Research paper

The Mediation Role of Stress and Fear of Covid-19 Between Obsessive Beliefs and Obsessive-Compulsive Disorder

Sarhadi, Sahar [1]; Najafi, Mahmoud [*2]

1. M.A in Clinical psychology, Department of Clinical Psychology, Semnan University, Semnan, Iran. sarhadisahar@yahoo.com
2. Corresponding Author: Associate Professor, Department of Clinical Psychology, Semnan University, Semnan, Iran. m_najafi@semnan.ac.ir

Abstract

This study aimed to explore the mediating role of stress and fear of COVID-19 in the association between obsessive beliefs and obsessive-compulsive symptoms. Using a correlation-type descriptive research method, 391 participants were selected from the general population through accessible sampling. The research employed tools such as the revised practical obsessive-compulsive scale, obsessive beliefs scale, the fear of COVID-19 scale and the COVID stress scale. Data analysis involved Pearson correlation and structural equation modeling (SEM). Results indicated that stress and fear of COVID-19 played a mediating role in the connection between obsessive beliefs and obsessive-compulsive symptoms. Overall, the model demonstrated a good fit, suggesting potential use in designing interventions to alleviate fear and stress during infectious disease outbreaks.

Keywords: Obsessive-compulsive disorder, obsessive beliefs, stress, fear, COVID-19

Introduction

In late 2019, the emergence of COVID-19, attributed to the novel coronavirus SARS-CoV-2, was initially reported in Wuhan, China (Ahorsu, et al., 2020). As the global statistics of cases and fatalities rose, apprehension and uncertainty permeated worldwide, with COVID-19 commanding global attention (Ji, et al., 2020). Obsessive-Compulsive Disorder (OCD) is characterized by recurring intrusive thoughts (obsessions) and persistent behaviours (compulsions), devised to alleviate the distress associated with these obsessions (American Psychiatric Association, 2023). Previous research underscored obsessive beliefs as a construct linked to OCD (Ji, et al., 2020; Khosravani, et al., 2020). Stress and Fear of COVID-19 represent additional factors influencing the onset and persistence of obsessive-compulsive symptoms (Nissen, et al., 2019). Considering the associations between obsessive beliefs, stress, fear of COVID-19, and symptoms of OCD, an opportunity arises to construct a causal model. This model posits that obsessive beliefs, stress, and fear of COVID-19 collectively predict OCD symptoms. Moreover, stress and fear of COVID-19 serve as mediating variables in the link between obsessive beliefs and OCD symptoms. Specifically, obsessive beliefs, influencing stress and fear of COVID-19, lead to heightened mental and practical obsessions, indicative of OCD symptoms. Given the high prevalence of OCD, extensive research has concentrated on its underlying factors. Consequently, understanding the roles of obsessive beliefs, stress, and fear of COVID-19 in the development and treatment of OCD symptoms becomes crucial. Given the scarcity of research in this domain, particularly in Iran, investigating the relationship

between obsessive beliefs, stress, and fear of COVID-19 in non-clinical populations is imperative. Recognizing the pivotal roles of obsessive beliefs, Stress, and Fear of COVID-19 in both the development and management of obsessive-compulsive disorder, and acknowledging its significance in behavioural and social performance, the primary objective of this study was to ascertain the mediating role of stress and fear of COVID-19 in the relationship between obsessive beliefs and obsessive-compulsive symptoms. Thus, the hypothesis posited a model illustrating the mediating role of stress and fear of corona in the connection between obsessive beliefs and obsessive-compulsive symptoms.

Method

This study employed a descriptive-correlational approach with a structural equation modeling type. The statistical population encompassed the general population utilizing Telegram, WhatsApp, and Instagram in 2021. A sample of 400 participants was selected through convenience sampling. Due to the impact of the COVID-19 situation, the research was conducted online, with questionnaires posted on popular virtual networks such as Instagram, WhatsApp, and Telegram. Inclusion criteria encompassed an age range of 20 to 50 years, while non-response to the questionnaires served as exclusion criteria. Ultimately, 391 questionnaires were analyzed after eliminating distorted responses. To explore the mediating role of stress and fear of COVID-19 in the relationship between obsessive beliefs and obsessive-compulsive symptoms, path analysis via AMOS22 software was employed.

Tools

Obsessive–compulsive Disorder-revision (OCD-R): The OCD-R has 18 items, with scores ranging from 0 to 72; a higher score indicates the presence of obsessive-compulsive disorder. Mohammadi, et al. (2015) standardized this questionnaire, demonstrating Cronbach's alpha of 0.85 for the general scale. In the present study, a Cronbach's alpha of 0.90 was achieved.

Obsessional Beliefs Questionnaire (OBQ-44): This questionnaire has 44 items and has 3 subscales. The questionnaire's reliability was reported as 0.80 using Cronbach's alpha by the Obsessive-Compulsive Cognitions Working Group (2003). In the current study, Cronbach's alpha was determined to be 0.95.

Fear of COVID-19 scale: This questionnaire, consisting of 7 items with scores ranging from 7 to 35, reflects a higher score indicating greater fear of COVID-19. Ahorsu, et al. (2020) reported Cronbach's alpha of 0.87. In this study, Cronbach's alpha was 0.87.

COVID Stress Scales: this questionnaire Comprising 36 items with scores ranging from 36 to 180, the questionnaire signifies a higher score indicating greater COVID Stress. Khosravani, et al. (2020) reported Cronbach's alpha of 0.97, and in this study, a Cronbach's alpha of 0.93 was achieved.

Results

The assumptions of path analysis, such as, the Kolmogorov-Smirnov test confirmed normality assumptions. Given that structural equation analysis relies on Pearson correlation coefficients derived from the sample correlation matrix, showing that all correlations reached statistical significance ($P<0.01$). Furthermore, results pertaining to fit indices indicated the model's satisfactory alignment with the data in this study.
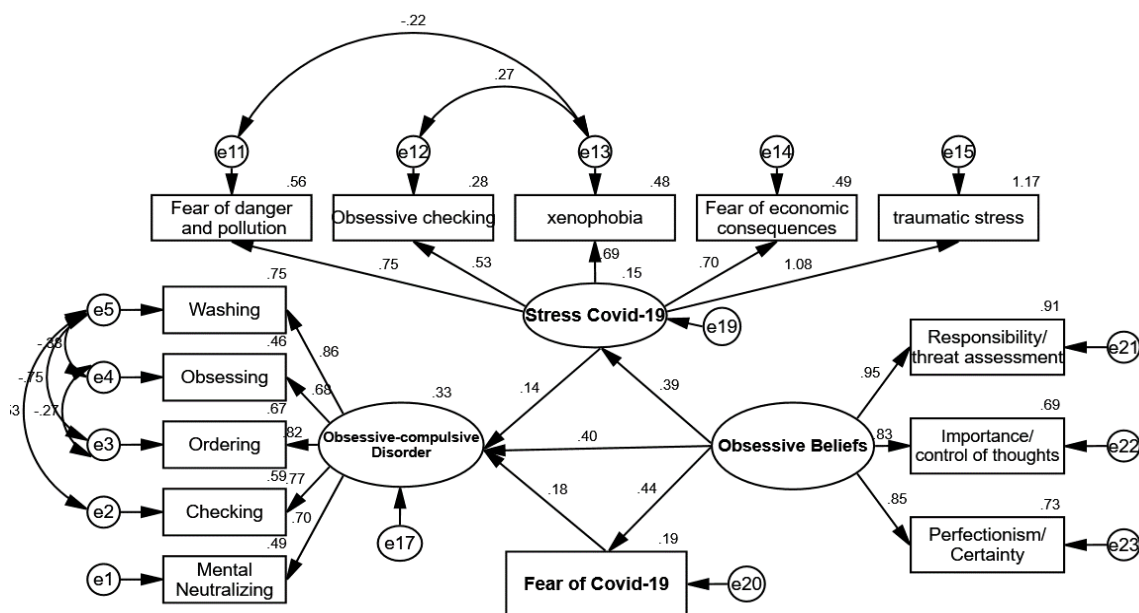
Figure 1. Final model

As per Table 1, the Bootstrap test results reveal a significant mediating role of stress and fear of COVID in the relationship between obsessive beliefs and obsessive-compulsive symptoms (P < 0.05).

Table 1. The results of Bootstrap test

Routes	Indirect Effects	Standard errors	Upper Bounds	Lower Bounds	sig
Obsessive belief → Stress corona → OCD	0.05	0.10	0.32	0.13	0.001
Obsessive belief → Fear of corona → OCD	0.07	0.34	0.41	0.06	0.003

Discussion and Conclusion

The findings indicate that obsessive beliefs are linked to the severity of obsessive-compulsive symptoms, not only through a direct association but also indirectly through the pathways of fear of COVID-19 and COVID stress. This suggests that obsessive beliefs alone do not constitute a significant aspect of vulnerability to the occurrence of obsessive symptoms; rather, the presence of COVID -related stress and fear is crucial. Specifically, obsessive beliefs exhibit a positive relationship with obsessive-compulsive symptoms when the levels of COVID -related stress and fear are high. Nevertheless, it is crucial to underscore that the fear and stress associated with COVID -19 may significantly contribute to the severity of OCD symptoms in individuals. Individuals experiencing the stress and fear of COVID are prone to heightened obsessive beliefs. The presence of such beliefs amplifies anxiety, perpetuating the continuum of OCD. Overall, the study's findings indicate that specific dimensions of obsessive beliefs, including responsibility for harm, unacceptable thoughts, correlate with the severity of obsessive-compulsive symptoms. This relationship is mediated by COVID -related stress and fear, encompassing behaviors associated with the epidemic. In conclusion, the research

findings propose a complex interconnection between obsessive beliefs, mediated by COVID-related stress and fear, and obsessive-compulsive symptoms. Elevated levels of COVID-related stress and fear align with increased occurrences and heightened severity of obsessive-compulsive symptoms. One limitation of the current study stems from the unavailability of a random sampling method due to the widespread impact of COVID -19. Our results suggest that obsessive beliefs may play a role in the initiation of OCD, emphasizing the significance of targeting stress and fear of COVID in mental health interventions, applicable in both challenging circumstances and clinical practice. It appears imperative to focus on obsessive beliefs, stress, and fear of COVID during the treatment process, integrating strategies for coping with these factors.

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Conflicts of interest
Authors found no conflict of interests.