ARAŞTIRMA / *Research Articles*

The Mediating Role of Epidemic Anxiety in the Relationship Between Psychological Resilience and Burnout in Operating Room Nurses

Ameliyathane Hemşirelerinde "Psikolojik Sağlamlık" "Tükenmişlik" İlişkisinde "Salgın Hastalık Kaygısı"nın Aracı Rolü

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ABSTRACT

Aim: *In this study, the mediating role of "Epidemic anxiety" in the relationship between "Psychological resilience" and "Burnout" in operating room nurses was investigated.*

Material and Methods: *The population of the study comprised the nurses working in the operating rooms of the medical faculties and state hospitals and training and research hospitals of Turkey. Snowball sampling method was used. The study was conducted with 307 operating room nurses. The "Utkan Epidemic Anxiety Scale", "Brief Resilience Scale", and "Burnout Measure " were employed as data collection tools.*

Results: *The findings revealed that "epidemic anxiety" exerted an indirect and significant effect on "burnout", thereby playing a mediating role in the relationship between "psychological resilience"and"burnout".*

Conclusions: *According to the findings, the nurses with a high level of "psychological resilience" had lower levels of "epidemic anxiety"and"burnout". In contrast, the positive effect of "psychological resilience" on "burnout" decreased when considering "psychological resilience" and"epidemic anxiety" together.*

Keywords: *Burnout, Mediating Effect, Operating Room Nurses, Epidemic Anxiety, Psychological Resilience*

ÖZ

Amaç: *Bu çalışmada, ameliyathane hemşirelerinde "Psikolojik sağlamlık" "Tükenmişlik" ilişkisinde "Salgın hastalık kaygısı"nın aracı rolü incelenmiştir.*

Materyal ve Metot: *Araştırmanın evreninin Türkiye'deki tıp fakültesi, devlet hastanesi ve eğitim ve araştırma hastanelerinin ameliyathanelerinde çalışan hemşireler oluşturdu. Kartopu örnekleme yöntemi kullanıldı. Çalışma 307 ameliyathane hemşiresi ile yürütüldü. Veri toplama aracı olarak "Utkan Salgın Hastalık Kaygısı Ölçeği", "Kısa Psikolojik Sağlamlık Ölçeği" ve "Tükenmişlik Ölçeği" kullanılmıştır.*

Bulgular: *Çalışmanın bulgularına göre "salgın hastalık kaygısının" "tükenmişlik" üzerindeki dolaylı etkisinin anlamlı olduğu dolayısı ile "salgın hastalık kaygısının", "psikolojik sağlamlık" ile "tükenmişlik" arasındaki ilişkide aracı rolünün olduğu sonucuna ulaşılmıştır.*

Sonuç: *Bulgulara göre "Psikolojik sağlamlık" düzeyi yüksek olan hemşirelerin "salgın hastalık kaygısı" ve "tükenmişlik" düzeyi daha düşüktür. Buna karşın "psikolojik sağlamlılık" ile "Salgın hastalık kaygısı" birlikte ele alındığında "psikolojik sağlamlılığın" "tükenmişlik" üzerindeki olumlu etkisi azalma göstermektedir.*

Anahtar Kelimeler: *Ameliyathane hemşiresi, Psikolojik sağlamlık, Salgın hastalık kaygısı, Tükenmişlik, Aracılık etkisi*

INTRODUCTION

Individuals are subject to the influence of various internal and external factors in their professional life. The behavior of individuals is based on their interaction with both of these factors. Among these factors, when considering from the perspective of workers, particularly nurses, burnout, psychological resilience, and anxiety are the primary ones (1–3).

"Burnout" refers collectively to the factors such as desensitization, emotional exhaustion, and lack of personal success. It is characterized by a decrease in the working power of the workers, wearing out, and minimized career-related wishes and desires (4). One of the subdimensions of burnout is desensitization which is characterized by "attitudes devoid of feelings while providing service". The other is emotional exhaustion which is characterized by "emotional overload" related to work. Another subdimension is lack of personal

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success by the consider oneself as incompetent and unable to cope with problems (5,6).

Several studies have reported the unfavorable experiences of nurses who reach burnout in the long term, which lead to negative emotional, physical, and mental outcomes (7–9). Although several factors may cause burnout in nurses, studies have reported that the nurses who exhibit positive psychology characteristics have a greater tolerance toward negative incidents, which enables them to experience lesser burnout (8,10).

Another concept that should be emphasized from the perspective of nurses is "psychological resilience". This is a cognitive skill that enables an individual to cope with the challenging incidents of life and restore one's strength within a short period after the incident by immediately beginning the process of the positive accord. Psychological resilience enables an individual to successfully go through adverse circumstances, attain the previous functionality, and accommodate to new conditions (11–14). Studies have revealed that nurses with high levels of psychological resilience have a higher organizational commitment (15,16) and tend to experience lower levels of stress and burnout (15,17).

"Anxiety" is another important concept from the perspective of the nursing profession. The term refers to a feeling of fear in the presence of incidents acknowledged as dangerous and threatening, although the cause remains unspecified (18). As an experience that anyone could experience at certain times, anxiety is classified in two forms: "state anxiety" and "trait anxiety". Trait anxiety is the generalized and continuous situation of anxiety that does not depend on a specific event or condition. It manifests prior to the circumstances or during the events that are defined as dangerous. This form of anxiety depends on a temporary condition and may be attributed to reasonable causes in most cases, which are understandable by others, and anybody may experience it (19). Several factors may lead to this type of anxiety, including the pandemic.

The most recent case of such pandemic was the COVID-19 pandemic, which began in China in 2019, and later spread to other regions of the world. Although the COVID-19 pandemic affected the lives of all individuals across the world, nurses and their careers were impacted quite extensively by this pandemic. The nature of the nursing profession allowed the nurses to work face to face with the patients affected with COVID-19 disease every day. While providing care to the COVID-19 cases, the nurses were inevitably subjected to pandemic anxiety. The nurses working in the surgery room are particularly prone to the biological, incidental, and chemical risks of being infected by pathogens, via droplets and blood, during endotracheal intubation and open surgical operations (20,21). This situation may lead to increased "infection anxiety" in nurses (22). In the pandemic period, non-emergency surgeries were postponed in Turkey, as was the case in every other nation (23). Meanwhile, several reports compiling safe surgical algorithms or recommendations for emergency operations of the patients diagnosed with or suspected of the COVID-19 disease were published (23,24). However, none of these reports completely revealed the levels of psychological resilience and burnout in the operating room nurses and their influence under such risks (20). Although several previous studies have investigated the state of burnout, psychological resilience, and pandemic anxiety in the nurses in general, the nurses working in intensive care departments providing care to the patients with COVID-19 infection, and those in the emergency department or ward (1,25–27), There are no studies in the literature that have analyzed these parameters in the operating room nurses and worked on the mediating effect of pandemic anxiety. In this context, the present study was aimed to analyze the relationship between "psychological resilience" and "burnout", and whether "epidemic anxiety" had a mediating role in this relationship in the operating room nurses working in Turkey during the COVID-19 pandemic.

Hypotheses:

H1: There is a negative relationship between "Psychological Resilience" and "Burnout".

H2: There is a negative relationship between "Psychological Resilience" and "Epidemic anxiety".

H3: There is a positive relationship between "Epidemic anxiety" and "Burnout".

H4: "Epidemic anxiety" plays a mediating role in the relationship between "Psychological Resilience" and "Burnout".

MATERIALS AND METHODS

Study design

The present study was designed as a multi-site survey. The theoretical model of the study was based on the causal and mediating relationship between the variables, an illustration of which is provided in Figure 1.

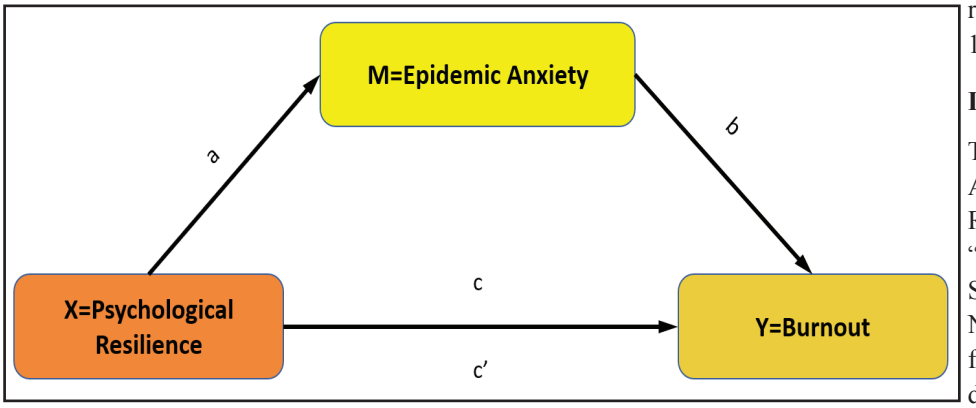

Figure 1 The theoretical model of the study

Participants and sample

The population of the study comprised the nurses working in the operating rooms of the medical faculties and state hospitals and training and research hospitals of Turkey. However, the total number of nurses working in operating rooms of public and medical faculty hospitals could not learnt. In the study, the G*Power 3.1.9.4 package program was used to calculate the sufficient sample size (28). It was calculated that the number of samples to be taken should be at least 138. In this study, the sample number consisted of 307 nurses.

In consideration of the COVID-19 pandemic situation, the study data were collected by sharing the link of a Google Form with the 585 participants via social media apps such as WhatsApp and Instagram. Snowball sampling method, which is one of the non-probability sampling methods, was used to reach the sample. The data collection period of this descriptive study was from 21 April 2021 to 29 June 2021. Data collection was considered complete when no new filled form was submitted for a consecutive 20 days. The survey initiative reached a total of 307 operating room nurses. The descriptive statistical results of the demographic characteristics of the nurses are presented in Table 1.

Of the sample, 61.2% (n= 188) was female and the mean age was 37.7 ± =7.00 (min= 25 – max= 48). Majority of nurses were married (n= 254; 82.7%); more than two-third had a bachelor's degree (n= 210; 68.4%); one-third (n= 102; 33.2%) had working time in the operating room 16 years or more. Eighty-seven of the nurses (28.3%) stated that they worked cardiovascular surgery, and 9.4% (n= 29) in neurosurgery operating room as the least (Table 1).

Instruments

The "Utkan Epidemic Anxiety Scale", "Brief Resilience Scale, "Burnout Measure-Short Version" and Nursing Information form including demographic and professional information (10 questions) were employed as data collection tools in the present study.

Utkan Epidemic Anxiety Scale

The "Utkan Epidemic Anxiety Scale" was originally developed by Fırat et al. in 2021. The scale comprises one dimension with 9 items and was capable of explaining 70.8% of the total variance toward epidemic anxiety in the general population aged 15 years and above. This percentage of explained variance is considerably high for a one-dimension scale. The Cronbach's α reliability coefficient value of the scale was 0.94, which indicates a high level of reliability. The scale is a 5-point Likert-type form, which includes the responses of "….= I strongly disagree", "….= I do not agree", "….= I agree moderately", "….= I agree" and "….= I completely agree". The score range of the scale was 0 and 36. An increase in the score indicates an increase in epidemic anxiety (29).

The model fit of the scale was examined using CFA (confirmatory factor analysis) in the present study. According to the fit indices obtained, the measuring model of the scale was verified. The fit indices for single-factor construct were: $\chi 2 = 87.99$, $\chi 2/df = 3.38$, CFI = 0.98, GFI = 0.95, AGFI = 0.91, and RMSEA = 0.06. These values obtained in the single-factor construct indicated that the model was acceptable fort the current study (30).

Table 1 Some characteristics of the participants (n=307), 2021

Some Characteristics	***n***	***%***
Age		
25 – 34	50	16.3
35 – 44	161	52.4
45 and up	96	31.3
Sex		
Female	188	61.2
Male	119	38.8
Marital Status		
Married	254	82.7
Single	53	17.3
Education		
Associate degree	63	20.5
Bachelor's degree	210	68.4
Masters degree	34	11.1
Working time in the operating room (years)		
1-5	50	16.3
6-10	67	21.8
11-15	88	28.7
16-20	102	33.2
Operating room type		
Cardiovascular	87	28.3
Orthopedics	61	19.9
Thoracic	50	16.3
General surgery	38	12.4
Neurosurgery	29	9.4
Other*	42	13.7

*Urology, plastic and reconstructive surgery, gynecological surgery, eye surgery

Brief Resilience Scale (BRS)

BRS was originally developed by Smith et al. (2008) for measuring the psychological resilience of individuals (31). Later, it was adapted to the Turkish language by Doğan in 2015 (11). BRS is a 5-point Likert-type, 6-item, self-report measurement tool. After the translation of the reverse coded items (4th and 6th) in the scale, the higher the scores indicates higher levels of psychological resilience. The development of the scale and its validity and reliability studies were conducted. According to the findings in the literature, the structural validity and internal reliability coefficient of the scale were found to be statistically significant (11). In this study, confirmatory factor analysis and goodness-of-fit comparisons were made for the measurement tool. The original model structure of the scale was been preserved.

The model fit of the scale was analyzed using CFA. The fit values were determined to be of the desired level. According to the obtained fit indices and the findings of the present study, the measuring model relevant to the measurement was verified. The obtained fit indices for single-factor construct were: $\chi 2 = 16.95$, $\chi 2/df = 2.12$, CFI = 0.99, GFI = 0.97, AGFI = 0.92, and RMSEA = 0.07. These 'goodness-of-fit' values obtained in the single-factor construct indicated that the model was acceptable (30).

Burnout Measure-Short Version (BM-SV)

In order to fulfill the demand of researchers and practitioners, Pines (2005) attempted to develop a convenient-to-use scale with less number of items. Pines adapted the Burnout Measure (BM) of Pines and Aronson (1988), which contained 21 items, into a short version containing 10 items (32). These 10 items of the short version BMS were selected according to the contextual basis of BM with 21 items, evaluating the physical, emotional, and mental fatigue levels of an individual. BMS is a self-reporting tool, with a seven-grade scoring system (1 is never, 7 is always), for measuring the burnout levels of individuals. The total scores ranged from 10 to 70; the higher the score indicated higher level of burnout. The internal consistency coefficient values of BM-SV were calculated based on the data obtained from different ethnic, professional, or student groups; the values varied between 0.85 and 0.92. The Turkish language validity and reliability studies of this scale were conducted by Çapri in 2013 (33). BM-SV has a single-factor construct, with a specific value of 5.52, which could explain 55.17% of the variance, while its factor loads ranged between 0.52 and 0.84. The Cronbach's alpha internal consistency coefficient of BM-SV was reported as 0.91 (33). In this study, the Cronbach alpha internal consistency coefficient was found to be 0.96.

Data Analysis

The data were analyzed using the SPSS 23 package program. In addition, mediator variable analysis was performed using "Process Macro" developed by Hayes (2017). Model verifications of the measuring tools were performed using the LISREL package program (34).

Table2. Normal distribution, correlation values and reliability findings of the variables, 2021

Variables	$\bar{X}$	SE	SKE	KUR	1	2	3	α
1. Epidemic Anxiety	26.5	4.091	0.225	-0.853	1			0.92
2. Burnout	47.8	4.296	0.326	-1.856	0.657*	1		0.96
3. Psychological resilience	14.1	2.719	0.792	-0.980	-0.120*	-0.243*	1	0.97

SE: Standard error; SKE: Skewness; KUR: Kurtosis; α: Cronbach's alpha coefficient; *p<0.001

The Kolmogorov-Smirnov test indicated that the data had normal distribution (p = 0.520). There were no multicollinearity and autocorrelation between the variables in the model. The Cronbach's Alpha (Cronbach's α) values were analyzed to determine the level of reliability of the scales utilized in the present study, and a satisfactory level of reliability was observed for all scales. A positive correlation (r = 0.657; p < 0.01) was observed between the levels of epidemic anxiety and the burnout levels of the operating room nurses, while a negative correlation of psychological resilience was observed with burnout (r = –0.243; p < 0.01) and epidemic anxiety (r = –0.120; p < 0.05) (Table 2).

Ethical considerations

The present study was conducted in accordance with the principles of the Declaration of Helsinki. The Ethics Committee Permission for the study was obtained from the Scientific Research and Publication Ethics Committee of a University (06.04.2021-8598) and also from the Ministry of Health Scientific Research Platform. The study was conducted observing the recommendations of the Association of Internet Researchers as the study data were collected via the internet. The objective of the present study was thoroughly explained in the data collection form, and informed consent was obtained from the participants via an online form.

RESULTS

Regression analysis based on the bootstrap (resampling) technique was conducted for testing the hypothesis of the study and for basic mediation analysis (34). According to Hayes (2017), mediation analysis is a statistical method for testing how an assumed X prediction variable affects a Y outcome variable by means of one or more mediator variables (M), generally to seek an answer to the question of how. However, the basic mediation analysis involves only one mediator variable. In this analysis, it is assumed that X affects M and Y, while M affects Y. Accordingly, X and M are considered two antecedent variables, while M and Y are considered two outcome variables. Such a model involves a direct effect, where X affects Y, as well as an indirect effect via M (34). Using this framework, it was investigated whether the psychological resilience of nurses (X) played a mediating role on the effect of epidemic anxiety (M) as the predictive variable of the survey and on the burnout level (Y) as the outcome variable. Moreover, the bootstrap (resampling) technique is the most powerful and reasonable method for obtaining the confidence limits for certain indirect effects in most conditions. Therefore, it is important to use bootstrap confidence interval values whenever possible (35). In the bootstrap technique, the confidence interval values (Bootstrap Confidence Interval, CI) obtained for supporting the study hypothesis must include 0 (36). Process Macro soft ware is an extension of SPSS and has been recommended by Hayes (2018). Process Macro was utilized for testing the mentioned hypothesis and model in the present study. The basic Mediation Analysis relevant to the constructed model (Model 4), and the results are illustrated in Figure 2.

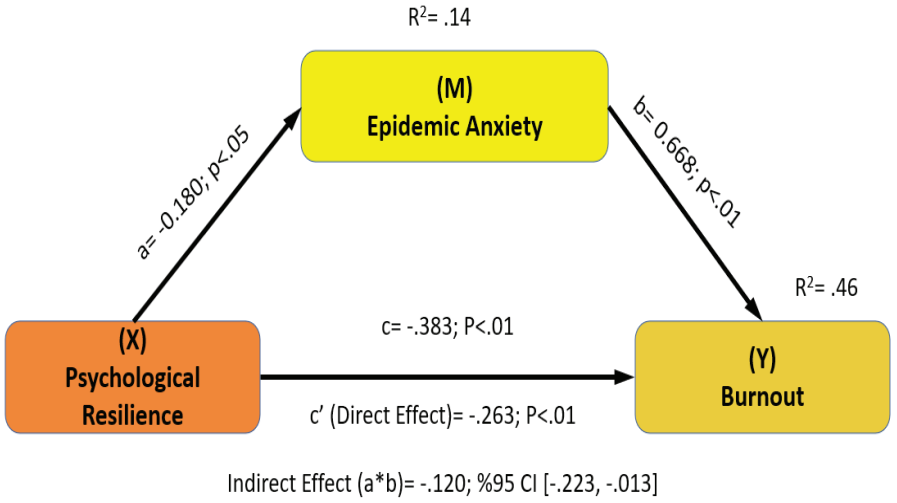

Figure 2 The mediating role of epidemic anxiety in the effect of psychological resilience on burnout (N= 307)

Table 3. Results of basic mediation analysis relevant to structal model, 2021

Predictive Variables	**Outcome variables**					
	M (Epidemic Anxiety)			*Y (Burnout)*		
		b	SE		*b*	SE
X (Psychological Resilience)	*a*	-0.180*	0.0855	*c'*	-0.263**	0.0671
M (Epidemic Anxiety)	-	-	-	*b*	0.668**	0.0446
Constant	*i M*	29.0406	1.225	*i Y*	33.8025	1.609
	R^2= 0.014			R^2= 0.458		
	F (1; 305) = 4.4672; p < 0.05			F (2; 304) = 128.823; p <0.001		
Bootstrap Indirect Effect	a*b= -0.120; 95% CI [-0.221. -0.014]					
Standardized Effect Size	K^2 =-0.076; 95% CI [0.141.-0.008]					

** p < 0.05; ** p < 0.01; n= 307; Bootstrap resampling= 5.000; SE= Standart Error; Unstandardized beta coefficients (b) are reported.*

According to the results presented in Table 3, "psychological resillience" has a negative effect on "burnout". In other words, the direct effect of the independent variable (X) on the dependent variable (Y) is statistically significant (c' = -0.263, p<0.01). Therefore, the H1 hypothesis was supported. On the other hand, the effect of the independent variable (pyschological resilience) on the mediating variable (epidemic anxiety) is negative and statistically significant (a= -0.180, p<0.05). H2 hypothesis is supported also. Moreover, the mediator variable (epidemic anxiety) has a positive and statistically significant effect on the independent variable (burnout) (c= 0.668, p<0.01). H3 hypothesis is supported by this finding.

Finally, on the structural model of the research, it was tested whether the mediating variable had a role in the relationship between the independent variable and the dependent variable. According to the result obtained, it is inferred that "epidemic anxiety" played a mediating role in the relationship between "psychological

resilience" and "burnout" (a*b = –0.120, 95% CI (–0.221, –0.014). The standardized effect size of the mediation effect was K2 = –0.076, 95% CI (0.141, –0.008), which indicates a low-grade effect (36). These data supported the H4 hypothesis.

DISCUSSION

The present study is the pioneer in investigating whether "epidemic anxiety" played a mediating role in the relationship between "psychological resilience" and "burnout" in operating room nurses during the COVID-19 pandemic. The result of the present study revealed that the nurses who had higher levels of "psychological resilience" had lower levels of "epidemic anxiety" and "burnout" and that there was a decrease in the positive effect of "psychological resilience" on "burnout" when "psychological resilience" and "epidemic anxiety" were considered together.

The relationship between Burnout and Epidemic Anxiety

According to the relevant literature, prior to the COVID-19 pandemic, the prevalence of burnout in a group of 136 perioperative nurses in Spain, Sillero, and Zabalegui (2018) was reported that 41% of them were experiencing burnout (37). In 2015, a multicenter study conducted by Fındık revealed the presence of burnout in 32% of operating room nurses (38). In another study, 5% of operating room nurses were reported to have burnout, and various factors such as high workload, insufficient personnel, weak teamwork, and professional risks were revealed as the related factors (39).

However, during the COVID-19 pandemic, operating room nurses were subjected to high risks of being infected with the virus, which led to increased levels of stress, anxiety, and depression (22). According to relevant literature, these nurses were observed to experience a stress reaction related to the fear of being infected (26,40). High levels of stress and anxiety experienced by these nurses led to burnout and several other adverse effects (26,41,42). In the studies analyzing the psychological effects of the COVID-19 pandemic on nurses, it was observed that nurses had high levels of anxiety and fear of getting infected with the disease (41,43,44). The COVID-19 pandemic caused unprecedented pressure on the nurses and affected their social, emotional, and physical health. The COVID-19 pandemic has emerged as an important stressor, capable of overcoming the stress-dealing skills of the nurses, leading to increased levels of burnout in them, which ultimately affected their work satisfaction levels (45). Sun et al. reported that the nurses in charge of the patients affected with the COVID-19 disease experienced exhaustion, uneasiness, and helplessness due to their high workload and the negative feelings, such as fear and worry regarding the possibility of contacting the infection (46). Dincer ve Inangil (2021) investigated the effect of the Emotional Freedom Technique intervention on the levels of stress, anxiety, and burnout in nurses during the COVID-19 pandemic and reported that the nurses had high levels of anxiety and burnout pre-intervention (47). The literature states that increased workload, long working hours, discomfort due to personal protective equipment, the fear of contracting infection, and various related uncertainties in the context of the pandemic could lead to burnout in nurses (48,49). In another study, the nurses were observed to have medium levels of burnout and high levels of fear of contracting the disease (1). These findings corroborate the findings of the present study that there was a significant relationship between burnout and the fear of contracting the infection.

The relationship between Burnout and Psychological Resilience

In the studies investigating the psychological resilience of nurses and the influencing factors during the COVID-19 pandemic, it was revealed that psychological resilience played an essential role in predicting the levels of burnout among nurses (24,27,50). In a study conducted in the hospitals of Wuhan City, the mediating role of any positive and negative effects in the relationship between resilience and burnout in nurses was investigated, and it was determined that psychological resilience was in a significant negative correlation with burnout (51). In a different study, psychological resilience was observed to have a significant effect in mitigating burnout during the pandemic, and there was a negative correlation between these two variables (2). The studies conducted so far have revealed a negative correlation between psychological resilience and burnout in nurses, particularly during the COVID-19 pandemic, which

corroborates the findings of the present study.

The relationship between Burnout, Epidemic Anxiety, and Psychological Resilience

High levels of psychological resilience during the COVID-19 pandemic were observed to be closely related to decreased levels of burnout and disease anxiety (52–55). Therefore, initiatives aimed at achieving a greater effect on psychological resilience are recommended to be included in the studies planned for decreasing stress and anxiety in nurses, as psychological resilience has emerged as a protective factor against psychological symptoms (26,41). According to a study, the levels of psychological resilience were different in the 1st, 2nd, and 3rd quarters of the pandemic. While the 1st quarter had low levels of psychological resilience, the levels increased with time as the pandemic progressed (45).

In a study exploring the factors associated with emotional burnout in the health staff in Italian hospitals, particularly for the nurses working during the COVID-19 pandemic, a significant negative correlation was observed between psychological resilience and burnout, while a significant positive correlation was observed between burnout and pandemic anxiety (25)

Hu et al. (2020) reported that nurses experienced various psychological health problems, such as medium levels of burnout and high levels of fear in particular. In addition, a negative correlation was observed between mental symptoms and psychological resilience (1). Rushton et al. (2015) also reported a strong relationship between burnout and psychological resilience. High levels of resilience, therefore, appear to protect nurses from emotional burnout and contribute to their success. Moreover, higher levels of resilience were reportedly associated with greater hopefulness and decreased stress levels (56).

A study investigating the relationship of resilience, burnout, stress, and demographic factors with depression in nurses and midwives during the COVID-19 pandemic revealed that high level of disease anxiety and high level of emotional burnout increased the risk of depression by 1,11 times, while high level of psychological resilience protected against depression (3). In another study conducted to determine vocational stress, evaluate the mediating effect of burnout, and verify the regulatory effect of excessive devotion between vocational stress and psychological health among Chinese nurses, it was determined that surgery room nurses had high levels of vocational stress and burnout played a mediating role between vocational stress and organizational loyalty (22). Croghan et al. (2020) reported that nurses had high levels of stress and low levels of psychological resilience during the COVID-19 pandemic (57).

So far, to the best of our knowledge, no study has been reported on the mediating role of pandemic anxiety in the relationship between psychological resilience and burnout. However, considering the currently available information in the studies reported so far, the literature appears to support the findings of the present study.

Limitations

The epidemic process is a dynamic process, so the epidemic anxiety, psychological resilience and burnout levels of nurses may intensify or decrease. Therefore, the findings of this study need to be confirmed by future studies. In addition, due to the limited number of studies on operating room nurses in the literature, the discussion section of this report had to be limited to comparing studies on operating room nurses only.

CONCLUSION

The present study concluded that "epidemic anxiety" played a mediating role in the relationship between "psychological resilience" and "burnout" in operating room nurses. According to the data obtained in the present study, an increase of one unit in "psychological resilience" resulted in a decrease of 0.180 units in "epidemic anxiety" and 0.333 units in "burnout". Moreover, an increase of one unit in "epidemic anxiety" led to an increase of 0.668 units in "burnout". In the relationship between "psychological resilience" and "burnout", the value of the effect decreased from –0.263 to –0.120 when "epidemic anxiety" was involved in the scenario. These findings confirmed the mediating role of "epidemic anxiety" in the relationship between "psychological resilience" and "burnout".

Recommendations

The present study determined the psychological resilience, burnout, and epidemic anxiety levels in the operating room nurses during the COVID-19 pandemic. The findings of the present study would

serve as a scientific basis for developing effective coping strategies that the nurse manager could utilize in this regard.

Furthermore, it is recommended that operating room nurses should be actively observed under close surveillance to determine their level of burnout, and initiatives should be undertaken to improve their psychological resilience to mitigate their burnout and pandemic anxiety levels. In addition, planning psychological health support and counseling activities are suggested.

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