# **Experience of Iranian Patients with Obsessive-Compulsive Disorder from the COVID-19 Pandemic: A Qualitative Study**

Seyede Salehe Mortazavi<sup>1</sup>, Mahdieh Salehi<sup>2</sup>, Shakiba Gholamzad<sup>3</sup>, Saeedeh Shirdel<sup>4</sup> and Fatemeh Shirzad<sup>5\*</sup>

- 1. Geriatric Mental Health Research Center, School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences, Tehran, Iran
- 2. Department of Health psychology, School of Behavioral Science and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Science, Tehran, Iran
- 3. Student Research Committee, School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences, Tehran, Iran
- 4. Mental Health Research Center, School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences, Tehran, Iran
- 5. Spiritual Health Research Center, Department of Psychiatry, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

# \* Corresponding author

# Fatemeh Shirzad, MD.

Spiritual Health Research Center, Department of Psychiatry, School of Medicine, Iran University of Medical Sciences, Tehran Iran

**Tel:** +98 21 44525615, 9155120609 **Email:** Shirzad.f@iums.ac.ir

Received: Apr 11 2022 Accepted: Oct 29 2022

# Citation to this article:

Mortazavi SS, Salehi M, Gholamzad Sh, Shirdel S, Shirzad F. Experience of Iranian Patients with Obsessive-Compulsive Disorder from the COVID-19 Pandemic: A Qualitative Study. *J Iran Med Counc.* 2023;6(1):146-57.

# **Abstract**

**Background:** During the COVID-19 pandemic, different environmental stressors and the difficult lockdown conditions exacerbated the signs and symptoms of Obsessive-Compulsive Disorder (OCD). The aim of this study is to qualitatively investigate and deeply understand the experiences of patients during the epidemic and its effect on the exacerbation of their symptoms to help plan the treatment of OCD during these kinds of periods.

**Method:** This was a descriptive phenomenological study using Colaizzi's approach, conducted on OCD patients who visited Tehran Psychiatric Institute. Semi-structured interviews were conducted with the patients and continued until reaching saturation. Lincoln and Guba's trustworthiness criteria for qualitative research (credibility, dependability, transferability, and confirmability) were used to ensure the accuracy and precision of the findings.

**Results:** Fourteen participants with a mean age of 30.3 years took part in this study. The data analysis revealed three themes: the pandemic disrupting OCD patients' mental structure (OCD exacerbation, increased tensions in interpersonal relationships, mental exhaustion), rationalization of OCD symptoms in the context of COVID-19 (not feeling excluded, conflict resolution with the family, theoretically taking revenge on others), and the assimilation of COVID-19 within OCD (adaptation of the mental world to the world of COVID-19, altered content of obsession, and altered pattern of obsession).

**Conclusion:** The stress induced by the COVID-19 pandemic can impact OCD in different ways, mostly by exacerbating the symptoms, adding new symptoms, and altering the type of obsession. The stress of infection is the most important factor in OCD exacerbation

Keywords: COVID-19, Obsessive-compulsive disorder, Pandemic

# Introduction

The world is currently combating the pandemic of COVID-19, an infectious disease that first appeared in Wuhan Province, China, and shortly spread all over the world (1). As reported by the World Health Organization (WHO), COVID-19 has turned into a global crisis and a public health hazard. In addition to physical health, it has seriously impacted mental health and caused serious psychological complications such as anxiety, depression, somatization, and high-risk behaviors such as alcohol and substance use (2). Symptoms such as fear of death, sense of loneliness, irritability, and anger have emerged in patients and other individuals in quarantine (3). Many countries enacted lockdown policies during this time, which are still in place in some countries. People have to stay in and cannot leave the house for several days (4.5). Those who are guarantined lose face-to-face communications and social interactions, which is a stressful phenomenon (6).

The pandemic-induced stress and anxiety may exacerbate the existing mental health problems or cause new ones (7). Although the known course of this disease includes periods of relapse and remission, the crisis of the covid-19 pandemic can accelerate the relapse of the disease or cause the symptoms to worsen and make patients experience a severe decrease in performance (8). Patients with Obsessive-Compulsive Disorder (OCD) who had been treated have experienced a relapse in this period (9).

Various factors during the pandemic can exacerbate the signs and symptoms of OCD. Increased motivation for performing and prolonging hand washing, and paying attention to the stages of hand washing based on the recommended protocols may aggravate the rituals performed by people with OCD. The family's emphasis on adherence to health protocols and the patients' ongoing reception of information from the media about the risk of transmission from various surfaces can intensify their preoccupation with contamination (8).

The great emphasis and concentration of news channels and experts on repeated hand washing make it difficult for OCD patients to resist their washing obsession (10). Purchasing masks, soaps, detergents, and disinfectants also aggravate hoarding compulsion (8).

Despite the various studies on the effects of the covid-19 pandemic on obsession, to the best of our knowledge, almost all of them are only quantitative studies and fewer have studied the deep qualitative thoughts and obsessive behavior and experiences of patients in this period. However, the examination of the mentioned cases can be of great help to the nonpharmacological treatments of obsessions such as psychotherapy and family interventions necessary for patients.

# **Materials and Methods** Study design

This was a descriptive phenomenological study.

# **Participants**

The studied population comprised patients with OCD who had visited the Tehran Psychiatric Institute. The inclusion and exclusion criteria were: Patients with OCD who provided informed consent for participation, did not have an active comorbid psychotic disorder, did not consume substances or alcohol at that time, and did not have cognitive disorders that would prevent communication with the interviewer were included. Patients who were unwilling to continue the interview or participate in any stage of the study were excluded.

# Data collection method

The data were collected using semi-structured interviews. First, the clinical records of the patients at the clinic were reviewed; cases for whom the diagnosis of OCD was confirmed by a psychiatrist collaborating with the team based on DSM-IV criteria were identified. The patients were then contacted using the telephone numbers in their health records. After briefing the participants, a suitable time was set for the telephone interview. As the interviews were going to be conducted over the phone, the participants orally provided informed consent. After a brief introduction, the interviews began by asking the interviewees to explain how their symptoms had changed since the outset of the pandemic. The interviews lasted 20 to 45 min depending on the interviewees' physical and mental status, workload, or willingness to continue the interview. The interviews continued until the results did not alter the existing

data (Interview # 11). To be on the safe side, three more interviews were conducted.

# Data analysis method

The data were analyzed based on Colaizzi's approach in seven steps (11): 1) At the end of each interview, the researcher listened to and transcribed it verbatim, 2) After reading all the descriptions provided by the participants, the researcher underlined significant and relevant information, thereby highlighting important sentences, 3) The formulated concepts were then extracted. After highlighting the important phrases in each interview, the researcher tried to extract a single concept that would capture the interviewee's meaning and idea. Subsequently, the researcher tried to examine the relevance of the concept to the original sentences and ensure their relevance, 4) After extracting the codes, the concepts were closely examined and classified based on similarities to form thematic groups, 5) The inferred results were integrated to provide a comprehensive description of the phenomenon under study and form more general categories, 6) The researcher closely described the phenomenon under study using clear and unambiguous wording, 7) The researcher contacted some participants randomly to validate the findings.

# **Trustworthiness**

Lincoln and Guba's trustworthiness criteria for qualitative research (credibility, dependability, transferability, and confirmability) were used to ensure the accuracy and precision of the findings (12). To accurately collect the data, the researcher established a meaningful relationship with the participants so that they would share their real attitudes and experiences without feeling pressured. Member checks were performed to guarantee the accuracy of the interpretations, wherein the researcher asked the participants to confirm the description of their experiences. To ensure credibility, after each interview, the recordings were transcribed and read several times to have a general picture. Then, the hidden concepts were extracted. As the interviews continued, previous concepts were clarified or completed, and new concepts occasionally emerged. To clarify, classify, and resolve any disagreement or contradiction in interpretations, a recursive

examination of the texts was performed based on the participants' opinion. In each stage, the concepts were merged to form a more general synthesis and link the themes as effectively as possible. To enhance credibility, the researchers tried to prevent bias in data collection. To promote transferability, the participants were selected among men and women with different levels of education, social status, and from various geographical regions. Finally, to adhere to ethical considerations, the participants were first briefed about the study and then provided informed consent for participation and having the interviews recorded.

# Ethical considerations

The study was approved by the Ethics Committee of the Iran University Medical Sciences under number IR.IUMS.REC.1399.282. The patients were informed that their names and personal information are confidential in this study. They were also told that their participation or not in the study is completely optional and will not have any effect on their treatment process. All the participants were informed about the study and only those providing written informed consent were enrolled in the study.

# Results

Fourteen patients (11 women and 3 men) with a mean age of 30.3 years, the majority of whom were married, participated in this study. The participants' demographic information is presented in table 1.

The data analysis revealed three themes: the OCD

The data analysis revealed three themes: the OCD patients disturbed mental structure (negative impact), rationalization of OCD symptoms in the context of COVID-19, and assimilation of COVID-19 within OCD. As an example, the way the code and subthemes were extracted from the units of meaning has been presented in table 2 and all the themes are shown in table 3 which are briefly discussed below.

# The pandemic disturbing OCD patients' mental structure

The pandemic traumatized the OCD patients' mental structure, such that patients who were recovering demonstrated aggravated symptoms. Adherence to health protocols in this period intensified OCD symptoms. Insistence on compulsive behavior and observing quarantine impacted the patients' mental

**Table 1.** The participants' demographic information

Interviewee	Age	Sex	Marital status	Level of education	Occupation
1	20	Male	Single	Bachelor's student	Student
2	43	Female	Married	Bachelor's degree	Homemaker
3	27	Female	Single	Bachelor's degree	Homemaker
4	22	Female	Single	Bachelor's degree	Unemployed
5	31	Female	Married	Bachelor's degree	Homemaker
6	18	Male	Single	Bachelor's student	Student
7	35	Female	Married	High-school diploma	Homemaker
8	21	Female	Single	Student	Student
9	30	Male	Married	Bachelor's degree	Self-employed
10	42	Female	Single	Bachelor's degree	Employed
11	51	Female	Married	High school	Homemaker
12	21	Female	Single	Bachelor's degree	Student
13	37	Female	Married	High-school diploma	Homemaker
14	27	Male	Married	Bachelor's degree	Employed

status and increased their irritability, interpersonal tensions, mental exhaustion, and depression. The sub-themes of this theme include OCD (severity) exacerbation, increased interpersonal tension, and mental exhaustion.

Exacerbation of OCD symptoms: In this period, OCD patients experienced heightened cleanliness and sickness anxiety and, therefore, performed compulsive behaviors more intensely. Obsessive thoughts were also intensified, and adherence to health protocols aggravated their compulsion.

Participant 4: When I go out and touch something, I have to spray alcohol quickly. Not doing this causes more stress. When I get back home, I have to wash my hands twice. Well, sometimes I wash my hands once, and it does not cause stress as much as failing to spray alcohol on things. I have become very careful about these things.

Participant 9: I used to wash my hands twice. Now, I wash them three or four times, and every time, I think they are not clean yet.

Participant 10: It was much worse in the last months; that is, my OCD got worse in the first five months. It got really, really bad. Sometimes I felt helpless. I thought I could not live like that anymore.

Increased tension in interpersonal relationships: The COVID-19 outbreak altered interpersonal relationships. In this period, people with OCD remind others to respect health protocols more than ever and are more sensitive to other people's negligence, and this disrupts interpersonal relationships.

Participant 3: Mental obsession has made me aggressive. I am a little better now, but in the spring I used to shout, 'You are not careful. You go out and bring the virus in.' We were having lots of tension.

Participant 14: Yes, there has been tension. Sometimes it is my fault and sometimes it is others'. For instance, I ask my husband, 'You touched that object which was outside; why did not you disinfect your hands before touching my belongings?' I have caused this type of tension. He is experiencing mental exhaustion and responds to me with tension. It also happens the other way around. Just today, we went out. When we came back home, I washed my hands, removed my socks, and sprayed a little alcohol on my hands. He asked, 'Had not you just washed your hands? Why are you spraying alcohol again?' I replied, 'I am OK with this. I touched my socks, and that is why I am spraying alcohol.' We had this kind of tension.

Mental exhaustion: Respecting health protocols is

IRANIAN MEDICAL COUNCIL 150

Table 2. An example of how themes are formed from sub-themes and codes

Semantic unit	Code	Sub-theme	Theme
I used to wash my hands twice. Now, I wash them three or four times, and every time, I think they're not clean yet and have to spray alcohol on them, too.	Increased number of washings	Exacerbated OCD	
It was really difficult. Well, we had to stay at home all the time, and we did not go out. I got lost in my thoughts more than ever. I mean, this used to happen before, but it got worse during this time because I had lots of free time and nothing special to do.	Exacerbated obsession due to quarantine		
Because the news keeps emphasizing washing, I feel I have got to wash everything. Even people without OCD are now washing things, so it is gotten worse for a person with OCD like me.	e without OCD are adherence to health		
The lockdown was deeply affected by spirits, too. I was nervous, especially when everyone was quarantined and even men stayed at home. I got really anxious at the beginning of that period. Every little thing made me anxious.	Increased irritability	Increased tension in interpersonal relationships	The pandemic disturbing OCD patients' mental structure
Mental obsession has made me aggressive. I am a little better now, but in the spring, I used to shout, 'You're not careful. 'You go out and bring the virus in.' We were having lots of tension.	Increased aggression		
I used to go out; I went shopping, went to work, or went out with friends. Now, I am at home all the time and cannot do anything.	A decline in daily functioning		
All the horrible things that happened to me happened during the quarantine. I used to be active. I took my child out and helped him with his lessons. The quarantine closed down everywhere. We had to stay at home, and only eat and sleep. I gained seven or eight kilos, and I am bored all the time.	Aggravated depressive symptoms (due to the pandemic)	Mental exhaustion	
When I got these thoughts, something frightened me. I was afraid that my symptoms would come back, and I would be like I was before; that I would go back to those days and cannot stop my thoughts; that I'd become like I used to be, get worse, and my thoughts would come back. Thinking that my thoughts could come back tortured me and frightened me even more.	Fear of relapse in the quarantine		

Table 3. Sub-themes and themes extracted from the participants' experiences

Sub-theme	Theme		
OCD (severity) exacerbation			
Increased tension in interpersonal relationships	The pandemic disturbing the OCD patients' mental structure		
Mental exhaustion			
Not feeling excluded			
Conflict resolution with the family	Rationalization of symptoms in the context of COVID-19		
Theoretically taking revenge on others			
Adaptation of the patients' mental world to the external world afflicted with COVID-19	Assimilation of COVID-19 within OCD		
Altered content of obsession			
Altered pattern of obsession			

difficult and time-consuming and imposes a heavy mental burden, which leads to a low mood and depression. Lockdown and prohibition of outdoor entertainment, coupled with the news and statistics of death, have affected the moods of patients with OCD and increased the risk of relapse.

Participant 7: When you return home, you have got to take off your clothes before entering the house, put down the food you have just bought, go wash up, and then put the food away. I found this repetition mentally difficult; the fatigue caused by this cleaning was coupled with the fatigue of going out, and made things difficult.

Participant 9: It has affected my spirit. I am always home and there are no gatherings. I am constantly thinking of COVID-19. I'm worried before doing anything. This has made me anxious.

Participant 10: Thinking that I have not disinfected my hands after touching something, or that I have to disinfect everything all over again makes me mentally and physically exhausted. There were things we never had to do. Now, you have got to do those things and spend some time on them.

# Rationalization of OCD symptoms in the context of COVID-19

OCD symptoms are compatible with the context of COVID-19, and this diminishes the unpleasant

feelings previously experienced by OCD patients. The necessity of public adherence to health protocols further adapted compulsive behaviors to the existing conditions, thus alleviating the sense of exclusion or conflict with others, especially the family. The sub-themes of this theme are: not feeling excluded, conflict resolution with the family, and theoretically taking revenge on others.

Not feeling excluded: As patients with OCD are criticized and boycotted by the family and society, they experience a sense of abandonment and exclusion. During the pandemic, the whole society respected public health recommendations more than ever; in this situation, people with OCD felt they were like others and, therefore, not boycotted anymore.

Participant 1: Well, yes; they used to say, 'Stop it! Do not wash your hands all the time!' or 'Do not take a shower all the time!' But now, they have left me alone, and they are doing all the things I used to do. They do not tell me to stop doing these things anymore. That is why I think I may have been right after all, and what I used to do was not wrong.

Participant 3: Well, I feel more at ease and happier. Others are careful, too, and have realized that I was not wrong after all. They have become just like me. Participant 2: People do what I used to do. I even visited a doctor, but they still argued with me. They kept saying, 'Why do you wash things before putting them in the fridge?' I always did this, and they said I should not. But I could not stop. I told the doctor, 'I have to wash things before putting them in the fridge.' Now, people are doing what I always did, and it is great. It is not weird anymore, and they are used to it. Conflict resolution with the family: In this period, patients' families and society both adhered to health protocols. As such, there was no conflict between OCD patients and others, especially their families. They had become alike, and pre-pandemic conflicts and tensions were resolved to some extent.

Participant 4: They used to say, 'Stop it! Do not wash your hands all the time!' or 'Do not take a shower all the time!' But now, they have left me alone, and they are doing all the things I used to do. They do not criticize me, but do what I used to do.

Theoretically taking revenge on others: During the pandemic, OCD patients were allowed to remind others about cleanliness and hygiene without being criticized. In this situation, they felt entitled to remind people to respect hygiene and, in this way, somehow took revenge on them.

Participant 1: People must adhere to hygiene. They must wash their hands and clothes when they return home. Therefore, I was right about cleanliness and adherence to hygiene. If everybody thought like me and adhered to hygiene and prepared themselves, this disease would not have progressed this far.

# Assimilation of COVID-19 within OCD

COVID-19 has altered the life of OCD patients in general. However, as they used to respect health protocols before the pandemic to prevent diseases, the pandemic somehow approximated the logic of their mental world to that of the external world. The sub-themes of this theme include the adaptation of the logic of OCD patients' mental world to the external world, altered content of obsession, and altered pattern of obsession.

Adaptation of OCD patients' mental world to the outside world afflicted with Covid-19: People with OCD perceive the world as a better and more ideal place during the pandemic; now, health protocols are better respected and most people have realized the necessity of hygiene to prevent diseases.

Participant 7: Now that the disease has spread, everyone has become careful. Personal hygiene is

improved by several degrees in general, and everyone respects certain principles.

Altered content of obsession: The prevalence of COVID-19 affects the content of obsessive thoughts, shifting them to concerns about their own or their families' infection, the transmission of the disease, the unpredictable progress, and the signs and symptoms of COVID-19.

Participant 1: I kept thinking that I may transmit it to my grandma, grandpa, father, mother, or my loved ones. This thought frightened me. I kept thinking, 'What if I am a carrier, and transmit the virus to my loved ones? How am I going to live with myself then? How can I forgive myself?

Participant 6: In this period, I am mostly concerned about death and the complications of the disease, like the fact that the lungs will never be the same.

Participant 14: I was obsessed and felt obliged [to adhere to principles of hygiene]. My parents are old, and my husband may have a heart or kidney problem. Thus, I tried to protect myself from becoming a carrier and transferring this disease. Then, it began to affect me. My obsession affected me more due to these thoughts, and I did most of this [repeated washing and cleaning].

Altered pattern of obsession: Compulsive behaviors also changed during the pandemic. For instance, people with OCD used to wash their hands a lot before the pandemic. During the pandemic, however, they use disinfectants and alcohol inordinately to follow the WHO protocols.

Participant 3: I bought alcohol and sprayed it on everything, like the light switches at home. We did not go out, but still, I kept doubting. I felt things were contaminated. I was afraid the virus might come in through the open windows or the door and sit on my things... on the handles... everywhere... I sprayed alcohol on everything several times a day.

Participant 4: I am scared. When I go out and touch something, I have to spray alcohol quickly. Not doing this causes more stress. When I get back home, I have to wash my hands twice. Well, sometimes I wash my hands once, and it does not cause stress as much as failing to spray alcohol on things. I have become very careful about these things.

# IRANIAN MEDICAL COUNCIL 153

# **Discussion**

The present study examined the effects of the COVID-19 pandemic on the signs and symptoms of OCD patients. The data analysis revealed three themes for OCD during the pandemic: OCD patients' disrupted mental structure, rationalization of OCD symptoms in the context of COVID-19, and assimilation of COVID-19 within OCD.

The pandemic has exacerbated the signs and symptoms of OCD. People are constantly exposed to news of the disease, hospitalization, and mortality. Social media, print and electronic sources constantly publish recommendations about COVID-19 prevention (8) which arouse obsessive thoughts and compulsive behaviors in OCD patients (10). Furthermore, faceto-face treatments for OCD, including psychotherapy and exposure therapy in particular, have become less feasible due to the risk of transmission in indoor spaces. All these factors have aggravated the OCD symptoms of some patients.

Several studies have examined the factors that intensify OCD symptoms during the pandemic (13-16). Various degrees of exacerbation have been reported, ranging from 6% in the studies by Sharma (17) and Chakraborty (18), to 13% reported by Davide P (19), 36% by Benatti (20), and finally, 72% by Jelinek (21). The results are conflicting, and some studies even found that the pandemic has not affected OCD. These differences could be due to various factors, including the time of conducting the studies; some studies were carried out during the peak of the pandemic, while others were conducted when the pandemic was relatively under control. The study by Sharma, for instance, was carried out in the first two months of the pandemic in India, when society was not seriously threatened by the disease and the ensuing stress had not deeply affected the patients (17). The type of OCD also moderates the intensity of exacerbation. COVID-19 may differently impact different types of washing, ordering, and checking obsessions. Tanir et al compared the effect of COVID-19 on different forms of OCD. They concluded that contamination and washing obsessions were exacerbated more than the other forms as the patients further exposed themselves to COVID-19 news in media and society (1). Our search showed that most papers have not differentiated the types of OCD and focused on washing obsession as the most prevalent form (22). In the current study, most patients suffered from washing obsession and reported that following COVID-19 news made them worry, which in turn aggravated their OCD.

Another important issue is paying attention to the role of culture and its effect on the symptoms of obsession. Studies consider the general symptoms of obsession to be similar in different societies, although the cultural background can affect the content of obsession to some extent (23). Some recent studies have mentioned that the most common obsession among Iranians is concern about impurity and purity. which leads to excessive washing (24). In our study, some patients also complained of feeling forced to wash, which led to washing several times, with the difference that the cause was the fear of disease transmission. On the other hand, our study found the disruption in interpersonal relationships during the Covid-19 period caused by the intensification of obsession. This issue was also observed in previous studies. In a study in 2018, it was observed that obsession can disrupt interpersonal relationships and greatly reduce people's quality of life due to repeated behaviors that cause stress in the family (25).

In the lockdown condition, face-to-face therapies are replaced with online therapies, and the accessibility of online services may affect the exacerbation of psychiatric disorders, including OCD (26,27). This accessibility was limited in Iran (28), and this may have aggravated the OCD symptoms in the studied patients.

The conflict in results in terms of the status of OCD during the pandemic may also be justified by the different instruments used to evaluate the disease status. Not all studies have used standard instruments such as the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), and this casts doubt on the validity of their findings.

In patients with OCD, the compulsive repetition of obsessive actions causes distress and irritability. Moreover, the interference of obsessive behaviors with the daily activities of other people disturbs interpersonal relationships (28-31). In this period, patients' further emphasis on adherence to health and hygiene protocols and their fear of others' negligence increased tensions (21), as also reported by the

participants.

Another factor that may have exacerbated OCD in this period is patients' mental exhaustion due to their diligent adherence to health protocols. Fatigue and burnout cause chronic mental distress, referred to as the COVID-19 distress syndrome in one study, which in turn can intensify OCD (32). COVID-19related stress about the higher risk of contamination and economic problems can also exacerbate OCD symptoms (33). A recent study in Iran has reported higher stress during the pandemic, followed by the intensification of OCD symptoms, which is consistent with the results of the current study (34). Evidence also suggests that stress increases OCD comorbidities such as depression and anxiety which, in turn, aggravate OCD symptoms (35,36). The pandemic increased patients' compulsion to wash their hands due to the higher stress of contracting the disease, and this led to anxiety and depression (37).

The second theme was the rationalization of OCD symptoms in the context of COVID-19 that encompassed not feeling excluded and conflict resolution with the family. Patients with OCD are often isolated and boycotted due to their behaviors (38). OCD is characterized by compulsive repetitive behaviors that may seem irrational or strange to the patient and their families, and this causes embarrassment and increases the criticism directed at them. Patients either have to hide their compulsive behavior or be isolated (39,40). During the pandemic, social distancing, adherence to hygiene, and repeated washing became an everyday need. Patients with OCD always felt this danger, which led to their obsessive and compulsive behaviors. In this period, this internal fear was materialized into an external and actual form, and repetitive washing seemed rational to some extent (41). As a result, patients with OCD felt more similar to others. Family support during the lockdown, anxiety about COVID-19, and repeated hand washing by other members of the family prevent the exacerbation of OCD symptoms (42). It is possible that the normalization of obsessional symptoms may cause these symptoms not to be considered a disease and the patient may not seek treatment.

The third theme was the assimilation of COVID-19 within OCD. This theme suggests that COVID-19 has altered the content of obsession and compulsion

depending on the stressor. As OCD symptoms can change over time, patients may experience new obsessions (43). For instance, patients who used to suffer from hand washing obsession may now become obsessed with worrying about the virus entering the body while breathing, and have to wear a mask all the time. Moreover, a compulsive behavior compatible with the stressful situation may be added to the patients' previous OCD symptoms. For example, a patient who only suffered from excessive handwashing is now using too much disinfectant or alcohol as well. Seçer showed that adolescents with washing obsession compulsively hoarded disinfectants and masks during the pandemic (44). Still, a change in the content of obsession is rare, and there are few reports on a change from symmetry to washing obsession; on the other hand, most patients experience the addition of a new obsession.

Another major factor is whether coping strategies adopted by OCD patients help neutralize obsessions and stress during the COVID-19 pandemic, and whether these mechanisms need to be strengthened. In other words, can patients strike a balance between reducing the COVID-19 and inhibiting their obsessive thoughts?

# Limitations

The interviews were conducted over the phone due to the pandemic and lockdown situation. Compared to in-person interviews, telephone interviews limit the communication between participants and the interviewer.

# Suggestions for future studies

a non-pharmacological Developing treatment protocol for obsession based on the themes and subthemes extracted in this study can be the subject of the future studies.

# Conclusion

The stress induced by the pandemic seems to impact OCD in different ways, mostly by exacerbating the symptoms, adding to the symptoms, and changing the type of obsession. The stress of infection is the most important factor in OCD exacerbation. Therefore, preventive measures must be taken to mitigate OCD patients' stress and provide alternative treatments

such as online therapy.

# **Funding**

The Faculty of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences, Tehran, Iran, funded the project, grant number: 99-1-50-18009.

Medical Sciences. The authors wish to thank all the study participants who collaborated with us in this project.

# **Conflict of Interest**

The authors declare that they have no competing interests.

# **Acknowledgements**

This research was funded by the Iran University of

# References

- 1 .Tanir Y, Karayagmurlu A, Kaya İ, Kaynar TB, Türkmen G, Dambasan BN, et al. Exacerbation of obsessive compulsive disorder symptoms in children and adolescents during COVID-19 pandemic. Psychiatry Res 2020 Nov;293:113363.
- 2. Huang Y, Zhao N. Chinese mental health burden during the COVID-19 pandemic. Asian J Psychiatr 2020 Jun:51:102052.
- 3. Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, Cheung T, et al. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatry 2020 Mar 1;7(3):228-9.
- 4. Sun C, Zhai Z. The efficacy of social distance and ventilation effectiveness in preventing COVID-19 transmission. Sustain Cities Soc 2020 Nov;62:102390.
- 5. Henry BF. Social distancing and incarceration: policy and management strategies to reduce COVID-19 transmission and promote health equity through decarceration. Health Educ Behav. 2020 Aug;47(4):536-9.
- 6. Zhang J, Wu W, Zhao X, Zhang W. Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak in China: a model of West China Hospital. Precis Clin Med 2020 Mar 25;3(1):3-8.
- 7. Aardema F. COVID-19, obsessive-compulsive disorder and invisible life forms that threaten the self. J Obsessive Compuls Relat Disord 2020 Jul 1;26:100558.
- 8. Banerjee D. The other side of COVID-19: impact on obsessive compulsive disorder (OCD) and hoarding. Psychiatry Res 2020 Jun;288:112966.
- 9. Haider II, Tiwana F, Tahir SM. Impact of the COVID-19 pandemic on adult mental health. J Pak Psychiatr Soc 2020 May;36(COVID19-S4):S90.
- 10. Kumar A, Somani A. Dealing with Corona virus anxiety and OCD. Asian J Psychiatr 2020 Jun 1;51:102053.
- 11. Abedi H, Lali M, Keyvanniya S, Nikbakht A. Life experiences of older people who are used to spend their time in parks. J Qual Res Health Sci 2020 Jul 8;2(2):184-93.
- 12. Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: advancing the humanistic imperative.5th ed. Lippincott Williams & Wilkins; 2011.496. p.
- 13 .Banerjee D. The other side of COVID-19: impact on obsessive compulsive disorder (OCD) and hoarding. Psychiatry Res 2020 Jun;288:112966.
- 14 .Chatterjee SS, Malathesh Barikar C, Mukherjee A. Impact of COVID-19 pandemic on pre-existing mental health problems. Asian J Psychiatr 2020 Jun;51:102071.

- 15. Duan L, Zhu G. Psychological interventions for people affected by the COVID-19 epidemic. Lancet Psychiatry 2020 Apr;7(4):300-2.
- 16. Adam D. The hellish side of handwashing: how coronavirus is affecting people with OCD. Guardian 2020 Mar;14.
- 17. Sharma LP, Balachander S, Thamby A, Bhattacharya M, Kishore C, Shanbhag V, et al. Impact of the COVID-19 pandemic on the short-term course of obsessive-compulsive disorder. J Nerv Ment Dis 2021 Apr 1;209(4):256-64.
- 18. Chakraborty A, Karmakar S. Impact of COVID-19 on obsessive compulsive disorder (OCD). Iran J Psychiatry 2020 Jul;15(3):256-9.
- 19. Davide P, Andrea P, Martina O, Andrea E, Davide D, Mario A. The impact of the COVID-19 pandemic on patients with OCD: effects of contamination symptoms and remission state before the quarantine in a preliminary naturalistic study. Psychiatry Res 2020 Sep 1;291:113213.
- 20. Benatti B, Albert U, Maina G, Fiorillo A, Celebre L, Girone N, et al. What happened to patients with obsessive compulsive disorder during the COVID-19 pandemic? A multicentre report from tertiary clinics in northern Italy. Front Psychiatry 2020 Jul 21;11:720.
- 21. Jelinek L, Moritz S, Miegel F, Voderholzer U. Obsessive-compulsive disorder during COVID-19: Turning a problem into an opportunity? J Anxiety Disord 2021 Jan;77:102329.
- 22. Loosen AM, Skvortsova V, Hauser TU. Obsessive—compulsive symptoms and information seeking during the Covid-19 pandemic. Transl Psychiatry 2021 May 21;11(1):1-0.
- 23. Fontenelle LF, Mendlowicz MV, Marques C, Versiani M. Trans-cultural aspects of obsessive—compulsive disorder: a description of a Brazilian sample and a systematic review of international clinical studies. J Psychiatr Res 2004 Jul-Aug;38(4):403-11.
- 24. Ghassemzadeh H, Mojtabai R, Khamseh A, Ebrahimkhani N, Issazadegan AA, Saif-Nobakht Z. Symptoms of obsessive-compulsive disorder in a sample of Iranian patients. Int J Soc Psychiatry 2002 Mar;48(1):20-8.
- 25. Ghomian S, Shaeiri MR, Farahani H. Relationship obsessive compulsive disorder (ROCD) in Iranian culture: symptoms, causes and consequences. J Fundamentals Ment Health 2021;23(6):397-408.
- 26. Qiu D, Li Y, Li L, He J, Ouyang F, Xiao S. Policies to improve the mental health of people influenced by COVID-19 in China: a scoping review. Front Psychiatry 2020 Dec 11;11:1431.
- 27. Idris H. Utilization of teleconsultation: mitigation in handling mental disorders in the COVID-19 era. Int J Ment Health Addict 2021;19(6):2320-2322.
- 28.Shirzad F, Hadi F. COVID-19 and telepsychiatry in Iran. Prim Care Companion CNS Disord 2020 Oct 22;22(5):20com02786.
- 29. Saei R, Sepehrmanesh Z, Ahmadvand A. Perceived emotions in patients with obsessive-compulsive disorder: Qualitative study. J Fundamentals Ment Health 2017 Mar 1;19(2).
- 30. Yazdi-Ravandi S, Matinnia N, Shamsaei F, Ahmadpanah M, Shams J, Ghaleiha A. Experiences of interpersonal relationships in patients with obsessive-compulsive disorder: a qualitative study in Iran. Pertanika J Social Sci Human 2018 Sep 1;26(3).
- 31. Subramaniam M, Soh P, Vaingankar JA, Picco L, Chong SA. Quality of life in obsessive-compulsive disorder: impact of the disorder and of treatment. CNS Drugs 2013 May;27(5):367-83.
- 32. Taylor S, Landry CA, Paluszek MM, Fergus TA, McKay D, Asmundson GJ. COVID stress syndrome: Concept, structure, and correlates. Depress Anxiety 2020 Aug;37(8):706-14.
- 33. Nissen JB, Højgaard DR, Thomsen PH. The immediate effect of COVID-19 pandemic on children and adolescents with obsessive compulsive disorder. BMC Psychiatry 2020 Oct 20;20(1):511.
- 34 .Khosravani V, Aardema F, Ardestani SM, Bastan FS. The impact of the coronavirus pandemic on specific

- symptom dimensions and severity in OCD: a comparison before and during COVID-19 in the context of stress responses. J Obsessive Compuls Relat Disord 2021 Apr;29:100626.
- 35. Lee Y, Yang BX, Liu Q, Luo D, Kang L, Yang F, et al. Synergistic effect of social media use and psychological distress on depression in China during the COVID-19 epidemic. Psychiatry Clin Neurosci 2020 Oct;74(10):552-4.
- 36. Margetić B, Peraica T, Stojanović K, Ivanec D. Predictors of emotional distress during the COVID-19 pandemic; a Croatian study. Pers Individ Dif 2021 Jun;175:110691.
- 37. Abba-Aji A, Li D, Hrabok M, Shalaby R, Gusnowski A, Vuong W et al. (2020) COVID-19 pandemic and mental health: prevalence and correlates of new-onset obsessive-compulsive symptoms in a Canadian province. Int J Environ Res Public Health 2020 Sep 24;17(19):6986.
- 38. Shafran R, Coughtrey A, Whittal M. Recognising and addressing the impact of COVID-19 on obsessive-compulsive disorder. Lancet Psychiatry 2020 Jul;7(7):570-2.
- 39. Stengler-Wenzke K, Trosbach J, Dietrich S, Angermeyer MC. Experience of stigmatization by relatives of patients with obsessive compulsive disorder. Arch Psychiatr Nurs 2004 Jun 1;18(3):88-96.
- 40. Fennell D, Liberato AS. Learning to live with OCD: labeling, the self, and stigma. Deviant Behav 2007 May 11;28(4):305-31.
- 41. Aardema F. COVID-19, obsessive-compulsive disorder and invisible life forms that threaten the self. J Obsessive Compuls Relat Disord 2020 Jul;26:100558.
- 42. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet 2020 Mar 14;395(10227):912-920.
- 43. Rettew DC, Swedo SE, Leonard HL, Lenane MC, Rapoport JL. Obsessions and compulsions across time in 79 children and adolescents with obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry 1992 Nov 1;31(6):1050-6.
- 44. Seçer İ, Ulaş S. An investigation of the effect of COVID-19 on OCD in youth in the context of emotional reactivity, experiential avoidance, depression and anxiety. Int J Ment Health Addict 2021;19(6):2306-2319.