MEDIATING ROLE OF BURNOUT IN THE EFFECT OF NURSES' WORKLOAD ON TURNOVER INTENTION DURING COVID-19 PANDEMIC

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Mediating Role of Burnout in the Effect of Nurses' Workload on Turnover Intention during COVID-19 Pandemic

Mustafa NAL[1], Ekrem SEVIM[2], Gülfer BEKTAS[3],
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Abstract

Objectives of this study are to investigate the effect of workload on turnover intention and burnout and the mediating role of burnout in the effect of workload on leaving.COVID-19 pandemic leads to highly challenging work conditions for healthcare workers including nurses who mostly work at the front-line accompanying patients. This research was conducted in a private hospital with a Joint Commission International (JCI) certificate in Istanbul of Turkey between January and March 2021. 247 nurses comprising 91% of the nurse population in the hospital have been included. Workload had positive effect on burnout (β=0.51, 95% CI [0.287, 0.441]) and turnover intention of nurses (β=0.31, 95% CI [0.322, 0.603]). Burnout had a positive effect on turnover intention (β=0.54, 95% CI [0.932, 1.32]) and a mediating role in the effect of workload on turnover intention (β=0.41, 95% CI [0.302, 0.530]).Our finding indicated that increased workload is associated with increased levels of burnout and turnover intention of nurses. Furthermore, burnout has a positive effect on mediating the turnover intention.

Keywords: nursing, workload, burnout, turnover intention, COVID-19.

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Introduction

For nearly a year, the pandemic caused by the novel coronavirus-2019 (COVID-19) has affected the whole world, becoming a threat to human life. The first case of COVID-19 was identified on the December 12th, 2019 in Wuhan of Hubei province of China, and the virus rapidly spread to the whole world. The World Health Organization (WHO) announced this epidemic caused by the COVID-19 virus as a pandemic (global epidemic) on the March 11th, 2020. In Turkey, the first COVID-19 case was reported on the March 11th, 2020 (Nal, 2020). The COVID-19 pandemic has been going on all over the world for more than a year. According to the data of the WHO, as of April 5th, 2021, the number of cases with COVID-19 detected in the world was 131,020,967 and the number of fatalities was 2,850,521, while the case number and total fatalities in Turkey was 3,487,050 and 32,263 respectively (WHO, 2021).

During this pandemic, the occupancy rate in intensive care units reached around 90% (Republic of Turkey Ministry of Health, 2021). This increase in the occupancy rate in hospitals posed a substantial workload of nurses, leading to turnover intentions. While the number of nurses per 10,000 patients in Organisation for Economic Co-operation and Development (OECD) countries is 89.22, this number is 24.00 in Turkey (Sayili *et al.*, 2017). Given the limited number of nurses in Turkey, even a small change in the number of nurses leaving their jobs may adversely risk the provision of healthcare services in the country.

Comparable studies conducted on nurses' turnover intention focus on a variety of factors, including personal factors, hospital-related factors, work-family conflict, psychological stress, job satisfaction, workload and burnout (Back *et al.*, 2020; Labrague, 2020; Lee & Kim, 2020). Studies on nurses have shown that workload and burnout have a positive effect on turnover intention (Back *et al.*, 2020; Dwinijanti *et al.*, 2020; Lee & Kim, 2020). However, no existing study examines the mediating role of burnout in the effect of nurses' workload on turnover intention during the COVID-19 pandemic.

As a complementary perspective and contribution to the literature, the workload of nurses is considered to positively affect the level of burnout. Research results on nurses and other healthcare professionals (Phillips, 2020; Portoghese *et al.*, 2014; Xiaoming *et al.*, 2014) have shown that there is a positive relationship between workload and burnout. In line with these findings, we suggest the following hypotheses:

H1: There is a positive relationship between workload and burnout.

H2: Workload has a positive effect on burnout.

As another complementary point of view to the literature, the workload of nurses is considered to positively affect turnover intention. Research results (Lee & Kim, 2020;Toti, Ruswanti, & Kusumapradja,2020).have shown that there is a

positive relationship between the workload and turnover intention of nurses. In addition, the results of research conducted in different sectors (Holland *et al.*, 2019; Liu & Lo, 2018; Xiaoming *et al.*, 2014) have demonstrated that there is a positive relationship between workload and turnover intention. In line with these findings, we suggest the following hypotheses:

H3: There is a positive relationship between workload and turnover intention.

H4: Workload has a positive effect on turnover intention.

As a complementary point of view to the literature, the level of burnout of nurses would positively affect turnover intention. Research results on nurses and other healthcare workers (Back *et al.*, 2020; Dwinijanti *et al.*, 2020; Elçi *et al.*, 2018; Labrague *et al.*, 2017; Xiaoming *et al.*, 2014) have shown that there is a positive relationship between burnout and turnover intention. In line with these findings, we suggest the following hypotheses:

H5: There is a positive relationship between burnout and turnover intention.

H6: Burnout has a positive effect on turnover intention.

In previous studies examining the relationship between workload and turnover intention (Holland *et al.*, 2019; Liu & Lo, 2018; Lee & Kim, 2020; Xiaoming *et al.*, 2014), there was a positive relationship between workload and turnover intention. Studies examining the relationship between workload and burnout (Liu & Lo, 2018; Phillips, 2020; Portoghese *et al.*, 2014; Xiaoming *et al.*, 2014) found a positive relationship between workload and burnout. In studies examining the relationship between burnout and turnover intention (Back *et al.*, 2020; Dwinijanti *et al.*, 2020; Elçi *et al.*, 2018; Labrague *et al.*, 2017; Xiaoming *et al.*, 2014), a positive relationship was found between burnout and turnover intention. According to the results of these studies, we hypothesized that burnout might have a mediating role in the effect of workload on turnover intention. In line with these findings, we suggest the following hypotheses:

H7: Burnout has a mediating role in the effect of workload on turnover intention.

Therefore, we aimed to investigate the effect of workload on turnover intention and burnout and to examine the mediating role of burnout on turnover intention.

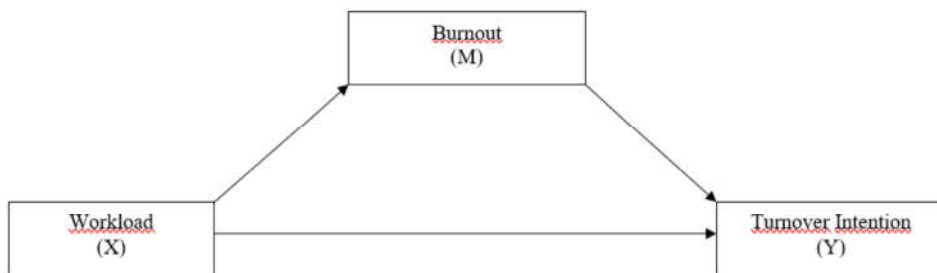The model for the hypotheses is shown in *Figure 1*.

*Figure 1.*Hypothesis model

Methodology

Study Design and Participants

This cross-sectional study was conducted on the population of nurses working during the COVID-19 pandemic in a private hospital accredited by the Joint Commission International (JCI) located in Istanbul, Turkey, between January 2021 and March 2021 based on full count sampling method. A total of 273 nurses worked in these hospitals. Inclusion criteria were as follows: (a) working as a nurse, (b) at least six months of clinical experience, (c) volunteering to participate in the study. Those who were unwilling to fill the questionnaires were excluded from the study. Prior to study, permission was obtained from the hospital administration for research. Electronic questionnaire method was preferred in order for nurses not to be affected by the administrators and to fill the questionnaires comfortably. Before the researchers distributed the questionnaires electronically, the study objectives were explained to the participants and the privacy of their personal data was guaranteed. The questionnaires were filled out at a time deemed appropriate by the nurses outside of working hours. Nurses whose ethical consent was obtained and who agreed to participate in the study were included in the study.

This survey has a scale with high reliability and validity as confirmed in many studies and has been widely used in Turkey. In this study, a total of 160 subjects for an error margin of 0.05 at a 95% confidence interval were required. According to inclusion criteria, a total of 247 nurses were included in the study with full counting and unlikely sampling.

Scales

The data were collected using four questionnaires, (1) demographic questionnaire, (2) Individual Workload Perception Scale (Cox, 2003), (3) Maslach Burnout Scale (Maslach & Jackson, 1981), (4) Turnover Intention Questionnaire (Mobley *et al.*, 1978).

- *Demographic Survey*. The demographic questionnaire contains information about age, gender, marital status, education status, type of working shift, and number of years spent in the profession.
- *Individual Workload Perception Scale*. To measure the workload of healthcare workers, the Individual Workload Perception Scale (IWPS), whose reliability and validity is made and developed by Cox (2003) and adapted to Turkish by Saygili (2008), was used. The scale is five-dimensional (manager support, colleague support, unit support, work environment workload characteristics, intention to continue the current job) and consists of 31 items. The scale is a five-point Likert type and is scored with the scale as "I do not agree at all=1, I completely agree=5" (Saygili, 2008). In this study, the Cronbach alpha value of the scale was found to be 0.93.
- *Maslach Burnout Scale.* To measure the burnout level of employees, the Maslach Burnout Scale, developed by Maslach and Jackson (1981) and whose reliability and validity was made by Maslach and Jackson, was used. The scale was adapted to Turkish and its reliability and validity was carried out by Ergin (1992). There are a total of 22 statements in the scale and the scale consists of three sub-dimensions: emotional exhaustion, desensitization, and low personal success (Maslach, Schaufeli, and Leiter, 2001). The scale has a score varying as "strongly disagree=1, absolutely agree=5". In this study, the Cronbach alpha value of the scale was found to be 0.80.
- *Turnover Intention Questionnaire.* In order to determine the attitude of employees about their intention to leave their jobs, the Turnover Intention Questionnaire was used. This tool was developed and the reliability and validity studies were conducted by Mobley *et al.* (1978: 410), It was adapted to Turkish with validity and studies by Örücü and Özafşarlioğlu (2013: 341). It consists of three items and is five-point Likert type. "Strongly Disagree=1, Strongly Agree=5". High scores in the scale indicate a high turnover intention. In this study, the Cronbach alpha value of the scale was calculated as 0.84.

Data Collection and Analysis

Electronic questionnaire method was selected to avoid face-to-face encounters during pandemic and as well as to ensure a convenient environment to the participants. Data collection was conducted in between January and March 2021 when Turkey was facing a COVID-19 peak. Statistical analysis was performed using the SPSS version 25.0 software (IBM Corp., Armonk, NY, USA). Descriptive data were expressed in mean ± standard deviation (SD), or number and frequency, where applicable. The normality assumption was checked using the skewness kurtosis values. The skewness value varies between .92 and .623, and the kurtosis value varies between -.776 and 1.204. In the analysis of the mediation test, Process

Macro v3.4 application developed by Hayes (2018) and IBM SPSS program were used. In the analysis, 5000 sampling options and model 4 with Bootstrap technique were preferred. In the analysis, in the mediation effect analysis performed with the Bootstrap technique, the evaluation was made according to the 95% confidence interval (the range where the CI values do not include the zero (0) value). Pearson correlation analysis and simple linear regression analysis were used to examine the relationship between variables. A p value of <0.05 was considered statistically significant.

Ethical Considerations

Before data collection, required permissions and approvals were obtained from the institutional ethics committee, hospital administration and the Ministry of Health of Turkey. All of the study objectives were disclosed to the participants whose personal data was also kept private. Questionnaires were filled electronically and at a time decided by nurses outside of their working hours. Before the researchers distributed the questionnaires electronically, the study objectives were explained to the participants and the privacy of their personal data was guaranteed. Ethical consent was obtained from nurses who agreed to participate in the study. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

Descriptive characteristics of all participants are presented in Table 1. The majority of the participants were females (83.4%) with a mean age of 28±7.10 years, 63.2% were single, 63.2% were working both day and night shifts, and 40.9% were high school graduates. Participants were found to have a low level of workload (2.40±0.60), a low level of burnout (2.61±43), and a low level of turnover intention (2.23±0.89). However, the emotional exhaustion of the nurses was at a medium level (3.07±0.61).

Table 1. Descriptive statistics (N=247)

Variable	n	%
Gender		
Female	41	16.6
Male	206	83.4

Marital status		
Married	91	36.8
Unmarried	156	63.2
Work Shift		
Daytime	91	36.8
Both Night and Daytime	156	63.2
Age		
20-29	167	67.6
30-39	55	22.3
≥40	25	10.1
Educational level		
High school	101	40.9
Associate degree	51	20.6
Undergraduate	69	27.9
Master	26	10.5
Working time		
6 months-5 years	100	40.5
6-10 years	84	34.0
11-15 years	32	13.0
16-20 years	14	5.7
20 years and more	17	6.9
Variable	M	SD
Workload	2.40	.60
Manager support	2.20	.80
Colleague support	2.18	.70

Unit support	2.55	.77
Work environment workload characteristics	2.64	.58
Intention to continue the current job	2.73	.97
Burnout	2.61	.43
Emotional exhaustion	3.07	.61
Desensitization	2.04	.68
Low personal success	2.44	.38
Turnover intention	2.23	.89

H1: The correlation analysis results are shown in *Table 2*. Accordingly, there was a positive relationship between workload and burnout. There was a moderate positive correlation between the workload level of the nurses and the level of burnout (r =0.512, p<0.01). There was a moderate positive relationship between workload and emotional exhaustion (r=0.498, p<0.01). There was a weak positive correlation between workload and desensitization (r=0.330, p<0.01). There was a weak positive correlation between workload and personal failure (r =0.318, p<0.01). These results supported the H1 hypothesis.

H3: In addition, there was a positive relationship between workload and turnover intention. There was a moderate positive correlation between workload and turnover intention (r =0.595, p<0.01). These results supported the H3 hypothesis.

H5: There was a positive relationship between burnout and turnover intention. There was a strong positive correlation between burnout and turnover intention (r =0.709, p<0.01). There was also a strong positive correlation between emotional exhaustion and turnover intention (r=0.680, p<.001). There was a moderate positive correlation between desensitization and turnover intention (r =0.578, p<0.01). There was a weak, positive correlation between personal failure and turnover intention (r =0.323, p<0.01).

Results of the mediating role of burnout are shown in Table 3. Accordingly, workload had a positive effect on burnout (β=0.51, 95% CI [0.287, 0.441]). These results supported the H2 hypothesis. The workload had a positive effect on turnover intention (β=0.31, 95% CI [0.322, 0.603]). These results supported the H4 hypothesis. Burnout had a positive effect on turnover intention (β=0.54, 95% CI [0.932, 1.32]). These results supported the H6 hypothesis. Burnout had a mediating role in the effect of workload on turnover intention (β=0.41, 95% CI [0.302, 0.530]). These results supported the H1 hypothesis.

*Table 2.*Correlation analysis findings

Variables	1	2	3	4	5	6	7	8	9	10	11
Workload	1										
Manager support	.846**	1									
Colleague support	.877**	.678**	1								
Unit support	.786**	.504**	.612**	1							
Work environment	.842**	.613**	.675**	.656**	1						
Intention to continue the current job	.603**	.387**	.419**	.377**	.505**	1					
Burnout	.512**	.415**	.382**	.433**	.504**	.339**	1				
Emotional exhaustion	.498**	.375**	.374**	.427**	.515**	.347**	.873**	1			
Desensitization	.330**	.310**	.221**	.261**	.330**	.196**	.817**	.573**	1		
Low personal success	.318**	.260**	.262**	.277**	.262**	.204**	.610**	.256**	.383**	1	
Turnover intention	.595**	.455**	.440**	.453**	.587**	.542**	.709**	.680**	.578**	.323**	1

**=p<0.01

Table 3. Hypothesis predictions and the mediating role of burnout

Path	Factor Loading	Bias-Bootstrap 2000		Hypothesis
		95% CI	p	
Workload → Burnout	.51	(.287, .441)	<.01	Supported
Workload → Turnover intention	.31	(.322, .603)	<.01	Supported
Burnout → Turnover intention	.54	(.932, .1.32)	<.01	Supported
Direct effect	.46	(.603, .520)	<.01	Supported
Indirecteffect	.41	(.302, .530)		Supported
Total effect	.59	(1.02, .982)	<.01	Supported
Indirect effect/total effect	.47			

Note: Independent variable: Workload, Dependent variable: turnover intention, Mediating variable: Burnout.

Discussion

In the present study, we investigated the effect of nurses' workload on burnout and turnover intention during the COVID-19 pandemic and examined the mediating role of burnout in the effect of workload on turnover intention. This study is based on cross-sectional survey data of 247 nurses working in a private hospital in Istanbul in Turkey. The main results of the study are as follows. First, we found a positive relationship between nurses' workload and burnout such that as the level of workload of nurses increased, the level of burnout increased. These results are consistent with previous studies also showing a positive effect of the nurses' workload on their burnout levels (Phillips, 2020; Portoghese *et al.,* 2014; Xiaoming *et al.,* 2014). This can be attributed to the increase in the workload and the inability of the individual to complete the work to be done and to feel incompetent. Burnout is more common among healthcare workers than among other occupational groups (Iglesias *et al.*, 2010; Spence Laschinger *et al.*, 2009). Researchers have shown that the increase in nurse workload causes disruption of duty, compromising standards, medication failure and an increase in patient falling (MacPhee, Dahinten & Havaei, 2017). Nurse burnout can lead to situations such as emotional exhaustion in the energy of nurses, lack of motivation and disappointment, and a decrease in work efficiency (Mudallal *et al.*, 2017).

Second, there was a positive correlation between nurses' workload and turnover intention and as the workload level of nurses increased, turnover intention also increased. This result is also consistent with previous studies showing that nurses'

workload positively affected turnover intention (Lee&Kim, 2020; Toti, Ruswanti, & Kusumapradja, 2020). Their turnover intention may increase, as nurses consider that they can avoid excessive workload by changing their jobs; that is, they can work with less workload in their new job. By reducing the workload of nurses, both their burnout levels and turnover intention could be reduced.

Third, we observed a positive relationship between the burnout level of the nurses and turnover intention and as the burnout level of the nurses increased, turnover intention also increased. This result is consistent with the results of previous research, suggesting that the level of burnout of nurses positively affected their turnover intention (Back *et al.,* 2020; Dwinijanti *et al.,* 2020; Elçi*et al.,* 2018; Labrague*et al.,* 2017; Xiaoming *et al.,* 2014). Since the increase in burnout level causes desensitization toward the job of nurses, it may increase turnover intention. Managers of nurses should monitor nurses for and take protective measures against burnout.

Finally, burnout showed a mediating role in the effect of nurses' workload on turnover intention. The burnout level of the nurses increased the effect of the workload on turnover intention. This result is consistent with the results of previous studies on healthcare professionals (Xiaoming *et al.,* 2014). To reduce the nurses' turnover intention and thus to prevent them from leaving their jobs, their workload should be reduced and as well the factors that may cause burnout should be eliminated.

The most interesting result in this study is that contrary to what was expected, the workload levels of nurses was relatively low (Table 1). The reason for this situation may be the postponement of all elective surgeries, providing health services only to urgent patients and COVID-19 cases, and patients not applying to hospitals except for emergencies due to the risk of COVID-19 transmission during the COVID-19 pandemic.

Conclusion

This study reports evidence on the relationship between the nurses' workload and burnout, workload and turnover intention and also the mediating role of burnout in the effect of workload on turnover intention. This study showed that the increase in workload is associated with the increased level of burnout and turnover intention of nurses, and also, burnout has a positive mediating effect on the effect of workload on leaving. In other words, the increase in the workload of nurses negatively affects them. Therefore, managers of nurses should plan the workload of nurses well and plan their workload in a way that is not excessive. Necessary precautions should be taken to prevent nurses from feeling burnout and they should be evaluated in terms of burnout. We think that the results of this study would provide a significant contribution to the theory and practice of nursing management in the aftermath of the global health crisis. These data can

provide useful information for establishment of nursing management policies, especially addressing the role of workload and burnout on turnover intention during a pandemic period.

Limitation and Future Studies

This study is methodologically limited to the cross-sectional design used to evaluate structural models, including the mediating model. In future studies, researchers can use a longitudinal study design to facilitate causal inferences. In addition, this study examined the mediating role of burnout in the effect of workload on turnover intention. In future research, the effect of different mediator variables on the effect of workload on turnover intention can be examined. This study was conducted on 247 nurses working in a private hospital. Future research can be done on a larger sample of nurses working in the public sector. The proportion of male participants in this study is low. In future studies, a sample group in which female and male participants are equal may be preferred.

References

Akyüz, I. (2015). Investigation of Level of Nurses' Burnout and Depression in Terms of Working Conditions and Demographic Characteristics. *İşletme ve İktisat Çalişmalari Dergisi*, *3*(1), 21-34. [in Turkish].

Back, C., Hyun, D., Jeung, D., & Chang, S. (2020). Mediating Effects of Burnout in the Association between Emotional Labor and Turnover Intention in Korean Clinical Nurses. *Safety and Health at Work*, *11*(1), 88-96; DOI: 10.1016/j.shaw. 2020. 01.002.

Çakici, A., Özkan, C., & Akyüz, B.H. (2013). İş Yükü Yoğunluğunun, İş ve Yaşam Doyumuna Etkisi Üzerine Otomotiv İşletmelerinde Bir Araştırma. *Cag University Journal of Social Sciences*, *10*(2), 1-26. [in Turkish].

Cox, K.S. (2003). *Individual Workload Perception Scale user's manual*. Kansas City, MO: Children's Mercy Hospitals and Clinics.

Dwinijanti, L., Adhikara, M. F. A., & Kusumapradja, R. (2020). Job satisfaction and turnover intention among public sector nurses: Is workload and burnout the issue? *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen*, *17*(1), 67-77; DOI: 10.31106/jema.v17i1.4951.

Elçi, M., Yildiz, B., & Erdilek Karabay, M. (2018). How Burnout Affects Turnover Intention? The Conditional Effects of Subjective Vitality and Supervisor Support. *International Journal of Organizational Leadership*, 7, 47–60.

Ergin, C. (1992). Burnout in doctors and nurses and adaptation of Maslach burnout scale. *VII. National Psychology Congress Scientific Studies Handbook*, 143–154. [in Turkish].

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* (Second Edi). The Guilford Press.

Holland, P., Tham, T. L., Sheehan, C., & Cooper, B. (2019). The impact of perceived workload on nurse satisfaction with work-life balance and intention to leave the occupation. *Applied Nursing Research*, *49*, 70-76; DOI: 10.1016/j.apnr.2019.06.001.

Iglesias, M.E.L., Vallejo, R.B., & Fuentes, P.S. (2010). The relationship between experiential avoidance & burnout syndrome in critical care nurses: A cross-sectional questionnaire survey. *International Journal of Nursing Studies*, *47*(1), 30-37.; DOI: 10.1016/j.ijnurstu.2009.06.014.

Labrague, J.L. (2020). Organisational and professional turnover intention among nurse managers: A cross-sectional study. *Journal of Nursing Management*, *28*(6), 1275-1285; 10.1111/jonm.13079.

Labrague, L.J., Mc Enroe-Petitte, D.M., Gloe, D., Tsaras, K., Arteche, D.L., & Maldia, F. (2017). Organizational politics, nurses' stress, burnout levels, turnover intention and job satisfaction. *International Council of Nurses*, *64*(1), 109-116; DOI: 10.1111/inr.12347.

Lee, E.K., & Kim, J.S. (2020). Nursing stress factors affecting turnover intention among hospital nurses. *International Journal of Nursing Practice*, *26*(1), 1-7; DOI: 10.1111/ijn.12819.

Liu, H.L., & Lo, V. (2018). An integrated model of workload, autonomy, burnout, job satisfaction, and turnover intention among Taiwanese reporters. *Asian Journal of Communication*, *28*(2), 153-169; DOI: 10.1080/01292986.2017.1382544.

MacPhee, M., Dahinten, V.S., & Havaei, F. (2017). The impact of heavy perceived nurse workloads on patient and nurse outcomes. *Administrative Sciences*, *7*(7), 1-17; DOI: 10.3390/admsci7010007.

Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99-113.

Maslach, C., Schaufeli, W., & Leiter, M. (2001). Job Burnout. *Annu. Rev. Psychol*, *52*(1), 392-422; DOI: 10.1146/annurev.psych.52.1.397.

Mobley, W.H. (1982). *Employee turnover, causes, consequences, and control.* Addison-Wesley.

Mobley, W.H., Horner, S.O., & Hollingsworth, A.T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, *63*(4), 408-414.

Mudallal, R.H., Othman, W.M., & Al Hassan, N.F. (2017). Nurses' Burnout: The Influence of Leader Empowering Behaviors, Work Conditions, and Demographic Traits. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, *54*, 004695801772494; DOI: 10.1177/0046958017724944.

Nal, M. (2020). Turkey's health policy during COVID-19 pandemic. *INSAC Natural and Health Sciences (INHS-2020)*, 286–290. [in Turkish].

Örücü, E., &Özafşarlioğlu, S. (2013). Örgütsel Adaletin Çalişanlarin İşten Ayrilma Niyetine Etkisi: Güney Afrika Cumhuriyetinde Bir Uygulama. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *10*(23), 335–358. [in Turkish].

Phillips, C. (2020). Relationships between workload perception, burnout, and intent to leave among medical–surgical nurses. *International Journal of Evidence-Based Healthcare*, *18*(2), 265-273; DOI: 10.1097/XEB.0000000000000220.

Portoghese, I., Galletta, M., Coppola, R.C., Finco, G., & Campagna, M. (2014). Burnout and Workload Among Health Care Workers: The Moderating Role of Job Control. *Safety and Health at Work*, *5*(3), 152-157; DOI: 10.1016/j.shaw.2014.05.004.

Republic of Turkey Ministry of Health. (2021). Covid-19 Information Page. https:// covid19.saglik.gov.tr/TR-66935/genel-koronavirus-tablosu.html. [in Turkish].

Saygili, M. (2008). *The Evaluation of Relationship between Job Satisfaction and Perceptions Relating to Working Environment of Health Staff Working in Hospitals*. Hacettepe University. [in Turkish].

Sayili, U., Sayman, Ö. A., Vehid, S., Köksal, S. S., & Erginöz, E. (2017). Comparison of health indicators and health expenditures of Turkey and OECD countries. *Online Turkish Journal of Health Sciences*, *2*(3), 1-12. [in Turkish].

Spence Laschinger, H. K., Leiter, M., Day, A., & Gilin, D. (2009). Workplace empowerment, incivility, & burnout: Impact on staff nurse recruitment & retention outcomes. *Journal of Nursing Management*, *7*(3), 302-311.

Toti, T. R., Ruswanti, E., &Kusumapradja, R. (2020). Workload, Workplace Spirituality, Organizational Commitment and Turnover Intention in Nurses at M Hospital of Banten, Indonesia. Journal of Multidisciplinary Academic, 4(5), 263-269.

WHO. (2021). *WHO Coronavirus (COVID-19) Dashboard*. https://covid19.who.int/

Xiaoming, Y., Ma, B., Chang, C., & Shieh, C. (2014). Effects of Workload on Burnout and Turnover Intention of Medical Staff: A Study. *Studies on Ethno-Medicine*, *8*(3), 229–237; DOI: 10.31901/24566772.2014/08.03.04.