

## Short Communication

# Impact of COVID-19 on Obsessive Compulsive Disorder (OCD)

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### Abstract

**Objective:** Handwashing is now considered as one of the best safety measures to prevent COVID-19 infection. The effect of excessive handwashing for health on OCD patients who are already having washing compulsion is not known. Furthermore, the fear of contamination of COVID-19 in patients who already have obsession of contamination is not known. This study aims to evaluate the effect of COVID-19 on OCD patients.

**Method:** Phone interviews were done with 84 patients previously diagnosed with obsession of contamination and compulsive washing. Yale Brown Obsessive Compulsive Scale was used and the scores of the participants were compared to their pre-pandemic scores.

**Results:** Only 5 patients (6%) had exacerbation of symptoms after the COVID-19 pandemic. Most of the patients did not report any deterioration of symptoms due to the pandemic.

**Conclusion:** Handwashing protocol does not aggravate the washing compulsion of patients. Similarly, the fear of infection with COVID-19 does not increase their fear of contamination.

**Key words:** COVID-19; Contamination; OCD; Washing

The Corona Virus Disease (COVID-19) pandemic has affected India badly. To date, the total number of COVID-19 infected patients has exceeded 1.5 lakhs so far in India (1). In West Bengal the number of infected patients is more than 4500, and it has affected almost all districts in Bengal with the majority being from Kolkata (2). As a measure to break down the transmission chain, lockdown is being implemented in almost all the affected countries. In India lockdown was started from March 24, 2020 and it is continuing to date. From the beginning of the pandemic, a number of recommendations was suggested by health agencies; eg, social distancing, respiratory hygiene by wearing masks, and hand hygiene. Handwashing by soap or by alcohol-based sanitizer as a preventive measure of contamination is being extensively campaigned from the beginning, and almost all people are obeying these recommendations. Although handwashing is surely beneficial for preventing the spread of COVID-19, at the same time, there is doubt how this will affect those people who have already obsessive compulsive disorder (OCD), specially

those having obsession of contamination and compulsion of washing (3).

OCD is characterized by obsessions that are recurrent, intrusive, and unwanted thoughts, urges or images resulting in distress that cause compulsions to relieve anxiety temporarily (4). Lifetime prevalence of OCD is roughly 2% in the general population (5). Subthreshold symptoms are much more prevalent (6). The etiology of OCD is likely multifactorial (7).

Presenting symptom in OCD is heterogeneous. Factor analytic studies have shown contamination obsession and washing compulsion is a discrete symptom cluster (8). These symptoms respond well to therapy. Obsession of contamination is the most common form of obsession reported and washing is the most common compulsion (9). In the presence of external stress or cues, these symptoms might get aggravated (10).

There are various factors in this current COVID pandemic which may worsen the symptoms in patients who are already affected by OCD.

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These might be emphasis on the importance of proper handwashing, including adequate time and correct steps, need to wash hands in regular intervals, specially when coming from outside, constant hammering from all types of media about the possibility of infection through contamination, and the need for proper handwashing (11). In this scenario as all other family members are washing hands frequently, the guilt in some of the patients might be reduced, as they think their act of handwashing is not so much annoying to the other family members in the family as before.

Due to the lockdown, many patients may not be able to collect their medicines properly; thus, there might be a relapse of illness (12). This stands true for all mental illness, including OCD.

The present study was conducted to assess the impact of COVID-19 on patients who already have OCD, particularly obsession of contamination and washing compulsion, to find whether their OC symptoms exacerbate due to the current situation.

### Materials and Methods

As most of the patients were not able to come for regular checkups due to the lockdown, we opted for phone interviews. Considering the educational background of the patients, we did not perform an online survey. Period of the study was 30 days, starting from April 23, 2020 (one month after the lockdown) until May 22, 2020. Approval from Institutional Ethics Committee was taken on a first track basis. Our sampling method was consecutive. First, we referred to the case records of OCD patients who had visited our department and were under continued treatment from the same. Among all the patients, only those having obsessions related to contamination and compulsion related to washing of hands and cleaning household items who were diagnosed with OCD before declaration of COVID-19 pandemic by World Health Organization, whose adherence to medication were good and used to visit OPD in their scheduled time were selected for our study. Their contact numbers were taken from the case register, and their last recorded Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) severity score were noted. We called the patients, and we first identified the patients by cross referring to their demographic details noted in our records. Where feasible, we requested a video call. Then, we explained the objective of the study in details and obtained a verbal consent of each of these participants. All the participants who were called agreed to participate in this study. Any subjective exacerbation of symptoms was asked during the interview. Then, the Yale Brown Obsessive Compulsive Scale (Y-BOCS) severity scale was applied. We asked them the questions of Y-BOCS, and their responses were noted against the last recorded score (present in our register).

The final sample size was 84, and the results were analyzed using Microsoft Excel. The basic demographic details were present in our records and reconfirmed by

the patients. Also, we asked the participants about their medication adherence. We used basic descriptive statistics for describing categorical variables of demographics. For change in Y-BOCS score, we used percentage, as OCD guidelines in our country uses percentage change in baseline scores of Y-BOCS for describing treatment outcome events (relapse, recovery, etc.) (13).

### Results

From the registrar we found 104 patients met the eligibility criteria, with contact details, among which we were able to contact 84 patients who all agreed to be interviewed. Among them, 20 were male and 64 female. Also, 49 were Muslim and 35 Hindu. Half of them were housewives, 31% were laborer, and 16.7% were involved in some kind of business. Also, 52.4% resided in semi-urban areas (33.3% lived in rural areas and 14.3% in urban areas) (Table 1).

Among the 84 patients, 57 took their medicines regularly, 13 took them irregularly due to fear of shortage of medication in case of unavailability, and 14 had stopped taking their medicines due to unavailability at the nearby drug stores.

On the interview, only 5(6%) patents reported exacerbation of symptoms; 3 of them were in complete remission and 2 in partial remission. All the 5 patients were not taking their medications at the time of interview due to unavailability at drug stores.

All other patients reported their symptoms were as before. Also, no increase in symptoms was reported by the family members.

Most of the patients scored almost same in Y-BOCS scale as recorded in last visit (Table-2).

**Table 1. Sociodemographic Data of the Participants of Obsessive Compulsive Disorder**

Variables	Number	Percentage
<b>Sex</b>		
Male	20	23.8%
Female	64	76.2%
<b>Religion</b>		
Hindu	35	41.7%
Muslim	49	58.3%
<b>Residence</b>		
Rural	28	33.3%
Semi-urban	44	52.4%
Urban	12	14.3%
<b>Occupation</b>		
Service	2	2.3%
Business	14	16.7%
Labor	26	31%
Housewife	42	50%

**Table 2. Increase or Decrease in Y-BOCS Score during COVID-19 & Lockdown Situation**

Y-BOCS Score (% increase)	Number	Percentage
Same or decrease	41	48.8%
<5% increase	33	39.3%
5%-10% increase	5	6%
10%-25% increase	3	3.6%
>25% increase	2	2.4%

## Discussion

In our study we did not find any increase in obsessive and compulsive symptoms in patients with obsession of contamination and compulsive washing before the pandemic. Only a very small proportion of patients (6%) have reported symptoms exacerbation. This is in contrary to the assumption by most of the psychiatrists as revealed by multiple letters to the editor in various journals in the last few months, and also some leading tabloids (11, 14–16). Our opinion is obsession of contamination may not be generalized. For example, a person with obsession of dirt contamination might not extend his/her obsession to contamination to a virus as well. Fear of infection with AIDS might not be generalizable to obsession of COVID infection. Furthermore, as most of our patients lived with family members, their level of anxiety might be shared with other family members. Family support during lockdown, common shared anxiety of all about COVID, frequent handwashing by other family members all play a preventive role from exacerbation of compulsive symptoms (17). After the interview, patients were also advised to continue taking their medications, as it decreases the probability of relapse. If patients discontinued medication for some time, there would have been a definite exacerbation of symptoms.

Some studies have reported higher surge of OC symptoms in the wake of COVID-19 situation (18, 19). Factors like increased risk of family accommodation, expressed emotion, pathological fear of contamination, and stress due to restricted movement have been proposed (20,21). However, these discrepancies are explained owing to the sociocultural differences across populations and their role in modifying psychiatric illnesses (22). Furthermore, country specific situations of COVID-19 pandemic are also to be taken into account (23).

Despite the small sample size and lack of randomization in our study, we were able to show the current COVID-19 situation along with the imposed lockdown did not cause a significant surge in exacerbation of OC symptoms related to contamination and cleaning/washing. However, we acknowledge that these findings are preliminary and would become manifest

more clearly as more studies are conducted in this regard, especially from our country.

Based on their clinical experience, Authors of this study think this cleaning/washing habit for this pandemic might cause a surge of washing compulsion in patients after the pandemic is over and the normality of transport & hospital services is restored. However, it will cause symptom exacerbation in only a small number of patients already having washing compulsion, which is further supported by other researchers (24, 25). Further research is indeed needed to assess the global impact on the said disorder and future predictions in this regard if any similar untoward situation may arise.

## Limitation

In this study we only focused washing type of OCD. Impact of COVID 19 on other subtypes of OCD also needs to be investigated.

## Conclusion

During the COVID 19 pandemic the patients who was previously diagnosed as OCD with obsession of contamination and compulsive washing did not show any increase in their washing behavior.

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## Conflict of Interest

None.

## References

1. Ministry of Health and Family Welfare. GOI RSS. Available from: <http://www.mohfw.gov.in/>. [Last accessed on 2020 July 16].
2. Health and Family Welfare Department. Govt. of West Bengal. Available from: <https://www.wbhealth.gov.in/> [Last accessed on 2020 July 16]
3. Kumar A, Somani A. Dealing with Corona virus anxiety and OCD. *Asian J Psychiatr.* 2020;51:102053.
4. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (5<sup>th</sup> ed.). Washington, DC: American Psychiatric Association; 2013.
5. French I, Lyne J. Acute exacerbation of OCD symptoms precipitated by media reports of COVID-19. *Ir J Psychol Med.* 2020;1-4.
6. Ruscio AM, Stein DJ, Chiu WT, Kessler RC. The epidemiology of obsessive-compulsive disorder in the National Comorbidity Survey Replication. *Mol Psychiatry.* 2010;15(1):53-63.
7. Browne HA, Gair SL, Scharf JM, Grice DE. Genetics of obsessive-compulsive disorder and

- related disorders. *Psychiatr Clin North Am.* 2014;37(3):319-35.
8. Murphy DL, Timpano KR, Wheaton MG, Greenberg BD, Miguel EC. Obsessive-compulsive disorder and its related disorders: a reappraisal of obsessive-compulsive spectrum concepts. *Dialogues Clin Neurosci.* 2010;12(2):131-48.
  9. Rasmussen SA, Eisen JL. The epidemiology and clinical features of obsessive compulsive disorder. *Psychiatr Clin North Am.* 1992;15(4):743-58.
  10. Cordeiro T, Sharma MP, Thennarasu K, Reddy YC. Symptom Dimensions in Obsessive-Compulsive Disorder and Obsessive Beliefs. *Indian J Psychol Med.* 2015;37(4):403-8.
  11. Banerjee DD. The other side of COVID-19: Impact on obsessive compulsive disorder (OCD) and hoarding. *Psychiatry Res.* 2020;288:112966.
  12. Andrade C. COVID-19 and lockdown: Delayed effects on health. *Indian Journal of Psychiatry.* 2020;62(3):247-9 .
  13. Janardhan Reddy YC, Sundar AS, Narayanaswamy JC, Math SB. Clinical practice guidelines for Obsessive-Compulsive Disorder. *Indian J Psychiatry.* 2017;59(Suppl 1):S74-s90.
  14. Chatterjee SS, Barikar CM, Mukherjee A. Impact of COVID-19 pandemic on pre-existing mental health problems. *Asian J Psychiatr.* 2020;51:102071.
  15. Duan L, Zhu G. Psychological interventions for people affected by the COVID-19 epidemic. *Lancet Psychiatry.* 2020;7(4):300-2.
  16. Adam D. The hellish side of handwashing: how coronavirus is affecting people with OCD. *The Guardian.* Available from: <https://www.theguardian.com/society/2020/mar/13/why-regular-handwashing-can-be-bad-advice-for-patients>. [Last accessed 16 July 2020]
  17. 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;395(10227):912-20.
  18. Fontenelle LF, Miguel EC. The impact of coronavirus (COVID-19) in the diagnosis and treatment of obsessive-compulsive disorder. *Depress Anxiety.* 2020;37(6):510-1.
  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;291:113213.
  20. Pozza A, Marazziti D. Risk for pathological contamination fears at coronavirus time: Proposal of early intervention and prevention strategies. *Clinical Neuropsychiatry.* 2020;17(2):100-2 .
  21. Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res.* 2020;287:112934.
  22. Nicolini H, Salin-Pascual R, Cabrera B, Lanzagorta N. Influence of Culture in Obsessive-compulsive Disorder and Its Treatment. *Curr Psychiatry Rev.* 2017;13(4):285-92.
  23. Coronavirus disease 2019. World Health Organization. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. [Last accessed July 16 2020].
  24. Rivera RM, Carballea D. Coronavirus: A trigger for OCD and illness anxiety disorder? *Psychol Trauma.* 2020.
  25. Fineberg NA, Van Ameringen M, Drummond L, Hollander E, Stein DJ, Geller D, et al. How to manage obsessive-compulsive disorder (OCD) under COVID-19: A clinician's guide from the International College of Obsessive Compulsive Spectrum Disorders (ICOCS) and the Obsessive-Compulsive and Related Disorders Research Network (OCRN) of the European College of Neuropsychopharmacology. *Compr Psychiatry.* 2020;100:152174.