

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/368357797>

# Quality Of Life and Coping With Stress in Relatives of Patients in Intensive Care Units During COVID-19

Article in *American Journal of Critical Care* · February 2023

DOI: 10.4037/ajcc2023612

CITATIONS

0

READS

71

2 authors, including:



**Tuba Karabey**

Gaziosmanpasa University

31 PUBLICATIONS 41 CITATIONS

SEE PROFILE



# QUALITY OF LIFE AND COPING WITH STRESS IN RELATIVES OF PATIENTS IN INTENSIVE CARE UNITS DURING COVID-19

By Zuhul Gülsoy, PhD, RN, and Tuba Karabey, PhD, RN

**Background** Factors such as the thought of losing the patient, the uncertainty of the course of the disease, and the inability to obtain sufficient information about the patient are frightening and alarming for relatives of patients in the intensive care unit.

**Objectives** To determine the quality of life and the style of coping with stress of the relatives of patients hospitalized in the intensive care unit during the COVID-19 pandemic.

**Methods** This study was descriptive and cross-sectional. A personal information form, the Styles of Coping With Stress Scale, and the 36-Item Short Form Health Survey were used to collect data.

**Results** The sample size of the study was 162 relatives of patients in the intensive care unit. There was a highly significant ( $P=.001$ ) positive correlation between the Styles of Coping With Stress mean scores of the participants and their quality of life (as shown by the 36-Item Short Form Health Survey).

**Conclusions** In addition to the uncertainty and fear associated with the COVID-19 pandemic, it is very distressing to have a relative who is a patient in the intensive care unit. In this context, it is especially important to improve the level of coping with stress of the relatives of patients in the intensive care unit and to increase their quality of life. (*American Journal of Critical Care*. Published online February 8, 2023.)

**I**ntensive care units (ICUs) are technologically complex to support the vital functions of critically ill patients. Patients in the ICU require a lot of attention, and the professional ICU care team administers specialized life-saving treatments.<sup>1,2</sup> The ICU team must also monitor and keep up with constantly changing information and technologies. Although ICU mortality rates vary depending on the underlying disease, they are generally high.

For relatives of patients, the feeling of being separated from their relative creates stress, and additional sources of stress can include anxiety about losing their loved one, the inability to access sufficient information about the patient, and negative behaviors of hospital personnel. The absence of relatives in the ICU; awareness of the seriousness of the disease; fear of death, treatment, and procedures; fear caused by the environment and complex equipment in the ICU; and noise caused by working health professionals or devices can all be considered frightening and alarming. For both patients and their relatives, a stay in the ICU can be a frightening and alarming experience.<sup>3,4</sup>

For a variety of reasons, such as ensuring patient safety, these units operate differently and have different rules than other services. There are closed areas and restricted areas, which are separate sources of stress and anxiety for patients and their loved ones. All these negative factors affect the patients' family members and have a negative impact on the family members' quality of life.<sup>5</sup> In ICUs, the atten-

tion is mostly focused on the patient and the patient's illness. If the relatives of the patient have fear or anxiety while a patient is being provided care in an ICU, this situation can lead to the medical staff ignoring the patient's family members, who are unable to be with the patient

during treatment. According to research, patients' family members who were dissatisfied with the care their relative received in the ICU reported higher levels of depression and anxiety than did family members who were satisfied with their relative's care.<sup>6</sup>

**For both patients and their relatives, a stay in the ICU can be a frightening and alarming experience.**

Patients' relatives become irate and anxious if no attempt is made to understand their feelings and if they are ignored. The hospitalization of a patient in critical condition is a traumatic experience for the family.<sup>7,8</sup> Admission of a person to the ICU because of a critical illness results in a crisis for both the patient and the patient's family.<sup>9</sup> Family members of patients may even neglect their own needs while they are in the hospital, especially during lengthy treatment processes, which may result in emotional and financial difficulties.<sup>10</sup>

In these situations, the patients' family members' routines are disturbed and they become less interested in other family members and other activities; as a result, their quality of life suffers.<sup>11</sup> The COVID-19 pandemic raises the level of stress that people experience as well as the harmful effects of stress.<sup>12</sup> When faced with a situation with an unpredictable outcome, such as a pandemic, it is considered natural for people to display protection and avoidance behavior with fear and panic.<sup>13</sup> The emotional and psychosocial effects of the uncertainty and crisis that have emerged these days as the pandemic continues and how they are managed or dealt with are important in terms of the individual and society.<sup>14</sup> Results of a study conducted by Alsharari in 2019 indicate that relatives of patients admitted to ICUs have a high need for trust, closeness, and information and the lowest level of need for comfort and support.<sup>15</sup>

Patients in ICUs and their loved ones are having a difficult time during the pandemic.<sup>16</sup> One of the responsibilities of the intensive care team in this pandemic, particularly the nurses, is to support the patient and their family members while also providing the care and treatment that the patient deserves.<sup>17</sup> In this circumstance, it is unavoidable for the family members of patients to go through severe stress because of both the fact that their loved ones are receiving intensive care and the negative effects of the pandemic on their quality of life. The most fundamental responsibility of a professional nurse is to consider the patient's level of stress while making plans holistically, regardless of the primary paradigm of professional care.<sup>18</sup>

This study looked at the stress levels and quality of life of the family members of patients who were being treated in ICUs during the COVID-19 pandemic.

#### About the Authors

**Zuhal Gülsoy** is a service responsible nurse at Sivas Cumhuriyet University Hospital, Sivas, Turkey. **Tuba Karabey** is an assistant professor, Gaziosmanpaşa University Faculty of Health Science, Tokat, Turkey.

**Corresponding author:** Tuba Karabey, PhD, RN, Tokat Gaziosmanpaşa University, Faculty of Health Sciences, Tokat, Turkey (email: tubakarabey@hotmail.com).

## Methods

### Participants and Setting

All relatives of patients more than 18 years of age who were hospitalized in the anesthesia ICU of Sivas Cumhuriyet University Hospital in Turkey between November 1, 2021, and January 15, 2022, make up the study's population. The number of participants for each patient was not limited. The research intensive care nurse conducted face-to-face interviews with the participants to complete the questionnaires and scales in the intensive care information room with no additional participants present. The data were gathered by posing questions to the participants. The questionnaires were deemed invalid and excluded from the study if there were questions that the participant did not want to answer.

### Data Collection

Three forms were used to gather research data: the individual information form, which the authors created; the Styles of Coping With Stress Scale, which assesses how well people cope with stress; and the 36-Item Short Form Health Survey (SF-36), which assesses people's quality of life. The data for the study were gathered by the researcher and an intensive care nurse.

### Individual Information Form

The personal information form was developed by the researchers, in light of the literature, and consists of 16 items including questions about demographic information such as age, sex, marital status, educational status, occupational status, income status, social security, and residence, as well as the status, diagnosis, and the cause of the disease of the patient in the ICU.

### Styles of Coping With Stress Scale

The scale developed by Folkman and Lazarus in 1980 is a short coping mechanism scale that is valid in various stressful situations. Scores on the scale are associated with symptoms such as depression, loneliness, and psychosomatic problems.<sup>19</sup> Şahini and Durak<sup>20</sup> aimed to develop a coping scale related to depression, various psychological symptoms, and loneliness; scores on the items of this scale were compared in groups separated according to depression, various psychological symptoms, and loneliness scores. That comparison yielded 30 items that distinguished 3 of the extreme groups formed on the basis of scores on the Stress Symptoms Scale and the University of California at Los Angeles Loneliness Scales; items with significant relationships to all 3 groups were selected for the short Styles of Coping With Stress Scale.<sup>20</sup> The scale measures 2 main

styles of coping with stress: a problem-oriented/active style and an emotional/passive style. Use of active coping styles is indicated by high scores on the following subscales: the seeking social support approach, the optimistic approach, and the confident approach. Use of passive coping styles is indicated by high scores on the following subscales: helpless self-accusing approach and submissive approach. Persons who can effectively cope with stress use the confident and optimistic approaches, whereas those who cannot cope with stress use the submissive and helpless self-accusing approaches more.<sup>20</sup> A higher score indicates that the person uses that coping style more.<sup>20</sup>

### SF-36

The SF-36 was created by Ware and Sherbourne<sup>21</sup> in 1992 and is intended for use in general population studies, clinical practice, research, and individual assessments. Koçyiğit et al<sup>22</sup> conducted the validity study of the Turkish version of the SF-36. The SF-36 consists of 36 questions that measure 8 aspects of health-related quality of life: physical functioning, physical role difficulty, emotional role difficulty, bodily pain, social functioning, mental health, energy/vitality, and general health perception.

### Data Analysis

The data were analyzed with the IBM SPSS v25 program. In the examination of sociodemographic data, frequency and percentage were used. The conformity of the distribution of the data to the normal distribution was tested by examining the skewness and kurtosis values (+1, -1) with the Kolmogorov Smirnov test. A Student *t* test and a 1-way analysis of variance test were used to compare normally distributed data. The Pearson correlation coefficient was used to examine the relationship between variables. The level of significance was taken as  $P < .05$ .

### Ethical Considerations

Before the study was conducted, approval from the Sivas Cumhuriyet University Noninterventional Research Ethics Committee and institutional permission were obtained. The relatives of patients who agreed to participate in the study were informed about the purpose and how the study would be conducted. Their written consent was obtained. The study was conducted according to the principles of the Helsinki Declaration.

Relatives of ICU patients completed assessments of their coping with stress and their quality of life.

**Table 1**  
Distribution of individuals by some descriptive characteristics (N = 162)

Characteristic	No. (%)
<b>Sex</b>	
Female	79 (48.8)
Male	83 (51.2)
<b>Age, y (mean [SD] age, 40.6 [12.3] y)</b>	
18-35	108 (66.7)
36-55	19 (11.7)
56-75	35 (21.6)
<b>Marital status</b>	
Married	127 (78.4)
Single	35 (21.6)
<b>Educational status</b>	
Illiterate	4 (2.5)
Reader-writer	6 (3.7)
Primary education	44 (27.2)
Secondary education	62 (38.3)
Associate-bachelor's	46 (28.4)
<b>Occupation</b>	
Employee	33 (20.4)
Civil servant	28 (17.3)
Retired	9 (5.6)
Homemaker	49 (30.2)
Self-employed	23 (14.2)
Other	20 (12.3)
<b>Family type (n = 159)</b>	
Nuclear	106 (65.4)
Extended	53 (34.6)
<b>Income level</b>	
Higher than expenses	19 (11.7)
Equals expense	85 (52.5)
Lower than expenses	58 (35.8)
<b>Residence status</b>	
City center	113 (69.8)
District	32 (19.8)
Town/village	7 (4.3)
In different provinces	10 (6.2)
<b>Social security</b>	
Yes	131 (80.9)
No	31 (19.1)
<b>Smoking status</b>	
Yes	70 (43.2)
No	92 (56.8)
<b>Alcohol use</b>	
Yes	13 (8.0)
No	149 (92.0)
<b>Chronic disease</b>	
Yes	38 (23.5)
No	124 (76.5)
<b>Regular information about the patient's illness was available</b>	
Yes	148 (91.4)
No	14 (8.6)
<b>Previous presence as a relative of a patient in the intensive care unit</b>	
Yes	83 (51.2)
No	79 (48.8)
<b>Proximity status</b>	
Partner	12 (7.4)
Mother	21 (13.0)

Continued

## Results

Four relatives of patients were excluded because they had to leave before the interview was finished. A total of 162 relatives of patients were more than 18 years of age, agreed to take part in the study, and completed the interview and thus were included in the study. Table 1 lists the sociodemographic characteristics of the participants. Among the participants, 51.2% were male, 66.7% were age 18 to 35, 78.4% reported being married, 38.3% had only a secondary level of education, 30.2% were homemakers, 65.4% lived in a nuclear family, and 52.5% reported that their income matched their expenses. In addition, 69.8% of participants lived in the city center, 80.9% receive social security, 56.8% do not smoke, and 92.0% do not drink. Also 76.5% are free of chronic disease, 91.4% report being able to access information about their relative in the ICU, and 79.0% have not lost loved ones to COVID-19. It was discovered that 51.2% of them had previously spent time in the ICU as a family member of a patient, 52.5% had had COVID-19, 67.9% had experienced stress before visiting the hospital, and 34.0% had medium-level stress.

Table 2 shows the mean scores for the scales and the mean total score on the SF-36. Participants' mean (SD) scores on the various scales were as follows: physical functioning scale, 62.69 (11.22); physical role difficulty scale, 87.53 (7.62); emotional role difficulty scale, 89.13 (8.27); energy/vitality scale, 48.42 (19.00); mental health scale, 47.74 (19.50); social functioning scale, 54.67 (14.86); pain scale, 64.30 (23.29); and general health perception scale, 53.30 (12.51). The mean (SD) for the total SF-36 score was 62.02 (6.59).

Table 3 shows the mean scores for the subscales and the mean total score on the Styles of Coping With Stress Scale. Participants' mean (SD) scores on the various subscales were as follows: confident approach subscale, 1.97 (0.67); optimistic approach subscale, 1.91 (0.65); helpless self-accusing approach subscale, 1.39 (0.61); submissive approach subscale, 1.33 (0.60); and seeking social support subscale, 1.80 (0.57). The mean (SD) for the total score on the Styles of Coping With Stress Scale was 1.66 (0.44).

Table 4 shows the distribution of mean scores on the SF-36 according to sociodemographic characteristics. Among individuals aged 56 to 75 years, mean (SD) score for physical functioning was 67.78 (11.52) ( $P = .002$ ). Among homemakers, the mean (SD) score for physical functioning was 67.87 (11.48) ( $P = .002$ ) and the mean (SD) score for physical role difficulty was 89.18 (7.45) ( $P = .001$ ). Among individuals

experiencing stress, the mean (SD) score for physical role difficulty was 88.72 (8.13) ( $P = .001$ ).

Table 5 shows the distribution of the mean scores on the Styles of Coping With Stress Scale according to sociodemographic characteristics. Among university graduates, the mean (SD) score for the helpless self-accusing approach was 1.08 (0.58) and for the submissive approach was 0.99 (0.48) ( $P = .001$ ). Participants whose income was higher than their expenses had a mean (SD) score for the helpless self-accusing approach of 1.06 (0.71) ( $P = .001$ ).

Table 6 shows the correlation of the scores on the SF-36 and the Styles of Coping With Stress Scale. A statistically significant positive correlation was found between the participants' total mean scores on the SF-36 and on the Styles of Coping With Stress Scale ( $r = 0.36$ ;  $P = .001$ ). Specifically, there were significant correlations between physical functioning and the helpless self-accusing approach ( $r = 0.22$ ;  $P = .004$ ), between social functioning and the submissive approach ( $r = 0.16$ ;  $P = .003$ ), and between general health perception and the optimistic approach ( $r = 0.52$ ;  $P = .001$ ), helpless self-accusing approach ( $r = 0.28$ ;  $P = .001$ ), submissive approach ( $r = 0.29$ ;  $P = .001$ ), and seeking social support ( $r = 0.44$ ;  $P = .001$ ). A correlation also was found between general health perception and the total mean score on the Styles of Coping With Stress Scale ( $r = 0.29$ ;  $P = .001$ ).

## Discussion

This study examined the quality of life and styles of coping with stress among relatives of patients hospitalized in the ICU during the COVID-19 pandemic. Persons who use passive coping styles are considered to have lower levels of coping with stress than persons who use active coping styles.<sup>23</sup> It was determined that the relatives of the patients experienced stress with their relatives in the ICU and that there was a positive and significant relationship between their level of coping with this stress and their quality of life. Again, in our study, the majority of participants reported that they experienced moderate stress while coming to the hospital and some reported that this stress was related to the COVID-19 pandemic (Table 1). Dorman-Ilan et al<sup>24</sup> found that both patients and their relatives experienced high levels of anxiety and stress from the COVID-19 pandemic. In our study, most respondents (55.6%) reported that they were not experiencing stress due to the COVID-19 pandemic (Table 1). This different result may be because our study was done in the last days of the COVID-19 pandemic; the level of stress due to COVID-19 has decreased since the beginning of the pandemic,

**Table 1**  
Continued

Characteristic	No. (%)
Proximity status (continued)	
Father	11 (6.8)
Sister	8 (4.9)
Brother	10 (6.2)
Child	42 (25.9)
Other	58 (35.8)
Lost a relative due to COVID-19	
Yes	34 (21.0)
No	128 (79.0)
The patient knows about COVID-19 treatment process	
Yes	134 (82.7)
No	28 (17.3)
You and/or your loved one has a COVID-19 diagnosis	
Yes	85 (52.5)
No	77 (47.5)
You experienced stress while coming to the hospital	
Yes	110 (67.9)
No	52 (32.1)
Level of stress you experienced coming to the hospital	
Low	39 (24.1)
Medium	55 (34.0)
High	35 (21.6)
Very high	33 (20.4)
Thinking that you are experiencing stress due to the COVID-19 pandemic	
Yes	72 (44.4)
No	90 (55.6)

**Table 2**  
36-Item Short Form Health Survey total and scale scores

Scale	Score	
	Mean (SD)	Minimum-maximum
Physical functioning	62.69 (11.22)	50-100
Physical role difficulty	87.53 (7.62)	80-100
Emotional role difficulty	89.13 (8.27)	0-100
Energy/vitality	48.42 (19.00)	20-55
Mental health	47.74 (19.50)	20-100
Social functioning	54.67 (14.86)	20-100
Bodily pain	64.30 (23.29)	55-90
General health perception	53.30 (12.51)	25-100
Total points	62.02 (6.59)	45-87

**Table 3**  
Styles of Coping With Stress Scale total and subscale scores

Subscale	Score, <sup>a</sup> mean (SD)
Confident approach	1.97 (0.67)
Optimistic approach	1.91 (0.65)
Helpless self-accusing approach	1.39 (0.61)
Submissive approach	1.33 (0.60)
Seeking social support	1.80 (0.57)
Total points	1.66 (0.44)

<sup>a</sup> Scores on all subscales went from a minimum of 0 to a maximum of 3.

**Table 4**  
**36-Item Short Form Health Survey mean scores by sociodemographic characteristics**

Characteristic	Score, mean (SD)					
	Physical functioning	Physical role difficulty	Emotional role difficulty	Energy/vitality	Mental health	Social functioning
<b>Sex</b>						
Female	66.35 (11.89)	88.86 (7.63)	90.21 (8.11)	45.40 (12.32)	45.11 (15.20)	52.40 (14.71)
Male	59.21 (9.36)	86.26 (7.44)	88.11 (8.33)	51.29 (20.16)	50.2530 (17.37)	56.83 (14.77)
Test statistics	$t=4.26, P=.007$	$t=2.19, P=.78$	$t=1.63, P=.79$	$t=-1.40, P=.16$	$t=-1.99, P=.12$	$t=-1.91, P=.87$
<b>Age, y (overall mean [SD], 40.6 [12.3])</b>						
18-35	60.56 (10.63)	86.89 (7.57)	88.70 (8.42)	50.13 (19.61)	47.60 (16.26)	54.30 (15.38)
36-55	65.42 (10.91)	87.89 (7.13)	9.17 (6.80)	41.90 (9.21)	43.05 (11.78)	53.28 (14.36)
56-75	67.78 (11.52)	89.28 (7.96)	89.90 (8.61)	46.67 (29.34)	50.74 (19.02)	56.57 (13.68)
Test statistics	$F=6.52, P=.002$	$F=1.32, P=.27$	$F=0.45, P=.64$	$F=1.72, P=.18$	$F=1.36, P=.26$	$F=0.40, P=.67$
<b>Marital status</b>						
Married	63.93 (11.26)	87.44 (7.68)	88.97 (8.28)	47.55 (18.64)	47.77 (17.28)	55.66 (15.55)
Single	58.20 (10.00)	87.85 (7.50)	89.71 (8.29)	51.55 (20.22)	47.67 (13.53)	51.07 (11.49)
Test statistics	$t=2.73, P=.09$	$t=-0.28, P=.85$	$t=-0.47, P=.89$	$t=-1.10, P=.76$	$t=-0.22, P=.66$	$t=0.04, P=.99$
<b>Educational status</b>						
Illiterate	67.50 (20.50)	97.50 (3.53)	90.00 (4.71)	30.00 (1.76)	32.00 (4.24)	57.50 (10.60)
Reader-writer	63.50 (11.33)	83.12 (5.93)	85.00 (7.76)	49.68 (16.63)	45.37 (15.09)	53.43 (14.69)
Primary education	66.81 (12.67)	88.63 (7.80)	91.06 (8.25)	49.26 (16.18)	49.90 (16.12)	51.59 (15.92)
High school	62.45 (10.57)	87.17 (7.82)	88.60 (8.30)	47.97 (19.54)	47.98 (17.07)	56.12 (15.38)
University and above	58.71 (9.07)	87.28 (7.20)	88.69 (8.29)	48.80 (21.54)	46.45 (16.63)	55.76 (13.31)
Test statistics	$F=3.2, P=.02$	$F=1.84, P=.12$	$F=1.20, P=.31$	$F=0.51, P=.73$	$F=0.75, P=.56$	$F=0.71, P=.59$
<b>Occupation</b>						
Employee	59.424 (11.22)	85.15 (7.01)	86.26 (7.05)	51.25 (21.63)	51.87 (20.20)	57.87 (17.81)
Civil servant	61.67 (10.51)	86.78 (7.22)	88.33 (8.03)	48.66 (18.23)	49.57 (15.64)	59.01 (13.21)
Retired	65.50 (9.97)	94.44 (6.82)	91.85 (9.87)	41.11 (13.86)	41.11 (9.41)	60.83 (13.91)
Homemaker	67.87 (11.48)	89.18 (7.45)	90.88 (8.24)	44.30 (16.86)	46.04 (16.58)	51.83 (14.92)
Self-employed	59.69 (9.03)	83.91 (6.20)	88.11 (8.75)	50.92 (18.47)	45.69 (15.96)	51.84 (13.38)
Other	59.00 (10.51)	89.50 (8.41)	90.66 (8.48)	53.93 (21.93)	47.90 (13.31)	50.75 (11.30)
Test statistics	$F=3.89, P=.002$	$F=4.35, P=.001$	$F=1.73, P=.13$	$F=1.3, P=.26$	$F=0.95, P=.45$	$F=1.95, P=.09$
<b>Income level</b>						
Higher than expenses	57.57 (8.23)	84.47 (6.43)	85.26 (6.87)	49.27 (17.01)	49.73 (16.32)	55.78 (11.96)
Equals expense	63.08 (11.85)	87.17 (7.25)	88.86 (8.25)	46.65 (19.52)	46.22 (16.18)	54.05 (15.88)
Lower than expenses	63.79 (10.83)	89.05 (8.24)	90.80 (8.36)	50.73 (18.88)	49.32 (17.09)	55.21 (14.34)
Test statistics	$F=2.34, P=.10$	$F=2.84, P=.06$	$F=3.41, P=.04$	$F=0.81, P=.44$	$F=0.76, P=.47$	$F=0.16, P=.85$
<b>Smoking status</b>						
Yes	61.50 (11.22)	86.28 (7.35)	87.52 (7.85)	50.22 (19.98)	49.25 (15.86)	55.96 (14.23)
No	63.60 (11.20)	88.47 (7.72)	90.36 (8.40)	47.05 (18.21)	46.59 (16.97)	53.69 (15.33)
Test statistics	$t=-1.18, P=.66$	$t=-1.83, P=.42$	$t=-2.19, P=.10$	$t=1.05, P=.26$	$t=1.02, P=.83$	$t=0.96, P=.34$
<b>Alcohol use</b>						
Yes	55.53 (9.87)	88.84 (7.67)	89.74 (8.43)	44.80 (18.09)	51.46 (9.70)	53.07 (16.65)
No	63.31 (11.14)	87.41 (7.63)	89.08 (8.28)	48.73 (19.10)	53.46 (12.74)	54.81 (14.75)
Test statistics	$t=-2.43, P=.03$	$t=0.65, P=.90$	$t=0.28, P=.86$	$t=-0.71, P=.74$	$t=-1.56, P=.13$	$t=-0.40, P=.60$
<b>Chronic disease</b>						
Yes	67.01 (12.29)	90.26 (7.96)	90.70 (8.42)	44.21 (16.18)	46.71 (16.06)	56.90 (17.08)
No	61.37 (10.58)	86.69 (7.34)	88.65 (8.19)	49.71 (19.66)	48.06 (16.68)	53.99 (14.12)
Test statistics	$t=2.77, P=.18$	$t=1.34, P=.70$	$t=-1.57, P=.08$	$t=-0.44, P=.71$	$t=1.06, P=.14$	$t=-3.16, P=.07$
<b>Lost a relative to COVID-19</b>						
Yes	65.83 (11.85)	87.64 (8.45)	88.43 (8.73)	45.55 (19.79)	44.11 (15.97)	53.60 (15.47)
No	61.85 (10.94)	87.50 (7.42)	89.32 (8.16)	49.18 (18.79)	48.71 (16.56)	54.96 (14.74)
Test statistics	$t=1.85, P=.45$	$t=0.10, P=.99$	$t=-0.56, P=.42$	$t=-0.99, P=.54$	$t=-1.447, P=.87$	$t=-.47, P=.50$
<b>The state of experiencing stress</b>						
Yes	63.46 (11.14)	88.72 (8.13)	89.69 (8.54)	46.60 (18.33)	47.50 (16.61)	54.13 (14.67)
No	61.05 (11.33)	85.00 (5.68)	87.94 (7.58)	52.25 (19.98)	48.25 (16.41)	55.81 (15.33)
Test statistics	$t=1.28, P=.91$	$t=2.97, P=.001$	$t=1.26, P=.02$	$t=-1.78, P=.47$	$t=-0.27, P=.72$	$t=-0.67, P=.89$

Downloaded from <http://ajcconline.org/ajcconline/article-pdf/doi/10.4037/ajcc2023612/147185/2023612.pdf> by guest on 08 February 2023

Score, mean (SD)		
Pain	General health perception	Total points
59.62 (21.76)	52.22 (11.70)	61.93 (6.52)
68.76 (23.91)	54.33 (13.22)	62.10 (6.70)
$t=-2.55, P=.13$	$t=-1.08, P=.18$	$t=-0.16, P=.82$
66.25 (24.29)	54.44 (12.36)	61.84 (7.01)
56.57 (20.00)	46.73 (9.96)	59.86 (4.86)
62.50 (21.55)	53.37 (13.39)	63.75 (5.70)
$F=1.54, P=.22$	$F=3.15, P=.046$	$F=2.30, P=.10$
62.20 (22.58)	53.19 (12.57)	62.15 (6.52)
71.92 (24.53)	53.71 (12.45)	61.55 (6.90)
$t=-1.63, P=.01$	$t=-2.21, P=.37$	$t=0.48, P=.35$
58.75 (8.83)	42.50 (12.02)	58.50 (1.71)
59.37 (21.07)	51.87 (15.61)	60.23 (8.44)
60.85 (25.32)	50.84 (13.38)	62.90 (6.71)
63.26 (22.96)	54.33 (13.44)	62.04 (6.68)
70.10 (22.13)	55.00 (9.32)	61.61 (6.22)
$F=1.11, P=.36$	$F=1.15, P=.34$	$F=0.53, P=.72$
68.71 (23.35)	52.90 (13.24)	61.93 (7.91)
72.76 (22.21)	55.25 (9.64)	63.18 (6.01)
58.88 (23.88)	50.88 (8.62)	61.36 (3.40)
55.00 (21.67)	51.83 (13.13)	61.95 (6.50)
68.47 (21.90)	55.78 (15.97)	61.14 (6.92)
65.62 (24.38)	53.10 (10.72)	61.99 (6.40)
$F=2.97, P=.01$	$F=0.52, P=.76$	$F=0.27, P=.93$
72.76 (24.10)	57.57 (8.23)	62.34 (6.30)
61.50 (23.06)	63.08 (11.85)	61.28 (6.76)
65.64 (22.95)	63.79 (10.83)	62.99 (6.41)
$F=1.99, P=.14$	$F=4.07, P=.02$	$F=1.19, P=.31$
72.35 (22.78)	54.22 (13.63)	62.50 (7.15)
58.17 (21.87)	52.60 (11.61)	61.65 (6.14)
$t=4.01, P=.46$	$t=0.82, P=.41$	$t=0.81, P=.37$
70.00 (20.59)	51.46 (9.70)	59.28 (5.00)
63.80 (23.50)	53.46 (12.74)	62.26 (6.17)
$t=0.92, P=.58$	$t=-0.55, P=.43$	$t=-1.57, P=.58$
54.14 (19.89)	50.00 (12.42)	61.72 (5.62)
67.41 (23.43)	54.32 (12.41)	62.11 (6.88)
$t=4.01, P=.46$	$t=-1.88, P=.67$	$t=-0.32, P=.21$
52.64 (24.52)	52.52 (11.87)	60.90 (7.32)
67.40 (22.03)	53.51 (12.71)	62.32 (6.38)
$t=-3.39, P=.42$	$t=-0.41, P=.86$	$t=-1.12, P=.75$
61.79 (23.23)	53.19 (12.50)	61.91 (6.62)
69.61 (22.73)	53.55 (12.65)	62.26 (6.59)
$t=-2.01, P=.92$	$t=-0.17, P=.84$	$t=-0.32, P=.38$

either because people adapt to the situation more easily or because the probability of losing their relative to COVID-19 is reduced. This may also be related to the fact that the majority of participants received regular information about the patient (Table 1). Özer and İmre<sup>25</sup> investigated the satisfaction of relatives of patients and found that the information retrieval status was low. The intensive care team could not devote enough time to informing the patient's relatives because of the intense pace of work experienced during the pandemic, and the content of the information and procedures was not adequately described. The findings of our study contradict these findings. In exploring the reasons for this discrepancy, we hypothesize that patient visits were more tightly restricted when Özer and İmre conducted their studies during the early days of the pandemic. The discrepancy could also be attributed to differences in institutional approaches.<sup>25</sup>

In our study, the mean scores on the SF-36 scales revealed that the highest average was for physical role difficulty and emotional role difficulty, and the lowest average was for energy/vitality and mental health (Table 2). These findings indicate that the patients' relatives made an effort to maintain their roles in the face of adversity. The mean scores for the other scales of the SF-36 and the mean total score were moderate, lower than the scores for physical role difficulty and emotional role difficulty. This shows that the social lives of the patients' relatives were negatively affected at a sustained rate, which can be said because social life and lifestyle are 2 concepts that are closely related. Humans are social beings, and it is difficult to completely isolate oneself from society, no matter how much negativity is experienced. In their study of patients with diabetes, Abdelghani et al<sup>26</sup> discovered that COVID-19 infection had a significant negative impact on patients' quality of life.

Our results show that the level of coping with stress among relatives of the patients was low during the COVID-19 pandemic (Table 3). Özer and İmre found that patients' relatives used the effective coping styles of confidence, optimism, and seeking social support more than other approaches.<sup>25</sup> Erdoğan<sup>27</sup> reported that patients' relatives mostly used the confident approach, followed by the helpless approach, which is an ineffective coping method. Other coping

**A significant positive correlation was found between participants' total mean scores on the SF-36 and on the Styles of Coping With Stress Scale.**



**Table 5**  
**Styles of Coping With Stress Scale scores**  
**by sociodemographic characteristics**

Characteristic	Score, mean (SD)					
	Confident approach	Optimistic approach	Helpless self-accusing approach	Submissive approach	Seeking social support	Total points
<b>Sex</b>						
Female	1.94 (0.59)	1.81 (0.61)	1.50 (0.56)	1.37 (0.54)	1.86 (0.51)	1.68 (0.40)
Male	2.01 (0.74)	1.98 (0.68)	1.28 (0.65)	1.29 (0.64)	1.74 (0.63)	1.63 (0.47)
Test statistics	$t=-0.62, P=.08$	$t=-1.32, P=.30$	$t=2.19, P=.14$	$t=0.76, P=.11$	$t=1.32, P=.30$	$t=0.70, P=.29$
<b>Age, y</b>						
18-35	2.01 (0.67)	1.92 (0.65)	1.36 (0.58)	1.32 (0.57)	1.81 (0.56)	1.66 (0.41)
36-55	2.02 (0.46)	2.04 (0.45)	1.32 (0.57)	1.32 (0.55)	1.90 (0.45)	1.68 (0.35)
56-75	1.83 (0.75)	1.82 (0.74)	1.50 (0.73)	1.36 (0.70)	1.73 (0.68)	1.63 (0.55)
Test statistics	$F=1.01, P=.37$	$F=0.72, P=.49$	$F=0.72, P=.49$	$F=0.06, P=.94$	$F=0.55, P=.58$	$F=0.08, P=.92$
<b>Marital status</b>						
Married	1.94 (0.67)	1.89 (0.67)	1.37 (0.62)	1.33 (0.63)	1.81 (0.57)	1.64 (0.45)
Single	2.11 (0.64)	2.00 (0.58)	1.44 (0.58)	1.31 (0.48)	1.76 (0.60)	1.71 (0.38)
Test statistics	$t=-1.34, P=.93$	$t=-0.85, P=.34$	$t=-0.55, P=.92$	$t=0.17, P=.04$	$t=0.47, P=.40$	$t=-0.76, P=.55$
<b>Education status</b>						
Illiterate	2.07 (0.70)	2.00 (0.84)	1.62 (1.23)	1.58 (0.35)	1.37 (0.88)	1.75 (0.02)
Reader-writer	1.71 (1.00)	1.70 (0.70)	1.85 (0.60)	1.39 (0.49)	1.93 (0.66)	1.71 (0.51)
Primary education	1.98 (0.55)	1.99 (0.54)	1.61 (0.46)	1.60 (0.50)	1.90 (0.43)	1.80 (0.33)
High school	1.92 (0.71)	1.81 (0.75)	1.39 (0.63)	1.37 (0.65)	1.89 (0.66)	1.65 (0.53)
University and above	2.09 (0.66)	2.00 (0.57)	1.08 (0.58)	0.99 (0.48)	1.57 (0.50)	1.52 (0.34)
Test statistics	$F=0.74, P=.57$	$F=0.96, P=.43$	$F=6.09, P=.001$	$F=6.96, P=.001$	$F=3.09, P=.02$	$F=2.39, P=.05$
<b>Occupation</b>						
Employee	1.80 (0.80)	1.85 (0.71)	1.18 (0.67)	1.23 (0.57)	1.66 (0.68)	1.51 (0.56)
Civil servant	2.07 (0.60)	1.95 (0.56)	1.19 (0.64)	1.09 (0.64)	1.78 (0.55)	1.58 (0.36)
Retired	2.03 (0.76)	2.08 (0.72)	1.45 (0.64)	1.42 (0.81)	2.19 (0.54)	1.78 (0.54)
Homemaker	1.93 (0.59)	1.84 (0.64)	1.63 (0.52)	1.53 (0.50)	1.94 (0.54)	1.76 (0.41)
Self-employed	2.01 (0.74)	2.07 (0.67)	1.42 (0.67)	1.36 (0.71)	1.78 (0.55)	1.71 (0.40)
Other	2.17 (0.59)	1.88 (0.65)	1.34 (0.45)	1.25 (0.41)	1.57 (0.43)	1.63 (0.27)
Test statistics	$F=-1.34, P=.93$	$F=-0.85, P=.34$	$F=-0.48, P=.92$	$F=0.17, P=.04$	$F=0.47, P=.40$	$F=-0.76, P=.55$
<b>Income level</b>						
Higher than expenses	2.29 (0.59)	2.10 (0.62)	1.06 (0.71)	1.14 (0.53)	1.94 (0.58)	1.65 (0.42)
Equals expenses	1.93 (0.72)	1.88 (0.64)	1.30 (0.58)	1.26 (0.61)	1.69 (0.52)	1.59 (0.42)
Lower than expenses	1.94 (0.60)	1.90 (0.68)	1.62 (0.56)	1.50 (0.56)	1.92 (0.63)	1.75 (0.45)
Test statistics	$F=2.37, P=.10$	$F=0.91, P=.41$	$F=8.11, P=.001$	$F=3.90, P=.02$	$F=3.42, P=.04$	$F=2.49, P=.09$
<b>Smoking status</b>						
Yes	2.09 (0.65)	2.00 (0.63)	1.36 (0.64)	1.29 (0.68)	1.82 (0.63)	1.68 (0.44)
No	1.89 (0.68)	1.85 (0.66)	1.41 (0.66)	1.36 (0.53)	1.78 (0.53)	1.63 (0.43)
Test statistics	$t=1.86, P=.78$	$t=1.51, P=.81$	$t=-0.56, P=.39$	$t=-0.76, P=.04$	$t=0.44, P=.05$	$t=0.69, P=.65$
<b>Alcohol use</b>						
Yes	1.92 (0.89)	1.95 (0.74)	1.18 (0.54)	1.05 (0.52)	1.51 (0.48)	1.50 (0.47)
No	1.98 (0.65)	1.91 (0.64)	1.41 (0.62)	1.35 (0.60)	1.83 (0.58)	1.67 (0.43)
Test statistics	$t=-0.32, P=.04$	$t=0.21, P=.27$	$t=-1.27, P=.60$	$t=-1.78, P=.39$	$t=-1.87, P=.73$	$t=-1.35, P=.44$
<b>Chronic disease</b>						
Yes	1.93 (0.62)	1.88 (0.59)	1.48 (0.57)	1.36 (0.64)	1.86 (0.49)	1.68 (0.44)
No	1.99 (0.68)	1.92 (0.67)	1.36 (0.63)	1.32 (0.58)	1.78 (0.60)	1.65 (0.44)
Test statistics	$t=-0.94, P=.74$	$t=-.36, P=.50$	$t=1.04, P=.42$	$t=0.35, P=.82$	$t=0.76, P=.24$	$t=0.35, P=.86$
<b>Lost a relative due to COVID-19</b>						
Yes	2.04 (0.61)	1.96 (0.60)	1.40 (0.59)	1.45 (0.57)	1.88 (0.61)	1.72 (0.39)
No	1.96 (0.69)	1.90 (0.66)	1.38 (0.62)	1.30 (0.60)	1.78 (0.56)	1.64 (0.45)
Test statistics	$t=0.65, P=.72$	$t=0.48, P=.71$	$t=0.13, P=.60$	$t=1.28, P=.49$	$t=0.95, P=.30$	$t=0.91, P=.56$
<b>The state of experiencing stress</b>						
Yes	1.95 (0.64)	1.90 (0.60)	1.42 (0.62)	1.36 (0.57)	1.87 (0.52)	1.67 (0.39)
No	2.03 (0.74)	1.95 (0.74)	1.33 (0.61)	1.25 (0.65)	1.66 (0.66)	1.63 (0.52)
Test statistics	$t=-0.76, P=.47$	$t=-0.49, P=.08$	$t=0.85, P=.54$	$t=1.09, P=.57$	$t=2.09, P=.11$	$t=0.59, P=.36$

Downloaded from <http://ajcconline.com/article-pdf/doi/10.4037/ajcc2023612/147185/2023612.pdf> by guest on 08 February 2023

**Table 6**  
**Correlation of the 36-Item Short Form Health Survey score and the Styles of Coping With Stress Scale**

36-Item Short Form Health Survey subscale	Styles of Coping With Stress Scale					Total points
	Confident approach	Optimistic approach	Helpless self-accusing approach	Submissive approach	Seeking social support	
Total points						
<i>r</i>	0.11	0.08	0.09	0.06	0.33	0.36
<i>P</i>	.15	.34	.24	.48	.67	<b>.001</b>
Physical functioning						
<i>r</i>	0.02	0.04	0.22	0.16	0.12	0.14
<i>P</i>	.83	.58	<b>.004</b>	.04	.13	.07
Physical role difficulty						
<i>r</i>	0.82	0.09	0.12	0.24	0.16	0.14
<i>P</i>	.26	.12	.14	.16	.10	.07
Emotional role difficulty						
<i>r</i>	0.11	0.07	0.16	0.16	0.49	0.04
<i>P</i>	.16	.36	.13	.09	.05	.89
Energy/vitality						
<i>r</i>	0.10	0.06	0.02	0.05	0.02	0.06
<i>P</i>	.20	.41	.82	.53	.79	.44
Mental health						
<i>r</i>	0.10	0.06	0.05	0.06	0.02	0.24
<i>P</i>	.20	.41	.52	.48	.85	.16
Social functioning						
<i>r</i>	0.09	0.03	0.10	0.16	0.01	0.03
<i>P</i>	.24	.71	.23	<b>.003</b>	.87	.74
Pain						
<i>r</i>	0.11	0.11	0.15	0.20	0.08	0.06
<i>P</i>	.17	.18	.06	.01	.30	.49
General health perception						
<i>r</i>	0.26	0.52	0.28	0.29	0.44	0.29
<i>P</i>	<b>.001</b>	<b>.001</b>	<b>.001</b>	<b>.001</b>	<b>.001</b>	<b>.001</b>

methods were used less often.<sup>27</sup> According to Erdoğan's 2019 study, seeking social support is the least preferred coping strategy, which contradicts our findings.

In our study, homemakers' mean scores for physical functioning were higher than those of other occupational groups (Table 4; *P* = .002). Bulut and Deveci<sup>28</sup> reported that homemakers scored higher than others on physical functioning. The high scores of homemakers in maintaining physical functioning may be attributed to their planning of daily activities with the understanding that their main role is parenting and that family members, especially their children, can fulfill their responsibilities for the maintenance of their daily lives.

In our study, the educational status, income status, and smoking status of the participants differed significantly on some subscales of the stress coping scale. As the education level increased, the mean scores on the helpless self-accusing and submissive subscales decreased (*P* = .001; Table 5). Sabancioğlu and Ertekin Pinar<sup>29</sup> found that illiterate caregivers

used ineffective coping methods more than did other participants. This result suggests that as the level of education increases, ineffective coping methods are used less. A similar situation applies to occupations. Civil servants had a lower mean score for the submissive approach than did participants with other occupations (*P* = .04; Table 5). Rahmani et al<sup>30</sup> examined the stress coping status of patients' relatives in Iran and concluded that caregivers with higher education do not have problems in finding support because they can work in better jobs and have a higher income and they can cope with problems better. In our study, the occupation group with the highest education level was civil servants. This further suggests that low scores of submissive coping style, which is one of the ineffective coping methods, are related to the level of education. In addition, those participants with higher income levels had lower mean scores for the helpless self-accusing approach (*P* = .001; Table 5). Vallejo et al<sup>31</sup> found that stress levels were higher in participants with low income levels. This result may be

related to the feeling of psychological comfort and competence given by thinking that they are doing their best financially.

Our results showed a statistically significant positive correlation between the mean total scores of the SF-36 and the Styles of Coping With Stress ( $r=0.36$ ;  $P=.001$ ; Table 6). Dehghan et al<sup>32</sup> reported that the

intense stress experienced by the patients in their study negatively affected the patients' quality of life. Similarly, Li et al<sup>33</sup> found a significant relationship between stress and quality of life. From this point of view, one could say that individuals with a high quality of life use their coping

mechanisms more effectively and, therefore, can cope with stress more effectively than individuals with a lower quality of life.

As the quality of life of participants increases, their level of coping with stress increases in direct proportion.

### Conclusion and Suggestions

We found a statistically significant relationship between the quality of life and the stress coping strategies of patients' relatives. The individual who feels strong copes more easily. As the quality of life of the participant increases, their level of coping with stress increases in direct proportion. In this context, it is very important to improve the level of coping with stress of individuals who are relatives of patients in the ICU as well as to increase their quality of life.

### Limitations of the Study

The study was conducted in a single ICU, which may affect the generalizability of the results. In addition, the study data were collected by the face-to-face interview method to increase reliability of the data and prevent participants from filling out forms without reading them. However, the face-to-face interview method may also discourage participants from giving sincere answers.

### Relevance to Clinical Practice

Developing coping skills is very important. Being separated by admission to an ICU creates stress for both the patient and the patient's relatives. Many factors, such as the fear of the patient dying in the ICU, the uncertainty of the cause of the disease, and the inability to obtain sufficient information about the patient, cause stress for the patient's relatives. This intense stress directly affects individuals' quality of life. In this context, it is very important that nurses, who evaluate people as a whole biologically,

psychologically, and socially, support patients' relatives in coping with stress. It is part of the role of consultant nurse to recommend that individuals recognize and use opportunities and resources to protect and improve family and community health, improve quality of life, and cope with problems related to disease. In this context, it will be useful to make appropriate referrals to social and religious services for persons whose relatives are ICU patients. At the same time, it is very important that these individuals be referred to social support groups and that people in the same situation support one another. In this situation, the consultant and supportive roles of the nurse are essential.

### DATA AVAILABILITY STATEMENT

The data sets that support the findings of this study are available from the corresponding author upon reasonable request.

### FINANCIAL DISCLOSURES

None reported.

### REFERENCES

- Poncette AS, Spies C, Mosch L, et al. Clinical requirements of future patient monitoring in the intensive care unit: qualitative study. *JMIR Med Inform*. 2019;7(2):e13064. doi:10.2196/13064
- Norton M, Hagstrom A. Finding a new normal: maternal experiences transitioning to home from the neonatal intensive care unit caring for technology-dependent infants. *Adv Neonatal Care*. 2022;22(1):E2-E12. doi: 10.1097/ANC.0000000000000850
- Koukoulis S, Lambraki M, Sigala E, Alevizaki A SA. The experience of Greek families of critically ill patients: exploring their needs and coping strategies. *Intensive Crit Care Nurs*. 2018;45:44-51.
- Hussin R, Hashim F. Communication needs of family members with a relative in intensive care unit. *J Asian Behav Stud*. 2017;2(4):19-28.
- Caro CC, Costa JD, Da Cruz DMC. Burden and quality of life of family caregivers of stroke patients. *Occup Ther Health Care*. 2018;32(2):154-171.
- Ning J, Cope V. Open visiting in adult intensive care units—a structured literature review. *Intensive Crit Care Nurs*. 2020; 56:102763. doi:10.1016/j.iccn.2019.102763
- Jiloha RC. COVID-19 and mental health. *Epidemiol Int*. 2020; 5(1):7-9.
- Sun N, Wei L, Wang H, et al. Qualitative study of the psychological experience of COVID-19 patients during hospitalization. *J Affect Disord*. 2021;278:15-22.
- Meyers EE, McCurley J, Lester E, Jacobo M, Rosand J, Vranceanu AM. Building resiliency in dyads of patients admitted to the neuroscience intensive care unit and their family caregivers: lessons learned from William and Laura. *Cognit Behav Pract*. 2020;27(3):321-335.
- Monahan C, Macdonald J, Lytle A, Apriceno M, Levy SR. COVID-19 and ageism: how positive and negative responses impact older adults and society. *Am Psychol*. 2020;75(7): 887-896.
- Garrigues E, Janvier P, Kherabi Y, et al. Post-discharge persistent symptoms and health-related quality of life after hospitalization for COVID-19. *J Infect*. 2020;81(6):e4-e6. doi:10.1016/j.jinf.2020.08.029
- Yildirim M, Solmaz F. COVID-19 burnout, COVID-19 stress and resilience: initial psychometric properties of COVID-19 Burnout Scale. *Death Stud*. 2022;46(3):524-532.
- Nicomedes CJC, Avila RMA. An analysis on the panic during COVID-19 pandemic through an online form. *J Affect Disord*. 2020;276:14-22. doi:10.1016/j.jad.2020.06.046
- Karataş Z. Social impacts of the COVID-19 pandemic, change and empowerment. *Turkish J Soc Work Res*. 2020;4(1):3-17.

15. Alsharari AF. The needs of family members of patients admitted to the intensive care unit. *Patient Prefer Adherence*. 2019; 13:465-473.
16. White DB, Angus DC, Shields AM, et al; PARTNER Investigators. A randomized trial of a family-support intervention in intensive care units. *N Engl J Med*. 2018;378(25):2365-2375.
17. Nielsen AH, Angel S, Egerod I, Lund TH, Renberg M, Hansen TB. The effect of family-authored diaries on posttraumatic stress disorder in intensive care unit patients and their relatives: a randomised controlled trial (DRIP-study). *Aust Crit Care*. 2020;33(2):123-129.
18. Devictor J, Leclercq A, Hazo JB, et al. Nurse coordinator roles in the management of patients with hepatocellular carcinoma: a French national survey. *Clin Res Hepatol Gastroenterol*. 2021;45(3):101650. doi:10.1016/j.clinre.2021.101650
19. Folkman S, Lazarus RS. An analysis of coping in a middle-aged community sample. *J Health Soc Behav*. 1980;21(3):219-239.
20. Şahini NH, Durak A. The scale of coping styles with stress: adaptation for university students. *Turkish J Psychol*. 1995; 10(34):56-73.
21. Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36): I. Conceptual framework and item selection. *Med Care*. 1992;30(6):473-483.
22. Koçyiğit H, Aydemir Ö, Fişek G, Ölmez N, Memiş A. Reliability of Turkish version of short form-36 (SF-36). *J Med Treat*. 1999;12:102-106.
23. Garbóczy S, Szemán-Nagy A, Ahmad MS, et al. Health anxiety, perceived stress, and coping styles in the shadow of the COVID-19. *BMC Psychol*. 2021;9(1):53. doi:10.1186/s40359-021-00560-3
24. Dorman-Ilan S, Hertz-Palmor N, Brand-Gothelf A, et al. Anxiety and depression symptoms in COVID-19 isolated patients and in their relatives. *Front Psychiatry*. 2020;11:581598. doi:10.3389/fpsy.2020.581598
25. Özer Z, Imre A. Evaluation of satisfaction levels and stress coping styles of relatives of patients in intensive care units. *Kocaeli Med J*. 2021;10(3):242-251.
26. Abdelghani M, Hamed MG, Said A, Fouad E. Evaluation of perceived fears of COVID-19 virus infection and its relationship to health-related quality of life among patients with diabetes mellitus in Egypt during pandemic: a developing country single-center study. *Diabetol Int*. 2021;13(1):108-116.
27. Erdoğan N. *Determining the Needs of the Relatives of the Patients in the Intensive Care Unit and the Styles of Coping with Stress*. Master's thesis. Nevşehir Hacı Bektaş Veli University; 2019.
28. Bulut I, Deveci S. Elaziğ Kent Merkezinde Yaşayan 15-49 Yaş Grubu Kadınların Yaşam Kaliteleri ve Etkileyen Faktörler. *Firat Univ Sağlık Bilim Tıp Derg*. 2017;31(2):61-69.
29. Sabancıoğulları S, Ertekin Pinar Ş. Caring burden of caregivers of chronic psychiatric patients and styles of coping with stress. *Anatol J Nurs Heal Sci*. 2020;23(1):109-118.
30. Rahmani F, Ranjbar F, Hosseinzadeh M, Razavi SS, Dickens GLVM, Vahidi M. Coping strategies of family caregivers of patients with schizophrenia in Iran: a cross-sectional survey. *Int J Nurs Sci*. 2019;6(2):148-153.
31. Vallejo MA, Vallejo-Slocker L, Fernández-Abascal EG, Mañanes G. Determining factors for stress perception assessed with the Perceived Stress Scale (PSS-4) in Spanish and other European samples. *Front Psychol*. 2018;9:37. doi:10.3389/fpsyg.2018.00037
32. Dehghan M, Jazinizade M, Malakoutikhah A, et al. Stress and quality of life of patients with cancer: the mediating role of mindfulness. *J Oncol*. 2020;2020:3289521. doi:10.1155/2020/3289521
33. Li X, Jiang T, Sun J, Shi L, Liu J. The relationship between occupational stress, job burnout and quality of life among surgical nurses in Xinjiang, China. *BMC Nurs*. 2021;20(1):181. doi:10.1186/s12912-021-00703-2

---

To purchase electronic or print reprints, contact American Association of Critical-Care Nurses, 27071 Aliso Creek Road, Aliso Viejo, CA 92656. Phone, (800) 899-1712 or (949) 362-2050 (ext 532); fax, (949) 362-2049; email, reprints@aacn.org.

## Exact Match Found

### AMERICAN JOURNAL OF CRITICAL CARE

Publisher: AMER ASSOC CRITICAL CARE NURSES, 101 COLUMBIA, ALISO VIEJO, USA, CA, 92656

ISSN / eISSN: 1062-3264 / 1937-710X

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Clinical Medicine | Essential Science Indicators

 [Share This Journal](#)

[View profile page](#)

\* Requires free login.

## AMERICAN JOURNAL OF CRITICAL CARE

Publisher name: AMER ASSOC CRITICAL CARE NURSES

### Journal Impact Factor™

2.7

2022

2.9

Five Year

JCR Category	Category Rank	Category Quartile
CRITICAL CARE MEDICINE <i>in SCIE edition</i>	25/35	Q3
NURSING <i>in SCIE edition</i>	23/125	Q1

Source: Journal Citation Reports 2022. [Learn more](#)

### Journal Citation Indicator™

0.86

2022

0.77

2021

JCI Category	Category Rank	Category Quartile
CRITICAL CARE MEDICINE <i>in SCIE edition</i>	16/53	Q2
NURSING <i>in SCIE edition</i>	70/191	Q2