


The Mediating Role of Defense Mechanisms in Predicting Perceived Stress Based on Attachment Styles in Patients with COVID-19

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Abstract

The aim of this study was to investigate the mediating role of defense mechanisms in the relationship between perceived stress and attachment styles of COVID-19 patients. The research method was descriptive-correlational. The statistical population included all people in Tehran who were infected with COVID-19 in 1399, who completed the questionnaires online. 300 people were selected by available and voluntary sampling method. The research instruments included Collins and Read attachment style questionnaires, Cohen, et al. perceived stress, and the defense styles of Andrews, et al. Data analysis was performed by path analysis method. The results showed that the hypothetical model had a good fit and was confirmed. The results of indirect pathway coefficient showed that the relationship between secure attachment and perceived stress was mediated by the immature defense mechanism.

Keywords: Perceived stress, attachment styles, defense mechanisms.

Introduction

From December 2019, the outbreak of coronavirus began in Yohan, China, which spread rapidly in some geographical areas. Symptoms include fever, cough, and difficulty breathing (Wu and McCogan, 2020). Patients with coronary artery experience severe and stressful conditions and stress can cause mental disorders (Fattahi, et al., 2020). Stress is defined as a person's behavioral and psychological response to unpleasant and threatening events that the person does not have sufficient resources to deal with these events (Mousavian, et al., 2019). The defense mechanism is one of the factors associated with perceived stress. Andrews, et al. (1993) based on the hierarchical classification of Vaillant (1994) divided defense mechanisms into three styles: mature, immature, and neurotic. Attachment styles can also affect perceived stress. Kobak and Bosmans (2019) showed that insecure attachment styles are associated with psychological pathologies. With the development of the Covid-19 pandemic, human society, in addition to the physical effects of the disease, has faced widespread psychological effects of the disease. With coronary artery disease is essential. Therefore, the present study investigates the relationship between attachment styles and perceived stress mediated by the defense mechanisms of patients with COVID-19.

Method

The present study is of the correlation type (structural equations). The population included all people in Tehran who were infected with Covid-19 in November 2020. The sample size of 300 people was selected

by available sampling method (voluntary type) which was designed online on the Aval form site and distributed on virtual networks related to the city of Tehran.

Tools

Perceived Stress Questionnaire. The perceived stress scale was developed by Cohen, et al. (1983). This questionnaire has 14 items that are scored on a four-point Likert scale from zero to 4, and the range of scores is from 0 to 56. Cohen et al. (1983) calculated the test-retest reliability to be 0.85 and the Cronbach's alpha coefficient for this scale was 0.85. In the present study, Cronbach's alpha was 0.86.

Adult Attachment Styles Questionnaire. The questionnaire was revised in 1996 by Collins and Read. This scale has 18 items that are scored on a 5 degrees Likert scale. This questionnaire has three subscales of intimacy, anxiety and dependency. Collins and Read (1990) reported Cronbach's alpha scales of intimacy, dependence, and anxiety at 0.69, 0.75, and 0.72, respectively. In the present study, Cronbach's alpha for the subscales was 0.65, 0.73 and 0.74, respectively.

Defense Styles Questionnaire (DSQ-40). The Andrews, et al. (1993) defense styles questionnaire, which has 40 items and a 9-point Likert scale (from strongly agreeing to strongly disagreeing), measures 20 defense mechanisms in terms of three defense mechanisms: mature, immature, and neurotic. Tap, et al. (2017) Cronbach's alpha coefficients for mature, immature, and neurotic defense mechanisms were 0.65, 0.85, and 0.62, respectively. In the present study, Cronbach's alpha was 0.74, 0.71 and 0.72, respectively.

Results

Before testing the model, the hypotheses were first examined. Kalmogorov-Smirnov test was used to assume the normality of the data, which was not statistically significant in all variables, and the hypothesis of normality of the data was confirmed ($P > 0.05$). Also, the results of tolerance index and variance inflation factor showed that the alignment phenomenon did not occur in the research variables. Also, the value of the Durbin-Watson is 2.45 which is less than 4, so it can be concluded that the test conditions are met. Path coefficients can be seen in Figure 1.

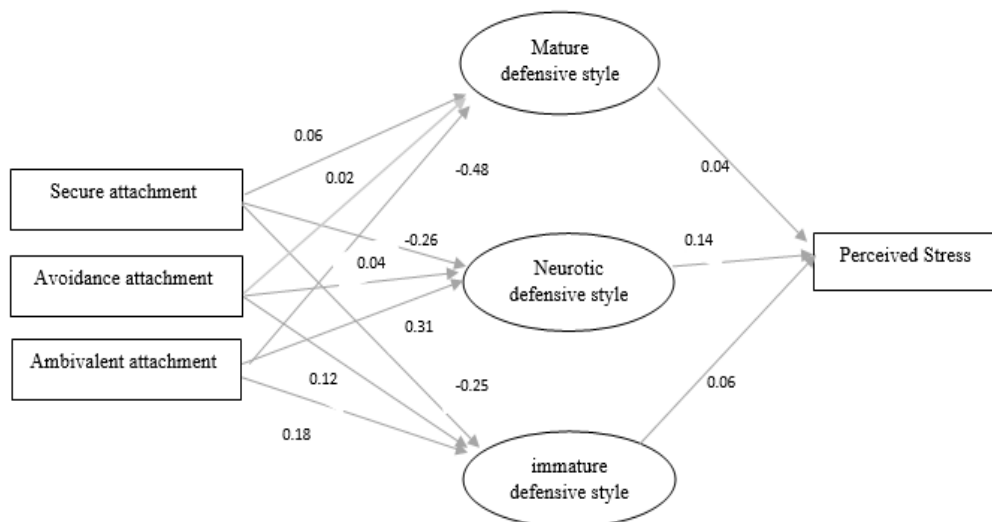


Figure 1: Path coefficients of the proposed model

Table 3 presents the indicators of goodness of fit of the proposed model. The results showed that the result of chi-square on the degree of freedom is less than 5 and RMSEA is less than 0.08, which indicates a good fit of the model. Also, GFI, NFI, CFI indices are above 0.90, which indicates a good fit of the model. Therefore, the model has a good fit.

Table 1. Fitness indicators of goodness

χ^2	df	χ^2 / df	RMSEA	GFI	AGFI	NFI	CFI
38.83	18	2.15	0.06	0.97	0.92	0.90	0.92

Path coefficients showed that some paths are very weak and only the path from secure attachment style to immature defense mechanism (-0.23) and the path of immature defense mechanism to perceived stress (0.14) is significant, that's mean secure attachment style to Indirect form can predict perceived stress through an immature defense mechanism.

Discussion and Conclusion

The results showed that the model had a good fit and the secure attachment style was able to predict perceived stress through the mediation of an immature defense mechanism. In the case of disease, due to exposure to traumatic and regressive conditions, the ego is severely weakened and loses its function, so the defense mechanisms are developed that are part of the function of the strong ego, while the ego severely weakened do not have the required efficiency. On the other hand, secure attachment arises from the predictable and caring conditions available to the child. It is created from a relationship with a caregiver that the amount of frustration and anger they give to the child is less than the amount of satisfaction and love, but in coronary heart disease we face an unpredictable situation. Circumstances in which important caregivers such as parents and family members were not only unavailable, but their successors, like officials, did not provide a safe and promising environment. This research was conducted in Tehran, which

should be careful in generalizing its results in other cities and regions. Due to the fact that the proposed research model was performed on the population of patients with Covid-19, so generalizing the results to other medical diseases or other disorders is not easily possible and requires further research.

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Acknowledgments

We thank all the people who participated in this study

Funding

This research is based on the master's thesis of Islamic Azad University, Karaj Branch, Iran. Also, this research has not received any financial support

Conflicts of interest

There is no conflict of interests for researchers.



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