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# Investigation of the relationship between psychological resilience and job performance in Turkish nurses during the Covid-19 pandemic in terms of descriptive characteristics

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#### **Abstract**

**Aim:** The study is aimed at investigating the relationship between psychological resilience and job performance in nurses during the Covid-19 pandemic in terms of descriptive characteristics.

**Background:** The emergence of Covid-19 has mainly affected the psychological resilience and job performances of health care professionals, including nurses. To date, no studies have been conducted exploring how psychological resilience contributes to job performances in frontline nurses during the Covid-19 pandemic.

**Methods:** In this cross-sectional and correlational study conducted with 284 nurses in the Turkey, Brief Resilience and Job Performance Scales were used for data collection.

**Results:** There was a positive significant relationship between psychological resilience and job performance. Psychological resilience explained 5% of job performance. Psychological resilience levels of the nurses who were ≥41 years old and who did their job enthusiastically were higher.

**Conclusion:** Nurses who are more experienced and who report doing their job enthusiastically have a higher level of psychological resilience. Addressing psychological resilience may contribute to organisational outcomes such as improved job performance in nurses.

**Implications for Nursing Management:** Using strategies to increase the psychological resilience levels of nurses will significantly contribute to optimization of work efficiency and achievement of quality patient care outcomes.

#### KEYWORDS

Covid-19, job performance, nurse, pandemic, psychological resilience

### 1 | INTRODUCTION

The Coronavirus disease 2019 (Covid-19), defined as a pandemic, is a highly contagious disease that spreads from person to person through droplets and contact (Lyu et al., 2020). In addition to the risk of contamination, Covid-19 is considered as one of the biggest

problems faced by the world since World War II due to the health crisis it has caused (Lorente et al., 2020). Such a global public health problem has significant effects, especially on health care workers (Ou et al., 2021). These effects are not only physical but also psychological in nature. Factors such as excessive workload, giving care to critically ill patients diagnosed with Covid-19, risk of

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contracting infection, uncertainty, stigma, lack of personal protective equipment and critical medicines and providing service exceeding their capacity are known to cause serious pressure on health care workers (Yörük & Güler, 2020).

Nursing, considered as one of the oldest professions in the world, is the backbone of health care systems, and it is the first point where patients are in contact with health professionals (Walpita & Arambepola, 2020). Covid-19, which has exerted unprecedented pressure on the health systems of countries, has also brought about various challenges to the nursing workforce. In the literature, it is stated that mental health of nurses who are at the forefront of the fight against Covid-19 has deteriorated and that their job performance has declined (Labrague and De los Santos, 2020). In their study that also included nurse participants. Luceño-Moreno et al. (2020) demonstrated that of the health care providers, approximately 57% suffered from post-traumatic stress disorder, approximately 59% suffered from anxiety disorder, 46% suffered from depressive disorder and 41% suffered from emotional exhaustion. There are also studies in which health care workers are reported to suffer a high level of symptoms of Coronaphobia (Lu et al., 2020; Özgünav et al., 2021), insomnia and distress (Lai et al., 2020; Şahin et al., 2020).

Job performance, which has a critical role in the provision of health services in an effective, efficient and sustainable manner (Tengilimoğlu et al., 2017), is defined as the level of completion of a task or as the behaviour of an employee in accordance with the specified conditions (Durmuş et al., 2020). Improving job performance levels of health care professionals is important for both health care providers and health care clients. Especially, nurses' rising job performance levels not only increase the competitiveness of health institutions but also accelerate the effective functioning of the health system (Hoşgör et al., 2020). However, if nurses are expected to have high job performance and to be able to dedicate themselves to their work, the importance of a strong psychological background cannot be overlooked. For instance, it should be kept in mind that patients diagnosed with Covid-19 still need nurses to recover and continue treatment. Therefore, in these pandemic conditions, the psychological capital and job performance of nurses have become much more important than ever (Pourteimour et al., 2021).

Failure to effectively manage pandemic-induced psychological problems that adversely affect the mental health of nurses can also have long-term adverse effects on their job performance and job satisfaction. Therefore, after a while, they start not enjoying their work and become employees with low motivation levels, which leads to an increase in the rate of absenteeism among them and ultimately causes them to leave their jobs (Labrague et al., 2018). Therefore, the existence of strategies aimed at improving nurses' mental infrastructure is of crucial importance in the provision of efficient and safe nursing care to patients and achieving successful organisational outcomes from a microperspective and in the effective functioning of the health system from a macroperspective. At the top of these strategies is psychological resilience.

Psychological resilience is the ability to withstand different negativities such as trauma, health problems, work and financial problems

and to cope with all these negativities (Özdemir & Adıgüzel, 2021). Psychological resilience is one of the positive emotions that enable employees to cope with the negativities employees are faced with in the workplace (Cooke et al., 2019). Psychological resilience, known to play an important role in the health care personnel's adaptation to the Covid-19 pandemic and in their dealing with it effectively, acts as a protective shield against stress and depression (Yörük & Güler, 2020). In a study conducted in the United Kingdom by Roberts et al. (2021) during the pandemic that the level of psychological resilience was above average in only 32.7% of the nurses is noteworthy. It is known that a high psychological resilience in nurses is associated with increased general well-being, strong psychological health, improved work relationships, increased quality of professional life and increased job satisfaction (Delgado et al., 2017). In addition, psychological resilience positively affects nurses' self-confidence and autonomy levels, improves their professional skills, increases their job and life satisfaction, reduces mental problems such as burnout and depression and discourages them from leaving their jobs (Çam & Büyükbayram, 2017).

According to our review of the literature, there are different variables related to psychological resilience. For example, Ojo et al. (2021) determined a positive and significant relationship between psychological resilience and work engagement. In a study conducted in China with 528 haemodialysis nurses, there was a negative correlation between psychological resilience and compassion fatigue and a positive correlation between psychological resilience and empathy (Cao & Chen, 2021). Manomenidis et al. (2019) draw attention to the relationship between the high level of psychological resilience and improved patient satisfaction, better attitude towards patients and better perceived nursing care quality. However, as emphasized in the current literature (Handini et al., 2020; Walpita & Arambepola, 2020), there is not enough evidence demonstrating the relationship organisational outcomes such as psychological resilience and job performance during the Covid-19 pandemic. For example, whereas in a study conducted in Korea with 183 nurses by Choi (2018), nurses' job performance levels increased as their psychological resilience levels increased, in a study conducted in Malaysia with 639 nurses, no significant relationship was determined between the nurses' psychological resilience and job performance levels (Nasurdin et al., 2018). On the other hand, as for Turkey, to the best of our knowledge, in no study, the effect of psychological resilience on nurses' job performance during the Covid-19 pandemic has been investigated. Therefore, in the present study, it was aimed to investigate the relationship between psychological resilience and job performance in nurses in terms of their descriptive characteristics.

Within this context, responses to the following questions were sought:

During the Covid-19 pandemic in Turkey:

 What are the psychological resilience and job performance levels of nurses?

- Is there a significant difference between the mean scores nurses obtain from the Brief Resilience Scale and Job Performance Scale in terms of their descriptive characteristics?
- Is there a significant relationship between nurses' psychological resilience and job performance levels?

#### 2 | DESIGN AND METHODS

#### 2.1 | Study design

The data of this descriptive and correlational study were collected by the e-survey method from nurses working in a public hospital in Istanbul, the biggest city in Turkey, between February 2021 and March 2021. While the population of the study consists of all the nurses working in a public hospital in Istanbul, the sample consists of 284 nurses selected from the study population by convenience sampling, one of the nonprobability sampling methods. We preferred the convenience sampling method, because, as is stated by Aaker et al. (2007), it is the easiest, fastest and most economical way to collect data from the population.

#### 2.2 Data collection instruments

In the study, the 'Descriptive Information Form', 'Brief Resilience Scale' and 'Job Performance Scale' were used to collect the study data. The reason why the 'Brief Resilience Scale' and 'Job Performance Scale' were preferred is that both scales consist of a small number of statements and one dimension and have a high level of Cronbach's alpha internal reliability coefficient and that their validity and reliability in Turkish language were established.

#### 2.2.1 | Descriptive information form

This form was prepared based on pertinent literature and it consists of five items enquiring the participants' sex (Sperling, 2021), marital status (De los Santos & Labrague, 2021), age (Magnavita et al., 2020), whether they have been diagnosed with Covid-19 (Gázquez Linares et al., 2021) and whether they do their job enthusiastically (Hosgör et al., 2020).

#### 2.2.2 | Brief Resilience Scale

The scale was developed by Smith et al. (2008) to measure individuals' psychological resilience. The scale has six items and responses are rated on a 5-point Likert-type scale. It is a self-report measurement tool. Of the six items, Items 2, 4 and 6 are negatively keyed items. The total score of the scale is calculated after these items are reverse scored. The higher the total score is, the higher the level of psychological resilience is. The Cronbach's alpha internal reliability coefficient of the scale that consists of one dimension was calculated as .80 (Smith

et al., 2008). The Cronbach's alpha of the Turkish version of the scale by Doğan (2015) was 0.83. This version also consists of one dimension.

#### 2.2.3 | Job Performance Scale

The scale developed by Kirkman and Rosen (1999) and Sigler and Pearson (2000) to measure the job performance of employees was adapted into Turkish by Çöl (2008). The scale whose internal reliability coefficient is 0.70 consists of four items and one dimension. The internal reliability of the Turkish version of the scale which consists of one dimension is 0.83.

#### 2.3 | Statistical analysis

The data collected within the scope of the study were analysed using SPSS (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.). After the data from the incomplete or incorrectly filled questionnaires were excluded, the remaining data were given as frequency, percentage, arithmetic mean, minimum, maximum and standard deviation in the descriptive statistics. In order to test whether the data were normally distributed, kurtosis and skewness values were checked. Because these were in the range of  $\pm 1.96$  as stated by Tabachnick and Fidell (2007), parametric tests were used. Therefore, the t test, Pearson correlation analysis and simple regression analysis were used in the analysis of the study data. The data were evaluated at a 95% confidence interval and p < .05 significance level.

#### 3 | RESULTS

Of the nurse participants, 88.7% were women, 67.6% were married, 80.3% were not diagnosed Covid-19 positive, 85.6% did their job enthusiastically and 51.4% were under the age of 40. Their mean age was  $39.6 \pm 8.8$  years (Table 1).

While the mean scores the nurse participants obtained from the items of the Brief Resilience Scale varied between 3.14 and 3.64, the mean score for the overall scale was 3.33. These values suggest that the participants had a moderate level of psychological resilience. The minimum and maximum values attributed to each item of the scale by the participants were 1 and 5, respectively. The reliability of the overall scale was 0.74, which suggests that the scale is reliable (Table 2).

While the mean scores that the participating nurses obtained from the items of the Job Performance Scale vary between 4.10 and 4.31, the mean score for the overall scale was 4.18. These data indicate that the participants' job performance levels were high. The minimum and maximum values attributed to each item of the scale by the participants were 1 and 5, respectively. The reliability of the overall scale was 0.77, which suggests that the scale is reliable (Table 3).

**TABLE 1** Descriptive characteristics of the nurses participating in the study (N: 284)

Variables	Groups	N (number)	Percentage (%)
Sex	Women	252	88.7
	Men	32	11.3
Marital status	Single	92	32.4
	Married	192	67.6
Age ( $x$ : 39.6 $\pm$ 8.8 years)	≤40 years	146	51.4
	≥41 years	138	48.6
Were you diagnosed with Covid-19?	No	228	80.3
	Yes	56	19.7
Do you do your job enthusiastically?	No	41	14.4
	Yes	243	85.6

Note:  $\bar{x}$ : arithmetic mean;  $\pm$ : standard deviation.

TABLE 2 Descriptive statistics and reliability values of the Brief Resilience Scale

Items of the Brief Resilience Scale	Mean (x̄)	Standard deviation $(\pm)$	Minimum	Maximum	Skewness	Kurtosis
I tend to bounce back quickly after hard times	3.64	0.91	1.00	5.00	-0.64	0.56
I have a hard time making it through stressful events.	3.38	1.05	1.00	5.00	-0.37	-0.47
It does not take me long to recover from a stressful event.	3.36	1.04	1.00	5.00	-0.64	-0.26
It is hard for me to snap back when something bad happens.	3.25	1.05	1.00	5.00	-0.31	-0.51
I usually come through difficult times with little trouble.	3.14	0.97	1.00	5.00	-0.12	-0.27
I tend to take a long time to get over setbacks in my life.	3.23	1.04	1.00	5.00	-0.28	-0.61
Overall scale (Ca: .74)	3.33	0.67	1.00	5.00	-0.02	0.58

Note: 1.00–1.80: very low; 1.81–2.60: low; 2.61–3.40: moderate; 3.41–4.20: high; 4.21–5.00: very high.  $C\alpha$ : Cronbach's alpha.  $\bar{x}$ : arithmetic mean;  $\pm$ : standard deviation.

TABLE 3 Descriptive statistics and reliability values of the Job Performance Scale

Items of the Job Performance Scale	Mean (x̄)	Standard deviation $(\pm)$	Minimum	Maximum	Skewness	Kurtosis
I complete my tasks on time.	4.31	0.59	2.00	5.00	-0.47	0.56
I achieve my business goals	4.10	0.68	1.00	5.00	-0.89	1.79
I am sure that I have exceeded the standards in the service quality I offer.	4.16	0.65	2.00	5.00	-0.36	-0.06
When a problem arises. I produce a solution rapidly	4.17	0.61	2.00	5.00	-0.49	1.25
Overall scale (Cα: .77)	4.18	0.49	2.50	5.00	-0.23	0.02

Note: 1.00–1.80: very low; 1.81–2.60: low; 2.61–3.40: moderate; 3.41–4.20: high; 4.21–5.00: very high.  $C\alpha$ : Cronbach's alpha.  $\bar{x}$ : arithmetic mean;  $\pm$ : standard deviation.

While there were no statistically significant differences between the mean scores the nurse participants obtained from the Brief Resilience Scale in terms of the variables such as sex, marital status and whether they have a Covid-19 diagnosis (p > .05), there were significant differences between the mean scores in terms of the variables such as age and whether they do their job enthusiastically (p < .05). The differences stemmed from the scores obtained by the nurses aged 41 years and over, and the nurses who stated that they did their job enthusiastically. On the other hand, there were no statistically

significant differences between the mean scores obtained from the Job Performance Scale by the nurse participants in terms of their descriptive characteristics (p > .05) (Table 4).

There was a positive, significant and low correlation between the nurse participants' ages, and their mean scores for the Brief Resilience and Job Performance Scales. These findings indicate that as the participants' age increased, so did their Psychological Resilience and Job Performance levels, and similarly, as their Psychological Resilience levels increased, so did their Job Performance levels (Table 5).

The effect of psychological resilience on the participants' job performance levels is 5% (F: 14.709; p < .000). In other words, a one-unit increase in nurses' psychological resilience levels will increase their job performance levels by 0.05 units (t: 3.835;  $\beta$ : .223;  $R^2$ : .050) (Table 6).

#### 4 | DISCUSSION

The present study conducted to investigate the relationship between psychological resilience and job performance in nurses in terms of descriptive characteristics was completed with the participation of 284 volunteer Turkish nurses. The main reason why the sample group of the study included nurses is that 2020 was declared as the 'Year of Nurses and Midwives' by the World Health Organization. Nurses, who have been trying to explain the importance of, the reason for the existence of and indispensability of their profession for centuries, have been on the world agenda in the 'Year of Nurses and Midwives' due to the Covid-19 pandemic (Çevirme & Kurt, 2020). The present study can be considered as unique because the number of studies in the international literature investigating the aforementioned variables during the pandemic is limited and because it is the first study in which these variables are addressed in Turkey.

The Covid-19 pandemic is known to cause several mental problems in all health service providers, especially in physicians and nurses. In a meta-analytical study, it was reported that the prevalence of anxiety and depression was higher in nurses than was that in physicians (Pappa et al., 2020). Nurses' psychological resilience levels play a critical role in solving all these problems effectively because psychological resilience (Cooke et al., 2019), which enables employees to cope with the negativities they face in the workplace, is also a strong shield that protects nurses from stress and depression (Yörük & Güler, 2020).

The review of the literature demonstrates that studies have been conducted to reveal the psychological resilience levels of nurses

during the Covid-19 pandemic. In studies conducted by Lyu et al. (2020) and Ou et al. (2021) in China, psychological resilience levels of nurses have been reported as high. In a study conducted with Korean nurses by Han et al. (2020), a low level of psychological resilience was reported. However, in another study conducted with Indonesian nurses by Setiawati et al. (2021), their psychological resilience level was determined above average. In the present study, it was concluded that the Turkish nurses' psychological resilience level was moderate. In this context, the results of the present study can be said to be consistent with those of a study conducted with 370 nurses in Turkey (Kılınç and Sis Çelik, 2020) and those of a study conducted with 325 nurses in the Philippines (Labrague and De los Santos, 2020).

It is important to reveal the possible differences between nurses' psychological resilience levels in terms of their descriptive characteristics because this may offer ideas about what kind of strategies should be implemented to optimize nurses' current psychological resilience levels. In the present study, psychological resilience levels of the nurses who were in the age of group 41 and over and who did their job enthusiastically were relatively significantly higher. This is probably due to the fact that the nurses developed more proactive and solution-oriented strategies when they faced problems in the work environment as their age increased, and thus, they could revise their psychological infrastructure accordingly. Our results are quite

TABLE 5 Correlation between the scales

Variables		(2)	(3)
Brief Resilience Scale (1)	Pearson correlation	.223**	.183**
	p value	.000	.002
Job Performance Scale (2)	Pearson correlation		.138*
	p value		.020
Age (3)	Pearson correlation		
	p value		

<sup>\*</sup>p < .05. \*\*p < .01.

TABLE 4 Differences between descriptive characteristics of the participating nurses and the mean scores they obtained from the scales

		Brief Re	Brief Resilience Scale			Job Performance Scale			
Variables	Groups	x x	±	t	р	x	±	t	р
Sex	Women	3.34	0.66	0.298	.768	4.21	0.47	0.878	.380
	Men	3.30	0.75			4.13	0.62		
Marital status	Single	3.29	0.62	-0.820	.413	4.22	0.51	0.371	.711
	Married	3.36	0.69			4.20	0.48		
Age (years)	≤40	3.25	0.66	-2.176	.030*	4.16	0.50	-1.540	.125
	≥41	3.42	0.67			4.25	0.48		
Were you diagnosed with Covid-19?	No	3.32	0.67	-0.834	.406	4.22	0.47	0.944	.348
	Yes	3.40	0.65			4.14	0.56		
Do you do your job enthusiastically?	No	2.93	0.62	-4.484	.000*	4.08	0.52	-1.674	.100
	Yes	3.40	0.65			4.23	0.48		

Note:  $\bar{x}$ : arithmetic mean;  $\pm$ : standard deviation.

<sup>\*</sup>p < .05.

TABLE 6 The effect of psychological resilience on the participating nurses' job performance

Predictors	В	Standardized error	Standardized $oldsymbol{eta}$	t	р
(constant)	3.662	0.144		25.398	.000**
Psychological resilience	0.163	0.042	.223	3.835	.000**
R <sup>2</sup> : .050: F: 14.709 (p: .000**)					

The dependent variable: Job performance

consistent with Jang et al.'s (2018), and Kılınç and Sis Çelik's (2020) results. In addition, the fact that the participating nurses stated that they did their jobs enthusiastically even under intense, stressful and risky pandemic conditions can be considered as an indicator of how great importance they attributed to their profession and to the sanctity of human life. Therefore, it can be said that such spiritual feelings significantly increase nurses' psychological resilience. Similarly, in a study conducted in Korea by Jung and Park (2021), nurses who stated that they liked their job had a higher level of psychological resilience. However, in the present study, no significant difference was found between the participants' psychological resilience levels in terms of variables such as sex, marital status and being or not being diagnosed with Covid-19. In this regard, our results are consistent with Han et al.'s (2020) and Jung and Park's (2021) results.

In the present study conducted during the Covid-19 pandemic, job performance levels of the Turkish nurses who participated in the study were high. The fact that approximately 86% of the nurses participating in the study stated that they did their job enthusiastically may have contributed to the achievement of such a result. Our study results are in line with the results of Supriadi et al.'s (2020) and Lee and Kim's (2020) studies. On the other hand, there was no significant difference between the mean scores the nurses obtained from the Job Performance Scale in terms of their descriptive characteristics such as sex, marital status, age, having or not having a positive diagnosis of Covid-19 and doing or not doing their job enthusiastically. The results of some studies in the literature support our results in terms of variables such as sex, age (Han et al., 2020) and marital status (Jeong & Cho, 2020). However, unlike our study results, in Hosgör et al.'s (2020) study, job performance levels of those who were not diagnosed Covid-19 positive and those who stated that they did their job enthusiastically were significantly higher.

In the present study in which the relationship between psychological resilience and job performance levels of Turkish nurses was investigated a positive and significant relationship was observed between them. Therefore, it was concluded that as the nurses psychological resilience levels improved, so did their job performance. In the literature, there are studies with results that are consistent with the results of our study (Han et al., 2020; Jang et al., 2018; Jeong & Cho, 2020). In the present study, a positive and significant relationship was revealed between the age variable, and job performance and psychological resilience. In other words, as the nurses' age increased, so did their psychological resilience and job performance levels. The results of Silva et al.'s (2020) and Jeong and Cho's (2020) studies are also compatible with our findings. In addition, in our study, the independent variable psychological resilience predicted 5% of the job performance of nurses. Although the result is very low, the effect of psychological resilience, though to some extent, cannot be ignored in the improvement of nurses' job performance under pandemic conditions. In line with our study results, the results of studies conducted in Sri Lanka (Walpita & Arambepola, 2020), Iran (Shikhakbari & Ziaaddini, 2018) and Korea (Jo & Sung, 2018) also indicate that nurses' psychological resilience has significant effects on their job performance. However, unlike our results, the effects revealed in these studies were calculated as 70.5%, 46% and 37%, respectively.

#### LIMITATIONS 5

Our study has some limitations. First, the fact that the study was conducted only in a specific province within a limited period limits the generalizability of the data obtained. Second, in order to facilitate data collection from nurses who were very busy under pandemic conditions, a small number of variables were included in the descriptive information form. Therefore, in future studies, it may be useful to include some other descriptive characteristics such as nurses' education levels and their professional experience levels, the monthly working hours of the nurses, the units they work in, whether they have enough protective equipment and whether they are assigned to mandatory tasks in pandemic units. The fact that the short versions of the data collection tools or their versions with a few items were used in order not to interrupt the duties of nurses who worked more intensively during the pandemic can be considered as another important limitation of the present study.

#### CONCLUSION

In the present study, the relationship between nurses' psychological resilience and job performance during the Covid-19 pandemic was discussed in terms of some of their descriptive characteristics. At the end of the present study, it was revealed that the participating nurses had a moderate level of psychological resilience and a high level of job performance.

It is noteworthy that the nurses had a high level of job performance and a moderate level of psychological resilience during the Covid-19 pandemic, although it had profound physical and mental effects on health care workers. That is because, in Turkey, the workload of nurses, the number of patients they care for and their monthly working hours are generally higher than are those of nurses in developed countries.

<sup>\*\*</sup>p < .01.

However, nurses' reporting that they had a high level of job performance is not only pleasing but also promising for the future because nurses form the backbone of health systems both in Turkey and in the other countries of the world. On the other hand, it is known that during the Covid-19 pandemic, all health care providers, especially nurses and physicians, suffer from mental breakdowns such as depression, anxiety and burnout and thus become psychologically vulnerable to workplace difficulties. Considering that Turkey is one of the countries with the highest number of confirmed Covid-19 cases and Covid-19-related death rates in the world, this becomes even more important. Although Turkish nurses are expected to have a low level of resilience in such an environment, the results of the study showing that nurses have a moderate level of resilience can be considered a positive result.

Of the nurses who took part in the study, those who were relatively older and those who did their job enthusiastically had significantly higher psychological resilience levels. However, it was concluded that there was no significant difference between the nurses' job performance levels in terms of descriptive characteristics. At the end of the study, a positive significant relationship was determined between the age variable and psychological resilience and job performance. In addition, psychological resilience was determined to have a low effect on the nurses' job performance levels. Within this context, it is recommended that in addition to the psychological resilience variable, researchers should include other variables such as burnout, depression, stress, anxiety and fear of Covid-19 which may have an impact on nurses' job performance during the pandemic.

## 7 | IMPLICATIONS FOR NURSING MANAGEMENT

The Covid-19 pandemic, which has many negative social, cultural, political, diplomatic and economic effects, has also led to devastating effects on the health systems of countries. Health professionals, especially nurses, who make up the backbone of health systems, have suffered from this pandemic burden because they are at the forefront of the fight against Covid-19. Many factors such as heavy and intense working conditions, lack of protective equipment, medicines and vaccines, giving care to patients diagnosed with Covid-19, risk of contracting infection, stigma and uncertainty create physical and psychological burdens on nurses. These burdens usually cause depression, stress, anxiety, fear and burnout in nurses. Therefore, all these situations can reduce nurses' psychological resilience levels. A decrease in the level of psychological resilience may lead to a decrease in nurses' organisational commitment, work engagement and job satisfaction levels and an increase in absenteeism and intention to leave job. Ultimately, this situation may lead to a decrease in nurses' workrelated efficiency and performance. At the end of the study, although the effect of psychological resilience on the nurses' job performance levels was found to be low, even a one-unit decrease in job performance levels may lead to risky results in terms of both organisational outcomes and patient care. Therefore, the use of strategies that will increase nurses' psychological resilience levels will make significant

contributions to the optimization of work performance and the achievement of quality patient care. Hence, if nurses' job performance levels are to be improved, making investments in the improvement of their psychological resilience levels is of great importance. Within this context, it may be recommended to establish mental health teams of psychiatrists, psychologists and psychiatric nurses who will perform psychosocial interventions to improve psychological resilience of health care workers and their first-degree relatives who are directly affected by the epidemic. Psycho-education programmes can be prepared and implemented for nurses. Nurse managers should periodically measure the psychological resilience and job performance levels of nurses working in units with high occupational risk and should prepare appropriate action plans by taking these results into account. Nursing managers of the institutions and units can plan activities to increase nurses' professional interactions and team spirit and to reduce their stress levels. Their workloads can be reduced and working, conditions and durations can be improved by employing additional health care personnel. For nurses working in pandemic units, additional payments can be made from the ceiling, and Covid-19 can legally be regarded as an occupational disease. In addition, it is recommended that researchers of health and nursing management should study the subject in larger sample sizes.

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#### **CONFLICT OF INTEREST**

The authors report no actual or potential conflicts of interest.

#### **ETHICS STATEMENT**

Ethics committee approval of the study conducted in accordance with ethical principles was obtained from the ethics committee of a public university (Decision Number: 2021-14; Number: E-89784354-050.99-9618). The study was carried out in accordance with the 1964 Helsinki Declaration and the ethical standards of National Research Committee.

#### **DATA AVAILABILITY STATEMENT**

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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