Original Article

Covid-19 Era: How Does it Affect Nurses' Emotional Labor Behavior and Burnout Levels?

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Abstract

Background: COVID-19 pandemic have affected the healthcare workers in terms of both emotional labor and burnout due to prolongation of working hours, risky working environments and excessive workload.

Aim: In the study, it was aimed to compare the emotional labor behavior and burnout levels of nurses working in pandemic and non-pandemic wards.

Methods: A total of 174 nurses working in the pandemic and non-pandemic wards of a university hospital constituted the universe of this descriptive study. The data of the nurses who agreed to participate in the study were collected between March 2020 and July 2020 using the " The Information Questionnaire", "Emotional Labor Behavior Scale" and "Burnout Scale", and the data analysis of the was carried out using IBM SPSS 22 software.

Results: It was determined that 78.2% of the nurses participated in the study were females, 48.9% were single and 71.8% were licensees. In addition, it was determined that 50% of the nurses worked in pandemic wards, 50% of them worked in non-pandemic wards, 85% of them have chosen their profession fondly, 66.7% of them experienced stress during the pandemic, and 60.9% of them felt extremely tired. The mean score of the superficial behavior sub-dimension of the emotional labor behavior scale was significantly higher in the nurses working in the pandemic wards compared to the nurses working in non-pandemic wards ($p \leq 0.05$), however there was no difference between their burnout levels.

Conclusion: It was determined that the majority of the nurses were extremely tired and exhausted, and there was no difference in burnout levels or emotional labor behaviors, except for the superficial behavior sub-dimension, between nurses working and not working in pandemic wards.

Keywords: COVID-19, nurse, burnout, emotional labor

Introduction

COVID-19 has affected the lives and health of more than 1 million people worldwide. Healthcare systems of all countries were also affected. The sudden and rapid spread of the COVID-19 outbreak resulted in an unexpected burden in the workload of healthcare workers worldwide, and a loss in

their motivation. While dealing with a pandemic that has an unknown extent, healthcare workers started to experience high anxiety, insomnia and depression (Bostan et al., 2020). Studies have indicated that depression and anxiety may also trigger burnout as a result of the COVID-19 pandemic. Burnout is regarded as a serious problem in healthcare, and is defined as a psychological syndrome that appears as a result of negative emotional reactions of the person (Al Thobaity and Alshammari, 2020; Werner et al., 2020; Dinibutun, 2020). Nurses, who have stressful professions and being affected extensively by the pandemic, also try to work with the main purpose of helping people in the COVID-19 process. It has been reported that nurses feel intense emotions both in order to protect their patients and themselves while providing health care, and to avoid carrying the infection to their homes (Al Thobaity and Alshammari, 2020; Dinibutun, 2020). In addition, feelings of burnout may surface due to their responsibilities during the pandemic. Nurses usually have to manage their emotions in their relations with patients and their relatives. Due to their responsibilities, they do not react to negative conditions they experience, try to control their emotions in sad events, keep calm in tense situations, and support patients/their relatives. Those conditions reveal emotional labor behaviors. In people who are in face-to-face contact with the people they serve, emotional labor can be expressed as the effort to display one's emotional reactions in line with the goals of his/her profession. There are four basic concepts that direct and affect the nurse's practices. These are human, health / illness, environment and nursing. The most important element of these four concepts is human, because the nurse directly takes care of the human. In order for the nurse to give good care to the patient, it is necessary to approach in a holistic way by considering the psychological, biological, social and cultural aspects of the human being. Among healthcare professionals, nurses' burnout levels are important and also affect patient safety. Being optimistic despite COVID-19 has been found to affect emotional fatigue caused by COVID-19 both directly, and indirectly, through job stress (Degirmenci Oz and Baykal, 2018; Ozdemir and Kerse, 2020)

Only a few researchers have investigated the negative mental and psychological effects of COVID-19 on healthcare workers (Bostan et al., 2020; Ozdemir and Kerse, 2020; Chew et al., 2020; Rana et al., 2020; Lai et al., 2020). COVID-19 presents unique stress factors and risks for the physical, intellectual, mental and emotional well-being of healthcare workers (Ozdemir and Kerse, 2020). In addition, this pandemic has caused healthcare professionals to change their standard professional life paths, and overcome a variety of challenges. The rapid spread of the pandemic and the rapid increase in the number of cases worldwide have increased the amount of these difficulties.

In this study, it was aimed to compare the emotional labor behavior and burnout levels of the nurses working in the pandemic wards with the nurses working in the non-pandemic wards in the COVID-19 era.

Methodology

The universe of this descriptive study (n = 200) consisted of the nurses working in pandemic and non-pandemic wards of a tertiary public hospital. We aimed to include the entire universe into the study rather than choosing samples. However, those who were on prenatal / postnatal maternity leave at the time of data collection, and those who did not agree to participate in the study were not included in the study. The study was conducted with a total of 174 volunteer nurses, 87 working in the hospital's pandemic wards and 87 working in non-pandemic wards. In the study, the data were collected electronically, using the information questionnaire, emotional laborbehavior scale and the burnout scale, between March and August 2020.

The information questionnaire: The Information Questionnaire was developed by the researcher based on the literature and included 15 questions on participants' sociodemographic characteristics, the perspective of the profession during the pandemic process, and the stress experienced (Bostan et al., 2020; Rana, Mukhtar and Mukhtar 2020).

Emotional Labor Behavior Scale: The Emotional LaborBehavior Scale of Nurses, developed by Degirmenci Oz and Baykal

(2018), consists of 3 sub-dimensions; Superficial Behavior (SuB) sub-dimension (items 1-6), In-depth Behavior (IDB) sub-dimension (items 7-19), and Sincere Behavior (SiB) sub-dimension (items 20-24).

• **Superficial behavior:** The individual changes only his/her behavior, by acting as if he/she feels that way, even though he/she doesn't actually feels so.

• **In-depth behavior:** The individual regulates his/her emotions, becoming able to really feel the emotion that should be reflected at that moment, and behave accordingly.

• **Sincere behavior:** It means that the individual acts freely with his/her natural feelings.

The scores are calculated as follows: The arithmetic mean is obtained by dividing the total score obtained from each sub-dimension by the number of items in that sub-dimension. Therefore, each mean sub-dimension's score ranges between "1" and "5". In the sub-dimensions of the scale, emotional laborbehavior is low as the mean score approaches "1", and the behavior is higher as the score approaches "5". In our study, Cronbach's alpha coefficients were calculated as 0.702, 0.872 and 0.810 for the SuB, IDB and SiD sub-dimensions, respectively, and the reliability levels of all three sub-dimensions were found to be quite high.

Burnout Measure: The Burnout Measure, developed by Capri, B. (2013), is a 7-point Likert type scale. 1 stands for never, and 7 as always. To calculate the score, the scores given to 10 items are added, and divided by 10. The result gives the score for burnout. In our study, the Cronbach alpha coefficient was calculated as 0.937, and the reliability level of the burnout measure was found to be quite high. (Capri, 2013)

Statistical Analysis: In the first step of the statistical analysis, frequency analysis was made for the demographic data included in the study. Then, Cronbach's Alpha reliability analysis was performed for the Emotional Labor Behavior Scale of Nurses and the Burnout Measure to test the reliability of the questions in the scales. After the reliability analysis, the mean scores for each sub-dimension were obtained. For each sub-dimension, the hypothesis test type was selected according to the compliance of the data to normal distribution on the basis of demographic characteristics. Shapiro-Wilk test was employed for normality tests of the mean comparisons of the sub-dimension scores of the scales.

After determining normality of the distributions, the Mann-Whitney test was used for two-group comparisons by considering the group numbers of demographic variables. In the statistical analysis phase, the number of observations for each demographic variable (n), median, minimum value (Min), maximum value (Max), test statistics (Z) and significance value (p) are presented. In this study, statistical analyses were carried out with IBM SPSS 22 software. The significance level was set at $p < 0.05$.

Ethical Aspect of the Research: Written permissions were obtained from the Non-Invasive Clinical Research Ethics Committee of a University, from the Chief Physician of the University Hospital, and from Turkish Ministry of Health, before conducting this research. The researcher who performed the Turkish validity and reliability of the scales "Emotional LaborBehavior Scale" and "Burnout Measure" was contacted with e-mail to obtain permissions to use the scales in the study. The informed consents of the nurses who participated in this study were also obtained after explaining the purpose of this study.

Results

It was found that the majority of the participated in the study nurses were females, married and licensees. Fifty percent of the nurses were working in the pandemic wards, and 50% were working in the non-pandemic wards (Table 1). Moreover, a 65.5% of the nurses working in the non-pandemic wards and 51.7% of the nurses working in the pandemic wards were satisfied with working in their wards. It was determined that the majority of the nurses working in non-pandemic wards had been working as a nurse for 5-9 years, and the nurses working in the pandemic service for 1-4 years. The majority of the nurses in both groups had chosen the profession willingly. It was also found that most of the nurses in both groups felt extremely tired and stressed (Table 2).

No statistically significant differences were found between the nurses working in pandemic and non-pandemic wards for in-

depth behavior, sincere behavior, or emotional laborbehavior in the scale scores, or in the scores of the burnout measure (p>0.05). However, a statistically significant difference was found for superficial behavior sub-dimension scores (p<0.05).When this difference was examined, it was determined that the mean superficial behavior sub-

dimension scores were significantly higher in those working in the pandemic wards (Table 3). When the score scores of the emotional laborbehavior and burnout measure were compared in relation with the units of the nurses, no statistically significant differences were determined between them (p>0.05) (Table 4).

Table 1. Demographic variables Variable	n	%
Age		
Gender		
Female	136	78.2
Male	38	21.8
Marital status		
Single	85	48.9
Married	89	51.1
Education		
Secondary school	13	7.5
Two-year degree	8	4.6
License	125	71.8
Master degree	27	15.5
Doctorate	1	0.6
Economic status		
My income is less than my expenses	44	25.3
My income is equal to my expenses	108	62.1
My income is more than my expenses	22	12.6
Place of work		
Pandemic ward	87	50
Non-pandemic ward	87	50

Variable	Non-pandemic ward		Pandemic ward	
	n	%	n	%
Are you satisfied with working in your clinic?				
Satisfied	57	65.5	45	51.7
Not satisfied	7	8.0	4	4.6

Partially satisfied	23	26.4	38	43.7

What is the time you worked in the profession?

1 month - 4 years	28	32.2	52	59.8
5 years - 9 years	46	52.9	23	26.4
10 years and above	13	14.9	12	13.8

How did you choose your profession?

At there quest of my family	13	14.9	14	16.1
Multiple factors	16	18.4	19	21.8
Due to the high working opportunities	15	17.2	23	26.4
At my own request	43	49.4	31	35.6

Which of the following health problems do you experience the most due to working as a nurse?

I feel extremely tired	24	27.6	29	33.3
I'm very angry and nervous	8	9.2	8	9.2
I am having stomach and appetite problems	2	2.3	4	4.6
I often have a headache	13	14.9	11	12.6
I'm stressed	32	36.8	26	29.9
I have insomnia	8	9.2	9	10.3

Table 3.Comparison of the emotional laborbehavior, emotional laborbehavior sub-dimensions and burnout measure results of the nurses working in the pandemic and the non-pandemic wards

Sub-dimensions	Group	Descriptive statistics			Mann-Whitney	
		Median	**Min**	**Max**	**Z**	**P**
Superficial behavior	Pandemicward	4.500	1.667	5	2.669	**0.008**
	Non-pandemicward	4.166	2.500	5		
In-depth behavior	Pandemicward	4.076	1.308	5	-0.246	0.806
	Non-pandemicward	4.230	2.231	5		

Sincere behavior	Pandemicward	4.200	1.400	5	0.138	0.891
	Non-pandemicward	4.200	1.200	5		
Emotional laborbehavior scale	Pandemicward	4.166	1.420	5	0.777	0.437
	Non-pandemicward	4.166	2.290	5		
Burnout measure	Pandemicward	4.000	1.400	7	-0.176	0.860
	Non-pandemicward	4.000	1.600	7		

Table 4. Comparison of the scores of the emotional laborbehavior and burnout measure in relation with the working units of the nurses

Workingunit of thenurse	Emotionallaborbehavior			Burnoutmeasure			p
	Medyan	**Min**	**Maks**	**Medyan**	**Min**	**Maks**	
Pandemicward	4.167	1.417	5	4	1.400	7	0.279
Non-pandemicward	4.167	2.292	5	3.900	1.600	7	0.450

Discussion

This study aimed to compare the emotional labor behavior and burnout levels of the nurses who are in constant communication with the ill/healthy individuals during the pandemic era, and it was found that the superficial behavior sub-dimension scores of the nurses working in the pandemic wards were significantly higher than the other nurses, they had moderate burnout levels, and there was no statistical difference between them. In the healthcare sector, which has different components than other sectors, the nurses have to manage their emotions while caring patients, and show emotional laborbehaviors in this process.

In their study on 3228 nurses working in Wuhan and Sichuan cities of China, Zheng et al. (2021) stated that the COVID-19 pandemic caused significant psychosocial problems in nurses; depression was determined in 34.3% and anxiety was found in 18.1% of them, and no difference was observed between the depression rates of nurses working in the low COVID-19 risk areas and the nurses working in the high COVID-19 risk areas. Those results are in line with the results of our study, and we found that most of the nurses in both groups in our study felt extremely tired, and experienced stress (Zheng et al., 2021).

Mo et al. (2020) investigated work stress and the factors affecting the work stress among Chinese nurses supporting Wuhan in the fight against COVID-19 infection in China, and found that the nurses who supported pandemic clinics had high work stress, and the characteristics of the nurses with high work stress revealed that these nurses that had long working hours, had only one child, and the nurses experiencing anxiety had high stress levels. These results are in line with the findings of our study. However, no difference was found between the burnout levels of nurses working in pandemic wards or non-pandemic wards (Mo et al., 2020).

The study "Assessment of Moods and Burnout Levels of Healthcare Professionals Working in Intensive Care Unit in the COVID-19 Process" was conducted in Turkey in 2021, and it was determined that the job satisfaction of healthcare workers during the pandemic era was 70.5%. In our study, it was

determined that 51.7% of the nurses working in pandemic wards were satisfied with working in their wards. The difference between the findings of two studies is thought to be due to the fact that the sample groups included different professions (Akalin and Modanlioglu, 2020).

Burnout is mostly seen in those who work in professions such as "health", which directly serve people and where human relations are important. The studies conducted before the pandemic reported high burnout levels among healthcare workers both in our country and in the world. A study conducted in Japan found that more than 40% of nurses working in the fight against COVID-19, and more than 30% of radiologists and pharmacists had the symptoms of burnout (Yumru, 2020). In our study, burnout levels of all nurses were found to be high.

In a qualitative study conducted by Roslan et al. (2021) in Malaysia, the authors investigated healthcare workers' burnout levels and related factors in COVID-19 era, found that more than half of healthcare workers experienced burnout, and reported that important factors for burnout were direct participation in COVID-19 screening or treatment, having a medical condition, and insufficient psychological support (Roslan et al., 2021). In our study, we did not find any statistically significant difference between the burnout scores of the nurses working in the pandemic or non-pandemic wards (p> 0.05), and our result was not in line with the results of the aforementioned study. It has been assumed that the reason for lack of any difference between the burnout levels of nurses working in the pandemic and non-pandemic wards is that the pandemic is a global problem, and it affects the burnout levels of all nurses. Soto-Rubio et al. (2020) conducted a study on 125 Spanish nurses, and emphasized that an emotional intelligence should be developed in order to prevent possible negative effects of COVID-19 such as emotional exhaustion, psychosomatic complaints and job satisfaction in nurses working in the pandemic wards. (Soto-Rubio, Giménez-Espert and Prado-Gascó, 2020). Sharifi et al. (2020) stated that burnout levels in healthcare workers were very high during the pandemic period, hence some precautions

should be taken (Sharifi, Asadi-Pooya and Mousavi-Roknabadi, 2020).

Liu et al. (2020) found that working in night shifts more, and higher workload increased emotional exhaustion and depersonalization, however our study did not find any significant difference between the two groups in terms of in-depth and sincere behaviors, the sub-dimensions of emotional laborbehavior (Liu et al., 2020). However, a significant difference was found between the nurses working in pandemic and non-pandemic wards in terms of superficial behaviors. It was determined that nurses working in pandemic wards developed superficial behaviors more than the nurses working in non-pandemic wards. This shows that the nurses working in pandemic clinics do not reflect their true feelings.

Conclusion: During the COVID-19 outbreak, it was determined that there were changes in burnout and emotional laborbehavior among nurses, and the pandemic increased burnout in all nurses. It was found that the nurses working in pandemic wards displayed superficial behaviors more, one of the sub-dimensions of emotional laborbehavior, compared to those working in non-pandemic wards. In the pandemic era, it is recommended to support nurses psychologically more, in terms of employee safety, to create working environments that can reduce their stress, and to develop positive coping mechanisms.

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