ORIGINAL ARTICLE

The relationship of nurses' psychological well-being with their coronaphobia and work–life balance during the COVID-19 pandemic: A cross-sectional study

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Abstract

Aims and Objectives: This study aimed to determine the relationship of nurses' psychological well-being with their coronaphobia and work–life balance during the COVID-19 pandemic.

Background: COVID-19 is a global life-threatening disease. The COVID-19 pandemic negatively affects nurses' mental health. No studies have been conducted to determine the factors that affect nurses' psychological well-being during the COVID-19 pandemic in Turkey. If nurses' psychological well-being is impaired during the COVID-19 pandemic, the quality of nursing care and the nurses' performance may be negatively affected.

Design: This is a descriptive, correlational and cross-sectional study. The Strengthening the Reporting of Observational studies in Epidemiology (STROBE) reporting guideline checklist for cross-sectional studies was used for reporting in this study.

Methods: The study population consisted of the nurses working in a Health Application and Research Center in Turkey. Data were collected using Google forms between June–August 2020. The study sample consisted of 295 nurses who voluntarily agreed to participate in the study and used social media tools. The data were collected using a Sociodemographic Characteristics Form, the COVID-19 Phobia Scale (C19P-S), the Work–Life Balance (WLB) Scale and the Psychological Well-Being (PWB) Scale. The factors that affect psychological well-being were determined using the stepwise multiple linear regression analysis.

Results: The nurses' work–life balance and psychological well-being were negatively affected during the COVID-19 pandemic. Their COVID-19 phobia was mild-to-moderate level. The nurses' psychological well-being was significantly affected by the variable of neglecting life the most, followed by coronaphobia and work–life balance, which explain 75% of the variance.

Conclusions: This study shows that coronaphobia experienced by nurses and work–life balance was related to their psychological well-being during the COVID-19 pandemic. Managers should take measures (regulating the working hours) to decrease nurses' COVID-19 phobia (education, counselling or psychotherapy) and work–life imbalance.

Relevance to clinical practice: Nurses' peers, managers and organisations need to take into account nurses' negative emotions and behaviours and organise training programmes to help them overcome their fears, communicate clearly and provide for their basic needs. Organisations, including managers and nurses, must recognise the distress being experienced by their nurses and create safe environments in which to have significant conversations. Nurses' mental health can be screened regularly by multidisciplinary teams, psychological support can be provided when required, and working hours can be regulated through appropriate shifts and breaks that will ensure work–life balance during and after the COVID-19 pandemic. Nurses receiving emotional support from their families and friends (via chatting and sharing troubles) can also contribute positively. These measures and regulations will positively affect nurses' psychological well-being and contribute to an increase in the quality of care and nurses' performance.

1 | INTRODUCTION

The coronavirus disease (COVID-19), which caused a major public health problem in China and the whole world, appeared in Wuhan Province, Hubei State, China, at the end of 2019; it causes a severe acute respiratory syndrome (Huang et al., 2020; Zhu et al., 2020). As the disease spread across the continents and reached serious levels in many countries, the World Health Organization declared it a pandemic (Til, 2020). By 07 January 2021, 88,585,654 people had been infected with the COVID-19 and 1,980,441 people had died due to the COVID-19 globally (Worldometer, 2021). In Turkey, the first COVID-19 case was seen on 10 March 2020. Since then, the number of cases has exceeded 2, 296, 102 and the number of deaths has reached 22,264 (Ministry of Health, 2021).

Healthcare personnel play an active role in health protection and promotion programmes and fight against the coronavirus putting their lives at risk (Chen, Mao, et al., 2020; Tuncay et al., 2020). As the number of cases increases, the disease increases among healthcare personnel and nurses who provide care for the patients (Sahan et al., 2019). In Turkey and globally, a large number of healthcare personnel and nurses have been infected by the virus and have died (Choi et al., 2020; https://tr.euronews.com/2020; 2020).

Healthcare professionals care for a large number of patients suffering in an overly busy healthcare system (Brooks et al., 2020). The disease uncertainty, symptom severity and fear of death in patients further complicate the situation (Bonanad et al., 2020; González-Silva et al., 2020). The severity, fatality and high infectiousness of the disease, constantly increasing number of patients, increased workload, and absence of a specific medication could cause anxiety, fear and impaired work–life balance among nurses. This may cause a negative effect on health and well-being, working performance, competency and mental health during a

What does this paper contribute to the wider global clinical community?

- There are only a limited number of studies on the psychological well-being of the nurses fighting against COVID-19.
- Nurses are afraid of coronavirus, and their work–life balance is negatively affected.
- Their coronaphobia levels and impaired work–life balance negatively affect their psychological well-being.
- Managers should try to balance nurses' work and lives, be aware of their fear and provide them with psychological support when required.
- Taking institutional measures may positively affect nurses' psychological well-being and ensure that the COVID-19 pandemic is effectively managed.

pandemic (Ahorsu et al., 2020; Labrague & De los Santos, 2020; Lai et al., 2020).

2 | BACKGROUND

Healthcare personnel experience significant psychological issues that affect well-being, such as social isolation, role conflicts, fear and anxiety, during the COVID-19 pandemic (Chen, Liang, et al., 2020). During previous pandemics and especially in the COVID-19 pandemic, the increased responsibility of nurses due to increased number of cases and workload, as well as the insufficient number of personnel, may have caused and may cause impaired work–life balance and psychological difficulties (Hong et al., 2020; Kardes, 2020;

Porten et al., 2006). Among the factors that determine anxiety, depression and sleep problems in healthcare workers, there is certainly unprotected exposure to infected patients (Magnavita et al., 2020). Healthcare professionals are among the most infected groups due to the scarcity of personal protective equipment. Healthcare professionals need to balance their own needs, needs of their families and patients' needs, with limited resources, which negatively affect their physical and psychological health (Greenberg et al., 2020). A study conducted during the new coronavirus outbreak showed that the outbreak caused great distress to health workers (Giusti et al., 2020). Sun et al. (2021) reported that the COVID-19 outbreak caused negative emotions to the front-line nurses (Sun et al., 2021). Nurses are putting their lives at risk in the course of their duties (Catton, 2020). Among the reasons that increase the stress, anxiety and depression of health workers may be the lack of confidence in safety procedures (Magnavita et al., 2020).

One of the negativities expected to threaten healthcare personnel's and nurses' mental health is COVID-19 phobia. A phobia is characterised by an abnormal fear and anxiety felt against a certain situation or object (getting on a plane, height, injection, etc.) (Oztekin et al., 2017). Fear is individuals' defence mechanism against dangerous situations (Secer et al., 2020). However, a high level of fear may increase sensitivity to psychological problems (Shigemura et al., 2020; Wang et al., 2020). Hu et al. (2020) found that nurses' fear levels were high during the COVID-19 pandemic. A study reported that doctors and nurses had a fear of infecting the disease to their family members and emotionally affected by this fear (Sasangohar et al., 2020).

Nurses, who play an important role in healthcare services, should have a good level of psychological well-being so that they can provide an effective care, quality and performance can be increased, and efficiency can be maintained (Aksu, 2020). Impaired mental health reduces patient safety, quality of care and nurses' performance (Sexton et al., 2000) and affects institutions' profitability (Cooper & Cartwright, 1994). A general caveat of the studies on stress in healthcare workers during the pandemic is the lack of longitudinal analyses that take into account the pre-pandemic situation (Magnavita et al., 2020). Therefore, investigation of psychological well-being during the COVID-19 pandemic is critical for improving nurses' well-being and individual and organisational performance, as well as patient care outcomes, and may provide valuable information to the literature.

During the COVID-19 pandemic, coronaphobia and work–life balance are considered to negatively affect the psychological well-being of nurses who have direct personal contact with patients. As the COVID-19 is a new disease and countries have different health systems and cultures, further research is needed regarding the factors that affect the mental health of the nurses who fight against the COVID-19. No such studies were found in the literature review: the present study, unique in that regard, is intended to fill that gap. It will contribute to the literature and to the field overall by determining the relationship of nurses' psychological well-being with their coronaphobia and work–life balance during the COVID-19 pandemic.

3 | METHOD

3.1 | Research design, study participants and setting

This descriptive, correlational and cross-sectional study was conducted in the Health Application and Research Center of a university between June and September 2020. It was conducted and reported in line with the Strengthening the Reporting of Observational studies in Epidemiology (STROBE), which is used in cross-sectional studies (File S1). In the determination of sample size, the formula for sample sizes within a known universe was used. The study population consisted of all nurses working in a university hospital ($N = 740$). According to the formula of sample size within a known universe, the sample size was calculated to be 254 nurses with a 95% confidence interval and 5% error margin. This shows the minimum number of patients to be included in the sample. Considering possible losses of data, the data collection process was completed when 321 nurses were reached. No sampling methods were used, and the entire population was included in the study sample, which consisted of 321 nurses who agreed to participate in the study. The data of 26 nurses who had mental problems, chronic diseases and a positive COVID-19 diagnosis during data collection were excluded from the study. The study was completed with 295 nurses, as illustrated in the flow diagram presented in Figure 1.

3.2 | Data collection

The data were collected from nurses working with a large number of COVID-19 cases at a university hospital. The data were collected between June and September 2020 using online data collection methods to prevent from infection due to the COVID-19 pandemic. An online questionnaire was used to eliminate face-to-face interaction with all participants and facilitate the participation of nurses who were working during this hectic emergency period. Data forms were prepared using Google Forms (URL: https://forms.gle/jiviv5fxie 4KSUQo8). The link to the online scales was shared via social media
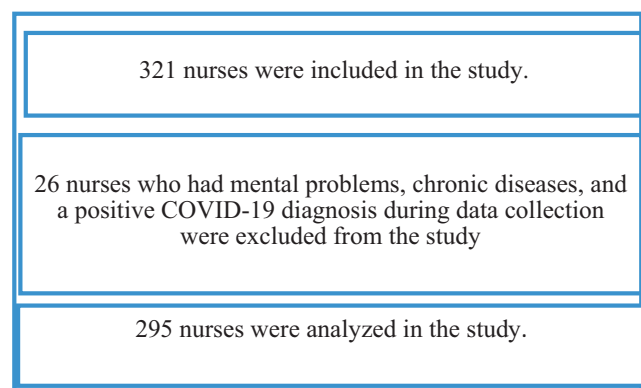

FIGURE 1 Flow diagram of study participants [Colour figure can be viewed at wileyonlinelibrary.com]

tools. The link was sent via WhatsApp to the nurses whose phone numbers and Instagram accounts were registered in the researchers' logs. For other nurses, the link was sent to their official email addresses. All participants were informed about the study before they started to complete the forms, and those who volunteered to participate in the study were asked to complete the scales. In addition, the nurses were informed that they could leave the study whenever they wanted and that their data would be kept confidential. Because the scales were completed online and it was compulsory to answer each question, there were no missing data. In the online forms, settings were arranged so that each nurse answered the questions only once.

3.3 | Data collection tools

The data were collected using a Sociodemographic Characteristics Form prepared by the researchers, the COVID-19 Phobia Scale, the Psychological Well-Being Scale and the Work-Life Balance Scale.

3.4 | Sociodemographic characteristics form

This form was prepared by the researchers and included four questions regarding the nurses' age, marital status, education level, gender and the clinic where they worked.

3.5 | COVID-19 Phobia Scale (C19P-S)

The scale was developed by Arpaci et al. (2020) and consists of 20 questions. The C19P-S has four subscales: psychological (six items: 1. 5, 9, 13, 17 and 20), somatic (five items: 2, 6, 10, 14 and 18), economic (four items: 4, 8, 12 and 16) and social (five items: 3, 7, 11, 15 and 19 items). The 5-point Likert-type C19P-S is a self-assessment scale used to assess the phobia that can arise against the coronavirus. The total C19P-S score ranges from 20–100. Higher scores on the scale and its subscales indicate higher coronaphobia (Arpaci et al., 2020). Total scale scores ranged from 20–100 (mean = 65.42, SD = 14.09). Cronbach's alpha coefficient was calculated as .92 in the study conducted to develop this scale. Internal consistency coefficients for the subscales range from .85–.90. In the present study, Cronbach's alpha coefficient was found to be .96. In this study, sub-dimension reliability coefficients of the C19P-S scale were determined to be .90, .92, .79 and .88, respectively.

3.6 | Psychological well-being (PWB) scale

This scale was developed by Diener et al. (2010) to measure psychological well-being and was adapted to Turkish by Telef (2013). It consists of eight items scored between strongly disagree (1) and

strongly agree (7). The minimum and maximum scores on the scale are 8 and 56, respectively. Higher scores indicate that individuals have many psychological sources and power. Cronbach's alpha coefficient was calculated as .80 in the adaptation study of the scale (Diener et al., 2010; Telef, 2013). In the present study, Cronbach's alpha coefficient was found to be .94.

3.7 | Work-life balance (WLB) scale

This scale consists of four subscales and is scored in 5-point Likert-type scale (1: strongly disagree, 2: slightly agree, 3: somewhat agree, 4: largely agree, and 5: strongly agree). It was developed by Apaydın (2011). The scale's first subscale is work–life harmony (six items: 6, 7, 8, 9, 17, and 19); the second, neglecting life (six items: 1, 2, 4, 5, 10 and 11); the third, taking time for yourself (four items: 12, 13, 18, and 20); and the fourth, life consisting of work (four items: 3, 14, 15, and 16). Cronbach's alpha internal consistency coefficient was found to be .91 for the WLB Scale. It was determined that sub-dimension reliability coefficients were .88, .81, .77 and .79, respectively. The WLB Scale developed by Apaydın (2011) had no cut-off scores; therefore, item means were used to assess the scale (Apaydın, 2011). In the work–life harmony subscale, higher scores indicate higher work–life harmony. In the neglecting life subscale, higher scores indicate higher perception of neglecting life. In the taking time for yourself subscale, higher scores indicate higher perception of taking time for yourself is important. The variable of 'taking time for yourself' can be described as the ability of the employees to rest or do activities that make them happy. Finally, in the life consisting of work subscale, higher scores indicate higher perception of life consisting of work. The variable of 'life consists of work' can be described as the individual being deprived of basic vital needs, such as sleep and nutrition, due to excessive workload, overtime or working on weekends and public holidays. In this study, it was determined that the sub-dimension reliability coefficients of the WLB scale were .88, .88, .76 and .65, respectively.

3.8 | Ethical considerations

Before starting the study, an application was made to the Scientific Research Platform of the Directorate General for Health Services of the Ministry of Health. In addition, an approval was obtained from the Ethics Committee of Atatürk University, Faculty of Medicine, with number B.30.2.ATA.0.01.00/359. The study included the nurses who voluntarily agreed to participate and who read and confirmed the compulsory informed consent form that explained the aim of the study before starting to complete the scales. The participants were told that they could stop completing the scales at any time and leave the study. The scales did not include questions on the nurses' contact or personal information. The participants were told that the obtained information and the answerers would be kept confidential.

TABLE 1 Comparison of Psychological Well-Being Scale mean scores of nurses based on their descriptive characteristics (N = 295)

Variables	n	%	Psychological well-being X ± SS	Test and p value
Gender				
Female	199	67.5	34.97 ± 12.51	t = .698
Male	96	32.5	33.86 ± 13.34	p = .486
Education status				
Vocational school of health	80	27.1	32.81 ± 13.54	
Associate degree	62	21.1	34.37 ± 12.36	F = .683
Bachelor's degree or Postgraduate	153	51.8	34.91 ± 13.12	p = .506
Marital status				
Married	170	57.6	34.61 ± 13.01	t = .575
Single	125	42.4	33.72 ± 13.18	p = .566
The clinic worked in				
Internal units	75	25.4	35.44 ± 12.36	
Surgical units	81	27.5	34.62 ± 12.48	F = .631
Intensive care units	85	28.8	32.52 ± 14.01	p = .641
Emergency units	19	6.4	33.31 ± 13.30	
Operating rooms	35	11.9	35.37 ± 13.66	
Ave. age ± SD	30.92 ± 7.07		r = −.012 p = .838	

3.9 | Data analysis

Data analysis was performed using the Statistical Package for the Social Science (SPSS) 20.0 package (SPSS Inc.). The Kolmogorov–Smirnov test was used to determine whether the data were normally distributed with 95% confidence. The demographic data were analysed using the descriptive statistics (frequencies, percentages, means and standard deviation). Categorical variables (gender, education level, marital status, the clinic worked in) were analysed using numbers and percentages, whereas the continuous variable (age) was analysed using means and standard deviation. The scales' Cronbach's alpha coefficients were calculated, and Pearson's correlation analysis was performed to examine the relationship between the scales. In addition, stepwise linear regression analysis was performed to determine the factors that affect psychological well-being. Before starting the analysis, categorical and ordinal dummy variables were defined for regression analysis. Subsequently, basic assumptions such as normal distribution and linear relationship between variables were examined. The statistical significance of the data was assessed at the level of $p < .05$.

4 | RESULTS

Of the nurses, 67.5% were female, 51.8% had a bachelor's or postgraduate degree, 57.6% were married, and 28.8% worked in surgical units. Their average age was 30.92 ± 7.07 years. The difference between the descriptive characteristics and PWB mean scores points of the nurses by gender, education level, marital status and clinic studied was not statistically significant ($p > .05$). Similarly, the correlation analysis between mean age and PWB scale mean score did not show any statistical significance ($r = −.01$; $p = .838$; Table 1).

Table 2 shows the nurses' mean scores on COVID-19 phobia, work–life balance and psychological well-being scales, standard deviations and correlation results. The participating nurses had the highest mean score on the neglecting life subscale (3.11 ± 0.96) and the lowest mean score on the taking time for yourself subscale (2.52 ± 1.03) of the WLB Scale. The nurses' mean scores were 34.23 ± 13.07 on the psychological well-being scale and 52.59 ± 19.65 on the COVID-19 Phobia Scale (Table 2). The correlation results showed a positive statistically significant relationship between the scores on the PWB and WLB scales, and a negative statistically significant relationship between the scores on the neglecting life and life consisting of work subscales and the COVID-19 Phobia Scale ($p < .01$; Table 2).

Stepwise multiple regression analysis was performed to determine the factors predicting the nurses' psychological well-being. The variables (marital status, age, gender, education level and the clinic they worked in), the subscale scores of the WLB scale and the total score on the COVID-19 Phobia Scale were included in the model. In the stepwise regression analysis, perception of neglecting life subscale of the WLB scale was the independent variable with the highest correlation with the dependent variable ($r = −.597$; $p < .001$) and was first included in the model (Table 2). The variables that made a significant contribution to the prediction of psychological well-being and the contribution of each variable to the total variance explained in the prediction of psychological well-being were determined. Using this method, the total variance explained in psychological well-being was reached after three steps (models).

TABLE 2 The scales' mean scores, standard deviations and bivariate correlation values ($N = 295$)

	$\overline{X} \pm SD$	1	2	3	4	5	6
1. Work–life harmony	2.77 ± 0.90	1					
2. Neglecting life	3.11 ± 0.96	−.597 $p = .000$	1				
3. Taking time for yourself	2.52 ± 1.03	−.061 $p = .296$	.071 $p = 223$	1			
4. Life consisting of work	3.05 ± 0.82	−.394 $p = .000$	.508 $p = .000$	−.043 $p = .460$	1		
5. COVID-19 Phobia Scale	52.59 ± 19.65	−.236 $p = .000$	.377 $p = .000$	−.078 $p = .183$	.254 $p = .000$	1	
6. Psychological Well-Being Scale	34.23 ± 13.07	.424 $p = .000$	−.571 $p = .000$	−.070 $p = .234$	−.271 $p = .000$	−.397 $p = .000$	1

Note: $\overline{X}$ = means; r = Pearson's correlation analysis; p = significance level.

Abbreviation: SD, standard deviation.

TABLE 3 Stepwise multiple linear regression models regarding the prediction of psychological well-being

Model	Predictor variables	B	βeta	t	p
1	Neglecting life	−1.28	−.57	−11.91	.000[**]
2	Neglecting life	−1.11	−.49	−8.30	.000[**]
	Work–life harmony	0.34	.13	2.18	.030[**]
3	Neglecting life	−0.94	−.42	−6.87	.000[**]
	Work–life harmony	0.34	.13	2.19	.029[**]
	COVID-19 phobia	−0.14	−.21	−4.18	.000[*]

	R^2	Adjusted R^2	R^2 change	F	F-change	p	Durbin–Watson
Model 1	.33	.32	.33	141.74	141.74[†]	.000[a]	2.220
Model 2	.34	.33	.01	74.17	4.78[***]	.030[b]	
Model 3	.38	.37	.04	58.08	17.51[†]	.000[c]	

Note: dummy-coded: sex (female = 1, male = 0); marital status (married = 1, single = 0); education status (vocational school of health = 1, associate degree/bachelor's degree or postgraduate = 0); the clinic worked in (internal units/surgical units = 1, intensive care units/emergency units/operating rooms = 0). B: coefficient B; βeta: standardised beta coefficient; R^2: R-square (the coefficient of determination).

[a]Predictors in the model: (constant), neglecting life.

[b]Predictors in the model: (constant), neglecting life, work–life harmony.

[c]Predictors in the model: (constant), neglecting life, work–life harmony, COVID-19 phobia.

*$p < .05$.; **$p < .001$.; ***$p < .05$.

†$p < .001$.

Model 1 showed that the neglecting life variable explained 32% of the variance in psychological well-being ($R^2 = .32$; F change = 141.74; $p < .001$). In other words, the strongest predictor of psychological well-being was found to be the neglecting life variable. A negative (−) beta value indicates that the psychological well-being score decreases as the neglecting life score increases (beta = −.57). The neglecting life subscale of the work–life balance scale was found to negatively affect psychological well-being (Table 3).

In Model 2, the test was performed after adding the work–life harmony variable to the model along with the neglecting life variable. With this addition, the explained variance in psychological well-being increased from 32%–33% ($R^2 = .34$; F change = 4.78; $p < .05$). The work–life harmony variable made a contribution of about 1% to the explained variance. A positive relationship was found between the work–life harmony and psychological well-being (beta = .13): as the work–life harmony score increased, psychological well-being score decreased. Thus, work–life harmony was found to positively affect psychological well-being (Table 3).

In Model 3, the COVID-19 phobia variable was added along with the work–life harmony and the neglecting life variables, and with this addition, the explained variance in psychological well-being scores increased from 33%–37% ($R^2 = .38$; F change = 17.51 $p < .001$). The work–life harmony variable made a significant contribution to the explained variance, leading to an increase of 4.0%. There was a negative relationship between COVID-19 phobia and psychological well-being score (beta = −.21). The COVID-19 phobia subscale of the work–life balance scale was found to negatively affect psychological well-being (Table 3).

The *t* test results regarding the beta coefficients of the variables included in the model at the third step and the significance of these coefficients indicated that the neglecting life (beta = −.42), coronaphobia (beta = −.21) and work–life harmony (beta = .13) variables significantly predicted psychological well-being. Considering the beta values of the variables in the model, the nurses' psychological well-being was significantly predicted by the neglecting life variable first, followed by the COVID-19 phobia and work–life harmony variables, respectively.

Taking time for yourself, life consisting of work, age, gender, marital status, education level and the clinic they worked in were not included in the regression model since they did not have a significant effect on predicting the psychological well-being.

5 | DISCUSSION

This cross-sectional study is the first study that aimed to determine the relationship of nurses' psychological well-being with their coronaphobia and work–life balance during the COVID-19 pandemic. The obtained findings were discussed based on the existing studies on this subject in the literature. Determining the factors that predict nurses' psychological well-being during the COVID-19 pandemic is important to maintain nurses' welfare and quality of care. This study assessed the relationship of coronaphobia, work–life balance and sociodemographic characteristics with psychological well-being.

In this study, there was no significant difference among age, gender, marital status, education level and the clinic worked in, in terms of mean Psychological Well-Being Scale scores. This result may be attributed to the fact that the psychological problems caused by the pandemic occur because of the common denominator of being a nursing rather than these variables.

The participating nurses' mean WLB subscale scores indicated that their mean score on the neglecting life subscale was higher than their mean scores on the other subscales. Their mean score on the taking time for yourself subscale was lower than their mean score on the other subscales. A study that analysed nurses' work–life balance before the pandemic found that the nurses' mean scores on the neglecting life subscale were lower and on the taking time for yourself subscale was higher than the mean scores in the present study (Babacan, 2020). Aksoy and Koçak (2020) reported that nurses and midwives had difficulties in their work, family and private life during the COVID-19 pandemic. This suggests that nurses take less time for themselves and focus more on their work life, and their work–life balance was negatively affected during the COVID-19 pandemic. Impaired work–life balance may yield undesirable results such as stress, dissatisfaction with life and impaired mental and physical health as a result of the pressure put by an area to another. Perceived imbalance negatively affects individuals' social and work life (Gercek et al., 2015). Nurses' heavy workload during the pandemic may negatively affect their work–life balance.

The present study found the nurses' coronaphobia was at a mild-to-moderate level. The COVID-19 pandemic impairs people's routines, thereby causing anxiety and phobic reactions (Arpaci et al., 2020). High infectiousness of the COVID-19 and the fact that it causes severe results and death may lead to fear among nurses (Ahorsu et al., 2020). A study conducted with nurses found their COVID-19 fear was at the mild-to-moderate level (Labrague & De los Santos, 2020). Since nurses are directly involved in patient care, they are at higher risk of being infected with COVID-19 compared with the general population. The fact that COVID-19 is easily transmitted, that there is no treatment for it and that the number of virus-related deaths is high may contribute to the nurses' fear. The result of the present study is consistent with the literature.

The study found the nurses' mean psychological well-being scale score was 34.23 ± 13.07. A study by Kermen et al. (2016) found the mean psychological well-being score to be 38.69 (Kermen et al., 2016). In China, Xie et al. (2020) found the nurses' psychological well-being was at the moderate level (41.28 ± 7.38). Akdoğan and Polatcı (2013) conducted a study with a sample consisting of nurses and doctors using the psychological well-being scale and reported that their mean psychological well-being score was higher than the medium value. Nelson et al. (2014) also found the participating nurses' mean psychological well-being scores to be higher than the medium value. Psychological well-being means individuals' positive self-perception, knowing oneself realistically and being aware of their strengths and limits, being satisfied with themselves, establishing quality relationships, being able to manage difficulties and struggles and act anonymously and independently, and finding the meaning of life (Sensoy et al., 2020; Telef, 2013). In the present study, nurses' psychological well-being scores were lower than the scores found by the studies conducted before the COVID-19 pandemic. This may have caused by the increased workload and COVID-19-related fears during the pandemic.

In the present study, a negative significant relationship was found between psychological well-being and perception of neglecting life. Perception of neglecting life was found to be the variable that predicted psychological well-being at the highest level. The present study also found that the nurses' neglecting life score was very high during the COVID-19 pandemic. A study conducted with about 35.000 personnel found that work–life imbalance affected the personnel's psychological well-being (Schütte et al., 2014). Work–life balance means that individuals spare sufficient time for both their jobs and their families, hobbies and other interests (Smith, 2010). Decreased work–life balance increases individuals' stress, and they cannot be satisfied with their life and feel depressed (Gur, 2016). The increased number of cases during the pandemic may have negatively affected the nurses' work–life balance; therefore, their work life may have been intertwined with their private life and they could not spare sufficient time for their private life. In such cases, work life may become a serious burden for nurses, and their psychological well-being may be negatively affected. Additionally, given the restrictions that have been placed on activities of daily living due to the COVID-19 pandemic, it is unsurprising that many people have neglected a proper work–life balance.

In the present study, the variable that predicted the nurses' psychological well-being levels at the second highest level was coronaphobia and there was a negative significant relationship between them. Intense COVID-19-related fear was indicated to cause various psychopathological symptoms (Arpaci et al., 2020). Secer et al. (2020) reported that the fear of COVID-19 affected the healthcare personnel's psychological adaptation skills (Secer et al., 2020). Amin (2020) reported that coronaphobia persists in healthcare professionals and causes various psychological symptoms on their mental health (Amin, 2020). Labrague and De los Santos (2020), on the other hand, found that the fear of COVID-19 was related to psychological issues. The result of the present study is consistent with the literature. Undoubtedly, the pandemic caused a psychosocially difficult situation for both the community and the nurses, and the fear of coronavirus caused by the pandemic negatively affected the nurses' psychological well-being levels. It can be considered an inevitable result that high fear of coronavirus leads to psychological problems in nurses. Therefore, managers should not ignore the fears felt by nurses during the COVID-19 pandemic.

In the present study, the variable that predicted the nurses' psychological well-being levels at the third highest level was work–life harmony, and there was a weak positive significant relationship between them. Individuals with high psychological well-being are reported to enjoy their work more (Yalcın, 2015). Work–life balance results in job and life satisfaction. This result actually shows that if work–life balance is ensured, individuals' well-being is maintained in both their job and their life (Keser & Guler, 2016). With the work–life balance, which positively affects individuals in both psychological and social aspects, individuals' self-confidence may increase and they may better understand the meaning of life (Roy, 2016). Nurses with a high level of work–life balance are more satisfied with their job even in negative conditions and can more easily adapt to the changes in workplace, which may a weak positively affect their psychological well-being. The weakness of this effect may be due to nurses' adaptation to the difficulties inherent to the profession in previous processes.

The major contributor to the outcome variable was neglecting life at 32%, while coronaphobia contributed an additional 4% followed by work–life harmony at 1%. The multivariate model created in the present study showed that the variables of neglecting life, coronaphobia and work–life harmony predicted 75% of the nurses' psychological well-being. The unexplained 25% may have been affected by the other independent variables. Neglecting life, coronaphobia and work–life harmony were related to nurses' psychological well-being. The coronavirus-related fears and impaired work–life balance due to increased number of patients during the COVID-19 pandemic affect psychological well-being at a high level. It should be noted that these factors may trigger various psychological issues.

6 | CONCLUSION

The nurses' work–life balance was negatively affected. Their COVID-19 phobia was mild-to-moderate level. Nurses' psychological well-being was negatively affected as their perception of neglecting life and COVID-19 phobia increased, and positively affected as their work–life harmony increased. Increased perception of neglecting life is the most important factor that affects psychological well-being. For this reason, it is important to determine the factors causing fear and work–life imbalance among nurses in order to develop solutions that will enable them to cope with the psychological problems caused by the pandemic and increase the psychosocial support provided to them. Providing easy access to psychological support resources via telephone or web-based programmes and providing intervention-based support such as relaxation exercises can positively affect the psychological well-being of nurses. Nurses' work–life balance can also be improved by appropriate length shifts with adequate breaks between shifts. Additionally, nurses should be given the opportunity to communicate safely with their family members while at work. In addition, nurses should be given the opportunity to communicate safely with their family members. Determining the factors that affect psychological well-being during the pandemic may contribute to the protection of nurses' health by ensuring that psychosocial interventions are planned in advance for the groups at risk.

7 | LIMITATIONS OF THE STUDY

The limitation of the study is that it evaluated the effect of coronavirus phobia and work–life imbalance only on psychological well-being of nurses and did not evaluate any work-related features. The results of this study are limited to only the nurses working in the health institution where the study was conducted. They cannot be generalised to all institutions and regions. Nurses are intensely working during the pandemic. Therefore, a low number of nurses volunteered to participate in the study and the sample size was relatively small. Another limitation of this study is that since the study was conducted online, the nurses who did not use social media tools could not be contacted. The measurements obtained from the study were limited to the scales used and the participants' self-reports. It is recommended that studies be conducted in other countries and with larger sample sizes.

8 | RELATION TO CLINICAL PRACTICE

This study determined the relationship of nurses' psychological well-being with their coronaphobia and work–life balance during the COVID-19 pandemic. Nurses' psychological well-being was negatively affected as their perception of neglecting life and COVID-19 phobia increased, and positively affected as their work–life harmony increased. Nurses' work–life balance can also be improved by appropriate length shifts with adequate breaks between shifts. Additionally, nurses should be given the opportunity to communicate safely with their family members while at work. Nurses receiving emotional support from their families and friends (via chatting and sharing troubles) can also contribute positively.

A secure, fast information network, easy access to protective equipment and appropriate continuing education can have a positive effect on the psychological well-being of nurses. Nurses' peers, managers and organisations need to take into account nurses' negative emotions and behaviours and organise training programmes to help them overcome their fears, communicate clearly and provide for their basic needs. Organisations, including managers and nurses, must recognise the distress being experienced by their nurses and create safe environments in which to have significant conversations. Providing easy access to psychological support resources via telephone or web-based programmes can positively affect the psychological well-being of nurses. Providing nurses with time for themselves and psychosocial support when required through early intervention and by planning appropriate strategies for dealing with stress will positively affect nurses' work–life balance. One measure that might provide significant support would be daily check-ins. Improvements and interventions may be made to help healthcare personnel overcome this intense process with the least damage and to ensure an increased their performance and quality of care. In addition, the results are expected to make important contributions by filling the gap in the literature.

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CONFLICT OF INTEREST

None of the authors declare any conflicts of interest relevant to the current work.

AUTHORS' CONTRIBUTIONS

Conception and design of the study: AY and VEİ; data collection: AY and VEİ; statistical analysis: AY and VEİ; drafting of the manuscript: AY and VEİ; and approval of the final version: AY and VEİ.

DATA AVAILABILITY STATEMENT

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

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REFERENCES

Ahorsu, D. K., Lin, C.-Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: development and initial validation. *International Journal of Mental Health and Addiction*, *27*, 1–9.

Akdoğan, A., & Polatcı, S. (2013). The role of work family spıllover and psychologıcal well-being on the effect of psychologıcal capıtal on performance. *Ataturk University Journal of the Faculty of Social Sciences*, *17*(1), 273–293.

Aksoy, Y. E., & Koçak, V. (2020). Psychological effects of nurses and midwives due to COVID-19 outbreak: The case of Turkey. *Archives of Psychiatric Nursing*, *34*(5), 427–433.

Aksu, B. (2020). *Determination of organizational stress level and psychological well-being of nurses*. Istanbul Okan University, Institute of Health Sciences, Nursing Department, Unpublished Master's Thesis.

Amin, S. (2020). The psychology of coronavirus fear: Are healthcare professionals suffering from corona-phobia? *International Journal of Healthcare Management*, *13*(3), 249–256.

Apaydın, Ç. (2011). *The relationship between faculty members' work dependency levels and work-life balance and work-family life balance*. Ankara University Institute of Educational Sciences, Unpublished Doctoral Thesis.

Arpaci, I., Karatas, K., & Baloglu, M. (2020). The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S). *Personality and Individual Differences*, *164*, 110108.

Babacan, B. (2020). *Examining the work life balance of intensive care nurses*. Institute of Health Sciences, Department of Psychiatric Nursing. Unpublished Master Thesis.

Bonanad, C., García-Blas, S., Tarazona-Santabalbina, F. J., Díez-Villanueva, P., Ayesta, A., Forés, J. S., Vidán-Austiz, M. T., Formiga, F., Ariza-Solé, A., & Martínez-Sellés, M. (2020). Coronavirus: la emergencia geriátrica de 2020. Documento conjunto de la Sección de Cardiología Geriátrica de la Sociedad Española de Cardiología y la Sociedad Española de Geriatría y Gerontología. *Revista Española de Cardiología*, *73*(7), 569–576.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*, *395*(10227), 912–920.

Catton, H. (2020). Global challenges in health and health care for nurses and midwives everywhere. *International Nursing Review*, *67*(1), 4–6.

Chen, P., Mao, L., Nassis, G., Harmer, P., Ainsworth, B., & Li, F. (2020). Coronavirus disease (COVID-19): The need to maintain regular physical activity while taking precautions. *Journal of Sport and Health Science*, *9*(2), 103–104.

Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L., Sheng, C., Cai, Y., Li, X., Wang, J., & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry*, *7*(4), e15–e16.

Choi, K. R., Skrine Jeffers, K., & Cynthia Logsdon, M. (2020). Nursing and the novel coronavirus: Risks and responsibilities in a global outbreak. *Journal of Advanced Nursing*, *76*, 1486–1487.

Cooper, C. L., & Cartwright, S. (1994). Healthy mind; healthy organization- A proactive approach to occupational stress. *Human Relations*, *47*(4), 455–471.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143–156.

Gercek, M., Atay, S. E., & Dundar, G. (2015). The effect of employees' work-life balance and career satisfaction on the intention to leave. *Journal of Kafkas University Faculty of Economics and Administrative Sciences*, *6*(11), 67.

Giusti, E. M., Pedroli, E., D'Aniello, G. E., Badiale, C. S., Pietrabissa, G., Manna, C., Badiale, M. S., Riva, G., Castelnuovo, G., & Molinari, E. (2020). The psychological impact of the COVID-19 outbreak on health professionals: A cross-sectional study. *Frontiers in Psychology*, *11*, 1684.

González-Silva, Y., Marcos, E. B., Gutiérrez, R. M., & Merino, M. M. (2020). Clinical involvement and symptoms of patients older than 65 years with COVID-19. *Atencion Primaria*, *52*(9), 662–664.

Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ*, *368*.

Gur, O. (2016). *Investigation of work-life balance in the automotive industry in Mersin*. Toros University Institute of Social Sciences. Unpublished Master Thesis.

Hong, S., Ai, M., Xu, X., Wang, W., Chen, J., Zhang, Q., Wang, L., & Kuang, L. (2020). Immediate psychological impact on nurses working at 42 government-designated hospitals during COVID-19 outbreak in China: A cross-sectional study. *Nursing Outlook*, 69(1), 6–12.

https://tr.euronews.com/2020(2020).https://tr.euronews.com/2020/09/20/coranavirus-caused-in-country-howmany-health-worker-died

Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L. X., Wan, S. W., Liu, Z., Shen, Q., Yang, J., He, H. G., & Zhu, J. (2020). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *EClinicalMedicine*, 24, 100424.

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y. I., Zhang, L. I., Fan, G., Xu, J., Gu, X., Cheng, Z., Yu, T., Xia, J., Wei, Y., Wu, W., Xie, X., Yin, W., Li, H., Liu, M., … Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*, 395(10223), 497–506.

Kardes, V. (2020). Psychological and behavioral evaluation during and after the pandemic. *Turkey Diabetes and Obesity Journal*, 4(2), 160–169.

Kermen, U., Tosun, N. I., & Dogan, U. (2016). Social anxiety as a predictor of life satisfaction and psychological well-being. *Journal of Educational Theory and Practice Research*, 2(1), 20–29.

Keser, A., & Guler, B. K. (2016). *Work psychology* (p. 266). Umuttepe Publications.

Labrague, L. J., & De los Santos, J. (2020). Fear of Covid-19, psychological distress, work satisfaction and turnover intention among frontline nurses. *Journal of Nursing Management*, 29, 395–403. https://doi.org/10.1111/jonm.13168

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3), e203976.

Magnavita, N., Soave, P. M., Ricciardi, W., & Antonelli, M. (2020). Occupational Stress and Mental Health among Anesthetists during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 17(21), 8245.

Magnavita, N., Tripepi, G., & Di Prinzio, R. R. (2020). Symptoms in Health Care Workers during the COVID-19 Epidemic. A cross-sectional survey. *International Journal of Environmental Research and Public Health*, 17(14), 5218.

Ministry of Health (2021). https://covid19.saglik.gov.tr/TR-66935/general-coronavirus-table.html

Nelson, K., Boudrias, J.-S., Brunet, L., Morin, D., De Civita, M., Savoie, A., & Alderson, M. (2014). Authentic leadership and psychological well-being at work of nurses: The mediating role of work climate at the individual level of analysis. *Burnout Research*, 1(2), 90–101.

Oztekin, S., Aydin, O., & Aydemir, Ö. (2017). Validity and reliability of the Turkish Form of the DSM-5 Specific Phobia Intensity Scale. *Anatolian Journal of Psychiatry*, 18, 31.

Porten, K., Faensen, D., & Krause, G. (2006). SARS outbreak in Germany 2003: Workload of local health departments and their compliance in quarantine measures implications for outbreak modeling and surge capacity? *Journal of Public Health Management and Practice*, 12(3), 242–247.

Roy, G. (2016). Impact of mobile communication technology on the work life balance of working women-a review of discourses. *Journal of Contemporary Management Research*, 10(1), 79–101.

Sahan, C., Ozgur, E. A., Arkan, G., Alaguney, M. E., & Demiral, Y. (2019). *Occupational disease diagnosis guide in the COVID-19 Pandemic* (pp. 1–17). Occupational and Occupational Diseases Specialists Association and Public Health Specialists Association. https://korona.hasuder.org.tr/wpcontent/uploads/MeslekselCOVID_19_Tan%C4%B1_Rehberi_2020.pdf

Sasangohar, F., Jones, S. L., Masud, F. N., Vahidy, F. S., & Kash, B. A. (2020). Provider burnout and fatigue during the COVID-19 pandemic: Lessons learned from a high-volume intensive care unit. *Anesthesia and Analgesia*, 131(1), 106–111.

Schütte, S., Chastang, J.-F., Malard, L., Parent-Thirion, A., Vermeylen, G., & Niedhammer, I. (2014). Psychosocial working conditions and psychological well-being among employees in 34 European countries. *International Archives of Occupational and Environmental Health*, 87(8), 897–907.

Secer, I., Ulas, S., & Ozlu, Z. K. (2020). The effect of the fear of COVID-19 on Healthcare Professionals' Psychological Adjustment Skills: Mediating role of experiential avoidance and psychological resilience. *Frontiers in Psychology*, 11, 2784.

Sensoy, N., Dogan, N., & Colak, P. K. (2020). The relationship between the psychological well-being of healthcare workers and the level of loneliness in the virtual environment. *Turkey Journal of Family Practice*, 24(1), 41–50.

Sexton, J. B., Thomas, E. J., & Helmreich, R. L. (2000). Error, stress, and teamwork in medicine and aviation: cross sectional surveys. *British Medical Journal*, 320(7237), 745–749.

Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*, 74(4), 281–282.

Smith, K. T. (2010). Work-life balance perspectives of marketing professionals in generation Y. *Services Marketing Quarterly*, 31(4), 434–447.

Sun, H., Wang, S., Wang, W., Han, G., Liu, Z., Wu, Q., & Pang, X. (2021). Correlation between emotional intelligence and negative emotions of front-line nurses during the COVID-19 epidemic: A cross-sectional study. *Journal of Clinical Nursing*, 30(3–4), 385–396.

Telef, B. B. (2013). Psychological well-being scale: adaptation to Turkish, validity and reliability study. *Journal of Hacettepe University Education Faculty*, 28(28–3), 374–384.

Til, A. (2020). Things to know about the new coronavirus disease. *Journal of Ayrıntı*, 8, 85.

Tuncay, F., Koyuncu, E., & Ozel, S. (2020). A review of protective and risk factors affecting the psychosocial health of healthcare workers in pandemics. *Ankara Medical Journal*, 2, 488–501.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), 1729.

Worldometer (2021). https://www.worldometers.info/coronavirus/

Xie, J., Liu, M., Zhong, Z., Zhang, Q., Zhou, J., Wang, L., Ma, K., Ding, S., Zhang, X., Sun, Q., & Cheng, A. S. K. (2020). Relationships among character strengths, self-efficacy, social support, depression, and psychological well-being of hospital nurses. *Asian Nursing Research*, 14(3), 150–157.

Yalcın, I. (2015). The relationship between well-being and social support: A meta-analysis of studies conducted in Turkey. *Turkish Journal of Psychiatry*, 26(1), 21–32.

Zhu, N., Zhang, D., Wang, W., Li, X., Yang, B., Song, J., Zhao, X., Huang, B., Shi, W., Lu, R., Niu, P., Zhan, F., Ma, X., Wang, D., Xu, W., Wu, G., Gao, G. F., & Tan, W. (2020). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of Medicine*, 382(8), 727–733.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.