Original Article

Determining the Relationship between the Traditional Methods Used to Cope with Stress by Nurses Working During the Long Covid-19 Pandemic and the Quality of Life

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Abstract

Background: The aim of this study is to determine the relationship between the traditional methods used by nurses to cope with stress and the quality of life.

Objective: This study was conducted to investigate the relationship between the traditional methods used to cope with stress by nurses and the quality of life during the long COVID-19.

Method: This study employed a cross-sectional descriptive survey design.

Results: Nurses used the most in coping with stress were taking a warm shower (70%), listening to relaxing music (70%), and using positive thinking methods (60.7%). The stres scores of nurses who used positive thinking methods were lower than those who did not use this method; the energy ($p < 0.05$), mental health ($p < 0.05$) and general health perception ($p < 0.05$) subscales scores were high ($p < 0.05$).

Conclusions: Nurses' quality of life moderately improved through traditional methods of positive thinking and aromatherapy. According to research results, the use different traditional methods in reducing the stress and increasing the quality-of-life levels of nurses working in situations such as a COVID-19 pandemic is recommended after being informed about the methods.

Keywords: Nurse, stress, quality of life, COVID-19, traditional methods.

Introduction

Nurses who provide one-on-one care and treatment to patients during the COVID-19 pandemic have experienced different problems and still continue to do so (Huang et al., 2020; Shahrour & Dardas, 2020). The pandemic continues in Turkey; according to the number of patients reported by the Ministry of Health, cases are seen every day (Republic of Turkey Ministry of Health, 2022). Stress is an emotional state that we often experience in our daily lives. Work-related stress, on the other hand, can arise as a result of the limitations of the individual's abilities and physical or psychological factors experienced, and cause tension. Situations such as fear of COVID-19 and being away from the family during the pandemic strained nurses emotionally and caused them to experience stress related to the work they were doing (Huang et al., 2020; Shahrour & Dardas, 2020; Yilmaz, 2018). Long shifts, fatigue, noise, workload, co-workers, managers, difficult patients, role conflict, uncertainty, and lack of resources are some of the stress factors for nurses (Guo et al., 2016; Waddil-Goad, 2019). Stress causes a decrease in the quality of life and causes burnout in nurses which affects performance and leads to a decrease in the quality of care given to the patient (Chen et al., 2021; Nopa et al., 2020; Sarafis et al., 2016). The prolongation of the pandemic has also increased the stress level of nurses (Huang et al., 2020; Shahrour & Dardas, 2020). In a study conducted by Fang

and Li (2015) with nurses (n=105), 83.8% of the nurses had a high level of work stress before yoga practice (Fang & Li, 2015). In the study conducted by Ko and Kiser-Larson (2016) with oncology nurses, results revealed that the stress level increased as the years worked increased, and that the level of work-related stress was significantly higher in older nurses (41-40) compared to younger ones (Ko & Kiser-Larson, 2016).

Problems such as intense workload and irregular working hours can result in physical stress such as heart disease, ulcers, bad sleep quality and skin rashes in health workers. Physically affected health workers also experienced emotional distress such as fear, anxiety, depression, post-traumatic stress disorder, burnout and stress during the pandemic (Da Rosa et al., 2021; Kibria, 2018; Yin et al., 2022)

Background

Traditional methods also have an important place among the methods used to cope with stress. The World Health Organization reported that 88% of 194 member states use Traditional and Complementary Medicine methods (Fang & Li, 2015; World Health Organization, 2019). Regulation on Traditional and Complementary Medicine Practices in Turkey was published in the Official Gazette in 2014, and application centers have been opened since July 2018 (Republic of Turkey Ministry of Health, 2014). These methods are used in the world and in Turkey for prevention, development and treatment of health (Republic of Turkey Ministry of Health, 2014; Unal & Dagdeviren, 2019; World Health Organization, 2019). Zeighami, and Soltani-Nejad (2020) stated that nurses have positive attitudes towards traditional and complementary medicinal methods. In addition, the nurses' level of knowledge on nutritional therapy, herbal therapy and massage therapy in the study was high (Zeighami & Soltani-Nejad, 2020). There are studies examining the effects of the COVID-19 pandemic on the stress levels of nurses (Huang et al., 2020; Shahrour & Dardas, 2020; Zhan et al., 2020). In a study by Shahrour et al. (2020) in which they examined acute stress disorder and coping self-efficacy in nurses during the COVID-19 pandemic,

64% of the participants had acute stress disorder (Shahrour & Dardas, 2020). In the study conducted by Huang et al. (2020) during the COVID-19 pandemic, the stress levels of nurses working in the field were significantly higher than nursing students. COVID-19, which is highly contagious, makes nurses more prone to worry about their families and adopt stress and negative coping methods (Huang et al., 2020). Since different factors cause stress, people can use some methods to cope with stress (Gor & Asiret, 2022; Huang et al., 2020; Kahraman & Kirkan, 2020; Ko & Kiser-Larson, 2016; Natividad et al., 2021). Positive results can be seen on one's work life with the use of stress relief methods (Yilmaz, 2018). In a study by Huang et al. (2020), nurses used problem-focused coping methods in dealing with stress during the COVID-19 pandemic (Huang et al., 2020). In the study by Natividad et al. (2021), the methods used by nurses working during the pandemic to cope with stress were social media, joking, positive conversation, family and friend support, sleeping, hobbies, playing online games, eating, watching TV, exercising, turning to religion or spiritual beliefs, and doing meditation or yoga (Natividad et al., 2021). In another study by Mahmoud et al. (2021), the coping methods used were effective in reducing the stress level. In addition, it was stated in the study that nurses used coping methods such as rejection, emotional support, playing an instrument, humor, religion, and acceptance (Mahmoud et al., 2021). In the study conducted by Ko and Kiser-Larson (2016), it was stated that nurses used methods such as talking, exercising, relaxing, spending time by themselves, leaving work at work, crying, and eating in coping with work stress (Ko & Kiser-Larson, 2016).

No studies have been found in the literature examining the traditional methods used by nurses in coping with stress during the long COVID-19 pandemic and its effects on quality of life. The aim of this study is to determine the relationship between the traditional methods used by nurses working during the pandemic to cope with stress and the quality of life.

Methodology

Design: This research was conducted as a descriptive study to determine the relationship

between the traditional methods used by nurses working during the long pandemic to cope with stress and quality of life. The universe of the research consisted of 400 nurses who worked in a university hospital and cared for patients diagnosed with COVID-19 in the south of Turkey. The sample size of the study was calculated as 140 with 99% confidence interval and 3% margin of error (https://www.openepi.com/). The sample of this study consisted of 140 nurses.

Participants: Inclusion criteria of the study were:

1. Caring for patients with COVID-19 during the study,
2. To be willing to participate in the study (signing the Informed Consent Form),
3. Not having an active COVID-19 infection,
4. Not using drugs that affect stress levels (antidepressants, analgesics, beta adrenoreceptor antagonists, dopamine agonists) and
5. Having no psychiatric diagnosis.

Those who did not meet the inclusion criteria (n=10) were excluded from the study. In total, 140 nurses were included in the study.

Instruments: "Nurses' Descriptive Characteristics and Traditional Methods of Coping with Stress Form", "Perceived Stress Scale (PSS)" and "Quality of Life Scale Short Form (SF-36)" were used to collect data.

Nurses' Descriptive Characteristics and Traditional Methods of Coping with Stress Form: This form consisting of 13 questions was created by the researchers in line with the literature (Isik & Can, 2021; Koa & Kiser-Larson, 2016; Nopa et al., 2020; Shahrour & Dardas, 2020; Waddill-Goad, 2019; Zeighami & Soltani-Nejad, 2020). Questions were formed to determine nurses' age, gender, marital status, educational status, years of employment as a nurse, chronic illness status, service worked in, number of night-shifts worked, duration of the night-shifts, COVID-19 infection status, health issues faced during the pandemic and people living together during the pandemic. One question was formed to determine the traditional methods used by the nurses in stressful times in line with the literature (Isik & Can, 2021; Mahmoud et al., 2021; Zeighami & Soltani-Nejad, 2020).

Perceived Stress Scale: The scale developed by Cohen, Kamarck, and Mermelstein (1983), consists of 14 questions to measure how stressful some situations in a person's life are perceived. On this five-point Likert type scale, total score between 11-26 points indicates low stress level, 27-41 points indicate medium stress level, and 42-56 points indicate high stress level (Cohen et al., 1983). Turkish validity and reliability of the scale was done by Eskin, et al. (2013). The Cronbach's alpha internal consistency coefficient of the scale was 0.84 (Eskin et al., 2013). In this study, the Cronbach's alpha coefficient was 0.89.

Quality of Life Scale- Short Form (SF-36): The scale was developed by Ware in 1987 and revised and reconstructed by Ware and Sherborne in 1992 (Ware & Sherbourne, 1992). The validity and reliability study of the scale in Turkish which is used to evaluate mental and physical health was done by Kocyigit et al. in 1999. The scale includes eight sub-scales and 36 questions: physical functioning, role physical, role emotional, bodily pain, social functioning, mental health, vitality, and general health. The scores for each subscale ranges from 0 to 100, and higher scores indicate better health (Kocyigit et al., 1999). In this study, the Cronbach's alpha coefficient was 0.90.

Data Collection: Data were collected face-to-face by taking the necessary security measures due to the COVID-19 pandemic between November 2021 and January 2022 (Republic of Turkey Ministry of Health, 2021).

Data Analysis: Data analysis was done using a computer. Descriptive statistics were expressed as frequency, percentage, mean, standard deviation, and median (maximum-minimum). The relationship between the scale scores was evaluated with the Pearson correlation coefficient. The conformity of the variables to the normal distribution was performed using the Kolmogorov-Smirnov Test. Student-t test (independent-2 group test) for bivariate groups with normal distribution and Mann Whitney-U test for non-normally distributed bivariate groups were used. One-Way Analysis of Variance (ANOVA) for groups with three or more normally distributed variables and Kruskal Wallis Test for groups with three or more variables that did not show normal distribution were performed. When the r value in the correlation was <0.20, it was considered that there was no

relationship. If it was higher, there was a relationship (Evans, 1996).

Permissions: Before the study began, necessary written permissions were obtained from the clinical research ethics committee of a university (Date:22.09.2021, No:630) and the chief physician of a university hospital (Date:18.10.2021, No: E-41993462-804.01-1795294). Written informed consent was obtained from all the nurses that participated in the study. The research was conducted in accordance with the principles of the Declaration of Helsinki [World Medical Association Declaration of Helsinki] (World Medical Association, 2013).

Results

The average age of the nurses in the study was 33.54±6.50, average years worked as a nurse was 10.81±6.87, average hours worked weekly was 42.86±3.85, and the mean number of children was 0.96±0.95. 72.9% (n=102) of the nurses were female and 58.6% (n=82) were married. A majority, 81.4% (n=114) had undergraduate degree, 9.3% (n=13) had postgraduate degree, 5.7% (n=8) had an associate degree and 3.6% (n=5) were high school graduates. 18.6% (n=26) of the nurses had chronic illness (hypertension, diabetes, asthma, migraine), 53.6% (n=75) worked day and night shifts, 43.6% (n=61) worked in surgical units. 30% (n=42) worked in internal units, 17.1% (n=24) worked in outpatient clinics and 9.3% (n=13) worked in intensive care units. 37.9% (n=53) of the nurses had COVID-19, 40% (n=56) had health problems (anxiety, depression, stress, burnout, pain, migraine, respiratory-heart problems) during the pandemic, and 84.3% (n=118) did not spend the pandemic alone at home. Table 1 shows the nurses' scale mean scores. The perceived stress scale mean score of nurses was 31.06±8.55 and stress level was moderate. The SF-36 subscale mean scores were 68.85±23.52 physical function subscale, 46.61±39.81 role physical, 44.52±41.86 role emotional, 40.86±18.5 vitality, 55.00±15.09 mental health, 48.39±25.39 social functioning, 57.02±25.20 bodily pain, and 52.82±17.81 general health (Table 1).

Comparison of nurses' scale scores and demographic characteristics is given in Table 2. A negative correlation was found between the nurses' age (r= -0.208) and average years

of employment (r= -0.207) and physical functioning subscale (p<0.05). While there was a negative correlation between hours worked weekly and role emotional subscale (r= -0.188); a positive correlation was found between the number of children and the role emotional subscale (r= 0.184) (p<0.05). A negative correlation was found between the number of children and the perceived stress scale score (r= -0.181, p<0.05). When the data for genders are compared; a significant difference between physical function (Z=3.14, p<0.05), vitality (t=-3.44, p<0.05), social functioning (Z=2.56, p<0.05) and bodily pain (Z=3.03, p<0.05) subscales in men was found. The perceived stress scale score of single nurses was statistically significant compared to married individuals (Z=2.07, p<0.05). Role emotion subscale score was higher in married individuals than in single individuals (Z=-3.39, p<0.05).

Physical function subscale was statistically different between those without chronic disease and those with chronic disease (Z=2.57, p<0.05). A significant difference was found between the role physical subscale of the nurses working in the night shift compared to the other shift types (x^2=7.17, p<0.05). A significant difference was found in the role emotion subscale of nurses working in the day shift compared to those working in other shifts (x^2=14.76, p<0.05). There was a significant difference in the perceived stress scale score of the nurses working in the polyclinic compared to those working in other units (x^2=21.39, p<0.05), and the physical function subscale (x^2=15.54, p<0.05) and the vitality subscale of those working in intensive care units compared to those working in other units (F=3.079, p<0.05). A significant difference was found in the mental health (x^2=12.70, p<0.05), social functioning (x^2=1.37, p<0.05) and bodily pain (x^2=13.83, p<0.05) subscale scores of nurses working in surgical units compared to those working in other units; and the general health perception scores of those working in internal units compared to other units (x^2=15.76, p<0.05). The perceived stress scale score (32.84±7.79) of those who had COVID-19 was found to be higher than those who did not (Z=-2.36, p<0.05). The difference between the pain subscale scores of those who did not have COVID-19 compared to those who did was

found to be significant (Z=1.96, p<0.05). The mean perceived stress scale (31.17±8.86) of nurses who had health problems during the pandemic (Z=-3.41, p<0.05) and who did not experience the pandemic alone was moderate, and the difference was statistically significant (Z=-3.41, p<0.05). There was a significant difference in the role physical (Z=2.07, p<0.05), role emotional (Z=2.36, p<0.05), vitality (t=-2.74, p<0.05), social functioning (Z=3.50, p<0.05), bodily pain (Z=2.88, p<0.05) and general health perception subscales (Z=3.34, p<0.05) of those who did not have health problems during the pandemic. There was a significant difference between the role physical (Z=2.07, p<0.05) and role emotional subscales scores (Z=2.36, p<0.05) of those who did not spend the pandemic alone. There was a significant difference between the vitality (t=-2.11, p<0.05), social functioning (Z=3.50, p<0.05), bodily pain (Z=2.88, p<0.05) and general health perceptions (Z= 3.34, p<0.05) of nurses who experienced the pandemic alone (Table 2).

All the nurses stated that they use traditional methods. The methods used the most in coping with stress were taking a warm shower (70%; n=98), listening to relaxing music (70%; n=98), using positive thinking methods (60.7%; n=85), drinking herbal tea (56.4%; n=79), praying and worshiping (47.9%; n=67), and consuming green fruits and vegetables (46.4%; n=65). The methods used less were; consuming meat, fish and eggs (36.4%; n=51), practicing correct breathing techniques (Pilates, yoga, exercise) (28.6%; n=40), massage or massage with rose-basil oil (23.6%; n=33), eating ginger-turmeric-nigella sativa (20.7%; n=29), applying apitherapy (10.7%; n=15), applying aromatherapy (10%; n=14), eating sumac or boiling and drinking sumac water (9.3%; n=13), drinking vinegar (8.6%; n=12), and other practices (applying cups, burning fragrant incense, eating thyme, applying leeches, reiki and being alone) (7.8%; n=11) (Figure 1).

The mean role emotional subscale score of nurses (66.66±39.22) who applied aromatherapy was significantly higher than those who did not (Z=-2.12, p<0.05). The perceived stress mean scores of the nurses who used positive thinking methods were lower (29.50±7.65) compared to those who did not use this method (Z=2.47, p<0.05). Those who used positive thinking methods had higher vitality (t=2.15, p<0.05), mental health (Z=-2.99, p<0.05) and general health perception subscale scores (Z=-2.03, p<0.05) than those who did not use it, and the difference was statistically significant.

Perceived stress scale scores and physical functioning (r=-0.423), role physical (r=-0.384), role emotional (r=-0.327), vitality (r=-0.602), mental health (r=-0.541), social functioning (r=-0.295), bodily pain (r=-0.361), and general health perception (r=-0.521) subscales scores were negatively correlated (p<0.05) (Table 3).

Figure 1. Traditional Methods Used by Nurses to Cope with Stress (n=140)
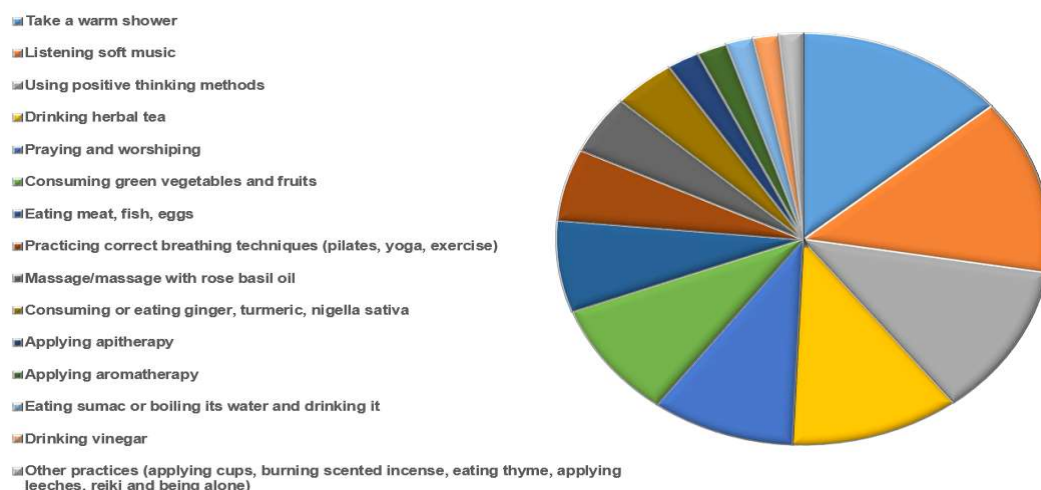
Table 1. Mean Scores of the Sub-Dimensions of the Perceived Stress Scale and the Short Form of the Quality of Life Scale (SF-36) of Nurses Working in the Extended Pandemic (n=140)

Scales	n	Min	Max	X̄ ±SD
Perceived Stress Scale *	140	15	54	31.06±8.55
Quality of Life Scale Sub-Dimensions *	n	Min	Max	X̄ ±SD
Physical Function	140	0	100	68.85±23.52
Physical Role Difficulty	140	0	100	46.61±39.81
Emotional Role Difficulty	140	0	100	44.52±41.86
Energy	140	0	90	40.86±18.51
Mental Health	140	4	88	55.00±15.09
Social Functioning	140	0	100	48.39±25.39
Pain	140	0	100	57.02±25.20
General Health Perception	140	10	95	52.82±17.81

 * Frequency analysis was used in data analysis.

Table 2. Comparison of the Scores of the Perceived Stress and Quality of Life Scale Short Form (SF-36) Sub-Dimensions with Nurses' Descriptive Characteristics (n=140)

Descriptive Features	n	Perceived Stress Scale X̄±SD	Physical Function X̄±SD	Physical Role Difficulty X̄±SD	Emotional Role Difficulty X̄±SD	Energy X̄±SD	Mental Health X̄±SD	Social Functioning X̄±SD	Pain X̄±SD	General Health Perception X̄±SS
Age	140	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50	33.54±6.50
Test statistic		r= 0.051 p*> 0.05	r= -0.208 **p*< 0.05**	r= 0.058 p*> 0.05	r= 0.076 p*> 0.05	r= -0.093 p*> 0.05	r= 0.011 p*> 0.05	r= -0.058 p*> 0.05	r= -0.135 p*> 0.05	r= -0.066 p*> 0.05
Years of work as a nurse	140	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87	10.81±6.87
Test statistic		r= 0.076 p*> 0.05	r= -0.207 **p*< 0.05**	r= 0.092 p*> 0.05	r= 0.087 p*> 0.05	r= -0.076 p*> 0.05	r= 0.006 p*> 0.05	r= -0.010 p*> 0.05	r= -0.083 p*> 0.05	r= -0.066 p*> 0.05
Weekly working hour	140	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85	42.86±3.85
Test statistic		r= 0.019 p*> 0.05	r= 0.004 p*> 0.05	r= -0.096 p*> 0.05	r= -0.188 **p*< 0.05**	r= -0.022 p*> 0.05	r= 0.069 p*> 0.05	r= -0.129 p*> 0.05	r= 0.075 p*> 0.05	r= 0.117 p*> 0.05
Number of children	140	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95	0.96±0.95
Test statistic		r= -0.181 **p*< 0.05**	r= -0.033 p*> 0.05	r= 0.091 p*> 0.05	r= 0.184 **p*< 0.05**	r= -0.035 p*> 0.05	r= 0.131 p*> 0.05	r= 0.009 p*> 0.05	r= -0.012 p*> 0.05	r= -0.032 p*> 0.05
Gender										
Woman	102	32.03±8.66	64.98±24.11	42.65±38.31	40.52±40.52	37.70±17.92	53.92±16.10	45.22±26.15	53.11±26.58	51.18±18.15
Male	38	28.45±7.78	79.21±18.44	57.24±42.28	55.26±44.03	49.34±17.60	57.89±11.68	56.91±21.30	67.50±17.42	57.24±16.30
Median [IQR]		31.00 [9] 28.50 [12]	70.00 [40] 85.00 [26]	50.00 [75] 75.00 [100]	33.00 [67] 67.00 [100]	-	56.00 [25] 60.00 [20]	38.00 [38] 62.50 [38]	55.00 [45] 67.50 [21]	50.00 [30] 55.00 [21]
Test statistic		Z=-1.93 p***>0.05	Z=3.14 **p***< 0.05**	Z=1.91 p***>0.05	Z=1.79 p***>0.05	t=-3.44 **p**<0.05**	Z=1.55 p***>0.05	Z=2.56 **p***< 0.05**	Z=3.03 **p***< 0.05**	Z=1.66 p***>0.05
Marital status										
Married	82	29.84±8.76	70.49±23.13	49.70±39.18	54.47±40.74	41.22±18.25	56.93±14.41	49.70±24.77	57.32±23.82	52.20±18.17
Single	58	32.76±8.02	66.52±24.07	42.24±40.61	30.46±39.63	40.34±19.03	52.28±15.73	46.55±26.37	56.59±27.24	53.71±17.41
Median [IQR]		29.00 [11] 31.00 [9]	75.00 [41] 70.00 [40]	50.00 [100] 37.50 [81]	67.00 [100] 00.00 [67]	-	56.00 [20] 48.00 [21]	50.00 [38] 50.00 [38]	55.00 [33] 55.00 [43]	50.00 [31] 50.00 [25]
Test statistic		Z=2.07 **p***< 0.05**	Z=-0.92 p***>0.05	Z=-1.09 p***>0.05	Z=-3.39 **p***< 0.05**	t=0.27 p**>0.05	Z=-1.82 p***>0.05	Z=-0.67 p***>0.05	Z=-0.24 p***>0.05	Z=0.66 p***>0.05

Chronic discomfort status

	n									
Yes	26	31.88±7.54	59.23±21.66	3942±40.10	34.61±41.61	38.65±19.41	50.15±14.49	43.26±22.97	47.40±29.20	47.11±15.24
No	114	30.86±8.78	71.03±23.46	48.24±39.73	46.78±41.76	41.35±18.35	56.10±15.06	49.56±25.86	59.21±23.80	54.12±18.15
Median [IQR]		32.00 [5] / 30.00 [11]	62.50 [37] / 75.00 [36]	37.50 [75] / 50.00 [100]	00.00 [67] / 33.00 [100]	-	48.00 [17] / 56.00 [24]	37.50 [28] / 50.00 [41]	50.00 [48] / 57.50 [32]	45.00 [12] / 55.00 [30]
Test statistic		$Z=-0.68$ p***>0.05	$Z=2.57$ **p***< 0.05**	$Z=1.06$ p***>0.05	$Z=1.46$ p***>0.05	$t=-0.67$ p**>0.05	$Z=1.94$ p***>0.05	$Z=1.32$ p***>0.05	$Z=1.89$ p***> 0.05	$Z=1.76$ p***>0.05

Way of working

	n									
Night	8	30.62±12.68	63.75±18.46	62.50±35.35	58.33±46.29	33.75±20.65	59.00±11.85	54.68±28.29	65.62±13.54	63.75±18.07
Daytime	57	31.57±10.27	66.05±26.80	55.26±37.42	59.06±40.34	42.71±18.10	53.82±16.33	49.56±24.99	54.29±29.04	51.05±17.36
Night and day	75	30.70±6.46	71.51±21.14	38.33±40.54	32.00±38.91	40.20±18.62	55.46±14.47	46.83±25.59	58.16±22.85	53.00±17.93
Test statistic		$x^2=0.08$ p*****>0.05	$x^2=1.64$ p*****>0.05	$x^2=7.17$ **p*****<0.05**	$x^2=14.76$ **p*****<0.05**	$F=0.924$ p****>0.05	$x^2=2.15$ p*****>0.05	$x^2=0.82$ p*****>0.05	$x^2=1.72$ p*****>0.05	$x^2=3.23$ p*****>0.05

Worked unit

	n									
Surgical units	61	29.98±7.94	73.57±21.46	52.86±42.10	49.72±42.87	43.44±19.18	57.24±15.56	51.22±26.87	62.74±22.33	55.57±18.41
Internal units	42	28.07±6.23	69.16±22.81	38.09±37.54	34.12±41.96	41.66±18.53	56.19±13.93	47.61±24.88	59.40±23.94	55.95±15.11
Intensive care	13	30.30±4.85	77.69±19.64	48.07±45.02	30.76±37.17	44.61±17.61	56.00±13.95	42.30±21.97	55.57±24.56	53.46±19.83
Policlinic	24	39.41±10.15	51.45±24.33	44.79±33.76	56.94±37.40	30.83±14.34	46.66±14.38	45.83±24.63	39.06±27.68	40.00±14.52
Test statistic		$x^2=21.39$ **p*****<0.05**	$x^2=15.54$ **p*****<0.05**	$x^2=3.31$ p*****>0.05	$x^2=7.64$ p*****>0.05	$F=3.079$ **p****<0.05**	$x^2=12.70$ **p*****<0.05**	$x^2=1.37$ p*****>0.05	$x^2=13.83$ **p*****<0.05**	$x^2=15.76$ **p*****<0.05**

The status of being COVID 19

	n									
Yes	53	32.84±7.79	65.15±23.14	41.50±36.67	46.54±41.00	38.49±18.54	55.39±13.48	45.99±24.24	51.88±24.09	49.05±15.84
No	87	29.96±8.84	71.09±23.59	49.71±41.50	43.29±42.56	42.29±18.45	54.75±16.06	49.85±26.10	60.14±25.48	55.11±18.63
Median [IQR]		32.00 [9] / 29.00 [9]	70.00 [40] / 75.00 [40]	50.00 [75] / 50.00 [100]	33.00 [100] / 33.00 [100]	-	56.00 [20] / 56.00 [24]	50.00 [37] / 50.00 [25]	45.00 [45] / 57.50 [32]	45.00 [22] / 55.00 [25]
Test statistic		$Z=-2.36$ **p***<0.05**	$Z=1.55$ p***> 0.05	$Z=1.18$ p***>0.05	$Z=-0.40$ p***>0.05	$t=-1.18$ p**>0.05	$Z=0.01$ p***>0.05	$Z=0.97$ p***> 0.05	$Z=1.96$ **p***< 0.05**	$Z=1.95$ p***>0.05

Health problem experienced during the pandemic process

	n									
Yes	56	33.55±7.50	66.69±20.85	37.94±38.13	34.52±40.18	35.71±18.88	53.71±15.62	39.28±22.91	49.68±22.46	46.78±16.74
No	84	29.39±8.84	70.27±25.15	52.38±40.07	51.19±41.85	44.28±17.54	55.85±14.75	54.46±25.27	61.90±25.86	56.84±17.45

	N										
Median [IQR]		33.00 [10]	70.00 [39]	25.00 [75]	17.00 [67]	-	52.00 [24]	37.50 [25]	45.00 [35]	45.00 [20]	* Pearson correlation analysis was used in data analysis. **Student-t test
		29.00 [10]	75.00 [40]	50.00 [100]	50.00 [100]		56.00 [24]	50.00 [38]	67.50 [32]	55.00 [25]	
Test statistic		Z=-3.41 **p***<0.05**	Z=1.37 p***> 0.05	Z=2.07 **p***<0.05**	Z=2.36 **p***<0.05**	t=-2.74 **p**<0.05**	Z=0.92 p***>0.05	Z=3.50 **p***< 0.05**	Z=2.88 **p***< 0.05**	Z=3.34 **p***<0.05**	
People living together during the pandemic process											
Yes	118	31.17±8.86	67.27±24.04	46.82±39.02	46.32±41.80	39.44±17.99	54.10±15.11	47.77±25.08	55.48±25.06	52.20±17.95	
No	22	30.40±6.73	77.27±18.75	45.45±44.74	34.84±41.75	48.40±19.84	59.81±14.31	51.70±27.35	65.22±24.90	56.13±17.03	
Median [IQR]		30.50 [10]	70.00 [45]	50.00 [75]	33.00 [100]	-	56.00 [20]	50.00 [37]	55.00 [42]	50.00 [30]	
		30.50 [8]	80.00 [26]	25.00 [100]	17.00 [75]		60.00 [21]	44.00 [37]	67.50 [39]	57.50 [25]	
Test statistic		Z=-3.41 **p***<0.05**	Z=1.37 p***> 0.05	Z=2.07 **p***<0.05**	Z=2.36 **p***<0.05**	t=-2.11 **p**<0.05**	Z=0.92 p***>0.05	Z=3.50 **p***< 0.05**	Z=2.88 **p***< 0.05**	Z=3.34 **p***<0.05**	

(independent-2 group test) was performed in bivariate groups with normal distribution. *** Mann Whitney-U test was used in non-normally distributed bivariate groups. ****One-Way Analysis of Variance (ANOVA) was performed in groups with three or more variables with normal distribution. *****Kruskal Wallis Test was performed in groups with three or more variables that did not show normal distribution. IQR: Interquartile Range

Table 3. Correlation Analysis of the Perceived Stress Scale and the Sub-Dimensions of the Quality of Life Short Form Scale (SF-36) (n=140)

Quality of Life Short Form Scale (SF-36) Sub-Dimensions	Perceived Stress Scale		
	n	r	p*
Physical Function	140	-0.423	**<0.05**
Physical Role Difficulty	140	-0.384	**<0.05**
Emotional Role Difficulty	140	-0.327	**<0.05**
Energy	140	-0.602	**<0.05**
Mental Health	140	-0.541	**<0.05**
Social Functioning	140	-0.295	**<0.05**
Pain	140	-0.361	**<0.05**
General Health Perception	140	-0.521	**<0.05**

* Pearson correlation analysis was used in data analysis.

Discussion

In the literature, as the results of our research revealed, the stress levels of nurses increase and their quality of life decreases due to factors such as conditions worked in, long working hours, and inadequate facilities of the institution (Chen et al., 2021; Cui et al., 2021; Fang & Li, 2015; Guo et al., 2016). During the COVID-19 pandemic, feelings of uncertainty, fear, and anxiety, staying away from family and the possibility of infection cause both stress and decrease in the quality of life for nurses (Cui et al., 2021; Gor & Asiret, 2022; Natividad et al., 2021; Tanriverdi & Tanriverdi, 2021; Uyurdag et al., 2021; Zhan et al., 2020).

In our study, nurses' perceived stress levels were moderate. In the study conducted by Sharma et al. (2014), nurses stated they did not have enough time to rest and experienced moderate-to-severe stress (Sharma et al., 2014). In a study by Maharaj et al. (2019) in which they looked at the prevalence of stress in nurses, 25.51% of the nurses stated stress at moderate level, 10.8% at severe level and 5.8% at extreme level of stress (Maharaj et al.,

2019). In a study by Kshetrimayum et al. (2019), 55.4% of nurses experienced moderate stress and 49.8% had moderate occupational stress (Kshetrimayum et al., 2019). Zhan et al. (2020) reported that during the COVID-19 pandemic, nurses' perceived work-related stress levels were moderately high, and work hours, years worked, night shifts and academic levels of nurses affected the stress level (Zhan et al., 2020). In our study, unlike the literature, although years nurses' worked, hours worked weekly, gender, chronic illness status, working day-night shifts did not affect the stress level; having fewer children, being single, working in the polyclinic, having had COVID-19 and health problems during the pandemic and spending the pandemic with someone were factors that increased the perceived stress. With the prolongation of the pandemic, the feeling of uncertainty, fear, and anxiety of being alone (Cui et al., 2021; Huang et al., 2020; Mahmoud et al., 2021) may have affected the perceived stress level.

In our study, the quality of life of the nurses varied according to their demographic

characteristics and the total score of four subscales were below the average. In a study by Asante et al. (2019), 74.6% of healthcare professionals had a low quality of life of whom 24.7% of were nurses (Asante et al., 2019). Similar to the literature, being young, high number of years in the profession, being a woman, being single, having a chronic illness, working in shifts, working in intensive care, working in internal or surgical units, having had COVID-19, having health problems during the pandemic and having a person living with at home are some of the factors that lower quality of life (Cui et al., 2021; Fathi & Simamora, 2019; Huang et al., 2020; Kowitlawkul et al., 2019; Mahmoud et al., 2021). Insufficient use of effective coping methods by nurses may have negatively affected their quality of life as a result of the long-term stress they experienced due to the pandemic.

Similar to the literature, in our study, nurses used traditional methods to cope with stress and increase their quality of life during the prolonged pandemic. In a study by Fathi et al. (2019), the most frequently used coping methods by nurses were religion, positive thinking, acceptance, and active coping (Fathi & Simamora, 2019). In another study, it was stated that nurses could use yoga and mindfulness methods to increase their quality of life (Kowitlawkul et al., 2019). In the literature, nurses had positive attitudes towards using traditional methods during the pandemic (Gor & Asiret, 2022). The use of effective coping methods can reduce the emotional exhaustion of nurses. The methods used by nurses during the prolonged pandemic in coping with stress reduced the stress levels to a moderate level.

In a study by Kowitlawkul et al. (2019), the quality of life of nurses was low, and marital status, education level, religion and professional titles were among the factors that affect it (p<0.05) (Kowitlawkul et al., 2019). Korkmaz et al. found that the anxiety level of nurses was moderate, and the quality-of-life scores of nurses were lower than those of other health professionals (physicians and other health personnel) (Korkmaz et al., 2020). Similar to the literature, in this study, the quality of life of nurses differs according to their demographic characteristics.

It is stated in the literature that nurses' quality of life of is affected negatively by stressors they are exposed to (Asante et al., 2019; Fathi & Simamora, 2019; Kowitlawkul et al., 2019). Similar to the literature, in our study, nurses' quality of life sub-scores for perceived stress levels were negatively affected. Our findings revealed that nurses tried to increase their quality of life through the traditional methods they utilized. The quality-of-life scores of those nurses that used positive thinking and aromatherapy were higher than those who did not. However, the fact that only four quality of life subscale scores of the nurses who used the traditional methods during the pandemic were at a moderate or high level suggests that it may be due to inadequate use of traditional methods or lack of knowledge.

Limitations of the Study: In this study, the relationship between the traditional methods and stress and quality of life of the nurses working in a state university hospital during the pandemic was investigated. Therefore, the results of the study cannot be generalized to all nurses.

Conclusions: Nurses' perspectives on traditional methods and their use are important in the planning and implementation of holistic care interventions. Especially in cases such as the COVID-19 pandemic, the traditional methods that nurses utilize to find relief in situations with increased stress and decreased quality of life can allow nurses to relax. Decreasing stress levels of the nurse and increasing the quality of life will also positively affect the quality of the applied nursing care. In addition, nurses utilizing traditional methods will be able to communicate more easily with their patients about the subject. The results of this study showed that nurses in Turkey use traditional methods to reduce their stress levels and increase their quality of life. According to the results of our research, the use different traditional methods is recommended to reduce the stress levels and accordingly to increase the quality of life of nurses working during pandemics such as COVID-19. In addition, in order to raise awareness among nurses in stress management and increase quality of life, trainings on the use of traditional methods during an unknown pandemic such

as COVID-19 can be organized by executive nurses.

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