

Original Article

Examination of Fear, Anxiety, Depression and Hope Levels of COVID-19 Patients Treated in Hospital

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Abstract

Background: Novel coronavirus (COVID-19) still maintains its seriousness since it is a progressive and contagious disease that may require hospitalization. COVID-19 patients experience anxiety due to reasons such as deterioration of their health condition, restriction of their freedom and fear of dying early.

Aim: The aim of the present study was to examine fear, anxiety, depression and hope levels of patients diagnosed with COVID-19 who were treated in hospital.

Method: The study was carried out between May 15 and December 30, 2022 as a descriptive and correlational study.

Results: It was found that 11.7% of the participants were at risk for anxiety, while 39.4% were at risk for depression. Mean State Hope Scale total score of the participants was found as 47.05 ± 10.63 and mean Fear of COVID-19 total score was found as 25.27 ± 6.20 .

Conclusion: It was found that although a specific time has passed since the beginning of the pandemic, COVID-19 patients treated as inpatients are still under risk in terms of anxiety and depression, fear of COVID-19 levels are above average and hope levels are moderately high.

Keywords: anxiety, COVID-19 fear, COVID-19 patient, depression, hope

Introduction

Novel coronavirus (COVID-19) still maintains its seriousness since it is a progressive and contagious disease that may require hospitalization. Hospitalization due to COVID-19 brings along both physical and psychological problems (Hossain et al., 2020). Traumatic problems such as hospitalization, prolonged time spent in closed environments, fear of infection, fear of catching an infectious disease and respiratory distress can remind the fact of death and affect mental health negatively (Ozdin & Bayrak Ozdin, 2020; Li, Ge et al., 2020).

According to literature review, symptoms such as depression (Li, Yang et al., 2020),

anxiety (Tokur Kesgin et al., 2022), fear (Hao, Tam, Hu et al., 2020; Li Yang et al., 2020) and stress are reported to be more common during the COVID-19 pandemic process (Torales et al., 2020; Guo et al., 2020; Bo et al., 2021). In a study conducted by Arguder et al. (2020) on participants hospitalized with a diagnosis of COVID-19, it was reported that 8.3-24% of the participants experienced depression and 7.7-16% experienced anxiety (Arguder et al., 2020). Anxiety is a health problem defined as continuous fear and worry (Ozturk & Ulusahin, 2011).

Fear of COVID-19 is reported to be associated with anxiety, depression and hopelessness (Sahin & Aydin, 2022).

COVID-19 patients experience anxiety due to reasons such as deterioration of their health condition, restriction of their freedom and fear of dying early (Kong et al., 2020) because hospitalization requires quarantine in epidemics.

It is also known that quarantine causes anxiety and depression in individuals (James et al., 2019). The frightening aspect of anxiety is that it can become a chronic situation that affects the quality of life and productivity in individuals, if left untreated (Alci et al., 2019).

Continuation of the pandemic may cause individuals diagnosed with COVID-19 to feel like they cannot experience positive emotions and recover, which can lead to hopelessness (American Psychological Association, 2020). Hope, which is defined as a driving force that gives energy to individuals to adapt to future and find meaning in life (Ozen et al., 2019), also contributes to the development of preventive behaviors that reduce the risk of disease (Villacieros et al., 2017).

Studies conducted report a protective role of hope in individuals against fear of COVID-19 (Hao, Tam, Hu et al., 2020; Gupta et al., 2021) and anxiety (Demirtas, 2021). It has also been reported that levels of anxiety and depression decrease significantly as hope levels of patients increase (Rambod et al., 2020).

COVID-19 patients receiving inpatient treatment may experience physiological or psychological deterioration in their health due to both isolation and experiencing pandemic anxiety.

According to the literature review conducted, it was found that there are limited number of studies examining fear, anxiety, depression and hope levels of patients treated in hospital. For this reason, the aim of the present study was to examine fear, anxiety, depression and hope levels of patients diagnosed with COVID-19 who were treated in hospital.

Research Questions:

1. How are the fear, anxiety, depression and hope levels of COVID-19 patients?
2. Is there a correlation between fear, anxiety, depression and hope levels of COVID-19 patients?

Method

Type and Date of Research: The study was carried out between May 15 and December 30, 2022 as a descriptive and correlational study.

Population and Sample: Population of the study consisted of patients who were hospitalized in any clinic due to diagnosis of COVID-19 in a state hospital in Marmara Region at the time of the study. Patients who did not have any restraints to communicate and who gave voluntary consent were included in the study. G power program was used to determine the sample of the research. The formula $n = SS2 \times (Z\alpha + Z\beta)^2 / d^2$ was used (Gupta et al., 2016) for sample calculation with reference to previously conducted studies (Ozcan et al., 2022; Karatas & Tagay, 2021).

As a result of power analysis performed for this study, the study was completed with 307 patients based on 80% power value. The data were collected face-to-face by the primary researcher according to suitability of the patients by taking infection control measures.

Data Collection Instruments: In the study, the data were collected with Personal Information Form, Hospital Anxiety and Depression Scale, State Hope Scale and Fear of COVID-19 Scale.

Personal Information Form: This form, which was prepared in line with the literature (Arguden et al., 2020; Guloglu et al., 2020; Zhong et al., 2021) and which consisted of 16 questions, was used to learn the socio-demographic characteristics and COVID-19 knowledge of the patients.

Hospital Anxiety and Depression Scale: Turkish validity and reliability study of the scale developed by Zigmond and Snaith (1983) was conducted by Aydemir et al. (1997). The scale is a 4 Likert-type scale with 14 items, 7 of which are on depression and 7 of which are on anxiety. Cut-off point of the scale is 11 for anxiety and 8 for depression. Participants who get these scores and scores above these are considered at risk (Aydemir et al., 1997). In the present study, Cronbach Alpha coefficient was found as 0.88 for both anxiety and depression factor.

State Hope Scale: Turkish validity and reliability study of the scale developed by Snyder et al. (1991) was conducted by Tarhan and Bacanli (2015). It is an 8 Likert-type scale

with 12 items measuring hope levels of individuals. Possible score from the scale varies between 8 and 64. An increase in scores shows increased level of hope. Cronbach Alpha coefficient of the original scale is 0.83 (Tarhan & Bacanli, 2015). Cronbach Alpha coefficient of the present scale was found as 0.96.

Fear of COVID-19 Scale: Turkish validity and reliability study of the scale developed by Ahorsu et al. (2020) was conducted by Bakioglu et al. (2020). It is a 5 Likert-type scale with 7 items. Possible score from the scale varies between 7 and 35. An increase in scores shows increased fear of COVID-19. Cronbach Alpha coefficient of the original scale is 0.82 (Bakioglu et al., 2020). Cronbach Alpha coefficient of the present scale was found as 0.94.

Data Analysis: Statistical Package for Social Sciences (SPSS) 20.0 program was used for data analysis. In descriptive statistics, mean \pm standard deviation was used for the variables which were normally distributed. Nominal variables were shown as number (n) and percentage (%). Conformity of the data to normal distribution was examined with Kolmogorov-Smirnov test and the data were considered to be normally distributed since Skewness and Kurtosis values were within the range of ± 1.5 (Tabachnick & Fidell, 2013), (Table 1). Student t-test was used to test the significance of the difference between two independent groups and one-way ANOVA was used to test the significance of the difference between more than two groups. When the difference between groups was found to be significant with the ANOVA test, post hoc comparison Tukey and Tamhane's T2 test were used to find out between which groups the difference was. Pearson correlation analysis was used to find out the correlation between the scores obtained from the scales. Level of significance was $p < 0.05$.

Ethical Considerations: The study was conducted in accordance with the Declaration of Helsinki Ethical Principles for Medical Research on Human Volunteers. Approval from a local clinical research ethics committee (Date: 29.04.2022, Number: 2022-379), written permission from the state hospital where the study was conducted and the required permissions from the Ministry of Health Scientific Research platform (Date: 23.01.2022, No:2022-01-20T16_01_30) were

obtained to conduct the study. The patients who participated in the study were informed about the study and their voluntary consent was obtained.

Results

Mean age of the participants in the study was found as 50.62 ± 13.17 years and mean length of stay was found as 7.65 ± 3.94 days. It was found that 11.7% of the participants were at risk for anxiety, while 39.4% were at risk for depression. Mean State Hope Scale total score of the participants was found as 47.05 ± 10.63 and mean Fear of COVID-19 total score was found as 25.27 ± 6.20 (Table 2). While anxiety and depression levels of the female participants in the study were higher than those of the male participants, their hope levels were found to be lower ($p < 0.05$). In the study, when compared with single participants, anxiety, depression and fear of COVID-19 levels of married participants were found to be higher, while their hope levels were found to be lower ($p < 0.01$). A significant increase was found in anxiety and depression scores of the participants as level of education decreased ($p < 0.01$).

Anxiety, depression and hope levels of the participants who smoked were found to be significantly higher when compared with non-smokers ($p < 0.01$). Statistically significant differences were found between anxiety, depression and hope scores of the participants in terms of their working status ($p < 0.01$). While anxiety and depression levels of the patients who used medication regularly were higher, their hope levels were found to be lower ($p < 0.01$) (Table 3).

As can be seen in Table 4, anxiety and depression levels of the participants who had chronic disease were found to be higher than the participants who did not have chronic disease, while their hope levels were found to be lower ($p < 0.001$).

Statistically significant differences were found between anxiety and depression scores of the participants in terms of their states of perceiving health ($p < 0.001$).

Statistically significant differences were found between anxiety, depression and hope scores of the participants in terms of the changes in their sleep pattern in hospital ($p < 0.001$) (Table 4).

No statistically significant difference was found between the state of having COVID-19 previously, the state of having been vaccinated, having a hospital attendant and having experienced loss due to COVID-19 and anxiety, depression, state hope and fear of COVID-19 scores ($p > 0.001$).

As can be seen from Table 5, a negative moderate correlation was found between

anxiety and depression scores of the participants ($r = -0.611$ and $r = -0.607$, respectively) and anxiety and depression levels increased as hope levels decreased. A positive low correlation was found between anxiety and depression scores and fear of COVID-19 scores ($r = 0.212$ and $r = 0.221$, respectively) of the participants.

Table 1: Normality test results for Anxiety, Depression, Dispositional Hope, and COVID-19 Fear Scales score distributions

| Kolmogrow-Smirnov Test | | | | | |
|------------------------|-------|-------|-------|----------|----------|
| | X | SD | p* | Skewness | Kurtosis |
| Anxiety | 6.55 | 3.89 | 0.000 | 0.617 | 0.768 |
| Depression | 6.40 | 3.93 | 0.000 | 0.490 | 0.430 |
| Dispositional Hope | 47.05 | 10.63 | 0.000 | -0.940 | -0.973 |
| COVID-19 Fear | 25.27 | 6.20 | 0.000 | -1.142 | 0.335 |

Table 2: Anxiety, Depression, Dispositional Hope, and COVID-19 Fear scale scores

| Variables | n | % | Mean \pm SD |
|--------------------------------|-----|------|-------------------|
| Anxiety | | | |
| Below Threshold (0-10 points) | 271 | 88.3 | |
| | 36 | 11.7 | |
| Above Threshold (11-21 points) | | | 5.57 \pm 2.90 |
| | | | 13.75 \pm 2.71 |
| Depression | | | |
| Below Threshold (0-7 points) | 186 | 60.6 | |
| | 121 | 39.4 | |
| Above Threshold (8-21 points) | | | 3.89 \pm 2.36 |
| | | | 10.21 \pm 2.61 |
| Dispositional Hope | 307 | 100 | 47.05 \pm 10.63 |
| COVID-19 Fear | 307 | 100 | 25.27 \pm 6.20 |

Table 3: Comparison of participants' demographic characteristics and Anxiety, Depression, Dispositional Hope and COVID-19 Fear scale scores

| Variables | n (%) | Anxiety | Depression | Dispositional Hope | COVID-19 Fear |
|-----------|-------|---------|------------|--------------------|---------------|
| Gender | | | | | |

| | | | | | |
|--------------------------|------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|
| Women | 116 (37.8) | 7.1 ± 4.4 | 7.1 ± 4.3 | 45.2 ± 11.4 | 25.7 ± 5.6 |
| Male | 191 (62.2) | 6.2 ± 3.5 | 6 ± 3.7 | 48.17 ± 9.9 | 25 ± 6.6 |
| Significance test | | t = 2.076 p=0.039 | t = 2.465 p=0.014 | t = -2.379 p=0.018 | t = 0.954 p=0.341 |
| Marital status | | | | | |
| Married | 193 (62.9) | 7.1 ± 4.2 | 6.8 ± 4.2 | 45.6 ± 10.9 | 26 ± 5.5 |
| Widow | 114 (37.1) | 5.6 ± 3.1 | 5.7 ± 3.3 | 49.5 ± 9.8 | 24 ± 7.1 |
| Significance test | | t = 3.431 p=0.001 | t = 2.448 p=0.015 | t = -3.127 p=0.002 | t = 2.697 p=0.008 |
| Educational Status | | | | | |
| Literate | 47 (15.3) | 8.1 ± 5.1 ^a | 8.1 ± 5 ^a | 44.6 ± 12.6 | 24.8 ± 7.4 ^{ab} |
| Primary education | 155 (50.5) | 6.6 ± 3.9 ^a | 6.3 ± 3.9 ^b | 46.8 ± 10.9 | 26 ± 5.4 ^a |
| High school | 82 (26.7) | 6.4 ± 2.9 ^a | 6.3 ± 3.2 ^{bc} | 48.5 ± 8 | 25.2 ± 6 ^a |
| University | 23 (7.5) | 3.9 ± 2.7 ^b | 4 ± 2.6 ^c | 49 ± 12.2 | 21.3 ± 8.1 ^b |
| Significance test | | F = 6.687 p=0.000 | F = 6.317 p=0.000 | F = 1.646 p=0.179 | F = 4.070 p=0.007 |
| Smoking Status | | | | | |
| Yes | 122 (39.7) | 7.3 ± 3.7 ^a | 7.1 ± 4 ^a | 45.3 ± 11.2 ^a | 26.1 ± 5.7 |
| No | 140 (45.6) | 3.7 ± 5.8 ^b | 4 ± 5.6 ^b | 11.2 ± 48.8 ^b | 5.7 ± 24.5 |
| Quit | 45 (14.7) | 5.8 ± 4.1 ^{ab} | 5.6 ± 4 ^{ab} | 48.8 ± 10.7 ^{ab} | 24.5 ± 6.6 |
| Significance test | | F = 4.975 p=0.007 | F = 5.472 p=0.005 | F = 3.734 p=0.025 | F = 2.154 p=0.118 |
| Working status | | | | | |
| Housewife | 58 (18.9) | 8.5 ± 4.2 ^a | 8.2 ± 4.1 ^a | 42.2 ± 10.9 ^a | 26.4 ± 5.3 |
| Officer | 68 (22.1) | 4.2 ± 5.4 ^b | 4.1 ± 5.3 ^b | 10.9 ± 49 ^b | 5.3 ± 24.1 |
| Employee | 78 (25.4) | 5.4 ± 3.7 ^b | 5.3 ± 3.7 ^b | 49 ± 9.4 ^b | 24.1 ± 6.7 |
| Retired | 103 (33.6) | 3.7 ± 5.9 ^b | 3.7 ± 5.9 ^b | 9.4 ± 48.8 ^b | 6.7 ± 24.9 |
| Significance test | | F = 8.258 p=0.000 | F = 6.620 p=0.000 | F = 5.701 p=0.001 | F = 1.724 p=0.162 |
| Frequent Drug Use Status | | | | | |
| Yes | 138 (45) | 7.4 ± 4.5 | 7.3 ± 4.5 | 44.8 ± 12.1 | 26 ± 6 |
| No | 169 (55) | 5.8 ± 3.1 | 5.6 ± 3.2 | 48.9 ± 8.9 | 24.7 ± 6.4 |
| Significance test | | t = 4.263 p=0.000 | t = 4.914 p=0.000 | t = -4.974 p=0.001 | t = 1.332 p=0.061 |

Letters (a, b, c) indicate no difference between groups that have the same letter, F = 1-way ANOVA. t = Independent-Sample T Test

Table 4: Comparison of the participants' information about the illness and hospitalization process with the Anxiety, Depression, dispositional Hope and COVID-19 Fear scale scores

| Variables | n (%) | Anxiety | Depression | Dispositional Hope | COVID-19 Fear |
|------------------------------|------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Chronic disease | | | | | |
| At least one disease | 113 (36.8) | 7.9 ± 4.5 | 7.9 ± 4.6 | 43 ± 11.9 | 25.9 ± 5.6 |
| None | 194 (63.2) | 5.8 ± 3.3 | 5.5 ± 3.3 | 49.4 ± 9 | 24.9 ± 6.5 |
| Significance test | | t = 4.263 p=0.000 | t = 4.914 p=0.000 | t = -4.974 p=0.000 | t = 1.332 p=0.184 |
| Prior COVID-19 Relief | | | | | |
| Yes | 115 (37.5) | 6.6 ± 4.1 | 6.2 ± 4.1 | 45.9 ± 10.7 | 25.7 ± 5.2 |
| No | 192 (62.5) | 6.5 ± 3.8 | 6.5 ± 3.9 | 47.8 ± 10.6 | 25 ± 6.7 |
| Significance test | | t = 0.142 p=0.888 | t = -0.584 p=0.560 | t = -1.537 p=0.125 | t = 0.965 p=0.335 |
| Health Detection Status | | | | | |
| Good | 83 (27) | 3.8 ± 3.3 ^a | 3.5 ± 3.2 ^a | 50.6 ± 8.8 ^a | 22.3 ± 6.9 ^a |
| Moderate | 190 (61.9) | 3.3 ± 7.1 ^b | 3.2 ± 7.1 ^b | 8.8 ± 46.7 ^b | 6.9 ± 26.1 ^b |
| Bad | 34 (11.1) | 7.1 ± 3.1 ^c | 7.1 ± 3.2 ^c | 46.7 ± 9.5 ^c | 26.1 ± 5.5 ^b |
| Significance test | | F = 47.596 p=0.000 | F = 44.624 p=0.000 | F = 11.739 p=0.000 | F = 15.277 p=0.000 |
| Vaccination Status | | | | | |
| Yes | 267 (87) | 6.5 ± 3.9 | 6.3 ± 3.9 | 46.8 ± 10 | 25.4 ± 6 |
| No | 40 (13) | 3.9 ± 7.1 | 3.9 ± 6.8 | 10 ± 48.9 | 6 ± 24.5 |
| Significance test | | t = -0.949 p=0.344 | t = -0.750 p=0.454 | t = -0.895 p=0.375 | t = 0.714 p=0.479 |
| Keeping a Companion Status | | | | | |
| Yes | 178 (58) | 6.3 ± 4.3 | 6.1 ± 4.3 | 47.5 ± 11.9 | 25.7 ± 6.2 |
| No | 129 (42) | 4.3 ± 6.9 | 4.3 ± 6.7 | 11.9 ± 46.5 | 6.2 ± 24.7 |
| Significance test | | t = -1.367 p=0.173 | t = -1.373 p=0.171 | t = 0.811 p=0.418 | t = 1.350 p=0.178 |
| Sleep Status in the Hospital | | | | | |
| Increased | 205 (57.3) | 5.6 ± 3.1 ^a | 5.4 ± 3.3 ^a | 49.2 ± 8.5 ^a | 25.3 ± 6.1 |
| Wasn't Changed | 82 (34) | 8.3 ± 4.3 ^b | 8.1 ± 4.1 ^b | 44.3 ± 12.3 ^b | 24.9 ± 6.3 |
| Decreased | 20 (8.7) | 8.7 ± 5.5 ^b | 8.5 ± 5.7 ^b | 36.1 ± 13.7 ^c | 25.9 ± 5.9 |

| | | | | | |
|-------------------------------------|------------|----------------|----------------|----------------|------------|
| | | F = 19.957 | F = 18.306 | F = 19.435 | F = 0.260 |
| Significance test | | p=0.000 | p=0.000 | p=0.000 | p=0.771 |
| Death from COVID-19 Survival Status | | | | | |
| Yes | 182 (59.3) | 5.9 ± 4.2 | 5.7 ± 4.2 | 47.5 ± 10.9 | 25 ± 6.5 |
| No | 125 (40.7) | 4.2 ± 7.5 | 4.2 ± 7.5 | 10.9 ± 46.5 | 6.5 ± 25.7 |
| Significance test | | t = -1.367 | t = -1.373 | t = 0.811 | t = 1.350 |
| | | p=0.173 | p=0.171 | p=0.418 | p=0.178 |

Letters (a, b, c) indicate no difference between groups that have the same letter, F = 1-way ANOVA. t = Independent-Sample T Test

Table 5: Correlation between participants' Anxiety, Depression, Dispositional Hope Scale and COVID-19 Fear Scale scores

| | Anxiety | Depression | Dispositional Hope | COVID-19 Fear |
|--------------------|----------|------------|--------------------|---------------|
| Anxiety | 1 | - | - | - |
| Depression | 0.921** | 1 | - | - |
| Dispositional Hope | -0.611** | -0.607** | 1 | - |
| COVID-19 Fear | 0.212 ** | 0.221** | -0.070 | 1 |

** The correlation is significant at the 0.01 level.

Discussion

Diseases which require quarantine may cause anxiety, depression (James et al., 2019; Erdoglu et al 2020), hopelessness (Hao, Tan, Jiang et al., 2020; Erdoglu et al 2020) and fear (Hao, Tam, Hu et al., 2020; Sahu et al., 2021) in individuals. Although there has been progress in coping with COVID-19 and its effects which have resulted in many negative experiences in individuals and the society, the disease still keeps its seriousness due to the continuation of new cases and hospitalization. Therefore, it is important to examine the relationship between anxiety, depression, hope and fear levels of individuals who are treated as inpatients and the relationship between these.

Fear of COVID-19 score of the participants was found as 25.27 ± 6.20 in the present study. It was found that there are a large number of studies in literature evaluating fear of COVID-19 (Bakioglu et al., 2020; Sahu et al., 2021; Kurtgoz & Avci, 2021; Wieteska-Milek et al., 2021) and mean scores were

found to be different in these studies. It was thought that the differences in mean scores were due to sample size, different cultures and the fact that the studies were conducted at different times of the pandemic. In the present study, it was found that fear of COVID-19 scores of the participants differed in terms of marital status and educational status. It was found that the results of the present study were similar to the results of studies evaluating fear of COVID-19 in terms of marital status (Sahin & Aydin, 2022) and educational status (Sahu et al., 2021).

In the study, it was found that 11.7% of the participants were at risk in terms of anxiety and 39.4% were at risk in terms of depression. Similarly, in studies examining anxiety and depression levels of COVID-19 patients treated as inpatients, anxiety level was found to be between 15.2 and 20.8%, while depression level was found to be between 28.4 and 50.5% (Kong et al., 2020; Togluk Yigitoglu et al., 2021; Li et al., 2021). In line with results of our study, it was found that the

risk of anxiety and depression continues and maintains its importance. Considering that the individuals accepted and adapted to the pandemic, this result of the study can be explained with participants' having fear of COVID-19 scores above average (25.27 ± 6.20), receiving treatment as in-patient and the fact that this fear is related to anxiety and depression.

When anxiety and depression scores of the participants were examined in terms of socio-demographic characteristics and the changes experienced during the pandemic, it was found that the participants who were female, those who were married, those who had a low level of education, those who smoked and those with a chronic disease had higher scores. While the results of the present study were similar to the results of studies which examined anxiety and depression scores in terms of gender (Arguder et al., 2020; Kong et al., 2020; Li et al., 2021), smoking status (Robb et al., 2020), presence of a chronic disease (Ozdin & Bayrak Ozdin, 2020; Sahin & Aydin, 2022), changes in sleep pattern (Robb et al., 2020; Akıncı and Başar, 2021) and educational status (Gezginci et al., 2022), they were found to be different from the results of studies examining anxiety and depression scores in terms of marital status (Guloglu et al., 2020; Sahin & Aydin, 2022; Arpacioğlu et al., 2021). It is thought that the similarities and differences between the results of the present study and studies in literature are due to the fact that anxiety and depression are affected by individual characteristics such as educational status, financial status, marital status and having a chronic disease and factors such as gender roles.

It was found that mean hope scores of the participants in the study were moderate (47.05 ± 10.63) considering the maximum possible score from the scale. Similarly, in a study conducted by Gezginci et al. (2022) hope levels of COVID-19 patients were found to be high, while they were found to be moderate in a study conducted by Zhong et al. (2021). In the study, hope levels of female participants, single participants and participants with a chronic disease were found to be higher than the hope levels of participants who did not have a chronic disease. Unlike the results of the present

study, it was reported in Hacimusalar et al. (2020)'s study that hope levels of female patients treated for COVID-19 were lower than those of male patients, while it was found in a study by Zhong et al. (2021) that married patients treated for COVID-19 were lower than those of single patients. Similar to the results of our study, it was found in Sahin and Aydin (2022)'s study that hope levels of patients who did not have a chronic disease were found to be higher than those of patients who had a chronic disease. Hope is considered as an important indicator of positive development. In line with the results of the study, it is thought that participants who were female and married and with a chronic disease experienced more anxiety and depression and this might have affected hope levels of individuals.

In our study, it was found that anxiety and depression levels of the participants increased as their hope levels decreased. Similarly, a negative correlation was found between anxiety and depression and hope levels in studies conducted with COVID-19 patients (Wang, Rambod et al., 2020; Demirtas, 2021; Liu et al., 2022). This result is similar to results in literature (Uka et al., 2021; Kucukkendirici et al., 2021). Fear of COVID-19 is one of the important factors that affect mental health of individuals negatively (Simsir, 2022). Limited number of studies were found examining the relationship between anxiety, depression and hopelessness levels during COVID-19 pandemic and it was thought that increasing hope is an important approach in decreasing mental problems during the pandemic process. In our study, no relationship was found between fear of COVID-19 and hope scores. Unlike our results, Sahin and Aydin (2022) found that fear of COVID-19 and hope were correlated and hopelessness levels increased with the increase in the level of fear (Sahin & Aydin, 2022). Data collection date of our study is approximately two years after the first emergence of the pandemic. Although the participants were found to have high fear of COVID-19 scores, the pandemic was less active, vaccination studies were completed and the individuals were better adapted to processes related with COVID-19 during the date the data were collected. It was thought that the way covered in the fight against

COVID-19 contributed to the decrease in hopelessness feelings of individuals, helping them to cope better.

Limitations: The limitation of this study is that the study was conducted in a single hospital.

Conclusion and Recommendations: As a result of the study, it was found that although a specific time has passed since the beginning of the pandemic, COVID-19 patients treated as inpatients are still under risk in terms of anxiety and depression, fear of COVID-19 levels are above average and hope levels are moderately high. It was found that anxiety and depression levels of the participants increased as their fear of COVID-19 and hopelessness levels increased. It was concluded that increasing hope and decreasing fear are important in coping with anxiety and depression, which are among the most important mental consequences of the pandemic. Based on these results, it can be recommended to develop programs to increase hope levels of COVID-19 patients treated in isolation in the hospital and to help them to cope with their fears.

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