Original article

Symptom Severity of Obsessive-Compulsive Disorder Post COVID-19 Pandemic in Psychiatry Department of Tertiary Care Hospital

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ABSTRACT

Background: There has been considerable speculation regarding the detrimental effects of the COVID-19 pandemic on mental health. The prevalence of mental disorders is thought to increase during pandemics, and the unique circumstances of the COVID-19 pandemic may have a direct impact on obsessive-compulsive disorder (OCD) manifestation clinically. The objective of the study was to find a mean change in symptom severity of obsessive-compulsive disorder post-COVID-19 pandemic.

Patients and methods: A Qausi-experimental study was conducted at the Department of Psychiatry, Jinnah Hospital, Lahore from 05-01-2022 to 05- 07-2022. After approval of the Ethical Review Board and obtaining informed consent, data was obtained from patients focused on available Yale-Brown Obsessive-Compulsive Scale (YBOCS) scores at the start of the COVID-19 pandemic in Pakistan. These patients were re-evaluated using the YBOCS scale to determine any changes in OCD severity, defined as a 50% increase from the baseline (YBOCS) score. All data were recorded on a proforma. All data were recorded on a proforma. Data analysis was performed using IBM SPSS 21. Before and mean change in (YBOCS) was determined by paired sample t-test with a significance level of $p \leq 0.05$.

Results: The mean age was 36.65±3.892 years. There were 56.7% (n=34) males whereas 43.3% (n=26) were females. Distribution of duration of disease, pre-COVID YBOC score, Post- COVID (YBOCS), and change in (YBOCS) was calculated as 3.52±1.0 years, 18.07±1.9, 28.30±2.149 and 10.33±3.001, respectively.

Conclusion: In the current study we found the mean change in symptom severity of obsessive- compulsive disorder post-COVID-19 pandemic using (YBOCS) score. The rise in symptoms and overall severity observed in individuals with OCD may largely stem from the stress induced by the ongoing pandemic.

Keywords:
Coronavirus disease, Obsessive Compulsive Disorder, YBOCS

INTRODUCTION

The COVID-19 pandemic has significantly exacerbated obsessive-compulsive symptoms, causing distress and heightened anxiety among affected individuals. Across the globe, there have been widespread reports of heightened symptoms, distress, and concern related to this illness. Unfortunately, the lack of awareness about this mental health issue among public health workers exacerbates the problem.[1] OCD, which affects around 3% of the general population, is a condition that is likely to become even more common in times of pandemic. The characteristics of the COVID-19 pandemic may have a direct impact on the clinical course of OCD.[2,3] Compulsions are unwelcome and unpleasant thoughts, visions, or desires. Compulsions are repetitive actions or mental rituals intended to alleviate the suffering that the compulsions cause.

Obsessive-compulsive disorders are characterized by the presence of obsessions and/or compulsions.[4] OCD is a challenging psychiatric condition characterized by distressing symptoms. Traumatic events can trigger or worsen these symptoms. The COVID-19 pandemic has created a global crisis and has been linked to the onset of psychiatric disorders in adults.[5] Additionally, high levels of depression have been reported during the pandemic.[6]

OCD frequently coexists with depression, and there is a strong possibility that depression could intensify OCD symptoms. Beyond its effect on diagnosed cases of OCD, it is essential to recognize subclinical symptoms in the general population. Additionally, the direct neuropsychiatric effects of COVID-19 may also play a role in exacerbating these symptoms in certain individuals.[7]

Clinical researchers worldwide began investigating OCD during the pandemic, questioning whether OCD concerns would shift to focus on COVID-19. This was particularly relevant during the early stages when public alarm about the virus was high, and lockdowns were

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widespread.[8] Both investigators and clinicians aimed to understand the progression of obsessive-compulsive symptoms during the pandemic and whether specific factors, such as contamination-related obsessions and compulsions, would be linked to a poorer prognosis.[9]

At the onset of the pandemic, there was speculation that OCD symptoms would intensify due to increased anxiety and fear of contamination. Researchers expected that a heightened focus on hygiene and virus prevention would exacerbate obsessive-compulsive behaviors. This led to a closer examination of how pandemic-related stressors might affect individuals with OCD.[10]

However, a study reported that worsening of OCD was noted in 35.8% of patients during the COVID-19 pandemic which was centered on the Italian population. In this study, it was also reported that patients who had worsening of OCD had a change in their pharmacological therapy (70.5% as compared to 13.5% in those who did not suffer worsening of OCD).[11] Another study reported a change in YBOC score secondary to the impact of the COVID-19 pandemic from (19.6 ± 9.1 pre-COVID to 28.7±8.2) and a change of 9.1±0.9 with 46.4% change in symptom severity on Y-BOCS scale.[12]

There is a continuous pattern representing the exaggeration of OCD due to the COVID-19 pandemic which has imposed significant adverse effects on the condition of patients at the international level with people impacted by different demographic and socioeconomic features. The results of this study will help us delineate guidelines for the management of patients with OCD during stressful situations like the COVID-19 pandemic. Therefore the present study was conducted to find a mean change in symptom severity of obsessive compulsive disorder post-COVID-19 pandemic.

PATIENTS AND METHODS

After approval of the Ethical Review Board, Allama Iqbal Medical College, Lahore-Pakistan. A quasi-experimental study was conducted at the Department of Psychiatry, Jinnah Hospital, Lahore, over six months from January 5, 2022, to July 5, 2022. The sample size of 60 cases was determined using a 95% confidence level, an absolute precision of d=0.03, and an expected mean change in YBOCS of 9.1±0.9. Non-probability consecutive sampling was employed. Participants included patients aged 30-50 years, of either gender, diagnosed with OCD (scoring more than 7 points on the (YBOCS)) before January 2020, the start of the COVID-19 pandemic in Pakistan. These patients also had available YBOCS scores and had been stable on medication for three months before the pandemic.

Exclusion criteria included OCD patients with other psychiatric illnesses (e.g., depression, anxiety), those who had contracted COVID-19 (determined by PCR), those taking antipsychotic medications, and those who had undergone recent surgery. After obtaining informed consent, data were collected from each patient, including name, age, gender, and initial YBOCS scores. The YBOCS scale, consisting of a checklist of common obsessions and compulsions and a 10-item measure of symptom severity, was administered to all patients in a separate room. Scores range from 0 to 40, with higher scores indicating greater severity.[13]

The study focused on patients with available YBOCS scores at the start of the COVID-19 pandemic in Pakistan. These patients were re-evaluated using the YBOCS scale to determine any changes in OCD severity, defined as a 50% increase from the baseline YBOCS score. Patients showing a change in severity were managed according to hospital protocol. All data were recorded on a proforma. Data analysis was performed using IBM SPSS 21. Quantitative variables such as age, duration of illness, pre- and post-YBOCS scores, and changes in scores were calculated as means and standard deviations. Qualitative variables, such as gender, were presented as frequencies and percentages. Before and mean change in YBOC score was determined by paired sample t-test. Data were stratified by age, gender, and duration of disease for mean changes in YBOCS scores, and post-stratification Independent sample t-tests were conducted with a significance level of $p \leq 0.05$.

RESULTS

A total of 60 patients fulfilling inclusion and exclusion criteria were selected to find the mean change in symptom severity of obsessive-compulsive disorder post-COVID-19 pandemic using the YBOC scale score.

Age distribution of the patients was done, and it showed that out of 60 patients, 83.3% (n=50) were in the age group of 30-40 years and 16.7% (n=10) were in age group of 41-50 years. The mean age was calculated as 36.65±3.892 years. There were 56.7% (n=34) were male whereas 43.3% (n=26) were females. The mean duration of the disease was 3.52±1.0 years.

The pre-COVID YBOCS score, post-COVID YBOCS score, and change in YBOCS score were calculated as 18.07±1.999, 28.30±2.149, and 10.33±3.001, respectively. This indicates a significant

increase in YBOCS scores after the onset of COVID-19 (p-value <0.001) (Table 1).

The data was stratified for age, gender and duration of disease shown in Table 2. There was insignificant difference in mean change in YBOC score with respect to age, gender and duration of disease (p-value >0.05).

Table 1: Mean change in YBOC score before and After COVID onset

YBOC score	YBOC score (±SD)	p-value
Pre-COVID	18.07±1.999	<0.001*
Post- COVID	28.30±2.149	
Change in YBOC score	10.33±3.001	

Statistical significant results p-value<0.05 paired t-test

Table 2: Stratification for mean change in YBOC score with respect to age, gender and duration of disease

Mean changein YBOC score	Total, n (%)	Mean ± SD	p-value
Age group			
30-40 years	50 (83.3)	10.44±2.970	0.543
41-50 years	10 (16.7)	9.80±3.259	
Gender			
Male	34 (56.7)	9.88±3.453	0.185
Female	26 (43.3)	10.92±2.208	
Duration of disease [years (mean±SD)]	3.52±1.0		
1-3 years	32 (52.4)	10.25±2.896	0.820
>3 years	28 (46.6)	10.43±3.167	

DISCUSSION

The COVID-19 pandemic has significantly affected the mental health of individuals with OCD, particularly due to their heightened sensitivity to danger and uncertainty. Hygienic recommendations may exacerbate the severity of their illness, especially among those with contamination fears. Experts widely expect adverse effects on symptoms, particularly in patients with obsessive concerns about contamination.[14]

In current study, 60 patients were enrolled, with the mean age was 36.65±3.892 years. Nissen et al. investigated the early impact of the pandemic on young OCD patients using self-report. Modified Y-BOCS questions were asked. Forty percent of the combined group were taking selective serotonin reuptake inhibitors, and sixty-five percent were undergoing psychotherapeutic treatment. During the pandemic, 73% of the association group had worsening symptoms compared to 44.6% of the clinic group (mean 3.2±1.8 Y-BOCS).[5]

The pre-COVID YBOCS score, post-COVID YBOCS score, and change in YBOCS score were calculated as 18.07±1.999, 28.30±2.149, and 10.33±3.001, respectively. This indicates a significant increase in YBOCS scores after the onset of COVID-19. These findings were similar to a study, it was found that where the sample's average OCD severity scores showed moderate to severe symptoms. In comparison to pre-pandemic levels, about 71.8% of participants reported that the intensity of their OCD symptoms had increased during the pandemic. A statistical relationship was found between this rise and decreased mobility as well as more interpersonal conflict. On the other hand, symptoms decreased for 6.5% of individuals, while there was no change reported by 21.7%.[15]

Tundo et al. recruited OCD patients from an Italian private clinic during and after a lockdown period. The study involved 29 OCD patients and was mostly done online (80%), with some in-person interviews (20%). Compared to OCD patients (2.9%), they reported a higher incidence of symptom exacerbation as a result of pandemic stress (13.8%). The study found that the presence of OCD was the sole factor associated with an increased likelihood of symptom recurrence or exacerbation.[16]

Using modified Y-BOCS questions, researchers in Denmark found that 61.2% of participants reported a worsening of OCD symptoms after the outbreak of the pandemic, 10.4% reported an improvement and 28.4% reported no change. Psychiatric comorbidities, female gender and contamination symptoms were found to be significantly associated with greater exacerbation of OCD.[17]

According to the current study, COVID-19 is also associated with higher levels of all OCD symptom aspects, such as symmetry, contamination, unacceptable thoughts, and responsibility for harm. Consistent with previous findings, the pandemic has been shown to heighten overall OCD severity.[18]

CONCLUSION

In the current study, we found the mean change in symptom severity of obsessive-compulsive disorder post-COVID-19 pandemic using the YBOC scale score. It was concluded that the stress of the current pandemic may be the main cause of the increase in OCD symptoms and overall severity in this population. A significant part of the variance in the changes in symptoms across all OC traits and overall OCD severity was explained by stress responses related to COVID-19.

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