among others, images, impulses and ideas that arise against the will of the patient. They usually concern risky situations, violence, aggression and harm. They cause a great fear and anxiety in the patient and as they increase, force the patient to perform exaggerated activities aimed at preventing the threat. They are called compulsions or rituals. After compulsions, the patient experiences temporary relief [11, 12]. Frequent compulsions include forced hand washing, cleansing rituals, avoiding contact with objects considered contaminated, and avoiding situations where contamination could occur [12, 21].

Genetic, cognitive, neurobiological and behavioral factors are included among OCD causes in adults. Risk factors include phobias, alcohol and cocaine addiction, affective disorders and higher social class. Tics in childhood could also indicate the severity of OCD symptoms in later years [11].

### HOW TO MEASURE OBSESSIVE COMPULSIVE DISORDER?

Psychiatrists use Yale-Brown Obsessive-Compulsive Scale. It was developed in 1989 to assess the severity of symptoms of obsessive-compulsive disorders [13, 14]. It consists of a symptom checklist of 54 items and a severity scale of 10 items. Each item is rated from 0 to 5 on the Likert scale. Then all 10 items are added up. Research proves that the Yale-Brown Obsessive-Compulsive scale is a reliable tool. Additionally, it shows sensitivity to the effects of psychotherapy and medications [13, 15].

### **DISCUSSION**

The COVID-19 pandemic definitely has a negative impact not only on physical health, but also on mental health. In this respect, those with obsessive-compulsive disorder are likely to be the most affected by the rapid development of the pandemic. Ubiquitous information on COVID-19 from media and news feed anxiety and fear which in turn can exacerbate OCD symptoms [16]. The media encouraged the use of disinfectants, frequent hand washing, wearing gloves, not touching objects, and changing clothes after coming home. These recommendations are a major stressor for people with OCD, making their irrational rituals legitimate [17]. Additionally, they are accompanied by the risk of overestimation, a sense of responsibility and an intolerance to uncertainty [18, 19, 20]. The media guidelines for preventing COVID-19 infection are in line with

the obsessions of people with OCD, but contradict the treatment of obsessive-compulsive disorder. In times of pandemic, there is a difficulty between distinguishing standard disinfection techniques and dysfunctional obsessive-compulsive behavior [22]. Researchers became interested in the impact of the pandemic on the course of obsessive compulsive disorder and its prognosis [27].

M. Van Ameringen et al. conducted a study to demonstrate the impact of the COVID-19 pandemic on OCD symptoms. The survey was placed to the McMaster University server in Canada. Among other things, the link to the survey was shared on social media, such as Reddit, Facebook and Twitter, and on the websites of OCD clinics. The main eligibility criterion for participation in the study was a past diagnosis of OCD. The questions included in the survey mainly concerned the symptoms of OCD during pandemic. The Obsessive Compulsive Inventory-Revised (OCI-R) and Likert scale were used to measure symptoms. The study showed worsening of OCD symptoms in 76% of respondents. 70% of people used OCD treatment, while 45% of this group increased the frequency of treatment during pandemic. Most of the the respondents were probably also showing symptoms of depression or General Anxiety Disorder. As many as 86.1% noticed an impairment in the domains of social life, work, school, etc. [23].

A study conducted in the USA by Michael G. Heaton et al. also showed an increase in obsessive-compulsive disorder symptoms during COVID-19. OCD exacerbation occurred in 76.2% of participants [24]. Højgaard et al. conducted a study in a Danish cohort that showed an association between the severity of OCD symptoms and female gender, isolation, symptoms of infection, and coexisting mental illness. These factors contributed to the deterioration of OCD symptoms. The severity of obsessive-compulsive disorder increased in 61.2% of the respondents [25]. A study conducted in Italy also showed an increase in the severity of OCD symptoms [26].

In turn, a study conducted by Abba-Aji in Canada found that 60.3% of participants complained about viral obsessions or contamination during pandemic. More than half of the respondents felt compelled to wash their hands. The study also showed that the highest percentage of respondents who felt compelled to wash their hands concerned men over 60, with post-secondary education [28]. This is a surprising result compared to other studies that have found a correlation between OCD and female gender and younger age [29, 30].

People with obsessive-compulsive disorder have been shown to experience more anxiety and stress from a pandemic [24, 31, 32]. It should also be noted that there is a correlation between the severity of OCD during pandemic and changes in sleep, depression and suicidal ideation [33, 34 35, 36]. Benatti et al. conducted a study in Northern Italy in which 36% of participants showed worsening of OCD symptoms during the pandemic. Patients had more thoughts of suicide. They also noticed the emergence of more new obsessions and compulsions [33].

Probably not just the stress involved with a pandemic contributes to the intensification of the symptoms of obsessive-compulsive disorders. Central nervous system inflammation from COVID-19 can also worsen OCD [27, 43]. In a study by Mazza et al., severe OCD symptoms were present in 20% of the study group, consisting of COVID-19 survivors [43].

Slightly different results from other studies were brought by the study conducted by Littman et al. in Israel. The aim of the study was to evaluate the effect of quarantine on OCD symptoms. It was carried out during the period of compulsory quarantine in Israel and 65 people took part in it. The symptoms deteriorated only in 21 of the respondents. Whereas 23 did not report any change in the severity of their symptoms, and 21 concluded that their symptoms improved. The improvement was likely due to the quarantine, which reduced the need for some compulsions [40].

The impact of the COVID-19 pandemic and quarantine on mental health of children and adolescents should also be mentioned. Inability to attend school and limitations in social life contribute to an increased level of anxiety and stress among young people [37, 38, 39]. Relatively little research has focused on the impact of the pandemic on children and adolescents [39]. One such study was conducted by Tanir et al. in Istanbul. The study was conducted on 61 young people with obsessive-compulsive disorder. It concerned the impact of the COVID-19 pandemic and isolation on the course of obsessive-compulsive disorders among children and adolescents. OCD symptoms intensified in more than half of the respondents. The most common symptoms were cleaning compulsions and contamination obsessions [31].

# HOW CAN A DOCTOR HELP PATIENTS WITH OBSESSIVE-COMPULSIVE DISORDER DURING THE COVID-19 PANDEMIC?

Above all, doctors should be reassuring and empathetic towards the patient. They should listen carefully to what the patient reports and complains about. A diagnosis of obsessive-compulsive disorder should be differentiated from hypochondria. OCD patients will often have an increased frequency of thoughts about contamination or disease [16].

Pharmacotherapy and cognitive behavioral therapy should be used as first-line treatment in people with obsessive-compulsive disorder [16, 12]. Typically, patients should be given SSRIs. During pharmacotherapy, it is necessary to take into account the contraindications to the use of a given drug and possible side effects. It is recommended to start pharmacotherapy at a low dose and gradually increase it. The patient should take treatment regularly and follow the instructions. For this purpose, Medisafe application may be useful, which sends treatment reports to a psychiatrist [16].

It is worth taking care of the patient's psychoeducation. The patient should be informed about the real risks posed by the pandemic, as well as the impact it has on many levels of life. It is advisable to limit exposure to COVID-19 news, as well as select sources of information. Patients should choose reliable sources to avoid misinformation and the stress associated with it [16,31]. It is also worth paying attention to sleep hygiene, proper sleep has a positive effect on coping with anxiety. Physical activity and communication with loved ones on an online platforms also have a positive effect on health. [16]

An important issue is the assessment of suicide risk [16]. Although obsessive compulsive disorder does not carry a high risk of suicide, patients with comorbid conditions may be at an increased risk of developing suicidal thoughts [41]. The Columbia Suicide Severity Rating Scale is used to assess the suicide risk [42].

It should also be emphasized that therapeutic activities should be tailored individually to the needs of each patient [16].

### **SUMMARY**

To sum up, the COVID-19 pandemic is having an enormous impact on people's lives on many levels. The growing threat, restrictions, constant anxiety, stress and isolation have changed the lives of many people. The consequences of COVID-19 have negative effects on both physical and mental health. Especially for people with obsessive-compulsive disorder, the COVID-19 pandemic has turned out to be a huge stressor [23]. Many studies have shown an increase in OCD symptoms during a pandemic, which may also be due to overlapping recommendations for protection against infection with symptoms of OCD [23, 26, 44, 45, 46].

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