



The Relationship of Covid-19 Burnout Level in 112 Emergency Service Personnel with Work Stress and Work-Family Conflict Level

112 Acil Servis Hizmeti Personellerindeki Covid-19 Tükenmişlik Düzeyinin İş Stresi ve İş-Aile Çatışma Düzeyi ile İlişkisi

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Abstract

Aim: The purpose of this study is to determine the relationship between the level of Covid-19 burnout in 112 emergency service personnel with work stress and work-family conflict level.

Material and Method: This cross-sectional research, was conducted with 293 emergency service personnel who are serving in a city located in the east of Turkey. Coronavirus Burnout Scale, Work Stress Scale and Work-Family Conflict Scales were used to obtain data. In the analysis of the data, besides descriptive statistics (number, percentage, mean, standard deviation, min-max), Pearson correlation analysis was used.

Results: The average working year of the 112 emergency service personnel with an average age of 29.01±6.54 is 7.69±5.17. Of the participants, 47.7% of whom are emergency medical technicians, 60.1% are women, 58.7% are associate degree graduates. It was determined that emergency service personnel had a total average score of 35.46±12.10 from the Coronavirus Burnout Scale, 26.39±7.71 points from the Work Stress Scale, and 17.76±6.24 points from the Work-Family Conflict Scale. A moderate positive correlation was found between the coronavirus burnout level and work stress level in 112 emergency service personnel ($r=0.698$; $p<0.001$). In addition, a moderate positive correlation was observed between coronavirus burnout level and work-family conflict level ($r=0.657$; $p<0.001$).

Conclusion: It was determined that the level of coronavirus burnout, work stress and work-family conflict in emergency service personnel were at a moderate level. In addition, it was found that as the level of coronavirus burnout in emergency service personnel increased, the level of work stress and work-family conflict increased significantly.

Key words: Covid-19 burnout level; emergency service personnel; work-family conflict level; work stress; 112 personnel

Öz

Amaç: Bu araştırmanın amacı, 112 acil servis hizmeti personellerindeki Covid-19 tükenmişlik düzeyinin iş stresi ve iş-aile çatışma düzeyi ile ilişkisini belirlemektir.

Materyal Metot: Kesitsel nitelikteki bu araştırma, Türkiye'nin doğusunda bulunan bir ilde hizmet veren 293 acil servis hizmeti personeli ile yürütülmüştür. Verilerin elde edilmesinde Koronavirüs Tükenmişlik Ölçeği, İş Stresi Ölçeği ve İş-Aile Çatışma Ölçeği kullanılmıştır. Verilerin analizinde tanımlayıcı istatistiklerin (sayı, yüzde, ortalama, standart sapma, min-max) yanı sıra pearson korelasyon analizi kullanılmıştır.

Bulgular: Yaş ortalaması 29.01±6.54 olan 112 acil servis hizmeti personellerinin meslekteki çalışma yıl ortalaması 7.69±5.17'dir. Katılımcıların %47.7'si acil tıp teknisyeni, %60.1'i kadın, %58.7'si önlisans mezunudur. Acil servis hizmeti personellerinin Koronavirüs Tükenmişlik Ölçeğinden aldıkları toplam puan ortalamasının 35.46±12.10, İş Stresi Ölçeğinde aldıkları toplam puan ortalamasının 26.39±7.71 ve İş-Aile Çatışma Ölçeğinden aldıkları toplam puan ortalamasının 17.76±6.24 olduğu belirlendi. 112 acil servis hizmeti personellerinde koronavirüs tükenmişlik düzeyi ile iş stresi düzeyi arasında pozitif yönde orta düzeyde ilişki olduğu saptandı ($r=0.698$; $p<0.001$). Ayrıca, koronavirüs tükenmişlik düzeyi ile iş-aile çatışma düzeyi arasında pozitif yönde orta düzeyde ilişki olduğu görüldü ($r=0.657$; $p<0.001$).

Sonuç: Acil servis hizmeti personellerinde koronavirüs tükenmişlik düzeyi, iş stresi ve iş-aile çatışma düzeyinin orta düzeyde olduğu belirlendi. Ayrıca acil servis hizmeti personellerindeki koronavirüs tükenmişlik düzeyi arttıkça iş stresi ve iş-aile çatışma düzeyinin de anlamlı düzeyde arttığı saptandı.

Anahtar Kelimeler: Covid-19 tükenmişlik düzeyi; acil servis hizmeti personelleri; iş-aile çatışma düzeyi; iş stresi; 112 personelleri

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INTRODUCTION

The Covid-19 pandemic process, which continues to affect the world, still poses a threat to all humanity, although the year 2021 has started. This long process causes burnout, especially on healthcare personnel who have been confirmed to be at the closest distance to the virus by the Occupational Health and Safety Administration (1, 2). Difficult working conditions such as being isolated, working in high-risk areas and being in contact with infected people are common causes of psychological effects, trauma and burnout in healthcare workers (3, 4).

Burnout is defined as "physical, emotional and mental fatigue resulting from long-term participation in emotionally demanding working conditions" (1, 4). Burnout is the psychological distancing of a person from his / her job due to reasons such as inability to fulfill the requirements of the professional life, loss of motivation and stress. In addition, it is known that occupational groups that serve people are more likely to experience burnout (4). Emergency units are known as a stressful working environment due to its nature. Furthermore, those working in the emergency services within the emergency units are often obliged to act and provide medical care under inappropriate and unforeseen conditions, under the pressure of life and death, and especially under the threat of infectious diseases (5). At this stage, the concept of work stress emerges. Moazzami et al. stated that the Covid-19 epidemic may have a negative effect on the work stress and emotional fatigue levels of healthcare workers due to the high risk of infection in healthcare workers who are in direct contact with Covid-19 patients and also due to the increase in the number of patients among healthcare workers (6).

Work stress can also have negative effects on family relationships. Efeoglu stated in a study he conducted that the level of work stress is a factor that increases work-family conflict (7). In the literature, besides the intense and uninterrupted working pace, it is emphasized that in health organizations with different working systems, sometimes situations experienced in the work environment reflect on family life and employees have difficulty in maintaining the balance between their work and their families (7, 8). Based on this information, this study aimed to examine the relationship of Covid-19 Burnout Level with Work Stress and Work-Family Conflict Level in 112 emergency healthcare personnel who are actively working during the Covid-19 pandemic process.

MATERIAL AND METHODS

The Type and Purpose of the Research

In this cross-sectional study, it was aimed to determine the relationship between the level of Covid-19 burnout in 112 emergency service personnel with work stress and work-family conflict level.

Research Place and Time

This research was applied between March and April 2021

with 112 emergency service personnel who are serving for the provincial Ambulance Service Chief in a city located in the east of Turkey.

Research Phase and Sample

The phase of the study consisted of all 112 emergency service personnel (Doctor, Emergency Medical Technician (EMT), Paramedic) serving within the related Provincial Ambulance Service Chief Physician. 212 EMT, 168 Paramedic and 22 Doctors work within the Chief Physician of the Provincial Ambulance Service (n= 402). It has been calculated as at least 197 personnel with a 5% error level, 95% confidence interval and the ability to represent the universe at 80%. 112 personnel included in the study were selected from the relevant population by simple random sampling method. The research was completed with 293 volunteer emergency service personnel.

Inclusion Criteria

- Working actively during the Covid-19 pandemic (last 1 year).
- Not having any diagnosed psychiatric disorder.

Data Collection Instruments

Personal Information Form, Coronavirus Burnout Scale, Work Stress Scale and Work-Family Conflict Scale will be used to obtain data.

Personal Introduction Form

This form, prepared by the researchers, consists of 10 questions that question the introductory characteristics (age, gender, education level, etc.) of the 112 emergency service personnel included in the study and their diagnostic status during the Covid-19 pandemic process.

Coronavirus Burnout Scale

Coronavirus Burnout Scale is a measurement tool adapted from the "Burnout Measure-Short Version" scale developed by Malach-Pines in 2005 (9). The adaptation of the scale to Turkish was carried out by Yildirim and Solmaz (2020) (10). Each item on the scale consisting of 10 items is graded in likert type by taking 5 points between 1 (never) and 5 (always). Points can range from a minimum of 10 to a maximum of 50. Higher score indicates higher level of burnout related to Covid-19. The scale is one dimensional. The total score is obtained by adding all the answers. In the Turkish version of the scale, the cronbach alpha value was determined to be 0.91 (9, 10). In this study, the Cronbach alpha value was determined to be 0.96.

Work Stress Scale

The original form of the Work Stress Scale was developed by House and Rizzo (1972) and adapted into Turkish by Efeoglu (2006) (7, 11). The scale consists of 7 items and one dimension. Scoring system 1 represents "strongly disagree" and 5 - "strongly agree". The scale is a 5-point likert type. Increasing scores indicate an increase in the level of work stress. In Efeoglu research, Cronbach Alpha reliability coefficient was reported as 0.89 (7, 11). In this

study, the cronbach alpha value was determined to be 0.93.

Work-Family Conflict Scale

Work-Family Conflict Scale consists of a single dimension that aims to measure the work-family conflict levels of employees arising from work life. There are 5 items in the work-family conflict scale developed by Netemeyer (1996). Answers are in 5-point likert type. The scale was adapted to Turkish by Efeoğlu (2006). Cronbach Alpha reliability coefficient of the scale was determined as 0.88 (7, 12). In this study, the cronbach alpha value was determined to be 0.95.

Data Collection

112 emergency service personnel were reached via WhatsApp and data collection forms were sent via the internet using the Google Form method. 112 staff members who accepted to participate in the study were first asked to approve the informed consent form and the approved staff were directed to the data collection forms via the internet. All data obtained by online self-report method were recorded with Google Form method. The data collection phase took approximately 5-8 minutes for each participant.

Data Evaluation

The data were evaluated using the IBM SPSS Statistics 25.0 statistical package program. In addition to descriptive statistics (number, percentage, mean, standard deviation, min-max), Pearson correlation analysis was used. Results were evaluated at 95% confidence interval and significance level of $p < 0.05$.

Ethical Aspect of the Research

This reasearch has 'Republic of Turkey ministry of health Covid-19 scientific research permission' (Form Number: 2021-03-17T20_37_36). Ethical approval was obtained from İnönü University Health Sciences Non-Interventional Clinical Research Ethics Committee in order to conduct the study (Decision Number: 2021/1860). In addition, before the data collection forms were filled, the informed consent form was approved by making the necessary explanations to the participants in order to protect the participant's rights.

RESULTS

The introductory characteristics of the participants are given in Table 1. The working year average of the 112 emergency service personnel with an average age of 29.01 ± 6.54 is 7.69 ± 5.17 . Of the participants, 47.7% of whom are emergency medical technicians, 60.1% are women, 58.7% are associate degree graduates (Table 1).

Table 1. Distribution of descriptive characteristics of the participants (n = 293)

Variable	n	%
Age (Mean±SD=29.01±6.54)		
Working year (Mean±SD=7.69±5.17)		
Gender		
Women	176	60.1
Men	117	39.9
Education Level		
High school	42	14.3
Associate Degree	172	58.7
Bachelors Degree	79	27.0
Occupation		
EMT	140	47.7
Paramedic	135	46.1
Doctor	18	6.2
Total	293	100.0

EMT: Emergency medical technician SD: Standard deviation

In Table 2, the distribution of the scores and average scores of the participants from the coronavirus burnout scale, work stress scale and work-family conflict scale are given. It was determined that the 112 emergency service personnel had a total average score of 35.46 ± 12.10 from the Coronavirus Burnout Scale, 26.39 ± 7.71 points in the Work Stress Scale, and 17.76 ± 6.24 points from the Work-Family Conflict Scale (Table 2).

Table 2. Distribution of participants' scores and average scores from coronavirus burnout scale, work stress scale and work-family conflict scale (n = 293)

	Lowest-Highest Scores that Can Be Obtained	Lowest-Highest Scores that Obtained	Mean±SD
Coronavirus Burnout Scale	10-50	10-50	35.46 ± 12.10
Work Stress Scale	7-35	7-35	26.39 ± 7.71
Work-Family Conflict Scale	5-25	5-25	17.76 ± 6.24

SD: Standard deviation

Table 3 shows the relationship between the coronavirus burnout level of the participants and the level of work stress and work-family conflict. A moderate positive correlation was found between the coronavirus burnout level and work stress level in 112 emergency service personnel ($r = 0.698$; $p < 0.001$). In addition, a moderate positive correlation was found between coronavirus burnout level and work-family conflict level ($r = 0.657$; $p < 0.001$).

Table 3. Relationship between coronavirus burnout level of participants and work stress and work-family conflict level (n = 293)

Scales	Work Stress Scale	Work-Family Conflict Scale
Coronavirus Burnout Scale	$r = 0.698$ $p = 0.000^*$	$r = 0.657$ $p = 0.000^*$
*Pearson correlation		

DISCUSSION

It is emphasized by the Turkish Thoracic Society that the pandemic process, which poses a threat to all humanity despite the beginning of 2021, causes burnout on healthcare personnel (2). In this study conducted on 112 emergency service personnel working in the front stages of the pandemic, it was found that the total score average of the coronavirus burnout level was 35.46 ± 12.10 . Although there is no study in which the coronavirus burnout scale was used on 112 emergency service personnel, it can be said that 112 emergency service personnel have a higher than average coronavirus burnout, considering that a maximum of 50 points will be obtained from the scale.

In this study, it was found that the average score obtained by the 112 emergency service personnel in the Work Stress Scale was 26.39 ± 7.71 and the mean score obtained from the Work-Family Conflict Scale was 17.76 ± 6.24 . The findings show that there is an above average work and work-family stress level among 112 emergency service personnel. In the literature, it is stated that healthcare workers assuming new or unusual roles with the pandemic may cause anxiety and higher workload (13). The fact that job demands and job resources differ from one profession to another differentiates the job stress and job satisfaction levels of individuals working in different occupational groups (14). In addition to fears of Covid-19 exposure and the lack of personal protective equipment, healthcare professionals are faced with many problems such as exposure to family support while working and the difficulties of childcare (13). In this study, it was observed that as the coronavirus burnout level increased, the level of work stress and work-family conflict increased significantly. This finding shows that coronavirus burnout in 112 emergency service workers increases work stress and work-family conflict level. Working conditions are one of the most important factors affecting job stress and job satisfaction (14). Healthcare professionals are one of the professions that have a

role and responsibility in combating pandemics and play an important role in the diagnosis and treatment processes of the disease (4). In particular, emergency service workers are constantly exposed to traumatic events and stressors that cannot be predicted (15). This situation makes emergency service workers more prone to experience work stress compared to other occupational groups and healthcare professionals (14, 15). In his study, Karabay found that the work stress that healthcare workers are exposed to increases the intention to quit and positively affects the work-family conflict (16). In a study conducted by Arpacioğlu et al. in 2021, it was emphasized that arrangements should be made in working conditions in a way to increase job satisfaction and reduce burnout in healthcare workers during the pandemic. In addition, the same study emphasized the importance of monitoring the employees working in the high-risk unit more closely (4). When evaluated in this respect, it can be concluded that the obtained finding is compatible with the literature. Furthermore, the effects of conflicts between family and work on performance is one of the interesting research topics in the literature (17). It is widely believed that work stress is extremely effective on employees' activities in the workplace and can bring many negativities with it (16). During the Covid-19 pandemic, healthcare professionals often accept the increased risk of infection as part of their chosen profession practice, but they are particularly concerned about family transmission involving the elderly, immunocompromised or chronic disease family members (18). This can lead to burnout, work stress and work-family conflict in healthcare workers during long periods such as a pandemic.

CONCLUSION

This study conducted to determine the relationship between the level of Covid-19 burnout in 112 emergency service personnel with work stress and work-family conflict level; It was determined that the coronavirus burnout level, work stress and work-family conflict level were above average. In addition, it was found that as the level of coronavirus burnout in emergency service personnel increased, the level of work stress and work-family conflict increased significantly. In addition to protecting the psychological health of healthcare workers during the pandemic process, the possible effects of this process on work and family life should also be taken into account. In this direction, it is recommended to organize action plans by health institutions and managers to reduce the effects of Covid-19 on the mental health of health professionals, on job and professional satisfaction level and on work-family life.

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Conflict of Interest: The authors declare that they have no competing interest.

Ethical approval: Ethical approval was obtained from İnönü University Health Sciences Non-Interventional Clinical Research Ethics Committee in order to conduct the study (Decision Number: 2021/1860).

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