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ORIGINAL ARTICLE

Psychosocial Effect of COVID-19 Phobia in Health Workers in the Pandemic Service and Intensive Care

Pandemi Servis ve Yoğun Bakımında Çalışan Sağlık Çalışanlarında COVİD-19 Fobisinin Psikososyal Etkisi

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ABSTRACT

Objective: It was aimed to evaluate the phobia levels of COVID-19 (Coronavirus disease 2019) in medical staff working in the pandemic ward and intensive care unit and to examine its relationship with psychosocial impact levels.
Material and Method: The study included 100 people working in the pandemic ward and intensive care units in the first year of the pandemic. Sociodemographic Data Form, COVID-19 Pandemic Psychosocial Impact Scale (CPPIS) and COVID-19 Phobia Scale (CPS) were administered to all participants.
Results: The mean age of the participants was 32.5±7.4 years and 74% of them were women. Of these, 29% were doctors, 52% were nurses, 19% were allied health personnel and 66% worked in the service, 29% in the intensive care unit and 5% in both. There was very strong correlation between the CPS and the CPPIS total score, the death anxiety and anxious thoughts subscale scores. A strong positive correlation was found between the CPS and CPPIS subscales scores including close relationships, functionality and somatic symptoms. There was significant positive correlation between CPS and CPPIS scores and the duration of working in the pandemic service and intensive care unit.
Conclusion: It was considered that as choranophobia increased among medical staffs working in the pandemic service, their psychosocial effects also increased. It has been thought that reducing the working time in the service and/or intensive care unit during the pandemic, performing short-term rotations, might reduce the level of psychosocial impact and even be protective in terms of mental health of medical staff.

Keywords: COVID19, medical staff, phobia, pandemics

ÖZ

Amaç: Bu çalışmada pandemi servisi ve yoğun bakım servisinde çalışan sağlık çalışanlarında COVİD-19 (Coronavirus disease 2019, COVID-19) fobi düzeylerinin değerlendirilmesi ve psikososyal etkilenme düzeyleri ile ilişkisinin incelenmesi amaçlanmıştır.
Gereç ve Yöntem: Çalışmaya pandeminin ilk yılında pandemi servis ve yoğun bakımlarında çalışan 100 kişi alınmıştır. Tüm katılımcılara Sosyodemografik Veri Formu, COVID-19 Pandemisi Psikososyal Etkilenme Ölçeği (CPPEÖ) ve COVID-19 Fobi Ölçeği (CFÖ) uygulanmıştır.
Bulgular: Çalışmaya katılanların ortalama yaşı 32,5±7,4 ve %74'ü kadındır. Katılımcıların %29'u hekim, %52'si hemşire, %19'u yardımcı sağlık personelidir ve %66'sı servis, %29'u yoğun bakım, %5'i hem servis hem yoğun bakımda çalışmıştır. CFÖ puanı ile CPPEÖ toplam puanı arasında ve CFÖ puanı ile CPPEÖ alt ölçekleri olan ölüm kaygısı ve endişeli düşünceler boyutu puanları arasında çok güçlü; yakın ilişkiler, işlevsellik ve bedensel belirtiler boyutu puanları arasında güçlü pozitif korelasyon saptanmıştır. CFÖ ve CPPEÖ puanı ile pandemi servis ve yoğun bakımlarında çalışma süresi arasında anlamlı pozitif korelasyon saptanmıştır.
Sonuç: Pandemi servisinde çalışan sağlık çalışanlarında koronafobi artıkça psikososyal etkilenmelerinin de arttığı düşünülmüştür. Pandemide servis ve/veya yoğun bakımda çalışma süresinin azaltılması, kısa süreli rotasyonlarla yapılması, psikososyal etkilenme düzeyini azaltabileceği hatta sağlık çalışanı ruh sağlığı açısından koruyucu olabileceği düşünülmüştür.

Anahtar Kelimeler: COVID19, fobi, sağlık çalışanları, pandemik

Introduction

It has been reported that COVID-19 has a strong impact on the lives of people, and many factors such as changing social life, economic problems, and work-related risks affect situations such as anger, anxiety, stress, depression, and sleeping problems at different intensities (1). The pandemic affected individuals physically and psychologically, and the group with the highest risk of being affected was healthcare workers. Psychological negativities, as well as other mental problems, have been reported at a high rate in healthcare workers who have to work with concepts such as viruses, intensive care, pandemics and death every day (2). In this process, medical staff faces higher levels of psychological problems due to long working hours, high risk of infection, limited protective equipment, physical fatigue, loneliness and separation from their families (3). Nurses have frequently begun to provide end-of-life care and have become people who meet all the needs of patients who do not share the same environment with anyone, including their families (4). Changes in the nurse-patient ratio during the pandemic period, care for risk groups, risk of disease transmission to nurses, lack of treatment and vaccination of the disease, change in the working system, caring for patients with protective equipment for hours and the possibility of transmitting the virus to

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others or their families. Stigmatization, fear, anger, anxiety and uncertainty in nurses led to burnout (5). In a study of 1,563 healthcare professionals, more than half (50.7%) reported depressive symptoms, 44.7% reported anxiety, and 36.1% had sleeping disturbances (6). Many physicians developed depression, post-traumatic stress disorder, burnout, and anxiety after fatigue, fear, emotional disturbance, and sleep disturbances subside (7). The fear of being infected due to the risk of infecting their loved ones and families was the biggest cause of anxiety among healthcare professionals (8). In another study, it was reported that high rates of anxiety (44.6%), depression (50%), anxiety disorders (71.5%) and insomnia (34%) were observed in healthcare personnel working in COVID-19 services (9). It has been stated that COVID-19 phobia has a great impact on human psychology, and it has been shown that there is an increase in COVID-19 phobia due to psychological distress such as anxiety, panic and stress caused by the pandemic (10). Studies have shown that there is a significant relationship between COVID-19 phobia, functional impairment, psychological problems and depression levels (11).

Reasons such as increasing depression, health anxiety, loneliness, stigma and financial difficulties, changing work and working conditions, secondary traumas for medical staff, and separation from their families bring about the necessity and importance of psychological intervention (12). This study aimed to evaluate COVID-19 phobia levels in healthcare professionals working in the pandemic ward and intensive care unit and to examine its relationship with psychosocial impact levels.

The hypothesis of this is that there is a significant relationship between COVID-19 phobia levels in individuals and the psychosocial impact level of COVID-19; As the level of COVID-19 phobia increases, psychosocial effects may also increase. The evaluation of COVID-19 phobia levels in healthcare workers working in the pandemic ward and intensive care unit and its relationship with psychosocial impact levels were examined. It has been shown that there is a significant relationship between COVID-19 phobia, functional impairment, psychological problems and depression levels. It is thought that healthcare workers are affected psychosocially in all areas as the working time increases in psychosocially harsh working conditions during the pandemic. In addition, considering that the prolongation of this period increases coronaphobia and further exacerbates this psychosocial impact, it is thought that it may be a guide for the measures to be taken to protect the mental health of healthcare workers in possible processes such as pandemics. Our study is the first study to use the COVID-19 Phobia Scale, for which validity and reliability studies were conducted by Dilbaz et al. (13).

Material and Methods

The data for this study was collected between July 2022 and November 2022. It was planned to include all healthcare workers between the ages of 18 and 65 who worked in the pandemic ward and intensive care units of a university hospital in the first year of the pandemic. 300 healthcare workers were reached, but only 100 healthcare workers agreed to participate in the study. Statistical evaluation was made with 100 healthcare professionals who agreed to participate in the research. The only exclusion criterion is refusal to participate in the study.

Face-to-face interviews were held with healthcare professionals who met the inclusion and exclusion criteria and agreed to participate in the study. Informed consent was obtained from participants who agreed to participate in the study after the procedures were fully explained. Sociodemographic Data Form, Covid-19 Pandemic Psychosocial Impact Scale and Covid-19 Phobia Scale were applied to all participants.

Sociodemographic Data Form

It is a questionnaire prepared by researchers to collect sociodemographic data and clinical characteristics of participants in order to question the independent variables of the research.

Covid-19 Phobia Scale

The validity and reliability study of the COVID-19 Phobia Scale, which we used in the study, was conducted by Dilbaz et al. (13). It can be used to measure emotions such as fear and anxiety and the resulting behavioral changes that occur during the COVID-19 epidemic (13).

Covid-19 Pandemic Psychosocial Impact Scale

COVID-19 pandemic Psychosocial Impact Scale; It was developed by Sinanoğlu (14) and its validity and reliability were established (14).

The Covid-19 Pandemic Psychosocial Impact Scale employed in the study consists of a total of 33 items and five dimensions. These are anxious thoughts, death anxiety, close relationships, functionality and physical symptoms. The highest score that can be obtained from the scale is 165 and the lowest score is 33. The increase in scores indicates a high level of psychosocial impact (14).

The research report of this study complies with ethical standards and this study was given ethical approval by the decision of Pamukkale University Non-Interventional Clinical Research Ethics Committee dated 07/06/2022 and numbered 09.

Informed consent was obtained from participants who agreed to participate in the study after the procedures were fully explained. The study was conducted in accordance with the World Medical Association Declaration of Helsinki Ethical Principles for Medical Research on Human Subjects, revised in 2003.

Statistical analysis

Data were analyzed with the SPSS 25.0 (IBM SPSS Statistics 25 software, Armonk, NY: IBM Corp.) package

program. Continuous variables are given as mean ± standard deviation and categorical variables as numbers and percentages. Relationships between continuous variables were examined with Pearson correlation analyses. P<0.05 was considered statistically significant. Continuous variables between groups were examined with one-way analysis of variance. P<0.17 (0.05/3) was considered statistically significant.

Results

Of the participants, 74% were female and 26% were male in this research. The average age of the participants was 32.5±7.4. Of these participants, 29%were physicians, 52% were nurses, and 19% were allied health personnel. 66% of the participants worked in the ward, 29% in the intensive care unit, and 5% in both the ward and the intensive care unit. The average working time of the participants in pandemic wards and intensive care units was 225.78±240.345 (min: 10, max: 850) days.

A very strong positive correlation was found between the CPS score and the CPPIS total score (p<0.001; r=0.655). CPS score and CPPIS had a very strong relationship between anxious thoughts (p<0.001; r=0.730) and death anxiety (p<0.001; r=0.602), functionality (p<0.001; r=0.480), physical symptoms (p<0.001; r). =0.424), close relationships (p<0.001; r=0.530) subscale scores (Table 1).

There was a significant positive correlation between CPS score and working time in pandemic wards and intensive care units (p=0.012; r=0.278), working hours in coronavirus wards and intensive care units and CPPES total score (p=0.011; r=0.281) and close relationships (p=0.044; r=0.224), functionality (p=0.032; r=0.238), death anxiety (p=0.031). A positive correlation was found between subscale scores of; r=0.240), somatic symptoms (p=0.024; Pearson correlation coefficient=0.250), and anxious thoughts (p=0.029; r=0.243) (Table I).

No significant difference was detected between CPS, CPPIS subscale and total scores and healthcare personnel groups (physician, nurse, allied healthcare personnel) (p>0.017) (Table 2).

Table 1: Correlation of CPPIS scores with CPS score and working time

	COVID-19 Phobia Scale Score		Working time	
	R	*p**	r	*p***
Death Anxiety	.602	.000	.240	.031
Anxious Thoughts	.730	.000	.243	.029
Close Relationships	.530	.000	.224	.044
Physical Symptoms	.424	.000	.250	.024
Functionality	.480	.000	.238	.032
CPPIS Total Score	.655	.000	.281	.011

* Pearson correlation test p<0.01; ** Pearson correlation test. p< 0.05

CPPIS; COVID-19 Pandemic Psychosocial Impact Scale, CPS; COVID-19 Phobia Scale

Table 2. Comparison of CPS, CPPIS total and subscale scores between healthcare personnel groups.

	Physician	Nurse	Other Allied Health Personnel	
	n=29	**n**=52	**n**=19	
	Mean (SD)	Mean (SD)	Mean (SD)	*p**
CPS Score	68.90 (12.99)	70.83 (16.46)	71.11 (19.01)	.850
Death Anxiety	17.03 (5.93)	15.35 (6.30)	16.47 (7.83)	.511
Anxious Thoughts	19.34 (4.35)	19.87 (5.75)	22.05 (7.16)	.247
Close Relationships	14.38 (5.20)	14.00 (6.00)	16.11 (8.70)	.468
Physical Symptoms	10.83 (4.88)	10.88 (4.96)	11.58 (4.34)	.844
Functionality	14.97 (5.50)	13.63 (5.19)	14.05 (5.67)	.566
CPPIS Total Score	76.55 (21.61)	73.73 (24.66)	80.26 (28.52)	.247

*One-Way Analysis of Variance was applied. p< 0.017 (0.05/3) was considered statistically significant.

CPS; COVID-19 Phobia Scale, CPPIS; COVID-19 pandemic Psychosocial Impact Scale, SD: Standard Deviation

Discussion

When the literature is examined, the studies conducted in our country are mostly on anxiety, stress, depression, psychological health and burnout (15). In the relevant literature, no study was found using the CPS and CPPIS used in this research and investigating the relationship between psychosocial influence and coronaphobia. Research has reported that coronaphobia is higher in nurses than in the general population, and the factor that increases fear is the risk of contracting the disease and unknowingly infecting others (16,17). In a study including 310 nurses in our country, it was reported that the factors affecting the psychological dimension of coronaphobia were female gender, working in internal clinics, working during daylight hours, chronic disease, having a relative with coronavirus and vaccination (15). In this study, it was determined that as COVID-19 phobia levels increased, COVID-19 psychosocial impact levels also increased. During the pandemic, the constant fear of contamination led to obsessive thoughts, thus, causing the person to become increasingly withdrawn and less likely to engage in social relationships (9).

It has been observed that young female healthcare workers, especially those working directly in the pandemic service, experience such mental problems more (8). The study included 74% female healthcare workers. It has been reported that its level is high in nurses who are married and have children (15). Married nurses have difficulty in leading a normal life due to reasons such as working for a long time in the workplace, increased parental burden when their children stay at home, and the prolongation of the process (5,15). Therefore, in this study, it was thought that both coronaphobia levels and psychosocial effects were found higher in female healthcare workers.

During the epidemic period, changes in the nurse-patient ratio, providing care to risky groups, the risk

of transmission of the disease to nurses, uncertainty in the treatment of the disease, changes in the working system, working for hours with protective equipment and the possibility of transmitting the virus to others have caused phobic symptoms and anxiety against coronavirus (5). In this study, it was determined that the level of coronaphobia and psychosocial impact in healthcare workers increased significantly as the duration of work in the pandemic ward and/or intensive care unit increased. The prolongation of working hours has exposed people to more psychosocial work difficulties caused by the pandemic. It is thought that this may increase coronaphobia and psychosocial effects in healthcare workers.

It has been determined that the level of coronaphobia has a strong relationship with the anxious thoughts and death anxiety subscale in terms of psychosocial impact. The Death Anxiety dimension, which is the subscale of CPPIS, evaluates the concerns and thoughts experienced by the person or their relatives about death due to the epidemic. Death anxiety experienced by people has been included in many studies regarding the pandemic period (14). The high level of death anxiety among healthcare workers in terms of psychosocial impact is due to the fact that the COVID-19 pandemic causes mass deaths. The number of deaths they encounter in the pandemic is much higher than the ones they encounter during normal working days. The majority of these deaths are witnessed by healthcare workers, and the deaths they witness are caused by their anxiety that their relatives or themselves may also experience it. It was thought that it might happen. Thoughts related to concerns about COVID-19 were evaluated in the Worry Thoughts dimension, which is another subscale of the CPPIS. It is thought that the high level of anxious thoughts in psychosocial impact is due to the anxiety of themselves or their relatives getting COVID-19 due to the contagiousness of the virus.

Other subscales of CPPIS, the Close Relationships dimension; how the stress a person experiences during the pandemic affects their social relationships; The Bodily Symptoms dimension describes the problems caused by trauma in the body; The functionality dimension specifically evaluates the impairment in functionality due to anxiety. In this study, working time in the pandemic ward and/or intensive care unit was found equally related to all dimensions of psychosocial impact, including anxious thoughts, physical symptoms, death anxiety, close relationships and functionality. It is thought that healthcare workers are affected psychosocially in all areas as the working time increases under psychosocially harsh working conditions during the pandemic. In addition, it is thought that prolonging this period increases coronaphobia, further exacerbating this psychosocial impact.

Limitations of the study; Since the study is single-centered, the working conditions of the hospital where healthcare professionals work may also affect the results. Another limitation is that vaccination started during the time the study was conducted, which may have affected coronaphobia levels. After vaccination, the study can be repeated with a multicenter and larger sample.

Conclusion

It is thought that reducing the working time in the ward and/or intensive care unit during the pandemic, doing short-term rotations, may reduce the level of psychosocial impact and may even be protective for the mental health of healthcare workers. It is thought that this study may provide guidance in terms of measures to be taken and treatments to be applied to protect and improve the mental health of healthcare workers during a possible pandemic process.

Ethics Approval and Participation Approval: The research report of this study complies with ethical standards and this study was given ethical approval by the decision of Pamukkale University Non-Interventional Clinical Research Ethics Committee dated 07/06/2022 and numbered 09. Informed consent was obtained from participants who agreed to participate in the study after the procedures were fully explained. The study was conducted in accordance with the World Medical Association Declaration of Helsinki Ethical Principles for Medical Research on Human Subjects, revised in 2003.

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Data Availability: The data sets generated during or analyzed during the current study are available from the corresponding author upon reasonable request.

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