A comparative study of the relationship between anxiety and depression severity and coping skills in people with covid-19 and non-patients in Azna

Morteza Ghasemi [1], Azin Ahmari [2,*], Fatemeh Ranjbar [3], Sepideh khanlari[4]

1. *Assistant Professor, Department of Nurse, Faculty of Medical Sciences, Arak Branch, Islamic Azad University, Arak, Iran*
2. *Assistant Professor, Department of Radiology, Ayatollah khansari Hospital, Arak University of Medical Sciences, Arak, Iran*
3. *Health care khatam Al-Anbia clinic, Health department, Azna, Iran*
4. *Department of Health, Faculty of Medical Sciences, Arak Branch, Islamic Azad University, Arak, Iran*

Article Information	Abstract
	Introduction: Public health concerns about the covid-19 pandemic and the lack of any treatment for the disease and living in quarantine have led to psychological illness in people with the virus. Therefore, this study aimed to investigate the relationship between anxiety severity and depression with coping skills in people with and without COVID-19 to reduce harm in Azna. Methods: The study is a descriptive correlational and applied study. The statistical population is all patients and non-patients with Covid 19. Because the statistical population is unlimited, 175 patients and its equivalent for non-patients using Cochran's formula and sample were selected at random in the city of Azna. The instruments used in the study were the Personal Information Questionnaire, Lazarus Coping Skills Questionnaire, and Beck Anxiety and Depression Questionnaire. Validity and reliability of the questionnaire. Data were analyzed using SPSS16 statistical software and multiple regression analysis, independent t-test, and Pearson correlation coefficient. Results: A comparison between covid-19 and non-covid patients showed that the severity of anxiety and depression in patients was higher than in non-patients and also between coping skills and the severity of anxiety and depression in patients with covid-19. There was a significant correlation between 19 and non-patients (P <0.001) and with increasing coping skills score, the severity of anxiety and depression decreased. Conclusion: This study showed that having Covid-19 increases the severity of depression and anxiety in people. Improving proper coping skills and psychological techniques, in people with and without pain, will help maintain mental health with such a health crisis.

1. Introduction

December 2019 was the time for the outbreak of coronavirus. The disease started in China and the city of Wuhan in Hubei Province, and soon spread very rapidly and involved people and health organizations. The new coronavirus (COVID-19) has since spread worldwide(Singhal, 2020).

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[*] Corresponding author at: *Ayatollah Khansari Hospital, Arak University of Medical Sciences, Arak, Iran.*
Email address: a.ahmari@arakmu.ac.ir

Quid spreads by 19 days until March 11, when the head of the World Health Organization declared coronary heart disease a pandemic disease, and the world entered a new phase of the disease (Organization, 2020).

The family of coronaviruses is the cause of a range of familiar diseases that humans have been exposed to, from the common cold to MERS and SARS, and now COVID-19 is a troublesome new member of this family. Coronaviruses multiply in animals and some of them can be transmitted from animal to human. Most of them leave respiratory symptoms and endanger human life in this way (Organization, 2020).

This epidemic not only causes high mortality rates due to viral infections but also causes psychological catastrophe in all parts of the world. Uncertainty and unpredictability The outbreak of an infectious disease pandemic has a high potential for psychological fear of disease transmission and often leads to many psychological problems. Over the months of the virus outbreak, numerous studies have been conducted on its psychological consequences in society and its psychological consequences have been studied from various aspects. The World Health Organization has issued guidelines for managing this problem from a biomedical and psychological perspective. Preventive and medical measures are the most important action at this stage(Organization, 2020).

Currently, at the height of the coronavirus outbreak, people are experiencing more severe negative feelings due to the closure of schools and businesses. Although widespread restrictions such as travel bans are effective in controlling and managing the disease, they have negative psychological effects on society, and the spread of rumors and concerns about lack of food and health supplies also raises people's anxiety. These behaviors can prevent disease control(Dong & Bouey, 2020).

Some studies have reported the prevalence of negative emotions such as anxiety and depression, as well as obsessive behaviors, and long-term negative emotions indicate a decrease in immune function. Overall, the spread of infectious diseases can increase anxiety, which in turn has adverse effects on the mental state of individuals(Asmundson & Taylor, 2020).

In recent years, health psychology has attached great importance to how to manage and deal with stress and life challenges in improving the physical and mental health of people and the most effective method of intervention is to strengthen their coping responses and cognitive abilities(Karlsen, Oftedal, & Bru, 2012).

So far, a lot of research has been done on coping styles with stress and various diseases(Mamanpush, Aghayusefi, Ebrahimi, & Mirmahdi, 2014). Mental disorders in quarantined patients usually occur in the form of acute stress disorder, anxiety, depression, poor performance, numbness, and post-traumatic stress (Salehzadeh, Najafi, & Ebrahimi, 2011). Prolonged quarantine, frustration, boredom, infection, and insufficient information resources increase depression in patients(Afzali, Delavar, Borjali, & MIRZAMANI, 2007).

Since a wide range of behaviors can affect anxiety and depression, the behavioral and emotional consequences of the disease can be controlled by learning the necessary skills(Andersen, Kiecolt-Glaser, & Glaser, 1994). In this case, COVID-19 patients are more important and should be considered. Past studies have shown that improving coping skills play a crucial role in reducing anxiety and depression. Given the fact that so far limited studies in the world have been done in this regard, researching the relationship between anxiety and depression with coping skills in COVID-19 patients in the city of Azna is important and necessary.

2. Methods

This research is a descriptive correlational and cross-sectional study. The statistical population of the study consists of all people who have been infected with covid-19 in the last two weeks in Azna, as well as people who are not infected with age and gender homogenization for comparison. The sample size of patients with Cochran's formula was estimated to be 185 people, but taking into account the 5% drop, 194 people were randomly selected. Also, 175 respondents from non-infected individuals were compared to these two groups. Non-use of psychiatric drugs was one of the inclusion criteria. Exclusion criteria included non-response and unwillingness to respond in the study. It should be noted that ethical considerations have been observed, including the participants' knowledge of the research process, informed consent, the participants' free will to leave the research, and the confidentiality of the participants' information. Data collection through a 4-part questionnaire that includes demographic information, coping skills questionnaire; Beck Anxiety Questionnaire, and Beck Depression Inventory.

The Lazarus Coping Stiegies Questionnaire is based on the Lazarus-Folkman theory of stress and consists of 66 items in two general forms: problem-oriented coping strategy and emotion-focused coping strategy. Responding to each phrase on a scale is 4 like points (I have not used 0 at all to 3 = I have used it a lot). Folkman & Lazarus reported the reliability coefficient by Cronbach's alpha method for each of the problematic style subscales ranging from 0.60 to 0.70 and for the emotion-oriented style subscales from 66./78 to 0.78.

The Beck Depression Inventory is used to assess a person's depression. The number of questions in this questionnaire is 21 questions in the form of 4 areas. It has a 4 Likert scale

0 = mental health in the substance,

1 = feeling of mild disorder in the substance,

2 = feeling of severe disorder in the substance,

3 = feeling of acute and severe disorder in the substance.

The average homogeneity coefficient of the Beck test is 0.86. Internal consistency coefficient of 0.78 and retest reliability of 0.73 has also been reported for this questionnaire(Rahmani & Hashemniyan, 2016).

Beck Anxiety Questionnaire was scored on a 4-point Likert scale (0 = not at all, 1 = mild, 2 = moderate, 3 = severe) and its validity and reliability have been proven. The questionnaire contains 21 questions with 3 dimensions of mental, physical, and panic symptoms and the total score is in the range from 0 to 63. This questionnaire has high validity and its homogeneity coefficient is 0.92 and its reliability is obtained by a one-week retest method of 0.75(Aghaeipour Amshal, Rejeh, Heravi-Karimooi, & Tadrisi, 2016).

All data in a period were collected by completing questionnaires by telephone and for data analysis from SPSS 18 software and descriptive statistical tests (frequency, frequency percentage, mean and standard deviation) and to determine the significance of the test. Inferential statistical tests, hypothesis testing using Kolmo Grove-Smirnov test to check the normality of the data, Leven's test to check for uniformity of variance, independent t-test to compare groups in one variable, multivariate analysis of variance test to compare groups Were used in multivariate and multiple regression analysis and Pearson correlation coefficient.

3. Results

Data analysis showed that the mean age of participants was 45.75 years, of which 15% of young participants (18 to 29 years), 48% of middle-aged participants (30 to 59 years), and 37% of elderly

participants (age) 60 years and up). 50% of the participants were male and the other 50% were female; Among the participants, 54% have an underlying disease and 46% do not have an underlying disease, which is shown in Table 1.

Table 1. Frequency distribution of demographic characteristics in people with covid-19 and non-patients

Variable	Classification	Number	Percent
	18-29	53	15%
Age	30-59	168	48%
	Over 60	129	37%
Gender	Man	175	50%
	Female	175	50%
History of underlying disease	Has an	189	54%
	No	161	46%

The results of the correlation test showed that there is an inverse and significant relationship between age and coping skills (r = -0.48) There was also a significant difference between people with different educations. Individuals with diploma education had the least coping skills and analysis of variance test showed a significant difference between this group and other education. F = 7.12) and p- (value <0.001) but between the two groups with underlying disease and no underlying disease. No significant difference was observed (p-value = 0.59). The mean and standard deviation of the research variables are shown separately in Table 2.

Table 2. The mean and standard deviation of research variables

Variables	Average	The
Depression	65/67	35/4
Anxiety	52/26	18/4
Coping skills	15/75	10/3

An independent t-test was used to compare anxiety and coping skills in coronary and non-coronary individuals who were identified using a questionnaire cut-off score. The results showed that the use of coping skills to control the severity of anxiety in the group of patients is less than non-patients and this difference is significant.

Table 3. Comparison of anxiety and coping skills in people with covid-19 and non-patients

Variables	group	Average	The value	p-value
Depression	Affected	53.64	2.619	0.01
	Non-	51.84		
Coping skills	Affected	64.89	3.697	0.001
	Non-	67.51		

To test the main hypothesis of the research, multiple linear regression and simultaneous methods were used. Due to the significant relationship between age and education with coping skills along with anxiety and depression were considered as predictor variables. The variables of anxiety, depression, and age predict a total of 36% of the variance of the coping skills variable (Table 4).

The effect of anxiety, depression, and age variables on coping skills variables is statistically significant and due to the negative beta coefficients, there is an inverse relationship. That is, with

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increasing age, anxiety, and depression, coping skills decrease. But the results showed that education is not able to predict coping skills.

Table 4. Multivariate regression of coping skills

Predictive variables	Coefficient	Beta	p-value	R	R2	F	p-value
Anxiety	0.21-	0.28-	0.001				
Depression	0.14-	0.20-	0.001	0.6	0.32	27.36	0.001
Education	0.36	0.09	0.104				
Age	0.33-	0.42-	0.001				

4. Conclusion

The results of this study are inconsistent with the results of studies by Lou, et al. (2020) which show that during epidemic control and home quarantine, depressive symptoms have decreased(Lou et al., 2020). It should be noted that not much time has passed since the outbreak of the disease and also empirical evidence about this disease is limited and information in this field is scarce and scarce.

The results of the present study also showed that among the research variables, the variables of depression, anxiety, and age are predictors of coping skills. Research has shown that those who use mature defense mechanisms in response to crises have better physical and mental health than others(Bond, 2004). Individuals who use immature and neurotic defense mechanisms are less healthy in responding to life crises(Cramer, 1998).

This finding is consistent with the results of similar research in this field. As the results of Ghasemzadeh et al. (2020) indicate the positive effect of stress management skills training on depression and anxiety of mothers with adolescents with type 1 diabetes(Ghasemzadeh & Naghsh, 2020).

In this study, there was a significant relationship between age and anxiety, ie depression was higher in the age group of 30 to 59 years. It seems that increasing age due to a more busy life as well as less strength and energy and increasing physical problems with psychological problems can be convincing reasons for the relationship between age and anxiety. The results of the present study showed that the scores of anxiety and depression in women are higher than in men. A closer look at this difference requires further investigation. These results are in line with the results of a study conducted in Wuhan, China, which showed that female nurses reported higher rates of anxiety and depression symptoms than male nurses(Lai et al., 2020).

Based on the findings of this study, it can be stated that the rate of depression and anxiety in people with covid-19 is higher than non-patients and also people with less anxiety and depression had higher coping skills. Therefore, by examining coping skills, people at risk of mental health can be identified. In this situation, maintaining the mental health of the general public is a necessity of managers' planning. Therefore, in such a high-risk situation, more research is needed to gather more evidence in this field and identify people prone to psychological disorders. Maintain appropriate mental health techniques and techniques, as well as improve people's health by teaching them the right coping skills.

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