Management of Obsessive-Compulsive Disorder before Bariatric Surgery with Cognitive Behavioral Therapy During COVID-19

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Abstract
This is a report about a 44-year-old woman, with morbid obesity (BMI = 43) who was a candidate for bariatric surgery (BS) in Mother and Child Hospital in Shiraz, Iran. She had obsessive-compulsive disorder (OCD), so she refused surgery because she was afraid of getting the coronavirus. Psychiatric diagnostic interview and EyleBrown questionnaire that consists of 10 items were performed by a psychiatrist for the patient. After diagnosis of OCD, the patient underwent cognitive behavioral therapy (CBT) for 8 sessions. Results show that CBT is effective in reducing symptoms of OCD during COVID-19. Therefore, preoperative psychological interventions help increase patients’ readiness for BS during COVID-19.

Keywords
Obsessive-compulsive disorder · Bariatric surgery · Cognitive behavioral therapy · COVID-19

Introduction
Obesity has reached epidemic proportions worldwide, and all evidences suggest that the situation is likely to get worse. It is estimated that 65% of the adult population in the USA are overweight or obese [1, 2]. Bariatric surgery (BS) is a mainstay treatment of obesity [3]. It is essential that patients receive long-term follow-up and monitoring to help them achieve the estimated weight loss, reduce comorbidities, and prevent long-term problems that may arise following surgery [4]. The new coronavirus outbreak was characterized as a pandemic by the World Health Organization in March 2020 [5]. The International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) recommended that all elective metabolic and bariatric procedures, both surgical and endoscopic, be postponed until the end of the pandemic [6].

The delay of operation may affect patients’ health in different ways, regardless if in the case of oncological or bariatric patients; while some data have already been gathered on the condition of surgery in a time of pandemic [7–9].

From the beginning of the pandemic, a number of recommendations were suggested by health agencies, e.g., social distancing, respiratory hygiene by wearing masks, and hand hygiene. Handwashing by soap or by an 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 OCD, especially those having obsession of contamination and compulsion of washing [10].

Although the frequency of mental disorders is expected to increase during pandemics, the peculiarities of the COVID-19 pandemic can directly impact the clinical course of OCD, a condition that affects approximately 3% of the general population [11]. OCD is characterized by the presence of obsessions (which are unwanted and unpleasant thoughts, images, or urges) and/or compulsions (repetitive behaviors or mental rituals aimed at reducing the distress provoked by obsessions). Cleanliness, contamination, and fear of contracting a disease are topics of concern for patients with OCD [12]. There is hardly any data specifically about bariatric surgery and practically none about the effects of the COVID-19 pandemic on...
Case Report

This is a report about a 44-year-old woman, with morbid obesity (BMI = 43) who was a candidate for BS in Mother and Child Hospital in Shiraz, Iran. She had OCD, so she refused surgery because she was afraid of getting the coronavirus. Psychiatric diagnostic interview and EyelBrown questionnaire that consists of 10 items were performed by a psychiatrist for the patient. After diagnosis of OCD, the patient underwent cognitive behavioral therapy (CBT) for 8 sessions.

Treatment planning was based on the 5-stage CBT model of Freeston et al. (1997) which was carried out with two 90-min sessions each week. They claim that the aims of the therapy are to provide a better cognitive perception of obsession, preventing neutralization, modifying wrong interpretations of obsessions, and habitualizing anxiety-causing characteristics of obsession. These sessions consist of 5 stages. The first two sessions are dedicated to teaching references on the cognitive obsession model and spotting initial wrong assessments of obsession. In the second part of the therapy, the session focuses on the role of anxiety and neutralization on continuation of obsession and the rationality of therapy (exposure and response prevention, or ERP). ERP therapy includes exposing patients to different conditions that trigger obsession and then preventing any responsive or neutralizing behavior by the patient. The logic behind this kind of therapy is that frequent exposures to fearsome situations which create obsession and the subsequent anxiety, coupled with preventing any reductive measure, cause habitualization of anxiety. In this process, obsession would gradually lose its damaging quality and would be repeated less frequently, so there would be no need for obsessive responses and behaviors. In addition, in this stage references on the vicious cycle in which assessment of importance of obsession leads to overt and covert obsessive behaviors or neutralizing strategies, alienation, or confidence seeking would be introduced. The third part of the therapy contains the main part of the therapy, in which exposure to a hierarchy of obsessive thoughts (and their triggering situation) and voluntary suppression of any obsessive or neutralizing behavior is carried out. The fourth part of the therapy, namely cognitive reconstruction, is usually provided after ERP exercises to directly deal with the wrong assessments and their underlying inefficient beliefs which may hamper the progress of treatment. At this stage, common cognitive techniques such as Socratic questioning, exploring thoughts, assessing negative perceptions, discussions or verbal debates, and gathering evidence and behavioral tests are used to challenge the patient’s belief on the degree of threat posed by the obsession and the fact it should be reined in at any cost. The last part of therapy is preventing recurrence. In this part, the patient sets rational expectations on continuation of the remaining symptoms and its frequencies, and recognizes factors which cause vulnerabilities in individuals so they can plan strategic signs for acute terms [13].

After the psychotherapy sessions, again the psychiatric diagnostic interview and EyelBrown questionnaire were performed for the patient and a significant reduction in the symptoms of obsessive-compulsive disorder was observed. Two weeks after the last psychotherapy session, the patient underwent LSG without anxiety and worry about developing coronavirus and she was discharged without any problem.

Discussion

The aim of this study was to evaluate managing of OCD before BS with CBT during COVID-19 in a 44-year-old woman with morbid obesity (BMI = 43) who was a candidate for BS. Result show that CBT is effective to reduce symptoms of OCD during COVID-19. That is similar to Shoakazemi et al. study [13]. It is important to provide appropriate attention to specific psychiatric conditions that may be initiated or exacerbated by a disaster. Perhaps no group of individuals with mental illness are as directly affected by the worsening outbreak of COVID-19 as people living with obsessive-compulsive disorder (OCD) [14]. Paradoxically, they are “experts by experience” in attempting to avert dangers through enacting compulsive behaviors [15, 16].

Chiefly, the spike in anxiety about the virus is fuelling existing obsessive fears of contamination in some people with OCD and further triggering harmful compulsive actions. For these people, coronavirus can become all they think about [15]. Indeed, some patients with contamination-related OCD are expressing doubts about the rationality of the therapies they have been pursuing. Several patients have told their clinicians they were “right all along,” as now everybody looks like them. For others, COVID-19 is likely to cast a long shadow, as people of all ages with OCD are known to be particularly inflexible at “unlearning” danger responses when they become obsolete [17, 18], and thereby conditioned to prolonged virus-induced distress and anxiety—in response to the emerging crisis and growing calls from patients and clinicians for guidance [15].

For clinicians working in specialist centers, other less evidence-based forms of CBT involving ERP, imaginal exposure or danger ideation reduction therapy, could potentially be offered for patients with contamination-related OCD, even when their concern is COVID-19 [13]. Moody et al. findings show that mechanisms of CBT may involve enhanced cross-network integration, both within and outside of classical cortico-striatal-thalamo-cortical regions; those involving...
cerebellar to striatal and prefrontal regions may reflect acquisition of new non-compulsive goal-directed behaviors and thought patterns [19], so CBT is effective for OCD.

**Conclusion**

The psychological pre-operative evaluations and interventions are very important due to increases good results of BS [20], the findings of this study demonstrated that cognitive-behavioral therapy can lead to reduce symptoms of obsessive-compulsive disorder (OCD) in patients undergoing bariatric surgery during COVID-19. Therefore, preoperative psychological interventions help to increase patients’ readiness for BS during COVID-19.

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**Declarations**

**Conflict of Interest**

The authors declare no competing interests.

**Informed Consent**

A written informed consent was obtained from the patient presented in the study.

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