

Predicting coronavirus anxiety based on resilience, cognitive emotion regulation strategies, and cyberchondria

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Abstract

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Introduction: One of the effects of the COVID-19 pandemic has been the increase of anxiety levels caused by it. In this regard, identifying and targeting its predictors can effectively manage Coronavirus anxiety. Therefore, the present study aimed to predict coronavirus anxiety based on resilience, cognitive emotion regulation, and cyberchondria.

Methods: In a correlational study design, 409 people were selected from 18 to 60 years old Isfahan's residents using the convenience sampling method through social networks. Data were collected using Lee's Coronavirus Anxiety Scale, Connor and Davidson's Resilience Scale, Garnefski and Kraaij's Cognitive Emotion Regulation Questionnaire, and McElroy et al.'s Cyberchondria Severity Scale.

Results: Based on the obtained results, the variables of resilience, self-blame, and acceptance sub-scales of cognitive emotion regulation and cyberchondria variables predicted 15.5% of the variance of coronavirus anxiety ($P < 0.05$).

Conclusion: The present study's findings concluded that resilience, some cognitive emotion regulation strategies such as self-blame and acceptance, as well as cyberchondria are significantly associated with coronavirus anxiety and are able to predict it. So, causal results can be achieved by designing interventional research such as the effect of resilience training, emotion regulation, and cyberchondria management on coronavirus anxiety. Then these results can be used to manage coronavirus anxiety in the form of public education in the community.

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Extended Abstract

Introduction

In late 2019, a specific disease called COVID-19 was identified in Wuhan, China, and then spread worldwide (1). The Coronavirus pandemic has had different psychological effects on individuals; one of these effects has been

an increase in the level of coronavirus anxiety (3). Some researchers have used the term coronaphobia to describe the experience of anxiety and extreme fear of people suffering from this disease (8). In a comprehensive defini-

tion, Coronaphobia means the response of extreme fear to COVID-19 disease, which leads to severe anxiety about the physiological symptoms experienced, the experience of high stress associated with the loss of a loved one or job, the performance of reassuring behaviors about getting sick and avoiding being in public places that are associated with impaired functioning of daily life (9). Coronavirus anxiety or coronaphobia is associated with a variety of variables. One of these variables is resilience, and various studies have confirmed the inverse relationship between these two variables. In addition, coronavirus anxiety decreases with increasing resilience. Resilience is also able to predict coronavirus anxiety (10-13). Another variable associated with coronavirus anxiety is cognitive emotion regulation. Various studies have confirmed the significant relationship between cognitive emotion regulation strategies and coronavirus anxiety. Adaptive cognitive emotion regulation strategies negatively correlated with coronavirus anxiety, and maladaptive cognitive emotion regulation strategies positively correlated with coronavirus anxiety (5, 20). Cyberchondria is another variable associated with coronavirus anxiety, a condition in which people become severely anxious about their health by online searching for information related to health and illness. The results of Jungmann and Witthoft's research (2020) indicated that cyberchondria is positively associated with coronavirus anxiety and is known as a risk factor in the COVID-19 pandemic (23). Because coronavirus anxiety has a detrimental effect on people's lives, identifying and targeting its predictors can effectively manage coronavirus anxiety. Therefore, the purpose of this study was to predict coronavirus anxiety based on resilience, cognitive emotion regulation, and cyberchondria.

Methods

The research method was descriptive, and the statistical population included all Isfahan's residents aged 18 to 60

years (The mean age of participants was 33.74 ± 8.15) in the 2020 year. Among this population, the sample was selected by the convenience sampling method. Due to the specific conditions of the pandemic, the questionnaires were prepared online and published on social networks. Then, those interested in participating in this research completed the questionnaires. After removing incomplete and distorted questionnaires, the sample size reached 409 people (342 women and 67 men). Data were collected by Lee's Coronavirus Anxiety Scale, Connor and Davidson's Resilience Scale, Garnefski and Kraaij's Cognitive Emotion Regulation Questionnaire, and McElroy et al.'s Cyberchondria Severity Scale. Then, data were analyzed using SPSS19 software through Pearson correlation coefficient and entered linear regression analysis.

Results

Based on the obtained value of adjusted R^2 (0.155), the results of the enter linear regression analysis showed that in general, about 15.5% of the total changes of the dependent variable (Coronavirus anxiety) could be explained by independent variables of the study, including resilience, nine subscales of cognitive emotion regulation including self-blame, acceptance, rumination, positive refocusing, planning, positive reappraisal, putting into perspective, catastrophizing, and other-blame, as well as cyberchondria. However, after a more detailed analysis of the model by separation of independent variables and considering the value of T and its significance, the results showed that in more detail only the variables of resilience, subscales of self-blame, and acceptance in the variable of cognitive emotion regulation and cyberchondria were able to predict coronavirus anxiety ($P < 0.05$).

Conclusion

The present study findings concluded that resilience, some cognitive emotion regulation strategies such as

self-blame, and acceptance, as well as cyberchondria are significantly associated with coronavirus anxiety and are able to predict it. Regarding the research results, several essential points can be mentioned. Resilient people are highly adaptable to challenging situations such as the COVID-19 pandemic and do not quickly become severely anxious. In addition to resilience, the quality of cognitive emotion regulation (adaptive or maladaptive) can play a crucial role in managing coronavirus anxiety. Cyberchondria can also increase coronavirus anxiety. Based on the findings, it can be implicitly concluded that designing interventions based on promoting resilience, modifying cognitive emotion regulation strategies, and manipulating cyberchondria-related actions makes it possible to manage coronavirus anxiety. This study, like other studies, faced some limitations: For example, the lack of cooperation of some people in completing the questionnaires, the sample limitation to people living in Isfahan, the lack of random sampling, and not limiting the age range of participants in the study. By considering these limitations, the generalization of results should be made with sufficient caution. Therefore, considering these limitations, the generalization of results should be made with sufficient caution. By removing the limitations of this research, it can be repeated in other samples. Based on the results of this research, it is possible to pre-

pare educational packages for the general public.

Ethical Considerations

Compliance with ethical guidelines

In order to comply with the research ethic, the purpose of the work was carefully explained to all participants, and they were assured that their information would be kept confidential and that they would not need to write their names.

Authors' contributions

Maryam Daniali participated in the study's design, data collection, review, and correction of the article, and Elham Eskandari was involved in data collection, data analysis, and article writing. Both authors read and approved the final version of the article.

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Conflict of interest

The authors declared that there is no conflict of interest.