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The relationship between nurses' demographic work-related variables and emotional labor behavior on nurse burnout during the COVID 19 pandemic

Begüm Yalçın[1*], Seda Sarıköse[2], Nilgün Göktepe[3] and Emine Türkmen[4]

Abstract

Background Reducing levels of burnout is one of the most important issues in protecting the nursing workforce, especially in times of crisis such as pandemics. Emotional labor behavior would help reduce burnout among nurses. There is a need to explain the relationships between these variables. This study aimed to determine the effect of nurses' demographic, work-related variables and emotional labor behaviors on nurse burnout levels during the COVID 19 pandemic.

Methods This descriptive, cross-sectional study was conducted with 306 nurses. In this study, the first part of the data collection form included questions related to individual and occupational characteristics and COVID 19 conditions; the second part included the Emotional Labor Behavior Scale for Nurses; and the third part included the Maslach Burnout Inventory. Descriptive statistics and multiple regression analysis were used in the analysis of the data.

Results The results of this study showed that sincere and in-depth emotional labor behaviors, a high level of job satisfaction, a low level of perceived workload, being female, increased age, and working in a public hospital reduced nurse burnout levels.

Conclusion This study found that sincere emotional labor reduced depersonalization, while in-depth emotional labor contributed to lower burnout levels. High job satisfaction was associated with reduced emotional exhaustion and depersonalization. Nurse managers should improve emotional labor behaviors to reduce burnout among nurses. In addition, especially in crisis situations such as pandemics, they should develop strategies to reduce workload and increase job satisfaction.

Keywords Burnout, COVID 19, Emotional labor, Nurses, Nursing management, Workload perception

*Correspondence:
Begüm Yalçın
bgmyalcin@icloud.com; begum.yalcin@iuc.edu.tr
[1]Department of Nursing Management, Florence Nightingale Faculty of Nursing, Istanbul University-Cerrahpasa, Istanbul, Türkiye
[2]Koç University School of Nursing, Istanbul, Türkiye
[3]Department of Nursing, Faculty of Health Sciences, Ordu University, Ordu, Türkiye
[4]Department of Nursing, Faculty of Health Sciences, Istinye University, Istanbul, Türkiye

Introduction

The increased emotional burden is inherent to the nursing profession. As with every career, nursing has advantages and disadvantages; however, given that many nursing practices are linked to caring for physically and/or mentally frail patients, nursing may be more emotionally tiring than many other professions [1]. It is commonly recognized that emotional labor is an essential part of nursing. Because nursing requires spending more time with patients, nurses are expected to constantly regulate their emotions and expressions, which may lead to burnout, especially in a catastrophe such as the COVID 19 Pandemic [2].

Emotional labor was first defined by Hochschild [3] as managing one's feelings through facial and bodily expressions. According to Hochschild [3], the established norms for proper emotional responses when communicating directly with clients/patients of service-based professions such as flight attendants, cashiers, and nurses allow the responder to control their emotions. In Hochschild's conceptualization, the two types of emotional labor are surface acting and deep acting. Surface acting occurs when employees attempt to fake their emotions to hide their genuine emotions [4, 5]. Employees engage in surface acting when they try to control how they show their emotions to adhere to social norms at work. Employees who surface act change their visual and physical reactions, but their genuine, felt emotions are still present, albeit muted [6]. People who surface act suppress their genuine emotions or pretend to feel emotions they do not actually feel, which hampers their ability to respond to challenging situations [1, 7].

Deep acting occurs throughout the emotion-generating process, before the emotions are prompted, and can alter one's expressions and inner feelings. Employees who engage in deep acting do not waste time and energy trying to control their emotions. Instead, they alter their feelings to match the image they present [6]. For example, deep-acting nurses may attempt to reevaluate a situation and ease uncomfortable feelings when responding to stressful nursing scenarios. Unlike surface actors, deep actors would be able to experience and convey more pleasant emotions because of their emotional labor effort [1, 6]. Deep acting is associated with positive aspects of emotional labor, such as job satisfaction, increased sense of patient connection, and patient satisfaction [8]. Surface acting can result in negative impacts, including emotional exhaustion, stress and burnout, and psychological and physical illnesses [8, 9]. According to Ashforth and Humphrey [10], sincere and spontaneous emotional labor is a third type of emotional, behavioral pattern in which an individual communicates instinctively felt emotions that align with the organization's requirements or the anticipated level of performance. Some employees engage in spontaneous and sincere emotional labor when meeting organizational requirements. According to Diefendorff et al. [11], who claimed that it was the most widely supported of the three defined emotional labor behaviors, spontaneous emotional work may be more common than expected.

Burnout is defined as a response to tremendous stress at work, and, according to Maslach's conceptualization, it is related to emotional exhaustion [12]. According to a psychological perspective, this syndrome harms cognitive, emotional, and attitudinal functioning, manifesting in unfavorable conduct toward peers, customers, and the professional role itself [13]. Burnout typically involves three characteristics: diminished personal accomplishment, depersonalization, and emotional exhaustion [14]. Nurses had the most significant rates of burnout among healthcare workers. According to earlier research, high workload, a lack of staff, shifts lasting more than 12 h, a lack of program flexibility, time restraints, role conflict, a lack of autonomy, lousy teamwork, a lack of managerial support, and job insecurity were all associated with nurses' burnout [15].

Emotional labor is considered to be highly related to burnout [14, 16]. Studies on emotional labor have indicated that failure to manage emotional labor leads to burnout and stress [16, 17]. Emotional labor characteristics, including emotional dissonance and emotional suppression, may be linked to burnout, and extensive burnout is linked to the intention to leave one's job [18]. In Türkiye, nurses face challenging working conditions, significantly contributing to burnout and emotional labor. Studies have shown that high patient-to-nurse ratios, long working hours, lack of managerial support, and exposure to workplace violence are among the primary factors affecting nurses' well-being and emotional regulation in Türkiye [19, 20]. According to the OECD (2023) report, Türkiye also significantly lags in the number of nurses per population. The patient-to-nurse ratio in Türkiye is 2.8, while the OECD average is 9.2, highlighting the significant gap in healthcare resources [21]. A study conducted with 219 nurses working in public hospitals in Türkiye found that nurses act in high emotional labor behavior, especially when they act deeply and sincerely, which may cause emotional dissonance [19]. In addition, studies have shown that surface acting is related to nursing burnout [22, 23]. A study conducted with 303 nurses in 27 hospitals indicated that nurses who display surface-acting behaviors experience increased burnout [18]. Another study conducted with public health nurses during the COVID- 19 pandemic indicated that emotional labor increases burnout, highlighting the importance of organizational support to mediate emotional labor management and burnout [24].

The world has experienced an unprecedented global public health with COVID 19 crisis, which came with significant tension on the healthcare organizations and staff. Frontline nurses were more involved than ever in organizing healthcare services and caring for patients, and unpreparedness led to burnout and exhaustion [25]. Such stress can lead to depression and job dissatisfaction. This study aimed to determine the relationship between nurses' emotional labor behaviors and nurse burnout during the COVID 19 pandemic. Although the acute phase of the pandemic has passed, its impact on the healthcare system and nursing workforce remains relevant. The pandemic exposed and exacerbated existing challenges in human resource management, staffing shortages, and emotional burden among nurses. Studies indicate that the psychological distress and burnout experienced by healthcare professionals during this period have long-term consequences on their well-being, retention, and overall job performance [24, 25]. However, identifying these challenges also presents an opportunity for developing effective emotional labor management strategies and organizational preparedness, which will be crucial in future public health crises or disasters. The results of this study may help hospitals and nurse managers better understand the emotional labor behaviors and burnout conditions nurses experienced throughout the COVID 19 pandemic, allowing them to implement strategies designed to reduce nurses' burnout levels, enhance nurses' resilience through organizational support, and more importantly, be proactive in preparing for the next crises that might come.

Methods

Design

This cross-sectional and relationship-seeking study used an online survey and was conducted in Türkiye between March and April 2021. This study was guided by the STROBE (The Strengthening the Reporting of Observational Studies in Epidemiology) statement. The research model was presented in Fig. 1.

Setting & participants

Three-hundred six nurses working in hospitals in Türkiye participated in the study. Four-hundred eleven nurses voluntarily agreed to participate in the study via an online survey. The sample was selected using a convenience sampling method, as participation was voluntary. Nurses who were actively working in public, private, or university-affiliated hospitals at the time of data collection and had at least six months of professional experience were included in the study based on our specific inclusion criteria. Participants who were eligible and voluntarily gave consent after reading the inclusion criteria and the informed consent participated and completed the survey in full. Nurses working in non-clinical roles (e.g., research or academic positions without direct patient care) or with less than six months of work experience were excluded.

Additionally, incomplete responses were not considered in the final analysis. 105 incomplete questionnaires were not considered. The sample size was calculated based on the average scale score used in a similar study [13]. The study sample was determined to be about 280 participants due to the power analysis performed with the GPOWER 3.1.9.6 software, which had 90% power, an effect size of 0.81, and a first-type error of 0.05. The study was concluded with topping this number.

Data collection tools

An online questionnaire, comprised of three parts, was used to collect data. The first part consisted of 19 questions related to nurses' individual and occupational characteristics and COVID 19 conditions; the second part included the Emotional Labor Behavior Scale for Nurses (24 items), and the third part included the Maslach Burnout Inventory (22 items).

Nurses' individual and occupational characteristics

The first part of the questionnaire contained 19 questions about nurses' individual (age, gender, and education level) and occupational (type of institution, department, position, total duration of experience in the profession, total duration of experience in the institution, total duration of experience in the current unit, type of work, and weekly working hours) characteristics, as well as eight questions related to overall job satisfaction and working circumstances during the COVID- 19 pandemic. The latter was prepared in a VAS form, with responses ranging from 1 to 10.

Emotional labor behavior scale

The Emotional Labor Behavior Scale was developed by Değirmenci Öz and Baykal [26], and its validity and reliability have been tested. It comprises 24 items and three subscales ("Superficial Behavior, In-Depth Behavior, and Sincere Behavior"). The five-point Likert-type scale ranges from "1: Strongly disagree" to "5: Strongly agree." When evaluating the scores, the total score obtained from the overall scale and each subscale are divided by the number of items in the subscale and the arithmetic mean is taken. The average score on the scale varies between "1" and "5." A mean score closer to 1 indicates lower emotional labor behavior, while a score closer to 5 indicates a higher level of emotional labor behavior. The Cronbach's alpha is 0.75 for the superficial behavior subscale, 0.86 for the in-depth behavior subscale, 0.75 for the sincere behavior subscale, and 0.90 for the overall scale

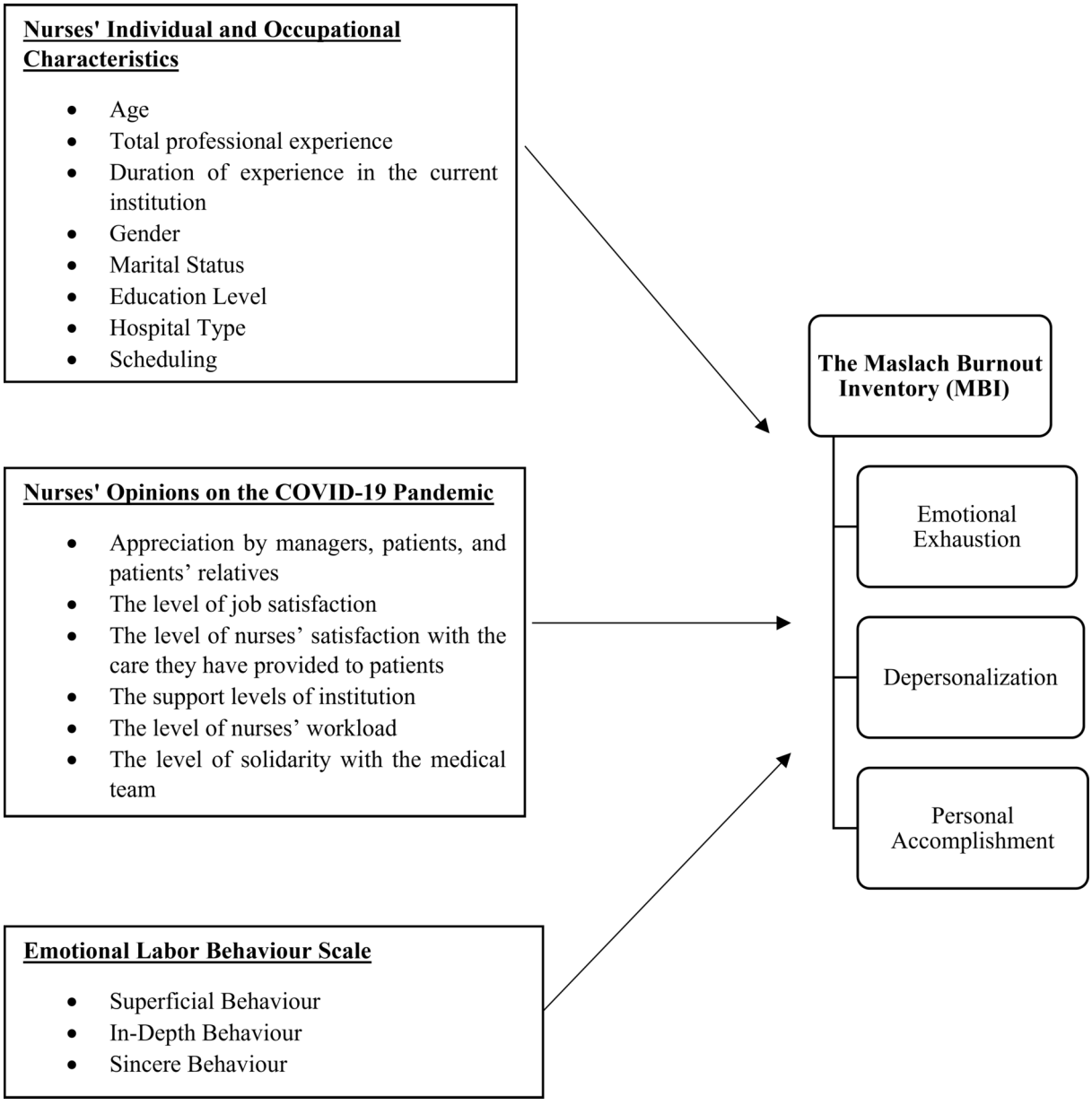

Fig. 1 Regression model

[23]. In this study, Cronbach's alpha value of the overall scale was .81.

The Maslach burnout inventory

Developed by Maslach and Jackson [27], the Burnout Inventory is a seven-point Likert-type scale. It consists of a total of 22 items and three subscales. The emotional exhaustion subscale consists of nine items, the depersonalization subscale consists of five items and the personal accomplishment subscale consists of eight items. The Turkish validity and reliability of the Maslach Burnout Inventory were conducted by Çam [28]. When adapted to Turkish society, the scale was revised as a five-point Likert-type scale ranging from "1 = Never" to "5 = Always." Higher scores obtained from the emotional exhaustion and depersonalization subscales and lower scores obtained from the personal accomplishment subscale indicate higher levels of burnout. Scores greater than or equal to 27 in the emotional exhaustion subscale, ≥ 10 in depersonalization, and ≤ 33 in personal accomplishment indicate a high level of burnout. In contrast, scores between 19 and 26 in emotional exhaustion, between 6 and 9 in depersonalization, and between 34 and 39 in personal accomplishment indicate a moderate level of burnout. Scores ≤ 18 in emotional exhaustion, ≤ 5 in depersonalization, and ≥ 40 in personal

accomplishment indicate a low level of burnout. In scoring, three separate burnout scores are calculated for each person. Cronbach's alphas in Çam's study [28] found emotional exhaustion at 0.89, depersonalization at 0.71, and personal achievement at 0.72. In this study, Cronbach's alpha was 0.90 for the emotional exhaustion subscale, 0.68 for the depersonalization subscale, and 0.63 for the personal accomplishment subscale.

Data collection

The survey was distributed online using social media platforms, professional nursing networks, and WhatsApp groups commonly used by nurses. The front page of the questionnaire included information about the study, indicating that participation was voluntary, that personal information would not be included, and that the data would be sent anonymously to the researchers and used for scientific purposes only. Of those who agreed to the terms, 411 nurses participated in the survey, and 306 nurses fully completed the questionnaire.

Ethical considerations

Ethical approval for this study was obtained from the ethics committee of the Koç University Human Research (2021.074.IRB3.035), and permission to conduct the research was obtained from the Ministry of Health COVID 19 Scientific Research Studies. This study complied with the Declaration of Helsinki. The first page of the survey included information about the study, informed consent was obtained, and participants voluntarily agreed to participate in the survey by clicking the "yes" button.

Data analysis

Statistical analysis was performed using IBM SPSS statistics version 24.0 (the Statistical Program for the Social Sciences, version 24.0, IBM Corp.; Armonk, NY, USA).

To examine the normality of the scale score distribution, Skewness (between −1.061 and 0.424) and Kurtosis (− 0.251 and 3.510) values were obtained, and it was determined that they were not normally distributed. Descriptive statistics, Spearman's rank correlation, and multiple regression (stepwise) analysis were used in the data analysis. The regression analysis examined the effects of the 17 independent variables on dependent variables (Maslach Burnout Inventory: emotional exhaustion, depersonalization, personal accomplishment) (Fig. 1).

Results

Nurses' individual characteristics

Most (86.9%) of the nurses participating in the study were female, their average age was 30.69 (SD = 8.28), and more than half (51.3%) had undergraduate degrees. More than a quarter of the nurses (35.3%) worked in a university hospital, and the majority (68.3%) worked as a staff nurses. The average duration of professional experience for nurses was 9.39 (SD = 8.58) years, and their average duration of experience in the current institution was 6.6 (SD = 7.15) years. Most (73.9%) of the nurses participating in the study stated that they provided care to COVID 19 patients during the pandemic. In comparison, 36.3% stated they were assigned to a different unit during this period (Table 1).

Table 1 Nurses' individual and occupational characteristics (N: 306)

Variables		Mean+SD	n	%
Age (min-max: 21-61)		30.69± 8.28		
Total professional experience (years) (min-max: 1-38)		9.39± 8.58		
Duration of experience in the current institution (years)		6.6± 7.15		
Gender	Women		266	86.9
	Men		40	13.1
Education Level	Vocational high school		47	15.4
	Associate degree		54	17.6
	Bachelor's degree		157	51.3
	Graduate degree		48	15.7
Hospital Type	Public		104	34.0
	University		108	35.3
	Private		94	30.7
Position	Staff nurse		209	68.3
	Nurse manager		97	31.7
Have you taken care of COVID 19 patient during the pandemic?	Yes		226	73.9%
	No		80	26.1%
Has there been a unit change due to the COVID 19 pandemic?	Yes		111	36.3%
	No		195	63.7%

Min Minimum, *Max* Maximum, *SD* Standard deviation

Table 2 Nurses' opinions on their work environment and overall job satisfaction during the COVID- 19 pandemic (N: 306)

Variables	Min-max	Mean ± SD
How much do you think your work during the COVID- 19 period is appreciated by your managers?	1–10	4.65 ± 2.57
How much do you think you are appreciated by your patients for the service you provide during the COVID- 19 period?	1–10	5.69 ± 2.65
How much do you think you are appreciated by patients' relatives for the service you provide during the COVID- 19 period?	1–10	5.65 ± 2.66
The level of job satisfaction in general	1–10	5.83 ± 2.47
The level of your satisfaction with the care you have provided to patients during the COVID- 19 pandemic	1–10	7.00 ± 2.09

Note: *SD* standard deviation

Table 3 Descriptive statistics of the scales used in the study (N: 306)

Scale and Subscales	Mean± SD
Emotional Labor Behavior Scale	3.99 ±0.81
F1: Superficial Behavior	3.84± 0.58
F2: In-Depth Behavior	4.05± 0.53
F3: Sincere Behavior	4.02± 0.61
The Maslach Burnout Inventory (MBI)	
F1: Emotional Exhaustion	18.46± 6.86
F2: Depersonalization	6.13± 3.45
F3: Personal Accomplishment	10.27± 3.22

Note: *SD* Standard deviation

Nurses' occupational characteristics

The results of the questions related to overall job satisfaction and working conditions during the COVID 19 pandemic (assessed using a VAS form ranging from 1 to 10) indicated that nurses exhibited a high level of job satisfaction (Mean = 7, SD = 2.09) from the care they provided to patients during the COVID 19 pandemic. In addition, their overall job satisfaction was moderate (Mean = 5.83, SD = 2.47) (Table 2).

Descriptive statistics of the scales

The overall average score of the Emotional Labor Behavior Scale for Nurses was 3.99 (SD = 0.81). In the Maslach Burnout Inventory, 18.46 (SD = 6.86) for the emotional exhaustion subscale, 6.13 (SD = 3.45) for the depersonalization subscale, and 10.27 (SD = 3.22) for the personal accomplishment subscale (Table 3).

Regression analysis

The multiple regression analysis indicated that in the depersonalization subscale of the Maslach Burnout Inventory, level of job satisfaction and type of institution, sincere behavior subscale of the Emotional Labor Behavior Scale, and age were found to be significant (R^2=% 24.3 F= 14.507, p<.001, Durbin Watson: 1.190). In the emotional exhaustion subscale, level of job satisfaction, the perceived workload during the COVID- 19 pandemic, and gender were found to be significant (R^2=% 43.3 F= 46.57, p<.001, Durbin Watson: 1.445), while in the personal accomplishment subscale, level of job satisfaction and the in-depth behavioral subscale of emotional labor were effective (R^2=% 21.2, F= 25.544, p<.001, Durbin Watson: 1.210) (Table 4).

Table 4 Factors affecting subscales of the Maslach Burnout Inventory (N: 306)

Variables							95% CI		
		UB	S.E.	b	*t*	*p*	LB	UB	
Depersonalization	Constant term	17.83	1.97		9.03	0.000**	13.93	21.72	R^2: %24.3
	The level of job satisfaction in general	-0.39	0.09	-0.29	-4.32	0.000**	-0.57	-0.21	*F*: 14,507
	Type of institution [a]	-1.81	0.48	-0.26	-3.81	0.000**	-2.75	-0.87	*p*: 0.000**
	Sincere Behavior Subscale	-1.04	0.35	-0.19	-2.99	0.000**	-1.74	-0.35	Durbin Watson: 1,190
	Age	-0.07	0.03	-0.18	-2.72	0.010*	-0.13	-0.02	
Emotional Exhaustion	Constant term	21.39	2.72		7.87	0.000**	16.03	26.75	R^2 %43.3
	The level of satisfaction with the nursing profession	-1.44	0.16	-0.52	-8.80	0.000**	-1.76	-1.12	*F*: 46.57
	Perceived workload during the COVID-19 pandemic [b]	3.05	0.75	0.24	4.06	0.000**	1.57	4.54	*p*: 0,000** Durbin Watson: 1,445
	Gender [c]	-2.29	1.03	-0.12	-2.23	0.030*	-4.32	-0.26	
Personal Accomplishment	Constant term	20.76	1.55		13.41	0.00	17.71	23.82	R^2: %21,2
	In-Depth Behavior Subscale	2.34	0.37	0.42	6.35	0.000**	3.07	1.61	*F*: 24.54
	The level of job satisfaction in general	0.22	0.08	0.17	2.60	0.010*	-0.38	0.05	*p*: 0,000 Durbin Watson: 1,210

CI Confidence Interval, *LB* Lower Bound, *UB* Upper Bound

*p< .05, **p< .001, [a] Health Ministry=1; Private + University Hospitals=2, [b] My workload is low (I have less workload than I can do) or my workload is balanced =1; My workload is high (I have as much work as I can do) =2, [c] Female=1 Male=2

Discussion

This study examined the effect of nurses' emotional labor behavior on nurse burnout levels throughout the COVID 19 pandemic and how nurses' sociodemographic and occupational characteristics may affect burnout levels. According to the results of this study, nurses demonstrated moderate emotional exhaustion, depersonalization, and a high level of personal accomplishment. Prior research findings related to nurses' levels of burnout during the COVID- 19 pandemic have similarities with the current study, indicating that nurses experienced high levels of emotional exhaustion, lower levels of depersonalization, and higher levels of personal accomplishment during the pandemic [29–31]. The results show that the changes in working conditions brought about by the COVID- 19 pandemic have adversely impacted nurses, leading to emotional exhaustion. However, it may be argued that the pandemic has reduced nurses' depersonalization by triggering empathy and compassion behaviors towards COVID 19 patients. In addition, the effective treatment and care of COVID 19 patients during the pandemic may increase feelings of personal accomplishment.

This study found that increased job satisfaction reduces nurse exhaustion in all three subscales. Similar to studies conducted before the pandemic [32, 33], those conducted during the pandemic also show that high job satisfaction reduces nurse burnout levels [34, 35]. A study by Giménez-Espert et al. [36] concluded that despite difficult conditions during the pandemic, nurses considered their work meaningful and expressed higher levels of job satisfaction. These results indicate that nurse burnout leads to emotional exhaustion, depersonalization towards colleagues and work/profession, and feelings of failure. Although nurses were assigned to different services and teams during the pandemic, job satisfaction is still considered an important determinant of burnout.

The current study found that nurses' increased workload perception throughout the COVID- 19 pandemic increased their emotional exhaustion levels. Similarly, previous research determined that nurses who stated that their workload increased during the pandemic experienced higher levels of burnout [29, 33, 35–37]. Such findings show that nurses experienced increased workloads during the pandemic, leading to increased work pressure and feelings of emotional exhaustion. Moreover, research conducted on healthcare resource management challenges during the pandemic has emphasized the impact of staff shortages and inequitable workload distribution on nurses' well-being [38, 39]. A study investigating hospital management challenges in Iran highlighted that the admission process for COVID 19 patients was significantly impeded by resource limitations and inefficiencies in coordination, further increasing nurses' workload and emotional strain [38]. The shortage of healthcare personnel, particularly in critical care units, contributed to heightened burnout levels and an increased risk of psychological distress among healthcare professionals. Implementing effective workforce policies and strategic resource planning is essential to mitigate such challenges and enhance healthcare system resilience in future public health crises. The study also found that nurses' gender affected burnout levels. Female nurses working during the pandemic, for example, were found to experience higher levels of emotional exhaustion. A study found that male nurses experienced higher levels of burnout Cañadas-De la Fuente and colleagues [40]; other studies indicated that female nurses experienced higher levels of emotional exhaustion due to their traumatic experiences related to the pandemic [30, 41]. Still, other studies in the literature found that nurses' gender had no impact on their burnout levels during the pandemic [42]. Accordingly, it may be concluded that gender should be evaluated alongside other variables (e.g., age, experience, working conditions, etc.) to obtain effective results related to its impact on nurses' burnout levels.

According to the results of the current study, nurses' age affected their level of burnout. As the age of nurses increased, their level of depersonalization decreased. Other studies conducted to determine the risk factors associated with nurse burnout levels during the COVID-19 pandemic also found that age was a risk factor for burnout levels, with reduced burnout levels associated with increasing age [30, 43]. These findings suggest that assigning young nurses with less experience related to the pandemic and infectious diseases to COVID 19 care units make them more vulnerable to the risks and challenges of pandemic working conditions. In addition, the findings suggest that younger nurses, who have had less exposure to death and dying patients, may become more emotionally exhausted if assigned to COVID 19 care units.

This study's results also showed that the burnout levels of nurses working in public hospitals were low during the pandemic. According to Wanninayake et al. [44], nurses found work in private hospitals to be more difficult than in public hospitals, as private hospitals pose different challenges associated with procedures, patient profiles, patient expectations, and emotion management.

The current study also determined that nurses' emotional labor behavior affected their burnout levels and that expressing sincere emotional labor behaviors during the COVID- 19 pandemic reduced nurses' level of depersonalization. It was also determined that the expression of in-depth emotional labor behaviors reduced the nurses' level of burnout related to personal accomplishment. In other words, nurses who gave deep emotional labor had higher personal success levels and showed less burnout. In addition to these findings, Kaur [45] and Ha

et al. [46] found that deep and surface-acting emotional labor behavior increased nurses' levels of burnout. Galanis et al. [30] revealed that nurses during the COVID 19 pandemic experienced depersonalization and low personal accomplishment, but not to a greater extent than nurses working in a stressful environment. They further stated that a closer relationship with patients during the pandemic improved nurses' morale and made them feel competent and successful in their duties.

On the other hand, other studies showed that due to traumatic experiences encountered during the pandemic, nurses were unable to express their true feelings to patients and relatives, resulting in increased levels of burnout associated with exhibiting a high level of emotional labor behavior [24, 46]. According to these findings, nurses who can express their true feelings -in other words, those who exhibit sincere emotional labor behavior- become less depersonalized towards their jobs and those they care for. In addition, the expression of in-depth emotional labor behaviors results in lower burnout levels since nurses who can regulate the experience of their own emotions increased success.

Limitations

This study was conducted via an online survey. Results are limited to those who participated. In the data collection period, COVID- 19 was continued. Because of this reason, there were dropouts from the study. In addition, because this study was conducted online, institutional differences are not reflected.

Conclusion

This study revealed that sincere and in-depth emotional labor behaviors, a high level of job satisfaction, a low workload perception, being female, increasing age, and working in a state hospital reduced nurse burnout levels during the COVID- 19 pandemic. In addition, the results of this study showed that emotional labor did not affect emotional exhaustion among nurses, but sincere emotional labor reduced depersonalization. In contrast, in-depth emotional labor reduced the burnout level of personnel accomplishment. High job satisfaction was a factor that reduced emotional exhaustion, depersonalization and personal accomplishment. The depersonalization level of younger nurses was high. The emotional exhaustion of nurses with high workloads was high.

Implications for nursing management

Identifying the factors which can cause burnout is essential for nursing managers and hospital executives. Emotional labor is an overwhelming factor for all nurses; however, encouraging nurses to discuss coping with emotional labor may be beneficial. Also, it is important to regulate nurse workloads since increased workloads are highly related to burnout and intention to leave one's job. Therefore, nurse managers should work closely with hospital executives and policymakers to create an atmosphere of open communication and encourage discussion of workload perceptions. Supporting nurses, especially newly graduated nurses, and strengthening their resilience to the nursing profession's heavy burden may help them deal with emotional labor easily. In addition, nurse leaders should implement strategies designed to improve nurses' job satisfaction.

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Authors' contributions

All authors made substantial contributions to the study. BY, SS, NG, ET conceptualized the study, had done data curation, methodology, wrote original draft and BY supervised the process.

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Data availability

The datasets used and/or analysed during the current study are available from the corresponding author (BY) on reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by the ethics committee of Koç University Human Research (Decision no: 2021.074.IRB3.035) and follow the Declaration of Helsinki standards. Before each survey, informed consent was taken from participants, and this consent was documented with a Yes/No question.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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