

Research paper

Structural Modeling of Destruction Meta-Cognition Beliefs and Anxiety: The mediating Role of Health-Promoting Lifestyle

Garavand, Houshang

Assistant Professor, Psychology Department, Faculty of Literature and Humanities, Lorestan University, Khorramabad, Iran. Email: Garavand.h@lu.ac.ir, <https://www.orcid.org/0000-0001-5228-5413>

Abstract

The purpose of this study was to investigate the mediating role of health-promoting lifestyle in the relationship between meta-cognition beliefs and anxiety. The research method was correlation of the type SEM. The population of this study included all Undergraduate. 230 students participated in this study online and responded to corona disease anxiety scale, meta-cognations questionnaire-30, and health promoting lifestyle. The results of data analysis by SEM showed that the meta-cognition beliefs had a direct and positive effect on anxiety; but it did not have a direct effect on a lifestyle. Also, lifestyle had a negative effect on anxiety. Indirect results showed that a lifestyle could not mediate the relationship between meta-cognition beliefs and anxiety. In order to reduce anxiety in students, it is important for professionals to consider promoting personal and spiritual growth, positive and constructive communication with others, taking responsibility for health, as well as reducing destruction meta-cognition beliefs.

Keywords: Destruction meta-cognition beliefs, health promoting lifestyle, Corona anxiety.

Introduction

In March 2020, the World health organization (WHO) declared the outbreak of novel coronavirus (COVID-19) as a pandemic and threat to human lives across the world. The current pandemic brought not only the risk of death but also unbearable mental pressure to people across the world. Although substantial measures were taken to diagnose infection among people, mental health-care particularly of students was relatively neglected. A study by Moghanibashi (2020) on measuring anxiety in Iran at the same time as the corona outbreak showed that approximately one-fifth of people experience severe to very severe anxiety. Metacognition is an important factor in adaptive growth and anxiety (Erceg, et al., 2020). In light of the examined literature, one potential mechanism for understanding the relationship between destruction meta-cognition beliefs to the current stressful public emergency might be health-promoting lifestyle (Park, et al., 2020). Pender et al (2015) indicated that health promoting behaviors (HPBs), including self-initiated actions, behaviors, and health perceptions may have an impact on individual happiness and well-being. The effect of destruction meta-cognition beliefs on health-promoting lifestyle (Nameni, et al., 2017) and also the effect of health-promoting lifestyle on corona anxiety has also been well explored (Fathi, et al., 2020). Despite the emphasis on social distance and personal hygiene and warnings about the COVID-19, little attention has paid to its psychological aspects, which can affect adherence to self-care behaviors. Therefore, the aim of this study was to investigate the mediatory role of the health-

promoting lifestyle in relationship between destruction meta-cognition beliefs with corona anxiety.

Method

The present study was applied research in terms of purpose and descriptive and correlational research in terms of method. According to this research method, the correlation was of structural equation type. The statistical population included 450 undergraduate students in the academic year 2020-2021 from Poldokhtar Higher Education Center. Using rules-of-thumb, 230 people entered the study by voluntary sampling method (due to special health conditions and corona restrictions). The questionnaire link was placed in WhatsApp channels related to students and the questionnaires were completed online.

Tools

Corona Disease Anxiety Scale (CDAS): This 18-item scale was designed by Alipour, et al. (2020) which is scored between zero (never) to three (always). Cronbach’s alpha for this scale was calculated to be 0.75 in the current study.

Health promoting lifestyle profile (HPLP-II): The 54-item questionnaire was developed by Walker, et al. (1987). Each item was scored on a four-point Likert scale, with 1 representing ‘Never’ and 4 representing ‘Routinely’. Cronbach’s alpha for this scale was calculated to be 0.92 in the current study. The instrument was also used as a bases for an interventions program to alter life-style.

Metacognition Questionnaire-30 (MCQ-30): The MCQ-30 is comprising 30 items developed by Wells and Cartwright-Hatton (2004). Items of the MCQ-30 are rated on a four-point Likert scale (1 = I don't agree to 4 = I strongly agree). Internal consistency (Cronbach's alpha) of the MCQ-30 in the present study was 0.90.

Results

The results of showed that the mean and standard deviation of corona anxiety in the studied sample was 1.39 (0.539). Also, the mean and standard deviation of destruction meta-cognition beliefs were 2.11 (0.461). There were a positive and significant relationship between corona anxiety and destruction meta-cognition beliefs (R = 0.46). In the studied sample, the mean and standard deviation of health-promoting lifestyle was 2.81 (0.573). There was negative and significant relationship between corona anxiety and health-promoting lifestyle (R = -0.22). But there were no significant relationships between destruction meta-cognition beliefs and health-promoting lifestyle (R = -0.04).

Table 1. The Correlation Matrix, Mean, Standard Deviation, Skewness and Kurtosis of Research Variables

Variable	1	2	3
1. Destruction meta-cognition beliefs	1		
2. Health-promoting lifestyle	-0.04	1	
3. Corona anxiety	0.46**	-0.22**	1
Mean	2.11	2.81	1.39
Standard deviation	0.46	0.57	0.54
Skewness	-0.18	-0.25	0.45
Kurtosis	0.39	0.47	-0.75

It should be noted that in a favorable structural model, the ratio of chi-square to degree of freedom (X^2/df) is equal to or less than 3, root mean squares of residual (RMSR) less than 0.05, good fit index (GFI) greater than 0.90, adaptive fit index (CFI) greater than 0.90, incremental fit index (IFI) greater than 0.90 and root mean square error approximation (RMSEA) equal to or less than 0.08. In the present model, RMR and RMSEA in this model are 0.029 and 0.08, respectively, and X^2/df is 2.50. Also, the other indicators were close to one, which indicated a good fit of the pattern. Accordingly, the results related to the fit indices indicated the acceptable fit of the model with the data of the present study.

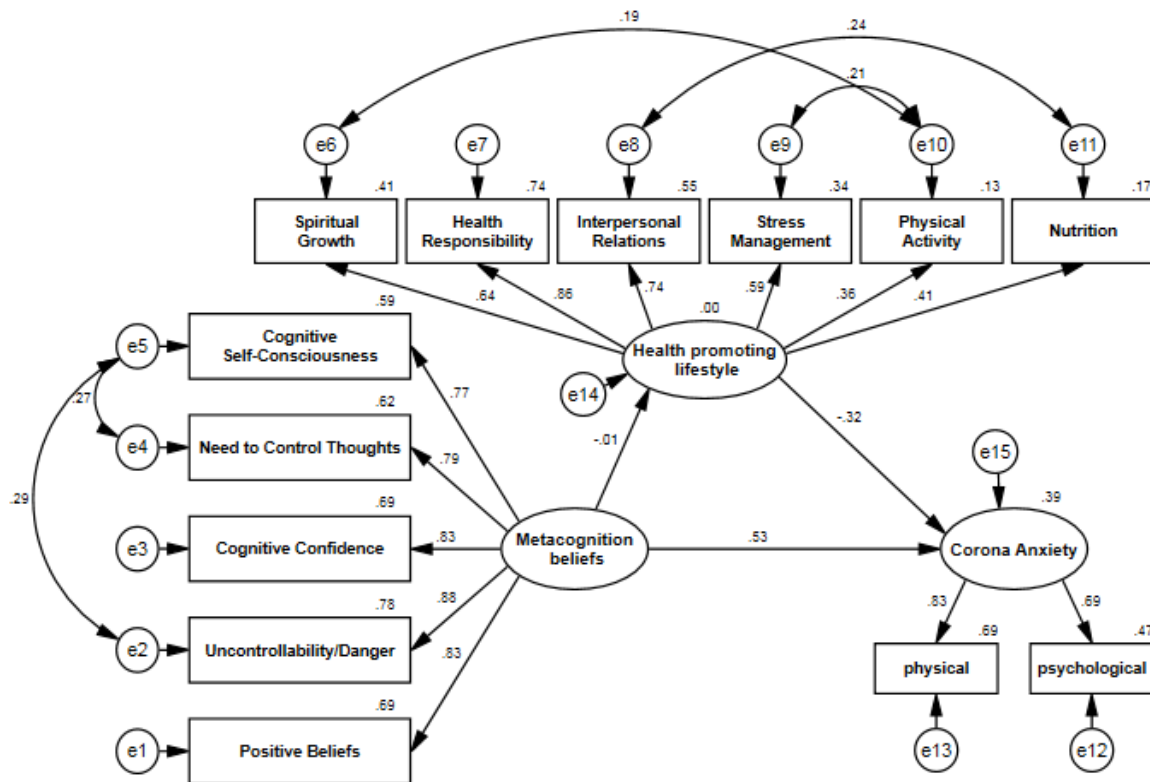


Figure 1. Final research model

The results of Bootstrap test showed that health-promoting lifestyle plays a no significant mediating role in the relationship between destruction meta-cognition beliefs and corona anxiety ($p > 0.05$).

Discussion

During a worldwide health risk situation like the one we are facing with COVID-19, especially if effective treatments or vaccines are not yet available for all, the main health measure is neither chemical nor biological, but behavioral. Meta-cognition beliefs had a direct and positive effect on anxiety; but it did not have a direct effect on a lifestyle. Also, lifestyle had a negative effect on anxiety. Indirect results showed that a lifestyle could not mediate the relationship between meta-cognition beliefs and anxiety. In order to reduce corona anxiety in students, it is

important for professionals to consider promoting personal and spiritual growth, positive and constructive communication with others, taking responsibility for health, as well as reducing destructive meta-cognition beliefs. Also, data gathered from this study could inform policy makers about the best strategies that will take into account the various stages of health risk and, in particular, to adjust messages to the population.

References

- Alipour, A., Ghadami, A., Alipour, Z., Abdollahzadeh, H. (2020). Preliminary validation of the corona disease anxiety scale (CDAS) in the Iranian sample. *Quarterly Journal of Health Psychology*, 8(32), 163-175. (Text in Persian).
- Erceg, N., Ružojčić, M., & Galić, Z. (2020). Misbehaving in the corona crisis: The role of anxiety and unfounded beliefs. *Current Psychology*, 13 (12), 1-10.
- Fathi, A., Sadeghi, S., Maleki Rad, A. A., Rostami, H., & Abdolmohammadi, K. (2020). Effect of Health-promoting Lifestyle and Psychological Well-being on Anxiety Induced by Coronavirus Disease 2019 in Non-Medical Students. *Journal of Arak University of Medical Sciences*, 23(5), 698-709. (Text in Persian).
- Moghanibashi-Mansourieh, A. (2020). Assessing the anxiety level of Iranian general population during COVID-19 outbreak. *Asian journal of psychiatry*, 51, 102076 .
- Nameni, E., Shirdel, M., & Jahangiri, A. (2017). The study of effectiveness metacognitive techniques education on life style of married women nurses in Bojnourd. *Journal of North Khorasan University of Medical Sciences*, 9(1), 135-146. (Text in Persian).
- Park, S. (2020). Mediating effect of a health-promoting lifestyle in the relationship between menopausal symptoms, resilience, and depression in middle-aged women. *Health care for women international*, 41(9), 967-983 .
- Pender, N. J., Murdaugh, C. L., & Parsons, M. A. (2015). *Health promotion in nursing practice: 1073*.
- Walker, S. N., Sechrist, K. R., & Pender, N. J. (1987). The health-promoting lifestyle profile: development and psychometric characteristics. *Nursing research*, 36 (1): 76-81.
- Wells, A., & Cartwright-Hatton, S. (2004). A short form of the Meta-Cognitions Questionnaire: Properties of the MCQ-30. *Behavior Research and Therapy*, 42, 385-396.

Acknowledgement

The author appreciates the efforts of all those who have contributed to this study in any way.

Conflict of Interest

The author declares no conflicts of interest.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not for profit sectors



© 2021 Alzahra University, Tehran, Iran. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution-Noncommercial 4.0 International (CC BYN4.0 license) (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).
