ISSN 1848-817X Coden: MEJAD6 51 (2021) 4

Obsessive-Compulsive Disorder and the Corona Virus Pandemic – Doctors, Am I Still Diagnosed?

Opsesivno-kompulzivni poremećaj i pandemija korona virusa

Suzana Uzun, Oliver Kozumplik, Nela Pivac, Jasminka Bektić-Hodžić, Ninoslav Mimica*

Summary -

Obsessive-compulsive disorder (OCD) was considered one of the less common mental disorders, but in
fact about 2-3% of people in the population have obsessive-compulsive disorder. OCD belongs to the group
of anxiety disorders, and is characterized by the appearance of obsessive thoughts and compulsive actions.
People who suffer from this disorder understand the irrationality of their actions and find them uncomfortable,
but cannot prevent them. Consequently, all aspects of life can be affected (work, school, interpersonal
relationships), and many activities limited. The changes in daily routines caused by the pandemic cause's

relationships), and many activities limited. The changes in daily routines caused by the pandemic cause's anxiety in everyone, it can be especially disturbing for people who suffer from mental disorders. Social structures and relationships are components of mental and physical health, and their sudden disappearance is especially difficult for those who use them to maintain balance in the fight against mental difficulties. An additional problem is the fear of many unknowns and an uncertain future. In this paper we aim to present the main characteristics of OCD and also changes in the way it is observed during the pandemic of corona virus.

Key words: clinical presentation, coronavirus, etiology, obsessive-compulsive disorder, pandemic

Sažetak

Opsesivno-kompulzivni poremećaj (OKP) smatran je jednim od manje učestalih mentalnih poremećaja, ali ustvari oko 2 do 3 % ljudi u populaciji ima OKP. OKP spada u skupinu anksioznih poremećaja i karakteriziran je pojavom opsesivnih misli i kompulzivnih radnji. Osobe koje pate od ovoga poremećaja razumiju iracionalnost svojih postupaka i smatraju ih neugodnima, ali ih ne mogu spriječiti. Posljedično, svi aspekti života mogu biti zahvaćeni (posao, škola, međuljudski odnosi), i mnoge aktivnosti ograničene. Promjene u dnevnim rutinama uzrokovane pandemijom izazivaju anksioznost kod svakoga, ali mogu biti posebno uznemirujuće kod osoba s mentalnim poremećajima. Socijalne strukture i odnosi su komponente mentalnog i tjelesnoga zdravlja i njihov iznenadan nestanak je posebno težak za one koji ih koriste da bi održali ravnotežu u nošenju s mentalnim poteškoćama. Dodatni problem je strah od mnogih nepoznanica i neizvjesne budućnosti. Cilj ovoga rada je iznijeti glavne karakteristike OKP-a, te također promjene u načinu na koji je sagledan OKP tijekom pandemije korona virusa.

Ključne riječi: korona virus, etiologija, klinička slika, opsesivno-kompulzivni poremećaj, pandemija

Med Jad 2021;51(4):375-382

Introduction

OCD was considered to be one of the less common mental disorders, but in fact about 2-3% of people in the population have OCD.

It usually develops between the age of 18 and 30, but it is also present in children. It is even estimated that about 2% of children have symptoms of OCD that go unrecognized. OCD is usually a long-term and chronic condition. Previous epidemiological studies

Correspondence address / *Adresa za dopisivanje:* Assist. prof. Suzana Uzun, MD PhD, University Hospital Vrapče, Bolnička cesta 32, 10 090 Zagreb, Hrvatska; Tel.+385 1 3780 682. E-mail: suzana.uzun@bolnica-vrapce.hr Received/*Primljeno* 2021-05-12; Revised/*Ispravljeno* 2021-07-13; Accepted/*Prihvaćeno* 2021-09-14

^{*} University Hospital Vrapče, Zagreb (assist. prof. Suzana Uzun, MD, PhD; prof.Oliver Kozumplik, MD, PhD; Jasminka Bektić-Hodžić, mag. med. techn.; prof. Ninoslav Mimica, MD, PhD); Josip Juraj Strossmayer University of Osijek, School of Medicine Osijek (assist. prof. Suzana Uzun, MD, PhD; Oliver Kozumplik); Ruđer Bošković Institute, Zagreb (permanent position prof. Nela Pivac, DVM, PhD, senior scientist); University of Zagreb, School of medicine Zagreb, Croatia (Ninoslav Mimica)

have shown that its maximum incidence is 5 cases per 100,000 people. Such a low incidence was probably caused by non-recognition of the disorder in everyday clinical practice until the early 1990s, then by patients concealing symptoms, and an average period of 7.5 years before seeking psychiatric help. OCD occurs equally often in both men and women.²

The first symptoms usually appear in adolescence or early adulthood, but may appear earlier. 31% of the first episodes occur between the ages of 10 and 15 and 75% develop by the age of 30. In most cases, there is no particular stress or event that precedes the onset of symptoms.^{2,3}

After a slow onset, a chronic and often progressive course of the disease follows. However, some patients describe a sudden onset of symptoms, which is usually induced by some specific conditions (e.g., during pregnancy, head injury, infection).^{3,4}

Obsessive compulsive disorder and obsessive compulsive personality disorder

OCD belongs to the group of anxiety disorders, and is characterized by the appearance of obsessive thoughts and compulsive actions. People who suffer from this disorder understand the irrationality of their actions and find them uncomfortable, but cannot prevent them.⁵ Consequently, all aspects of life can be affected (work, school, interpersonal relationships), and many activities limited.

It is characterized by obsession with compulsive thoughts, discomfort, anxiety and worry, which leads to a state of anxiety and causes compulsive irrational behavior with the aim of reducing anxiety.^{5,6} These persistent thoughts cannot be solved by an individual in the same way as compulsions or actions that must be performed. In its full clinical form, this disorder significantly affects the life functioning and quality of life of an individual.^{6,7}

The main difference between OCD and obsessive-compulsive personality disorder (OCDL) is that obsessions and compulsions are not present in OCDL. Although they share an excessive commitment to an action, people with OCD are usually anxious to perform the action because it is a compulsive action that occurs solely to reduce anxiety, while people with OCDL consider it a good strategy to improve efficiency and will see such activity as something necessary and useful. Also, OCDL is a chronic personality disorder with a few changes in characteristics (perfectionism, preoccupation with details, rules, commitment to work at the expense of everything else, inflexibility in terms of ethical and moral norms, stubbornness, stinginess, collecting

unnecessary things, etc.), while OCD symptoms change over time.^{8,9}

People with obsessive-compulsive disorder feel the need to perform coercive acts in an effort to alleviate their stressful feelings.

In obsessive-compulsive disorder a person may or may not be aware that the obsession is not reasonable. Some people ignore such coercive behavior, while others try to stop it. But for most people, it only increases anxiety and worry.⁹

Modern technologies have made it easier to access information and diseases and treatment options. More frequent use of the Internet to gather health information is associated with a greater likelihood of changing health behaviors. Health-related information gathered online can influence people's decisions: when to seek a diagnosis or treatment from a specialist, how to deal with a current illness or chronic condition and how to maintain their own or someone else's health. ¹⁰

Clinical presentation of OCD

The main features of OCD are obsessions and/or compulsions. Obsession is an unwanted psychological event that usually causes anxiety or discomfort. Obsessions can be thoughts, ideas, images, sounds, ruminations (preoccupations with thoughts), beliefs, fears, or urges, and most often have aggressive, sexual, religious, unpleasant, vulgar, or meaningless content.^{9,11}

Obsessive ideas are repeated thoughts that interfere with the normal flow of thoughts, and obsessive images are often vivid visual experiences. Obsessions are unpleasant thoughts, images, instincts, or impulses (an impulse is a sudden feeling that something terrible is going to be done) that can cause severe anxiety. Common obsessions include fears of infection with dirt, bacteria, viruses, etc. There are also worries about unlocked doors, stove that will cause the house to burn down or be broken into. It can also be the fear of making mistakes or bad and inappropriate behavior, and the need for great accuracy. These are the most common obsessions, but they can be about practically anything. 11,12,13

Compulsions, on the other hand, are repetitive behaviors (and can be thoughts), something a person does to feel better. Most often it is a response to obsessions: compulsions help a person to be sure that the thing he is afraid of will not happen or to reduce the tension due to obsessions. For example, a person may wash their hands every few minutes in response to an obsession with a bacterial infection. Or, once out of the house, he/she can come back many times to check and make sure the door is really locked or the stove turned

off. Other compulsions can be over-cleaning and disinfecting the house, washing clothes, counting, touching, saying words in self, arranging things in a specific way, etc. ^{13,14}

Obsessive beliefs are usually marked by elements of magical thinking, such as "if a black cat crosses your path, some evil will befall you." Obsessive ruminations can involve prolonged excessive and unproductive thinking about metaphysical issues. Obsessive fears often include dirt or fear of infection, and differ from phobias in that they are present even in the absence of a phobic stimulus. Obsessive fears exaggerate the likelihood of a phobic stimulus, and are unrealistic in the methods used to undo the fear. Other common obsessive fears include evil that will happen to a person or others because of something done, such as the fear that the house will catch fire because the person has not checked to see if the stove is turned off or that a pedestrian will be run over while driving. 15

Patients resist and manage to control their obsessions to varying degrees, but as a result there is significant impairment in daily functioning. Resistance means fighting urges or intrusive thoughts, and control is the patient's actual success in distracting thoughts. Obsessive doubts and indecision in their worst form can be extremely time consuming and even "paralyzing" for a person. Another feature of obsessive thinking involves a lack of certainty or constant suspicion.¹⁵

Obsessive thoughts typically follow compulsive rituals, such as excessive washing or checking, but they appear to arise precisely because of an excessive lack of security and consist of inappropriate, sometimes erroneous, attempts to increase security. A compulsive ritual is a behavior that usually reduces discomfort, but is performed in a forced or inflexible manner. Such behavior may include rituals consisting of washing, checking, repeating, avoiding, craving for meticulousness, completeness, and perfection. Such people are worried about dirt, germ infection and can spend hours and hours washing their hands or taking a shower, trying to avoid infection with feces, urine or vaginal secretions. Often, they suspect pathologies and therefore compulsively check to make sure that, for example, they have run over someone in a car, left an unlocked door or turned on the stove. Checking often does not remove the suspicion, and in some cases may even make it worse. 15,16

OCD is a condition in which a person has recurrent obsessions, compulsions, or both. People with OCD most often have both obsessions and compulsions, but sometimes they have only obsessions or only compulsions.¹⁵

There are several different clinical presentations of OCD, depending on the set of symptoms. One group includes patients with obsessions about dirt and infection, whose rituals revolve around compulsive washing and avoiding infected items. The second group includes patients with pathological counting and compulsive screening, and the third group includes purely obsessive patients, without compulsions. ¹⁶

Although the clinical presentation of OCD is quite clear and striking, it is sometimes diagnostically difficult to separate OCD from depression, psychotic disorder, phobia, or severe OCD. In some cases, the course of OCD can very closely mimic the course of schizophrenia, with chronic disability, deterioration, and profound impairment of social, family, and work functioning. It is sometimes difficult to distinguish obsessions (i.e., contamination) from insanity (i.e., to poison it).¹⁷

Patients with OCD often have depression as a complication, and such patients are difficult to distinguish from depressed patients who have obsessive symptoms as a complication. These "secondary" obsessions often include aggressive topics, guilt, and mood-appropriate self-accusing topics. Furthermore, depressive ruminations, unlike true obsessions, are often focused on past events rather than present or future ones and are rarely resisted or annulled by compulsive rituals.¹

Etiology of OCD

The causes of OCD are not yet completely clear. In part, heritage plays a role. Although no specific genes for OCD have been found, it is more likely to get OCD if close relatives have it. Certain changes in the balance of chemicals in the brain also play a role, so medications can also help (antidepressants that improve the balance of neurotransmitters in the brain). As with most other psychological difficulties, life stressors also play a role, as do certain personality traits (in OCD it is expressed responsibility, conscientiousness, perfectionism, emotional instability, etc.).^{2,12}

There are different hypotheses of the cause of OCD, but none of them can fully explain its origin, so as always, it is believed that the answer to this question lies somewhere in the middle, that is, that there is the influence of both factors.

Biological interpretations of the origin of OCD

Studies have shown that there is an association between encephalitis, head injuries and brain tumors with the development of OCD. Neurochemically, serotonin occupies a central place. Extensive research has confirmed its involvement in the pathogenesis of OCD. Selective serotonin reuptake inhibitors (clomipramine, fluoxetine, and tricyclic antidepressants) have been shown to alleviate OCD symptoms. 12,13,14 Similarly, it has been shown that the condition of individuals with significantly increased concentrations of serotonin or its major metabolites is most successfully improved when using selective serotonin reuptake inhibitors. 14 Furthermore, other research has focused on studying the activities of different areas of the brain in people with OCD. Functional neuroimaging studies have shown increased activity of the orbitofrontal cortex, anterior cingulate cortex and caudate nucleus in individuals with OCD which has generally been taken as evidence that hyperactivity of these areas generates OCD symptoms. On the other hand, some authors associate these results with the possibility that these regions have become hyperactive as a result of the existence of obsessive content. 14,15,16 Furthermore, research of twins has shown that heredity plays an important role in the development of OCD. A higher degree of concordance was found for OCD among identical twins than with identical twins, and more frequent occurrence of OCD in relatives of patients with this disorder. Also, it has been shown that in children the symptoms of OCD are hereditary with the influence of genes in the range of 45-65%, while in adults this range is 27-47%. The genetic hypothesis suggests at least five major genes that play an important role in the pathogenesis of OCD. However, the role of environmental factors in the etiology of OCD is also emphasized because it is unlikely that only the genetic component will influence the development of the disease, and in addition there are numerous cases that do not have a positive family history.⁸

Psychological theories of OCD

There are three most dominant hypotheses of obsessive-compulsive disorder: psychoanalytic, behavioral and cognitive. According to the psychoanalytic paradigm, OCD is equated with obsessive-compulsive neurosis, and obsessions and compulsions are the result of sexual or aggressive instincts that spiraled out of control due to too strict upbringing during the acquisition of control over eliminatory functions. Therefore, the person is fixed in the anal stage, i.e. there is a regression from Oedipal conflicts to the anal stage of development. ^{17,18} The symptoms that occur are the result of a struggle between the id and the defense mechanisms where id will sometimes prevail and sometimes defense mechanisms. On the other hand, there are opinions that OCD occurs when strict and authoritative parents prevent the development of a sense of competence in the child. Burdened with a inferiority complex through childhood, they can subconsciously adopt compulsive actions in adulthood in order to have control and feel capable and effective at least in some areas of their lives. Initially, anxiety is conditioned in a classical way with a specific event, and then the person engages in compulsive rituals to reduce anxiety.

Ritualized behavior maintains a reaction of fear because the person avoids the stimulus that caused it and therefore avoids extinction. Similarly, reducing anxiety after a ritual maintains compulsive behavior. However, not all compulsions will equally reduce anxiety, e.g., cleansing compulsions alleviate anxiety more often and more strongly than checking compulsions.^{5,19,20} The cognitive model assumes that certain types of thinking and cognitive processes are closely related to OCD and that they contribute to the maintenance of that disorder. Negative beliefs about responsibility, especially responsibility around compulsive thoughts, can be a key factor influencing obsessive behavior.7 Such persons also exaggerate their own responsibility for possible harmful events, which leads not only to anxiety, but also to extreme shame or guilt. Accordingly, compulsions and avoidant behavior are considered not only attempts to reduce danger, but also attempts to reduce the precipitated experience of responsibility.9 Furthermore, in addition to liability schemes, people with OCD also show memory errors or a tendency to remember disturbing topics, e.g. they remember contaminated objects better than people who do not have OCD.⁶ In addition, people with OCD who have over-checking compulsions have not been found to have memory impairment, but to have poor confidence in their memory. The more they check their activities, the more their confidence in their own memory weakens. 19,20 In addition, some research has shown that there is impairment of spatial recognition in people with OCD, while spatial working memory is preserved with respect to performance accuracy. 21,22,23 Likewise, it has been found that these individuals have impaired selective attention impairment and it is assumed that these impairments are related to their reduced ability to selectively ignore certain stimuli. In contrast to adults. neurophysiological deficits were not found in children with OCD, and it is assumed that OCD symptoms do not affect cognitive functions at the onset of the development of this disorder.23,24

Over 90% of people have "strange" and unusual thoughts and images or impulses to do something strange and completely inappropriate. However, most people just smile at such an idea and know that there is a big difference between thoughts, real intentions and

real behavior, and they don't think they are bad people at all because of such thoughts. Therefore, they do nothing special to prevent such thoughts from coming to their minds. People who develop OCD, when such a strange thought comes to their mind, get very upset because they think they are very bad, evil and irresponsible people if they have such thoughts. ^{24,25}

But the problem is that doing compulsions gives a person only momentary relief, and he has to keep repeating them. Such repetition can occupy most of a person's day which is why he no longer has enough time for other things in life and which is why he is in constant tension.²⁵

Course and prognosis of OCD

According to the time of onset of symptoms, OCD can be divided into two groups: OCD with early onset and OCD with late onset. The average age of onset of early OCD is 11 years and of late 23 years. OCD that occurs at an early age is more common in men with compulsory screening, whereas with late onset it is more common in women with compulsive cleansing.²⁶ Furthermore, studies of the natural course of obsessive-compulsive disorder suggest that 24-33% of people with this disorder have a fluctuating course, 11-14% have a phased course with periods of complete recovery, and 54-61% have a steady or progressive course.²⁶ Although the prognosis of OCD has traditionally been considered poor, advances in behavioral and pharmacological treatment have significantly improved the prognosis in the patient. However, there are different OCD prognoses. Clinical manifestations of OCD allow a division into mild, moderate and severe forms of the disorder. Milder forms are shorter, do not lead to impaired functioning, respond well to treatment, while moderate forms of OCD are a bigger problem for the patient, but also for his environment. Disorders of work, social, emotional and family functioning occur. Such patients require a combination of pharmacotherapy and psychotherapy. The most severe forms of OCD are chronic and refractory to psychotherapy and pharmacotherapy, but sometimes to neurosurgical procedures, which are rarely recommended. The person stops working, breaks emotional and family ties, and is constantly obsessed with thoughts and actions. The functioning and quality of life of these patients may be impaired more than in people with severe psychiatric illness (e.g., in people with schizophrenia). Thus, a person with a severe form of OCD can be constantly washed and showered for several hours a day, thus seriously damaging the skin, which will lead to the need to seek the help of a doctor or another specialist.^{7,27}

Differential diagnosis of OCD

The diagnosis of OCD is usually clear, but it is sometimes difficult to distinguish it from depression, psychotic disorder, phobia, or severe obsessivecompulsive personality disorder.²⁶ Sometimes it is difficult to distinguish obsessions from insanity. The most common obsessions are ego-dystonic, i.e. the person resists them and recognizes that they have an origin in him. A person does not resist insanity and is convinced that it is external. However, people with OCD do not have to have an insight into obsessions and they will only become insane in 12% of cases. Furthermore, longitudinal studies have shown that people with OCD are not at increased risk of developing schizophrenia.^{27,28} People with psychotic depression, agitated depression, or with premorbid obsessive-compulsive disorder before the onset of depression are at risk of developing severe obsessive thoughts when they are depressed.²⁶ These secondary obsessions are often aggressive in nature, including guilt and self-blame. This difference between primary and secondary obsessions depends on the order of occurrence. Furthermore, depressive ruminations, unlike true obsessions, are often focused on past events rather than current or future events and are rarely resisted or reversed by compulsive actions.²⁶ Also, people with OCD can never completely avoid obsessions, always imagine amazing events and have unrealistic understandings of how to undo their fear, while people with phobias have limited, external and more realistic stimuli, which they can therefore avoid more successfully. Furthermore, people with OCD, who experience high levels of anxiety, may have episodes similar to panic attacks, but these are secondary to obsessions and do not occur spontaneously.²⁵

Treatment of OCD

Before starting treatment, it is important to give the patient and his family as much information as possible about the disease itself and to acquaint them well with the possibilities of treatment. Pharmacotherapy and specific psychotherapy are used in the treatment, and in severe cases, a combination of both approaches is recommended. Although research has shown that there is no significant difference in the effectiveness of the combined approach in the treatment of OCD compared to the use of psychotherapy itself or cognitive-behavioral approach, psycho pharmaceuticals are often used first to stabilize the patient's condition and then move on to psychotherapy.

Studies have shown that 50-60% of people with OCD take antidepressants. However, the problem with medications is that symptoms return in full swing if the person has not at the same time learned how to control their anxiety about obsessions without making compulsions. It is cognitive-behavioral therapy that can help with this. In more severe and long-term conditions, it is most useful to take medication and undergo psychotherapy at the same time, because it progresses faster, and when the medication is stopped, the person has already adopted strategies for managing their anxiety.

Behavioral treatments for OCD consist of two components: exposure procedures that try to reduce obsessive-compulsive disorder or coping with obsessive fears, and response prevention techniques that try to reduce the frequency of rituals or obsessive thoughts. Exposure therapies can range from systemic desensitization with short-term imaginary exposure to flooding in which prolonged exposure to actual stimuli, which elicit rituals, leads to great discomfort. Thus, this technique aims to reduce anxiety related to obsessive-compulsive stimuli through habituation, so that the patient is exposed to a stimulus, either real or imagined, that triggers obsessive thoughts, and repeating the procedure leads to habituation to a particular stimulus. In doing so, the patient's hierarchy of symptoms is respected, starting with what the patient considers least threatening. With this therapy, the patient first gets homework to be adhered to, and only if he fails to do so does the therapist come to the rescue. The second component of behavioral therapy involves response prevention techniques that try to alleviate obsessions and reduce the number of compulsions and that involve confronting patients with stimuli they fear (e.g., dirt, chemicals) without excessive hand washing, or submission of thoughts (e.g., "Is the door locked?") without excessive checking. Initial tasks may involve delaying the performance of the ritual, but later these tasks are oriented so that the client completely resists compulsions.²⁹ The best results are achieved by a combination of exposure techniques and response prevention techniques.²⁹ Up to 85% of clients who used this combination reported a significant improvement in symptoms.³⁰ Predictors of poorer outcome with behavioral treatment of OCD include depression at onset, more severe OCD at onset, longer duration of this disorder, and less motivation to treat.²⁹

Furthermore, the next therapy recommended in the treatment of OCD is cognitive therapy. The strategies of this approach are primarily focused on the discomfort associated with obsessions and the need to correct or neutralize them. Patients are taught how to

accept obsessions without attempting to stop or neutralize them in order to reduce the anxiety, guilt, and sadness associated with obsessive thoughts over time. By changing the client's patterns of danger and excessive responsibility, cognitive reconstruction helps patients see that they are not responsible for their obsessive thoughts and that they do not pose a threat and do not have to lead to action. Cognitive techniques also help individuals identify stress triggers that can exacerbate OCD symptoms.³¹

As mentioned earlier, the most effective therapy in the treatment of OCD is one that involves cognitive and behavioral therapy. CBT consists of psychoeducation, breathing techniques, cognitive and behavioral techniques. It begins with psychoeducation where the therapist introduces the patient with compulsive thoughts and normalizes his behavior. The patient thus learns that compulsive thoughts do not occur only to him, but that it is a normal occurrence because every man sometimes has them. Then the patient is taught proper breathing or proper application of slow and deep breathing techniques. After that, they try to help the patient to use their thoughts in a different way and to avoid negative thoughts, and by exposing and preventing the answers, they want to prevent his motor and mental compulsions. The therapist together with the patient creates a hierarchical scale that includes situations that cause fear, from the smallest to the largest. The exposure lasts from 45 minutes to two hours until the anxiety is minimal, i.e. until it is equal to zero, and only after that it moves to the next level of the hierarchical scale.30 After the exposure, the therapist teaches the patient how to prevent ritualization, and by repeating the procedure, the patient gets used to the exposure to a stimulus that activates obsessions and compulsions. This is followed by processing or discussion of the patient's experience of exposure without ritualization. When it is concluded that the expected "catastrophe" has not occurred, the therapist uses this positive outcome as a tool to change false beliefs at the cognitive level. In this way, the patient will eventually learn to recognize obsessions and compulsions as symptoms of OCD.

Pandemic of corona virus and OCD

The change in daily routines caused by the pandemic causes anxiety in everyone, but it can be especially disturbing for people who suffer from mental disorders. Social structures and relationships are components of mental and physical health, and their sudden disappearance is especially difficult for those who use them to maintain balance in the fight against mental difficulties. An additional problem is

the fear of many unknowns and an uncertain future. This is a disorienting age, especially for those struggling with anxiety disorders of which fear about the future is an integral part.³²

It is estimated that nearly a third of people diagnosed with OCD live in fear of contracting the disease and regularly fear for their health. This fear and anxiety is heightened by a pandemic that may trigger some characteristics of OCD such as preoccupation with cleanliness. The rules have changed, friends and neighbors are now performing OCD-specific behaviors, and those who have learned how to successfully deal with the obsession contamination and compulsion with disinfection are working hard to deal with the new situation. The same people who have told them for years that their worries and behaviors are extreme are now telling them to wash their hands often and long enough to avoid being infected, which is hard to reconcile. The emergence of this virus threatens to undo their progress they have made in convincing themselves that their fear of transmitting a disease is excessive. People diagnosed with OCD try to find a balance between appropriate caution and overreaction. The pandemic blurs the line between safety and compulsion and they no longer know what behavior is excessive. Government guidelines encourage behaviors that people with OCD have previously tried not to do to control their disorder. Many people who have OCD probably feel as if their fears have been justified all along and that they have rightly cared. OCD causes, not only the thought that it is extremely likely to be infected with this new virus, but also the feeling that they must take every precaution not to transmit it to their loved ones. This sense of responsibility and fear of risk leads to behaviors that go beyond measure for those who do not suffer from OCD. This is understandable because the OCD exaggerates the severity of the problem, and similar sensationalism appears in the ubiquitous media and on social networks. All of this is extremely mentally and physically exhausting, and for some the effect of the crown pandemic is likely to be visible long after the public health crisis has passed.³³ Much of the anxiety is based on worrying about the unknown and waiting for something to happen - the coronavirus does just that, but much more powerfully. 33,34

An anecdotal phenomenon is also emerging so some people suffering from OCD are actually coping pretty well with the new worries and restrictions. They say their sensitivity to contamination is now becoming the norm, the world is approaching them and they feel understood. It happens that people with OCD function pretty well when there is a real, unequivocal crisis. What is difficult for them is to deal with the uncertainty

of everyday life, when the danger is small but not zero. The bright side for some is that the pandemic shows them how far they have come in their fight against OCD and now they are watching others perform behaviors that they have managed to bring under their control. Many people living with OCD are glad that others finally understand what they are going through every day. Many people who do not have anxiety problems do not understand that for people with anxiety disorders this fear that we all feel every day is "OCD 's normal" has now become "everyone's normal".^{34,35}

Conclusion

It is important to explain to patients that many people will experience obsessions and/or compulsions to some degree during their lifetime, which does not automatically mean that they have OCD. 36,37,38 The difference is in the intensity of these symptoms - in people with OCD they significantly impair the quality of life and jeopardize daily functioning. Unfortunately, history shows us that with each new pandemic, unwanted intrusive thoughts appear, which for some turn into OCD. People who were previously predisposed to developing OCD could now show symptoms for the first time. 38

In the situation of pandemic, it is important to encourage realistic risk assessments as well as the individual's ability to protect himself and his family by repeating accurate information, realistic risk and hazard assessments, and protective measures based on expert evidence.³⁹

References

- Leahy RL, Holland SJ, McGinn LK. Planovi tretmana i intervencije za depresiju i anksiozne poremećaje. Jastrebarsko: Naklada Slap, 2014.
- 2. Vulić-Prtorić A, Galić S. Opsesivno-kompulzivni simptomi u djetinjstvu i adolescenciji. Med Jad 2003;33:41-51.
- 3. Nestadt G, Grados M, Samuels JF. Genetics of OCD. Psychiatr Clin North Am 2010;33:141-58.
- 4. Whiteside SP, Port JD, Abramowitz JS. A meta-analysis of functional neuroimaging in obsessive-compulsive disorder. Psychiatry Res 2004;132:69-79.
- Stallard P. Misli dobro, osjećaj se dobro: kognitivnobihevioralna terapija u radu s djecom i mladim ljudima. Jastrebarsko: Naklada Slap, 2010.
- Abramowitz JS. The psychological treatment of obsessive-compulsive disorder. Can J Psychiatry 2006; 51:407-16.
- Begić D. Psihopatologija. Drugo dopunjeno i obnovljeno izdanje. Zagreb: Medicinska naklada, 2014; 301-4.

- 8. Browne HA, Gair SL, Scharf JM, Grice DE. Genetics of obsessive-compulsive disorder and related diorders. Psychiatr Clin North Am 2014;37:319-35.
- Gordon OM, Salkovskis PM, Oldfield VB, Carter N. The association between obsessive compulsive disorder and obsessive compulsive personality disorder: prevalence and clinical presentation. Br J Clin Psychol 2013;52:300-15.
- Bagarić B, Jokić Begić N. Kiberohondrija: zdravstvena anksioznost uvjetovana pretraživanjem interneta. Soc psihijatr 2019:47;28-50.
- 11. Kisely S, Hall K, Siskind D, Frater J, Olson S, Crompton D. Deep brain stimulation for obsessive-compulsive disorder: a systematic review and meta-analysis. Psychol Med 2014;44:3533-42.
- 12. Liu X, Cui H, Wei Q, et al. Electroconvulsive therapy on severe obsessive-compulsive disorder comorbid depressive symptoms. Psychiatry Investig 2014:11:210-3.
- 13. National Institute of Health and Clinical Excellence. Obsessive-compulsive disorder: core intervention int he treatment of obsessive-compulsive disorder and body dysmorphic disorder. The British Psychological Society & The Royal College of Psychiatrists, 2006.
- 14. Olver JS, O'Keefe G, Jones GR, et al. Dopamine D1 receptor binding 30ft he striatum of patients with obsessive-compulsive disorder. J Affect Disord 2009; 114:321-6.
- 15. Practice guideline for the treatment of patients with obsessive-compulsive disorder. American Psychiatric Association, 2007.
- 16. Spofford CM, McLaughlin NC, Penzel F, Rasmussen SA, Greenberg BD. OCD behaviour therapy before and after gamma ventral capsulotomy: case report. Neurocase 2014;20:42-5.
- 17. Živčić-Bećirević I. Bihevioralno-kognitivna terapija anksioznih poremećaja. U: Begić D (ur). Suvremeno liječenje anksioznih poremećaja. Zagreb: Medicinska naklada; 2010;57-62.
- 18. Folnegović-Šmalc V, Grošić V, Henigsberg N, i sur. Panični poremećaj. Soc Psihijatr 2003;31:102-5.
- 19. Mimica N, Folnegović-Šmalc V, Uzun S, Rušinović M. Benzodiazepini za i protiv. Medicus 2002:11;183-8.
- 20. Ayers SL, Kronenfeld JJ. Chronic illness and health-seeking information on the Internet. Health 2007; 11:327-47.
- 21. White RW, Horvitz E. Cyberchondria: studies of the escalation of medical concerns in web search. ACM Transactions on Information Systems (TOIS) 2009; 27:23.
- 22. de Haan E, van Oppen P, van Balkom AJ, Spinhoven P, Hoogduin KAL, van Dyck R. Prediction of outcome and early vs. late improvement in OCD patients treated with cognitive behaviour therapy and pharmacotherapy. Acta Psych Scand 1997;96:354-61.
- 23. Eddy KT, Dutra L, Bradley R, Westen D. A multidimensional meta-analysis of psychotherapy and pharmacotherapy for obsessive-compulsive disorder. Clin Psychol Rev 2004;24:1011-30.
- 24. Hawton K, Salkovskis PM, Krik J, Clark DM. Kognitivno-bihevioralna terapija za psihijatrijske

- probleme: vodič za praktičan rad. Jastrebarsko: Naklada Slap, 2008.
- 25. Klepsch R, Wilcken S. Prisilne radnje i prisilne misli: Kako izaći iz vlastitog začaranog kruga. Jastrebarsko: Naklada Slap, 2005.
- Larsen RJ, Buss DM. Psihologija ličnosti: Područja znanja o ljudskoj prirodi. Jastrebarsko: Naklada Slap, 2008.
- 27. Štrkalj-Ivezić S, Folnegović-Šmalc V, Mimica N. Anksiozni poremećaji: Dijagnosticiranje anksioznih poremećaja. Medix 2007;71:56-8.
- 28. Drubach DA. Obsessive-compulsive disorder. Continuum (Minneapolis, Minn.) 2015;21(3 Behavioral Neurology and Neuropsychiatry):783-8.
- 29. Hollander E, Simeon D. Anksiozni poremećaji. Jastrebarsko: Naklada Slap, 2006.
- Hoffart A, Sexton H, Hedley LM, Martinsen EW. Mechanisms of change in cognitive therapy for panic disorder with agoraphobia. J Behav Ther Exp Psychiatry 2008;39:262-75.
- 31. Leahy RL, Rego SA. Cognitive restructuring. In: Cognitive Behavior Therapy: Core Principles for Practice, ed. William O'Donohue, Jane E. Fisher. John Wiley & Sons, Inc., 2012. p. 133-158.
- 32. Wetterneck C, Steinberg DS, Hart J. Experiential avoidance in symptom dimensions of OCD. Bull Menninger Clin 2014;78:253-69.
- 33. Muslić Lj. Koronavirus kao prijetnja mentalnom zdravlju. U: Bogdan A (ur). Koronavirus i mentalno zdravlje: psihološki aspekti, savjeti i preporuke. Zagreb: Hrvatska psihološka komora, 2020;8-10.
- 34. Vračić I. Psihološka prva pomoć u krizi. U: Bogdan A (ur). Koronavirus i mentalno zdravlje: psihološki aspekti, savjeti i preporuke. Zagreb: Hrvatska psihološka komora, 2020;19-22.
- 35. Tibi L, van Oppen P, van Balkom AJLM, et al. The long-term association of OCD and depression and its moderators: A four-year follow up study in a large clinical sample. Eur Psychiatry 2017;44:76-82.
- 36. Mimica N, Štrkalj Ivezić S, Folnegović-Šmalc V. Farmakološke smjernice za liječenje anksioznih poremećaja osim posttraumatskog stresnog poremećaja. Medix 2007;71:80-5.
- 37. Uzun S, Mimica N, Štrkalj Ivezić S, Folnegović-Šmalc V. Liječenje socijalne fobije. Dijagnostičke i terapijske smjernice (algoritam): anksiozni poremećaji priručnik za praćenje seminara. Zagreb: Hrvatski liječnički zbor; Hrvatsko društvo za kliničku psihijatriju, Sekcija za psihosocijalne metode liječenja psihoza, Hrvatsko psihijatrijsko društvo, 2003.
- 38. Malouff JM, Schutte NS. Can psychological interventions increase optimism? A meta-analysis. J Posit Psychol 2016;12:594-604.
- 39. Muslić Lj. Razlozi zbog kojih se prijetnja zaraze i opasnosti koronavirusom doživljava kao veća opasnost od sezonske gripe. U: Bogdan A (ur). Koronavirus i mentalno zdravlje: psihološki aspekti, savjeti i preporuke. Zagreb: Hrvatska psihološka komora, 2020;55-6.