Original Article

The Role of Nurses' Ways of Coping with Stress and their Psychological Well-Being During the COVID-19 Pandemic

Fadime Kaya Soylu, PhD
Associate Professor, Kafkas University Faculty of Health Sciences, Department of Mental Health and Psychiatric Nursing, Kars, Turkey

Nihal Bostanci Dastan, PhD
Associate Professor, Kafkas University Faculty of Health Sciences, Department of Mental Health and Psychiatric Nursing, Kars, Turkey

Ozgu Tekin Uluman, PhD
Assistant Professor, Kafkas University Faculty of Health Sciences, Department of Mental Health and Psychiatric Nursing, Kars, Turkey

Hatice Karabulak, PhD, RN
Ataturk University, Institute of Health Sciences, Department of Rights Health Nursing, PhD Student, Erzurum, Turkey

Correspondence: Fadime Kaya Soylu PhD, Assoc. Prof. Kafkas University Faculty of Health Sciences, Department of Mental Health and Psychiatric Nursing, Kars, Turkey E-mail: fadimee36@hotmail.com

Abstract

Background: The Covid-19 pandemic has brought not only the risk of death from infection, but also unbearable psychological pressure.
Aims: This study aimed to investigate the effects of nurses' ways of coping with stress and their psychological well-being in pandemic.
Methodology: This is a cross-sectional study. Its sample consisted of 148 nurses who were living in Turkey from June to July 2020. The data were collected using an information form, the Ways of Coping Questionnaire, and the Psychological Well-being Scale.
Results: There was a statistically significant relationships were found between the nurses' age, social support and feeling successful about patient care, and the PWBS ($p< .05$). Positive relationships were found between the nurses' mean the PWBS score and their scores on the Ways of Coping Questionnaire subdimensions of the self-confident approach, the optimistic approach, and the seeking social support approach ($p< .05$), and a negative relationship was found between their subdimension scores for the helpless emotion-focused approach and their PWBS ($p< .05$).
Conclusion: The findings support that coping strategies and psychological resources is significant in nurses' psychological well-being.

Keywords: COVID-19, Nursing, Coping with stress, psychological well-being

Introduction

China announced a novel coronavirus originating from the city of Wuhan to the World Health Organization at the end of December 2019. COVID-19 rapidly spread throughout China and other countries as a contagious pneumonia outbreak (Bao et al., 2020). As of January 25, 2021, millions of people in 215 countries were infected with the virus, and more than two million of them died (WHO, https://www.who.int/emergencies/diseases/novel-coronavirus-2019). Pandemics are not just a medical condition. They affect the quality of life of individuals and the quality of life of the entire world (Lai et al., 2020). During this time, nurses were working in pandemic clinics, operating rooms, intensive care units, non-pandemic units, emergency rooms, ambulances, and family health centers. The Turkish Ministry of Health announced on April 21, 2020 that 7,428

healthcare workers were infected, and that this made up 6.5% of all cases (Bayar & Zontur, 2020).

Background

The Covid-19 pandemic has brought not only the risk of death from infection, but also increased psychological pressure (Kaya et al. 2021). Nurses' psychological well-being is always a major concern in the nursing workforce. All the healthcare staff of clinics were under great pressure during the COVID-19 pandemic due to lack of medical resources and many seriously ill patients in need of assistance, and they experienced important physical and psychological stress. Nurses caring for COVID-19 patients have a higher risk of developing psychological distress (Mo et al., 2020; Zhang et al., 2020). Previous studies have found high rates of depression, anxiety, and fear among nurses (Lu et al., 2020; Huang & Rong Liu, 2020). A study of the effects of the COVID-19 pandemic on the psychological well-being of nurses and midwives in Turkey found that 54.5% of nurses and midwives said that life worsened, 62.4% said that they experienced difficulties in coping with uncertain situations, 42.6% said that they needed psychological support, and 11.8% said that they felt alienated from their profession since the onset of the pandemic (Aksoy & Kocak, 2020). Naushad et al. (2019) examined healthcare workers' psychological responses to disasters, and depression and post-traumatic stress disorder were the most frequent outcomes. A significantly large portion of the participants experienced symptoms of depression, anxiety, insomnia, and psychological problems in China. They reported that the mental health symptoms of nurses, women, frontline healthcare workers and workers in Wuhan, China were more severe compared those of other healthcare workers (Lai et al., 2020). The pandemic has made healthcare workers who provide direct care for patients with positive or suspected COVID-19 pneumonia vulnerable to mental health problems (Hu & Huang, 2020).

Stress is emotional tension caused by the disturbance of physiological and psychological adaptation as a result of the interaction of the organism with the environment in daily life. It can cause physical, emotional, behavioral, and psychological problems and lead to chronic disease (Ozel & Karabulut, 2018). Coping with stress is defined as the cognitive and behavioral efforts that individuals use when they encounter stressful situations and overwhelming demands from their environment (Ahmad & Bokharey, 2013). The pandemic causes stress because of the unpredictability of the situation, uncertainty about when the disease will be controlled and the seriousness of the risk (Bao et al., 2020). During the COVID-19 pandemic, healthcare workers were subjected to unprecedented demands, high mortality rates, lack of personal protective equipment, and deep ethical dilemmas concerning access to ventilators and other essential healthcare supplies. They also had to worry about being infected with the disease and infecting others. They experienced anxiety for their families and relatives who were receiving distance education at home (Gavin et al., 2020; Xiang et al., 2020; Hu & Huang, 2020). A study of the emotional responses and coping strategies of nurses and nursing students during the COVID-19 pandemic reported that women had more severe anxiety and fear than men, that the participants who lived in cities experienced more anxiety and fear than the participants who lived in rural areas, and that the participants who lived in rural areas were sadder than the participants who lived in the city (Huang & Rong Liu, 2020). The nurses had stronger emotional responses and used more problem-focused coping strategies than the nursing students.[9] In the review study by Naushad et al. (2019), nurses reported higher levels of negative outcomes than doctors during the pandemic. Lack of social support and communication, inappropriate coping strategies and lack of education are important risk factors for developing negative psychological consequences in all types of disasters.

It is best to have employees who have the least job absenteeism related to infection, work at their maximum potential and have low levels of work-related burnout. The psychological well-being of these personnel must be protected (Gavin et al., 2020). The immediate establishment and implementation of a long-term psychological relief, assessment, treatment, support, education, and services for

healthcare professionals should be one of the most important and urgent tasks of healthcare institutions and their administrators. Understanding ways of coping with stress is important for these psychological interventions.

This study examines the role of nurses' ways of coping and some characteristics in their psychological well-being in pandemic. This study sought answers to these study questions:

- ✓ How are nurses coping with stress in pandemic?
- ✓ What are the psychological well-being levels of nurses in pandemic?
- ✓ What are the effects of nurses' ways of coping and other characteristics on their psychological well-being in pandemic?

Material and Methods

Design and Participants: This is a cross-sectional study. The data were collected with the website via the online questionnaire in June and July 2020. The online questionnaire was shared on Facebook and WhatsApp. The participants filled out the questionnaire using a link on their computers or smart phones. The online questionnaire also included a section containing information to potential participants about the study's purpose, and anonymity and privacy. Sample calculation approach was not used in this study. To be included the participants had to be nurses and agree with the online informed consent form. Nurses were also excluded if they filled out the form incorrectly or incompletely. A total of 149 nurses participated in the study. One participant was excluded for an incomplete form. The study was completed with a sample of 148 nurses.

Measures: The research data were collected using an information form (21 items), the Ways of Coping Scale (WCS) (30 items) and the Psychological Well-Being Scale (PWBS) (8 items).

The Information Form: The information form was developed by the researchers. The information form has 21 questions, 3 about sociodemographic characteristics (age, gender, and marital status), 2 about professional characteristics (education level and unit), and 16 about the COVID-19 pandemic.

The Ways of Coping Scale: Developed by Lazarus and Folkman in 1980. This scale is used to assess the ways of coping people use in stressful situations. Its original format has 66 items in 2 subdimensions: problem-focused strategies and emotion-focused strategies. The first Turkish adaptation was carried out in 1995 by Sahin & Durak for university students, and it was 30 items in 5 subdimensions: the self-confident approach (7 items), the helpless approach (8 items), the submissive approach (6 items), the optimistic approach (5 items) and the seeking social support approach (4 items). The scale items are scored 0%, 30%, 70% or 100%. Items 1 and 9 are scored in reverse. No score is given for the entire scale. The scores for each subdimension are calculated separately. Higher subdimension scores indicate more use of the approach of the subdimension in question. For example, high scores on the self-confident, optimistic, and social support subdimensions indicate frequent use of effective, problem-focused ways of coping with stress. Similarly, high scores on the helpless and submissive approach subdimensions indicate frequent use of ineffective emotion-focused ways of coping (Sahin & Durak, 1995). The Cronbach's alpha values obtained for the subdimensions in the scale's validity and reliability study were: .68-.49 for the optimistic approach, .80-.62 for the self-confident approach, .73-.68 for the helpless approach, .70-.47 for the submissive approach and .47-.45 for the seeking social support approach. In this study, they were: .773 for the optimistic approach, .863 for the self-confident approach, .769 for the helpless approach, .577 for the submissive approach and .435 for the seeking social support approach.

The Psychological Well-Being Scale: This scale was developed by Diener et al. to measure psychological well-being in 2009, 2010. It was adapted to Turkish by Telef (2013). The Cronbach's alpha internal consistency coefficient in the reliability study was .80. The test-retest found a highly positive and significant relationship between the first and second administrations of the scale ($r = 0.86$, $p < .001$). The scale's items are rated from (1) strongly agree to (7) strongly disagree. All its items are positive statements.

Scale scores ranges from 8 to 56. High scores indicate abundant psychological resources and strengths. Although the scale does not assess the aspects of well-being individually, it does provide an overview of important, positive functions in different areas (Telef, 2013). The internal consistency coefficient of the PWBS was .881 in this study.

Variables: This study's dependent variable is the Psychological Well-Being Scale score. Its independent variables are the Ways of Coping Questionnaire score, and the participants' demographic, professional and COVID-related characteristics.

Data Analysis: The data were analyzed using the Statistical Package for the Social Sciences 20.0 software (NY, USA). In the data analysis, descriptive analysis (mean, standart deviasions, frequency and median values) was used to determine the participants' demographic, professional, COVID-related characteristics and scale scores. PWBS scores were obtained for the difference statistics. The participants' demographic, professional and COVID-related characteristics and the differences in PWBS scores were evaluated using the Mann-Whitney U and The Kruskal-Wallis H test. The relationships between PWBS scores and WCS scores were evaluated using Spearman's correlation rho analysis. The suggestions of Erdogan, Nahcivan, Esin (2018) were used while evaluating levels in the correlation analysis. The results were evaluated at $p<0.05$ significance.

Ethical Considerations: Permissions to conduct the study were obtained from Local Non-invasive Clinical Trials Ethics Committee (June 8, 2020, number 81829502.903/46) and from Turkey's Ministry of Health Scientific Research Platform. Informed consent was obtained online by explaining the purpose of the study and its confidentiality principles to the participants.

Results

Descriptive Characteristics

The nurses' individual and professional characteristics are shown in Table 1. A very weak statistically significant relationship was found between the nurses' age and their PWBS scores ($p < .01$). No significant relationships were found between the nurses' gender, marital status, education level and unit, and their PWBS scores.

The nurses' experiences of the Covid-19 pandemic are shown in Table 2. On a scale of 1 to 5, the nurses' mean scores were: fear of getting infected with COVID-19 = 3.26 ± 1.26, fear of infecting family and friends = 4.26 ± 1.05, fear of getting quarantined = 3.41 ± 1.44, and stress level = 3.79 ± 1.19. Of the nurses, 42.6% said that they knew someone in their immediate environment who was diagnosed with COVID-19, 56.8% experienced anxiety about the lack of protective equipment, and 53.4% were worried about having inadequate knowledge about COVID-19 treatment and nursing care. Of them, 48.0% had anxiety about nursing care for COVID-19 patients, and 35.1% had experienced an ethical dilemma. Of the nurses, 35.1% had to stay somewhere other than their permanent residence, 75.0% said that they did not have any psychological support resources, and 98.0% said that they did not receive professional psychological support. Finally, 93.4% had positive thoughts about their patients' recovery, and 17.6% said that they felt that their patient care during the pandemic was unsuccessful.

Statistically significant relationships were found between the nurses' having psychological support resources and feeling unsuccessful, and PWBS scores ($p < .05$). No statistically significant relationships were found between the PWBS scores and: fear of getting infected, fear of transmitting the virus, fear of isolation, stress level, presence of a COVID-19 diagnosed individual in the immediate environment, anxiety about lack of protective equipment, anxiety about lack of knowledge about nursing care, having experienced an ethical dilemma, having to live somewhere other than their permanent residence and having received psychological support ($p > .05$).

The social support resources of nurses are shown in Figure 1. Most of the nurses (73%) reported that they received social support from colleagues, followed by other health team members (48.6%).

The people with whom nurses had conflicts are shown in Figure 2. The nurses reported that most of their conflicts were with

managers (32.4%, n = 48), and other members of society (49.3%, n = 73).

The nurses' ways of coping and psychological well-being scores are shown in Table 3. Their mean PWBS score was 44.0 ± 7.50. Their mean subdimension scores were: for problem-focused coping strategies was 21.64 ± 3.84 for self-confident approach, 14.40 ± 2.91 for optimistic approach, and 11.43 ± 1.92 for seeking social support. the mean scores of emotion-focused coping strategies was 17.55 ± 4.48 for helpless approach and 12.14 ± 2.99 for submissive approach. Their mean PWBS score was 44.0 ± 7.50.

Correlation analysis found a positive weak and very weak statistically significant relationships between the nurses' mean PWBS score and their scores on the WCS subdimensions of the self-confident approach, the optimistic approach and the seeking social support approach, all of which are problem-focused ways of coping with stress ($p < .05$), and that there was a weak statistically significant negative correlation between the nurses' PWBS scores and their scores on the subdimension of the ineffective, emotion-focused helpless approach ($p < .05$). There were no statistically significant relationships between the nurses' PWBS scores and their scores on the subdimension of the ineffective, emotion-focused submissive approach (Table 3).

Table 1. The Nurses' Individual and Professional Characteristics

		PWBS	
Variables	**x̄±SD**	**Median**	**R**
Age	33.24 ± 8.53	-	**0.223**/.007**
Gender	**n (%)**		***Z/KWX²***
Female	129 (87.2)	46.0	-1.675/.094
Male	19 (12.8)	42.0	
Marital status			
Single	74 (50.0)	45.0	-1.883/.059
Married	74 (50.0)	46.50	
Education level			
Vocational school of health	8 (5.4)	47.5	0.814/.846
Associate's Degree	14 (9.5)	45.5	
Bachelor's degree	103 (69.6)	46.0	
Postgraduate	23 (15.5)	45.0	
Unit			
COVID-19 unit	89 (60.1)	45.0	-0.764/.445
Other units	59 (39.9)	47.0	

PWBS: Psychological Well-Being Scale, x̄: mean, SD: standard deviation, *R:* correlation coefficient, *KWX²:* Kruskal-Wallis H test, Z: Mann-Whitney U test.

Table 2. The Nurses' Experiences during the COVID-19 Pandemic

Variables	**PWBS**		
	x̄±SD	***Median***	**R**
Fear of getting infected with COVID-19	3.26 ± 1.26	-	0.019/.818
Fear of transmitting COVID-19 to family and friends	4.26 ± 1.05	-	0.041/.620
Fear of getting quarantined	3.41 ± 1.44	-	0.069/.403

Your level of stress	3.79 ± 1.19	-	0.053/.524
	n		***Z***
Has anyone in your immediate environment been diagnosed with COVID-19?			
Yes	63 (42.6)	46.0	-0.122/.903
No	85 (57.4)	45.0	
Anxiety about insufficient protective equipment			
Yes	84 (56.8)	45.0	-1.188/.235
No	64 (53.2)	46.0	
Anxiety about having inadequate knowledge about COVID-19 treatment and nursing care			
Yes	79 (53.4)	45.0	-1.436/.151
No	69 (56.6)	47.0	
Anxiety about the nursing care of COVID-19 patients			
Yes	71 (48.0)	45.0	-1.489/.136
No	77 (52.0)	47.0	
Having experienced an ethical dilemma			
Yes	52 (35.1)	45.0	-0.852/.394
No	96 (64.9)	46.0	
Having to live away from your permanent residence			
Yes	52 (35.1)	45.0	-0.179/.858
No	96 (64.9)	46.0	
Psychological support resources			
Yes	37 (25.0)	48.0	**-2.551/.011**
No	111(75.0)	45.0	
Having received psychological support			
Yes	3	49.0	-1.310/.190
No	145	45.0	
Positive thoughts about your COVID-19 patients' recovery			
Yes	139 (2.0)	46.0	-1.310/.174
No	9 (98.0)	45.0	
Feeling that their patient care during the pandemic was unsuccessful			
Yes	26 (17.6)	44.0	**-2.074/.038**
No	122(82.4)	46.0	

PWBS: Psychological Well-Being Scale, x̄: mean, SD: standard deviation, *R:* correlation coefficient, Z: Mann-Whitney U test

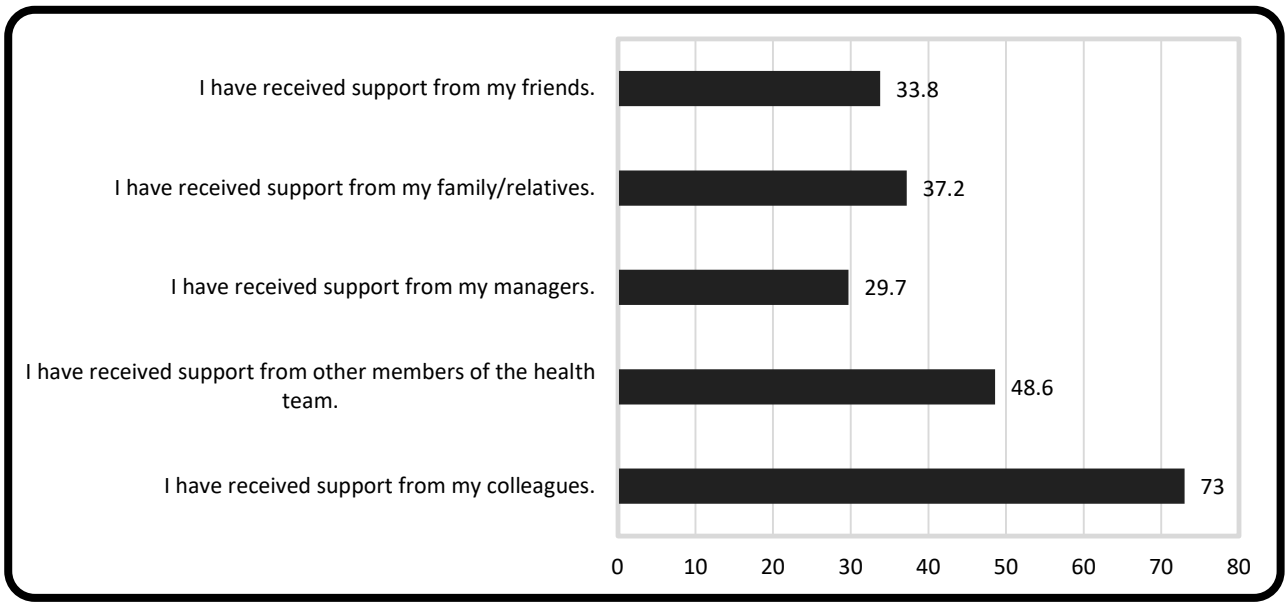
Table 3. The Relationship between the Nurses' Ways of Coping and Their Stress and Psychological Well-being Score

		PWBS	
Ways of coping	**x̄±SD**	**R**	**p**
Self-confident Approach	21.64 ± 3.84	0.463**	.01
Optimistic Approach	14.40 ± 2.91	0.490**	.01
Seeking Social Support	11.43 ± 1.92	0.224**	.01
Helpless Approach	17.55 ± 4.48	-0.356**	.01

Submissive Approach	12.14 ± 2.99	-0,071	.389
PWBS	44.0 ± 7.50	-	-

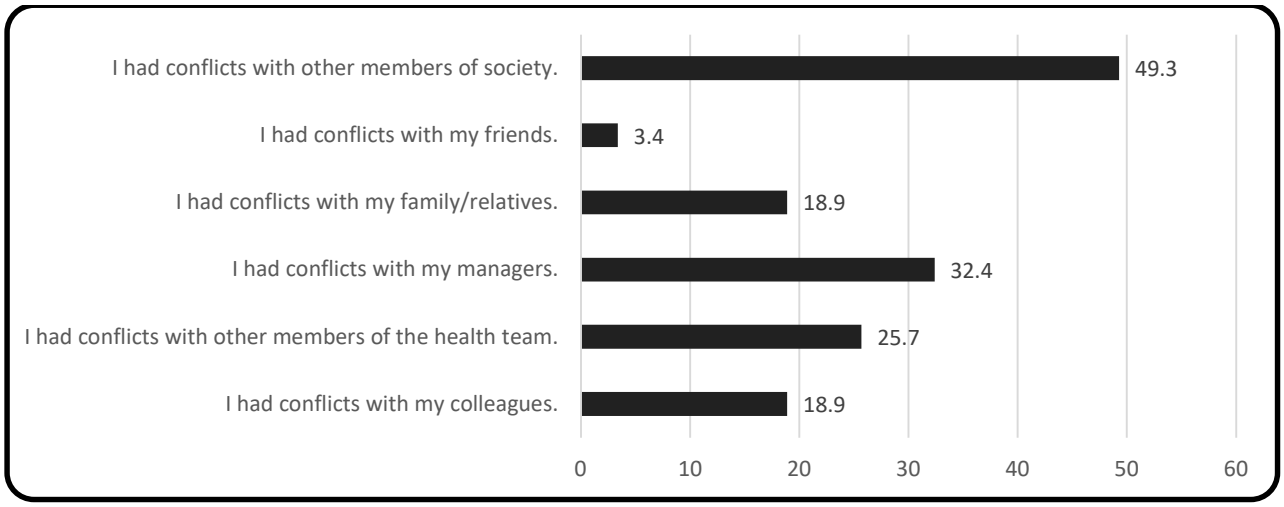
PWBS: Psychological Well-Being Scale, x̄: mean, SD: standard deviation, R: correlation coefficient, $^{**}p < .01$

Figure 1. The Nurses' Social Support Resources



* More than one option has been marked.

Figure 2. The People with Whom the Nurses Had Conflicts



* More than one option has been marked.

Discussion

The COVID-19 pandemic significantly affected the mental health of healthcare workers in Turkey and in the rest of the world (Kang et al., 2020; Sahin et al., 2020). Therefore, in this study, it was aimed to determine the way of coping with stress and the role of some characteristics (sociodemographic, occupational, related to the COVID pandemic period) in the psychological well-being of nurses during the

COVID-19 epidemic process. The nurses' highest mean WCS score was for the "self-confident approach", followed by "the helpless approach", "the optimistic approach", "the submissive approach", and "the seeking social support approach". The participants used both problem-focused and emotion-focused ways of coping. A study conducted in Romania reported that healthcare workers experienced high levels of stress and psychological distress in the first months of the pandemic. It found that healthcare workers use refocusing on planning and positive reassessment as coping mechanisms more than the general population (Man et al., 2020). Another study that evaluated and synthesized studies of psychological resilience, coping behaviors and social support among healthcare workers during the COVID-19 pandemic determined that healthcare workers used both problem-focused coping such as social support and prayer, and emotion-focused coping such as diverting activities to manage stress-related problems (Labrague, 2020). The researchers noted that healthcare professionals use both problem-focused (planning) and emotion-focused (positive reevaluation) ways of coping. The researchers noted that healthcare professionals use both problem-focused (planning) and emotion-focused (positive reevaluation) ways of coping. Folkman and Lazarus defined coping with stress as the constantly changing cognitive and behavioral efforts of the individual to deal with internal and external demands that strain or exceed their resources. There are two basic ways of coping. The first is task-focused (problem-focused, instrumental) and attempts to improve negative relationships between the needs arising from a situation and the capacities of an individual. The second is self-regulation-focused. It attempts to relieve unpleasant tension and emotional difficulties. Various coping techniques reflect these two ways of coping (Lazarus and Folkman, 1984).

Correlation analysis found positive, statistically significant relationships between the nurses' mean PWBS score and their scores on the WCS subdimensions of the self-confident approach, the optimistic approach, and the seeking social support approach, all of which are problem-focused ways of coping with stress. It also found a negative, statistically significant correlation between the emotion-focused helpless approach and PWBS scores ($p < .05$). There was no statistically significant relationship between the emotion-focused submissive approach and PWBS scores. These results indicate a positive relationship between the nurses' use of problem-focused coping strategies and their psychological well-being, and a reciprocally negative relationship for emotion-focused coping strategies. Problem-focused ways of coping include planning, instrumental coping, seeking support and information, and confrontation (Biegańska-Banaś & Makara-Studzińska, 2020). In this case, the nurses may have sought support, gathered information, and planned. Emotion-focused strategies include cognitive-behavioral avoidance, withdrawal, emotional release, speaking about feelings and worrying about problems. Although they do not relieve or in some cases may even intensify emotional discomfort most of the time, they have the potential for some positive effects because they can lead to attempts to understand what is happening, positive re-evaluation and seeking emotional social support (Biegańska-Banaś & Makara-Studzińska, 2020). The nurses who used emotion-focused coping strategies in our study may have chosen strategies such as cognitive-behavioral avoidance, withdrawal, and emotional release instead of attempting to understand events, positive re-evaluation, or seeking emotional and social support. This may have caused them not to relieve emotional discomfort or even intensified it emotional discomfort. Coping strategies are a factor that encourages individuals to change problematic behaviors, improve their environmental conditions and interact with stress factors. They affect nurses' psychological well-being because they are attempts to control the emotional states associated with stress (Lazarus and Folkman, 1984). Nurses face a wider variety of high-stress situations than many other professionals, and if they can effectively overcome stress, it will not only improve their health, but also help them provide higher quality nursing services (Jun, Lee & Lee, 2015). Therefore, coping strategies are important psychological resources for nurses' psychological well-being.

In this study, a very weak statistically significant relationship was found between the nurses' age and their PWBS scores. As the nurses' age increased their psychological well-being also increased. It is thought that professional experience, which increases with age, contributes to psychological well-being. Previous studies have also found that the psychological well-being of younger nurses was worse than that of older nurses. For example, a study involving 5,446 nurses in Australia found that compared to the general population, nurses had better physical health functions and overall health, but worse psychological well-being, especially younger nurses (Perry et al., 2017).

Psychological support resources significantly contributed to the nurses' psychological well-being in this study. The psychological well-being of the nurses who had psychological support resources was higher than the nurses who did not. Another important finding supporting this result in this study is that seeking social support while coping with stress had a significant positive effect on the nurses' psychological well-being. The existence of psychological support resources may be as effective as social support mechanisms in stressful situations. Depending on the stressful situation, social support is perceived differently by individuals (Lazarus and Folkman, 1984). When perceived social support, including psychological support, is greater, coping strategies can be used and psychological health can be maintained. Future studies should focus on protecting, developing, and using a variety of psychological support resources to protect nurses' psychological well-being and help them to cope with stress in positive and effective ways.

This study found that the state of not feeling unsuccessful about patient care positively contributed to the nurses' psychological well-being. Another finding that supports this result was that the use of self-confident and optimistic coping strategies had a significant positive effect on the nurses' psychological well-being. The nurses who felt optimistic and self-confident, and who perceived themselves as successful had better psychological well-being. Nurses' self-efficacy has been found to affect their coping strategies and psychological health positively (Kim and Han, 2020). The nurses who perceiving themselves as successful may have coped with stress in various ways by increasing their own support resources to maintain their psychological well-being.

On the other hand, no statistically significant relationships were found between the nurses' PWBS scores and: the nurses' gender, marital status, education level, unit, fear of getting infected, fear of transmission, fear of isolation, stress levels, presence of a COVID-19 diagnosed individual in their immediate environment, anxiety about lack of protective equipment, anxiety about lack of knowledge about nursing care, having experienced an ethical dilemma, having to live away from the permanent residence and having received psychological support ($p > .05$). A previous study that analyzed and comprehensively described the factors in the psychological well-being of nurses working in hospitals reported that stress, self-efficacy, social support, optimism, and coping strategies related to the nurses' change of workplace had indirect effects on their psychological well-being (Kim and Han, 2020). The literature indicates that nurses are motivated and highly committed to their work, especially when they have professional difficulties (Chang et al., 2020). This study's findings indicate the nurses may have shown more commitment to their professional duties and maintained their psychological well-being in pandemic regardless of their experiences and sociodemographic characteristics.

Strengths and limitations: The strength of this study is that it provides up-to-date information about nurses' psychological well-being in pandemic. This study provides strong evidence to help clinic managers and policy makers to design interventions to protect nurses' psychological well-being in pandemic. However, this study has some limitations. The first limitation is its cross-sectional design, which does not establish causal relationships. Another limitation is that its sample size means that it cannot be generalized to all nurses in Turkey. Studies with larger sample sizes are needed for generalization. Third, the study is based on self-reporting. Although self-reporting questionnaires are a valuable method in psychological research, they have a potential for subjective bias, which makes it

disadvantageous to rely on these types of surveys alone. Fourth, The Cronbach's alpha values for the "submissive approach" and "seeking social support approach" are below the recommended value of .70. These limitations should be considered when evaluating its results.

Interpretation and implications: Since the COVID-19 pandemic is a significant stressor, nurses should benefit from various psychological resources such as effective coping strategies (such as the self-confident approach, the optimistic approach, and the seeking social support approach), psychological support, and feeling successful about patient care to achieve psychological well-being. It would be beneficial to find other sources that affect psychological well-being in future studies. Mental health professionals should improve the psychological well-being of healthcare professionals and their coping strategies by implementing interventions, educations and programs with proven effectiveness. In interventions and educations that aim to increase psychological resilience, ways of coping with stress should be considered. Due to restrictions including social distance and quarantine measures, these measures should be taken using innovative methods such as webinars, online workshops, and on-demand videos.

References

Ahmad QA, & Bokharey IZ. (2013). Resilience and coping strategies in the patients with conversion disorder and general medical conditions: A comparative study. *Malaysian Journal of Psychiatry*, 22(1):39-50.

Aksoy YE, & Kocak V. Psychological effects of nurses and midwives due to COVID-19 outbreak: The case of Turkey. *Archives of Psychiatric Nursing*. 2020; 34(5): 427-435. https://doi.org/10.1016/j.apnu.2020.07.011

Bao Y, Sun Y, Meng S, Shi J, & Lu L. (2020). 2019-nCoV epidemic: address mental health care to empower society. *The Lancet,* 395(10224): e37-e38. https://doi.org/10.1016/S0140-6736(20)30309-3

Bayar GKH, & Zontur EC (2020). Turkey currently passing over peak of pandemic. Ankara: Anadolu Agency.

Biegańska-Banaś JM, & Makara-Studzińska M. (2020). Coping strategies among nurses during the COVID-19 outbreak. *Problemy Pielęgniarstwa*, *28*(1):1-11.

Chang YP, Lee DC, Chang SC, Lee YH, & Wang, H. H. (2019). Influence of work excitement and workplace violence on professional commitment and turnover intention among hospital nurses. *Journal of Clinical Nursing*, 28(11-12): 2171–2180. https://doi.org/10.1111/jocn.14808.

Erdogan N, Nahcivan N, Esin MN. (2018). Research in Nursing, Process Practice Critical. pp: 270, Istanbul: Nobel Medicine Bookstores.

Gavin B, Hayden J, Adamis D, & McNicholas F. (2020) Caring for the psychological well-being of healthcare professionals in the covid-19 pandemic crisis. *Irish Medical Journal,* 113(4): 51-51.

Hu X, & Huang W. (2020). Protecting the psychological well-being of healthcare providers affected by the COVID-19 outbreak: Implications for the psychological rescue work of international community. *Nursing & Health Sciences.* 22(3): 837–838. https://doi.org/10.1111/nhs.12727

Huang L, & Rong Liu H. (2020) Emotional responses and coping strategies of nurses and nursing college students during COVID-19 outbreak. *medRxiv.* Published Online 2020 https://doi.org/10.1101/2020.03.05.20031898

Jun WH, Lee ES, & Lee KL. (2015) Relationships among gratitude, depression, and psychological well-being in clinical nurses. *Journal of Korean Academy of Psychiatric and Mental Health Nursing*, 24(2): 136–144. https://doi.org/10.12934/jkpmhn.2015.24.2.136

Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. (2020). Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain Behav Immun*. 87:11-17. https://doi.org/10.1016/j.bbi.2020.03.028

Kaya F, Dastan NB, Uluman OT, Karabulak H. The Role of Nurses Stress Coping Styles in Their Psychological Well-Being During The COVID-19 Pandemic. (2021) IV. İnternational Confrence on COVID-19 Studies, April 17-19, Istanbul, Turkey P: 420-421.

Kim JM, & Han JW. (2020). A predictive model on the hospital nurses' psychological well-being. *Japan Journal of Nursing Science*, 17(2): e12304. https://doi.org/10.1111/jjns.12304

Labrague L. (2020) Psychological resilience, coping behaviors, and social support among healthcare workers during the COVID-19 pandemic: a systematic review of quantitative

studies. *medRxiv*. 29(7): 1893-1905. https://doi.org/10.1111/jonm.13336

Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N., et al. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease. *JAMA network open*, 3(3): e203976-e203976. doi:10.1001/jamanetworkopen.2020.3976

Lazarus RS, Folkman FS. (1984). Stress, appraisal and coping. Springer, New York.

Lu W, Wang H, Lin Y, & Li L. (2020). Psychological status of medical workforce during the COVID-19 pandemic: A cross-sectional study. *Psychiatry Research,* 112936. https://doi.org/10.1016/j.psychres.2020.112936

Man MA, Toma C, Motoc NS, Necrelescu OL, Bondor CI, Chis F. et al. (2020). Disease perception and coping with emotional distress during COVID-19 pandemic: A survey among medical staff. *International journal of environmental research and public health*, 17(13): 4899. https://doi.org/10.3390/ijerph17134899

Mo Y, Deng L, Zhang L, Lang Q, Liao C, Wang N. et al. (2020). Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. *Journal of Nursing Management.* 28(5): 1002-1009. https://doi.org/10.1111/jonm.13014

Naushad VA, Bierens JJ, Nishan KP, Firjeeth CP, Mohammad OH, Maliyakkal AM. et al. A systematic review of the impact of disaster on the mental health of medical responders (2019) *Prehospital and Disaster Medicine,* 34(6): 632-643. https://doi.org/10.1017/S1049023X19004874

Ozel Y & Karabulut AB. Daily living and stress management. *Journal of Turkish Health Sciences and Researche*. 2018; 1(1): 48-56.

Perry L, Xu X, Duffield C, Gallagher R, Nicholls R, & Sibbritt D. Health, workforce characteristics, quality of life and intention to leave: The 'Fit for the Future'survey of Australian nurses and midwives. *Journal of Advanced Nursing*, 2017; 73(11): 2745-2756. https://doi.org/10.1111/jan.13347

Sahin MK, Aker S, Sahin G, & Karabekiroglu A. (2020) Prevalence of depression, anxiety, distress and insomnia and related factors in healthcare workers during COVID-19 pandemic in Turkey. *Journal of Community Health*, 45(6): 1168-1177.

Sahin NH. & Durak A. (1995).The scale of coping styles with stress: Adaptation for university students. *Turkish Journal of Psychology.* 10(34): 56-73.

Telef BB. (2013). The Adaptation of Psychological Well-Being into Turkish: A validity and reliability study *H. U. Journal of Education*, 8(3): 374-384.

WHO: World Health Organization, Coronavirus disease (COVID-19) outbreak situation https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, Cheung T. et al. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet.* 7(3): 228-229. https://doi.org/10.1016/S2215-0366(20)30046-8

Zhang HJ, Yin L, Peng Y, Chen Q, Lv C, Juan L. et al. (2020). A Qualitative Study on the Inner Experience of First-Line Nurses in the Clinical Fight against COVID-19. Published Online