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## COVID-19 Experiences of Turkish Intensive Care Nurses: A Qualitative Study

### Türk Yoğun Bakım Hemşirelerinin COVID-19 Deneyimleri: Nitel Araştırma

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**ABSTRACT Objective:** Nurses are at the forefront of the fight against the pandemic. This study was conducted to reveal the experiences, problems, motivation and support resources of intensive care nurses in the first period of the coronavirus disease-2019 (COVID-19) pandemic.

**Materials and Methods:** The research is a descriptive qualitative study. The sample of the study consisted of 12 intensive care nurses working in the intensive care unit of a state hospital in Izmir and caring for patients infected with COVID-19 virus.

**Results:** Main themes (sub-themes); emotions (worry/anxiety), difficulties in patient care (aspiration, intubation), measures taken by nurses (internal isolation), effects of the pandemic on intensive care nurses (physical; back pain, psychological; sleep problems, social; exclusion), support and motivation sources of nurses (teammates support), positive contributions of the pandemic process (crisis management).

**Conclusion:** Intensive care nurses experienced physical, psychological and social problems during the pandemic period. In this process, it was determined that they tried to strengthen with support resources and gained skills in crisis management.

**Keywords:** COVID-19, pandemic, intensive care nurse, experiences

**ÖZ Amaç:** Hemşireler, pandemi ile mücadelenin ön saflarında görev almaktadır. Bu çalışma, yoğun bakım hemşirelerinin koronavirüs hastalığı-2019 (COVID-19) pandemisinin ilk döneminde yaşadıkları deneyimleri, sorunları, motivasyon ve destek kaynaklarını ortaya çıkarmak amacıyla yapılmıştır.

**Gereç ve Yöntem:** Araştırma tanımlayıcı nitel bir çalışmadır. Araştırmanın örneklemini İzmir ilinde bir devlet hastanesinin yoğun bakım ünitesinde görev yapan ve COVID-19 virüsü ile enfekte hastalara bakım veren 12 yoğun bakım hemşiresi oluşturmuştur.

**Bulgular:** Ana temalar (alt temalar); duygular (endişe/kaygı), hasta bakımındaki zorluklar (aspirasyon, entübasyon), hemşirelerin aldığı önlemler (iç izolasyon), pandeminin yoğun bakım hemşireleri üzerindeki etkileri (fiziksel; sırt ağrısı, psikolojik; uyku sorunları, sosyal; dışlama), hemşirelerinin destek ve motivasyon kaynakları (ekip arkadaşları desteği), pandemi sürecinin olumlu katkıları (kriz yönetimi) olarak belirlenmiştir.

**Sonuç:** Yoğun bakım hemşireleri pandemi döneminde fiziksel, psikolojik ve sosyal sorunlar yaşamıştır. Bu süreçte destek kaynakları ile güçlenmeye çalıştıkları ve kriz yönetiminde beceri kazandıkları belirlenmiştir.

**Anahtar Kelimeler:** COVID-19, pandemi, yoğun bakım hemşireliği, deneyimler

## Introduction

An unexpected virus, severe symptoms seen in people infected with the virus, and the rapidly increasing number of cases worldwide have caused a rapid change in intensive care activities (1). The coronavirus disease-2019 (COVID-19) outbreak was declared as a pandemic by the World

Health Organization due to the high spread rate of the virus, its serious effects on public health and the deaths of thousands of people (2). The first COVID-19 case in Turkey was announced on March 10, 2020, and this number has gradually increased. COVID-19 infection has become a universal problem with widespread respiratory symptoms causing pneumonia, severe acute respiratory infection,

kidney failure, and death in severe cases (2). COVID-19 infection is a highly contagious disease and the virus poses a huge threat to healthcare workers. There has been a sudden increase in the number of intensive care beds due to COVID-19 worldwide. In this sudden increase, additional intensive care units were opened with the support of nurses in the healthcare system, and the number of beds was increased (3). This increase has seriously increased the workload of nurses (1). The main reason for the increase in the workload per patient is more intensive hygiene practices, difficult mobilization, support programs for patient relatives, maintenance of respiratory function, and an increase in the number of deaths (1). Nurses provide care to patients with close physical contact and are therefore in a risky group in terms of COVID-19 (4-8). Individuals who need intensive care treatment in the pandemic are generally elderly individuals with a history of comorbid diseases. Severe pneumonia resulting in breathing difficulties in COVID-19 infection has resulted in the hospitalization of thousands of people. Two-thirds of the individuals in need of intensive care met the criteria for acute respiratory distress syndrome and respiratory support was required (9). Intensive care nurses have undertaken important duties in meeting the care needs of individuals experiencing advanced symptoms of the disease during the COVID-19 global epidemic.

In the pandemic, intensive care units have become the most important units for patients. Since patients need a mechanical ventilator when COVID-19 symptoms worsen, intensive care nurses have many more responsibilities such as monitoring and maintenance of the patient's respiratory functions, aspiration of secretions, oral care, giving the patient a prone position, monitoring early sepsis symptoms, regular administration of supportive therapies determined by the physician at appropriate doses, maintaining the patient's enteral nutrition, ensuring hygiene requirements, blood gas analyses and informing the physician when necessary (10,11). In these treatment and care practices, the distance between the intensive care nurse and COVID-19 (+) or suspected (+) individuals can be maximum 10 cm. Due to the care and treatment needs of the patient, it is very rarely possible for the intensive care nurse to leave the patient's room, to enter and exit the patient's room less, or to stay away or behind. Many international scientific associations, especially the World Federation of Intensive Care Nurses; emphasize that the patient: a nurse ratio should be 2:1 for the care of critically ill (not mechanically ventilated)

patients who require complex care, but 1:1 for critically ill patients who are mechanically ventilated and highly dependent. Although there is no evidence in the literature yet, China and the United States, etc., where the pandemic spread before Turkey. The practice made and recommended by countries is that one intensive care nurse takes care of a patient with COVID (+) due to the high risk of transmission, as well as the critical patient is connected to a mechanical ventilator (10,12).

Therefore, providing care to infected patients for a long time poses a high risk in terms of transmission of the disease to intensive care nurses (10). The anxiety experienced by nurses while caring for infected patients is related to their risk of infection, being carriers of the source of infection and death anxiety (13-18).

Nurses are especially concerned about the spread of the virus to family members in the risk group such as the elderly, immunocompromised persons and children. To protect family members from the virus, nurses isolated themselves from their relatives (13,16,19). It is reported that nurses experience fear and anxiety despite taking protective measures (5). To date, a limited number of studies have been conducted on the pandemic experiences of nurses (13,16,20,21). During the pandemic, the effects of caregiving on nurses should be made visible.

Addition to, it is vital to understand the effects of the pandemic process on nurses and to determine the nurses' experiences to ensure the quality of health services. In this study, the experiences of intensive care nurses who have managed the COVID-19 pandemic with close follow-up, observation, and successful attempts will be reported.

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## Materials and Methods

This research was carried out in phenomenological type to determine both physical and psychological problems experienced by intensive care nurses during the COVID-19 pandemic process. The research focused on the problems experienced by intensive care nurses in combating a pandemic they had not experienced before, difficulties in patient care, difficulties in using equipment, being away from their families, and psychological difficulties they experienced in social isolation.

### Research Questions

1. What are the feelings of intensive care nurses providing care in the COVID-19 pandemic?

2. What are the difficulties faced by intensive care nurses in patient care during the COVID-19 pandemic?

3. What are the precautions taken by the intensive care nurses during care in the COVID-19 pandemic?

4. What are the effects (physical, psychological, social) of the COVID-19 pandemic on intensive care nurses?

5. What are the sources of support and motivation for intensive care nurses during the COVID-19 pandemic?

### Population and Sample of the Research

The population of the study consisted of intensive care nurses who gave care to patients with a diagnosis of COVID-19 who were working in a state hospital in İzmir. The sample consisted of nurses who agreed to participate in the study voluntarily. Due to qualitative research and data collection, the sample size was determined according to the saturation of the data, and in-depth interviews were conducted with 12 nurses.

### Inclusion Criteria

Intensive care nurses who care for patients over the age of 18 with a diagnosis of COVID-19 were included. Nurses who did not agree to participate in the study were excluded from the study.

### Research Method

The research data were collected face-to-face with a semi-structured interview form in an average of 30 minutes.

During the interview process, voice recordings of the nurses were taken, and their opinions were coded in such a way that their names were kept confidential.

### Statistical Analysis

The researchers conducted the content analyses independently. In content analysis, the data were evaluated in four stages (1) coding the data, (2) finding codes, categories and themes, (3) organising the codes, categories and themes, and (4) describing and interpreting the findings.

Validity-reliability of the study: Kappa analysis was used to evaluate the appropriateness of the nurses' opinions and themes. A few opinions under the themes were randomly selected and sent to experts (academicians, expert nurses). The expert was asked to match the themes with the patient's statements. As a result of Kappa analysis, it was determined that there was an excellent level of agreement ( $k=1$ ,  $p<0.001$ ).

Internal validity (reliability): The average collection time of the research data was 30 minutes and reliable answers were

obtained with long-term interviews. When the data reached the saturation point, the interviews were terminated. The researcher who conducted the interview received the confirmation of the nurses to verify the data. Two experts experienced in qualitative research examined the study in all aspects.

External validity (transferability): The opinions of the nurses were transferred without adding comments. Purposive sampling was used.

Internal reliability (consistency): The semi-structured interview form was prepared in line with the literature. The same interview form and voice recorder were used in the data collection process of the study.

External reliability (confirmability): The researchers analysed the data independently of each other. Then they came together and finalised the findings. This article was checked according to the COREQ checklist (22).

This study was conducted in accordance with the principles of the Declaration of Helsinki. Permission was obtained from the Ministry of Health Scientific Research Platform. Dokuz Eylül University Non-Interventional Research Ethics Committee approval was obtained for this study (decision no: 2020/19-26, date: 17.08.2020). Written institutional permission was obtained from the hospital where the research data were collected. Informed consent was obtained from the individuals participating in the study.

## Results

The experiences of the nurses who participated in this study were summarized in six main themes.

In the study, 83% of the nurses participating in the study were female and 17% were male. 67% of them are in the 25-35 age range. 50% of this participants have been working for 1-9 years and 75% of them have been working in intensive care for 1-9 years. 67% of them had polymerase chain reaction (PCR) test, and 63% of them had PCR test 1-5 times (Table 1).

The nurses who participated in this study reported that they experienced fear, anxiety, and worry during the pandemic process and were generally afraid of infecting virus their families (Table 2).

"Nurses participating in the study reported that they had fear of being infected with the virus, infecting their relatives, stigma, and being away from their loved ones." (N3)

**Table 1. Descriptive characteristics of nurses (n=12)**

Variable		n	(%)
<b>Gender</b>	Female	10	83%
	Male	2	17%
<b>Age</b>	25-35	8	67%
	35-45	4	33%
<b>Marital status</b>	Married	6	50%
	Single	6	50%
<b>Educational status</b>	Pre-licence	1	8.3%
	License	10	83.3%
	Master's degree	1	8.3%
<b>Work experience as a nurse</b>	1-9 years	6	50%
	10-19 years	4	33%
	20-29 years	2	17%
<b>Work experience as an intensive care nurse</b>	1-9 years	9	75%
	10-19 years	3	25%
<b>Have you had a COVID-19 test?</b>	Yes	8	67%
	No	4	33%
<b>Why did he get COVID-19 test?</b>	Contacted	3	63%
	Symptom developed	5	37%
<b>How many times has the nurse been tested?</b>	1-5 times	5	63%
	6-10 times	2	37%

COVID-19: Coronavirus disease-2019

**Table 2. Emotions of intensive care nurses caring for the COVID-19 pandemic**

Theme	Sub-themes	Nurses statements
Emotions of intensive care nurses caring in the COVID-19 pandemic	Fear	N6: "When I first heard that I will start caring for a patient diagnosed with COVID-19, I was horrified, we were entering an unknown process, I felt like soldiers in the war." N4: "I was unafraid of being infected with the virus, I was afraid of infecting my children and relatives with the disease me." N9: "I was afraid of not being able to provide adequate care to patients and that I would be infected."
	Worry/anxiety	N11: "At first we were worried. Thanks to our experience and the support we give to each other with our teammates, our anxiety has decreased day by day." N1: "I was worried because we did not know the course of the disease at the beginning of the pandemic, and we did not know what awaited patients in the future." N7: "The sudden worsening of the patient's condition worried us."

COVID-19: Coronavirus disease-2019

In this study, it has been reported that the intensive care nurses who care during the COVID-19 process have difficulty in applications such as aspiration, intubation, and oral care, which have a higher risk of virus transmission. It was stated that the most challenging equipment was glasses, masks, and overalls. Nurses reported that they were physically and

psychologically worn out due to patient care and the use of difficult equipment (Table 3).

"The application that I think is the most challenging and with the highest risk of contamination during the pandemic process is an aspiration, oral care, intubation, feeding of the conscious patient, general body care, Ambu application, and CPAP application." (N5)

**Table 3. Challenges of intensive care nurses during the COVID-19 pandemic**

Themes	Sub-themes	Nurses statements
Challenges of intensive care nurses during the COVID-19 pandemic	Coercive practices during a pandemic process	N12: "I am afraid to apply CPAP because it increases the risk of transmission." N8: "We were supporting the oral nutrition of conscious patients. Even though we had full protective equipment, we were in direct contact with the patient's secretions. We fed them with our hands. I think the risk of transmission is very high because we come into very close contact."
	Forceful equipment in the pandemic process	N2: "My most disturbing protective equipment in patient care was the N95 mask, overalls, and goggles." N6: "The glasses fog a lot and restrict the field of view when approaching the patient. It is very difficult to work with aprons all the time and I sweat all the time. The mask, on the other hand, makes it difficult for me to breathe easily and I always have pressure marks on my face." N7: "Sweat a lot in my overalls. I feel the need to constantly change uniforms. The glasses were making too much steam. I have asthma and have a hard time breathing with masks." N9: "We had to work more carefully because of the steam in the goggles. During this, we were both more careful and faster, and we intervened immediately. However, this process has worn us out physically and psychologically."
COVID-19: Coronavirus disease-2019		

**Table 4. The precautions taken by intensive care nurses during the COVID-19 pandemic**

Themes	Nurses statements
Precautions taken by intensive care nurses during the COVID-19 pandemic	N6: "I didn't leave the house for 2-3 days and I applied room isolation when I stayed at home. I wore a mask at home. I separated forks and spoons. I was away from my children. During this time, I did not use public transportation." N3: "Clean the bathroom and toilet constantly. I had a shower before I came face to face with my children. We created an isolation room at home and ate our meals separately." N5: "At the beginning of the process, I stayed in dormitories arranged by the state. I was separated from my children for a month. Afterward, I realized that this process would not end immediately, I got used to the methods of protection, I knew better what to do now, I went back to my home." N4: "I haven't been in the same room with my 2 sons for about 3 months. I used a separate toilet. I used a mask during cooking. We made room isolation and ate our meals separately." N6: "Since I live with my family, I have stayed at my friends' house for 1.5 months. I was afraid of infecting my mother with the virus. When I saw these cases, which were transmitted from the children of hospitalized patients, I began to fear more. I didn't see my family."
COVID-19: Coronavirus disease-2019	

It was determined that the nurses who participated in this study stayed away from their homes and children during this process and those who stayed in the same house-applied room isolation (Table 4).

"I had a shower in the hospital, I was isolated at home, I used public transportation, I ate alone, I moved to a separate

house, and I did not see my family members, children, and friends. In this process, I took these precautions." (N7)

Intensive care nurses reported the physical effects of the COVID-19 pandemic as back and leg pain, skin problems due to frequent hand washing, sweating due to protective equipment, and headaches due to masks. They started

the psychological and social effects of the pandemic as an increase in their longing for their relatives, a feeling of loneliness, and a sense of social stigma and exclusion due to being a healthcare worker (Table 5).

“I have back and leg pain. I have eczema and urticaria problems. I drink very little water as it is difficult to put on and take off the overalls. Therefore, urinary tract infections developed. It progressed in my leg varicose veins.” (N1)

During this process, intensive care nurses reported that they received support from their families and teammates and that they wanted to receive financial support as well. Motivation sources are also to help patients and to be shown as a source of pride by society (Table 6).

“I did not receive support from psychiatry. Someone who has not experienced this process and this fear cannot know how I feel. Cannot support me in this matter.” (N5)

**Table 5. Effects of the COVID-19 pandemic on intensive care nurses (physical, psychological, social)**

Themes	Sub-themes	Nurses statements
Effects of the COVID-19 pandemic on intensive care nurses	Physical problems occurring during the pandemic process	<p>N6: “Because of the patient density, I stayed up longer. Since I could not meet my toilet needs overall, I drank almost less water. I had kidney pain. I’ve had many headaches attached to ffp2 masks. I felt exhausted after the seizure.”</p> <p>N9: “Due to the workload, we couldn’t rest enough, we stood for too long, and we were sweating a lot in our overalls. When we took off the overalls, we experienced back and leg stiffness. I had to change my jersey every time I got out of my overalls. I had an allergic runny nose, headache, and migraine attacks. Due to more frequent washing of our hands and the use of disinfectants, cracks and eczema occurred on our hands.”</p> <p>N11: “When I took off my overalls, I was sweating down to my socks. I frequently uniform changed. I had foot and leg pains.”</p> <p>N8: “I lose many fluids because I sweat excessively in the overalls. My uniform is soaked with sweat. I have constant headaches. I can’t breathe easily in the mask. I am experiencing increased fatigue and pain.”</p>
	Psychological issues in pandemic process	<p>N6: “I am experiencing problems such as sleep problems, longing, loneliness, anxiety, and tension during the pandemic process.”</p> <p>N5: “We are so worn out psychologically. During this period, we supported each other with our colleagues. Being together with people who are in the same situation as us has increased my strength.”</p> <p>N4: “My wife has hypertension, I was afraid of infecting her. This increased my stress even more.”</p> <p>N1: “People around us were worried that we could infect them because we are healthcare professionals. When it was Boyle, I got nervous too. But as the process progressed, we started to gain acceptance.”</p> <p>N9: “There were many negative people around me during this process. I was careful not to talk to people who weren’t going through the same thing as me. I stayed away from them. They looked at me with pity.”</p> <p>N3: “Because we do not have a social life and work is busy, I started to not be able to enjoy life, I went into burnout syndrome. I’ve come to the point of quitting my job. But we gave patient care in the best way possible. Seeing the patients recovering was raising our hopes.”</p>
	Social problems in a pandemic process	<p>N11: “My partner was horrified at first. So, my partner and I stayed in different rooms. I didn’t meet my parents for a while. I felt like my neighbors were looking at me with pity on my way to work. I never took off my mask in not to disturb my neighbors.”</p> <p>N4: “Not being able to see our friends have affected us negatively. Even if we meet, I felt that they were uncomfortable with me because I was a hospital employee, I could not go to the meet.”</p> <p>N5: “When my neighbors saw me, they were worried that you might infect us with a virus.”</p> <p>N4: “I felt excluded, there were people who did not want to see me because I am a healthcare worker. My acquaintances conveyed their prayers to me through messages and telephone.”</p>
COVID-19: Coronavirus disease-2019		



**Table 6. Support and motivation resources of intensive care nurses in the COVID-19 pandemic**

Themes	Sub-themes	Nurses statements
Support and motivation resources of intensive care nurses in the COVID-19 pandemic	Support systems in the pandemic process financial support support from colleagues family, friend support moral support psychological support	N6: "In this process, I want to increase the number of nurses and let us rest more. We are exhausted physically and psychologically." N7: "Activities that will increase our motivation psychologically and socially can be planned. Concerts and events can only be organized for healthcare professionals." N2: "All occupational groups work with flexible hours, and health professionals work overtime. We, as health professionals, are exhausted."
	Motivation sources during the pandemic process	N6: "Since I had the COVID-19 disease, I could understand how the patients in the intensive care unit felt. I tried motivating the patients to get well. Caring for and supporting patients who needed me increased my motivation."
	We hope that the bad days will end one day	N11: "I didn't have any source of motivation. We continued to do our job in the hope that this disease will one day end."
	Being a source of pride	N8: "Patients were our biggest motivation." N7: "We were motivated by the thanks and applause support given to the healthcare professionals on social media and television."

COVID-19: Coronavirus disease-2019

**Table 7. Difference between the first pandemic shift and the shift at the end of two months**

Themes	Sub-themes	Nurses statements
The difference between the first pandemic seizure and the seizure at the end of 2 months	Experience and knowledge increase	N6: "As I gained experience in treatment and care planning, I started to do it better. I learned to motivate myself. I learned how to protect myself. I was more relaxed than the first shift."
	Learning to protect yourself	N9: "We learned to use protective equipment. We saw that it is not easy to infect. We have experienced that the equipment protects us. Our knowledge of the disease process has increased. We felt more comfortable while giving care."
	Relaxation when approaching the patient	N11: "I felt more comfortable. I could manage care better. Intensive care is an environment that requires teamwork. As we learned to manage the whole team, our risk of contagion decreased."

COVID-19: Coronavirus disease-2019

During this period, they reported that they were more confident, experienced, and more comfortable while giving care to the patient during their seizures two months after the first patient care (Table 7).

"Started to do my job more confident. The stones have begun to fall into place. We are experienced in protection and care. Our stress and tension have decreased." (N12)

Most of the intensive care nurses reported that the process did not make a positive contribution. Some nurses reported that their professional development increased, their crisis management skills improved and their professional values increased in the society expressed (Table 8).

"I've seen too many complicated cases in a short time. I have developed myself more in terms of nursing. During this period, we became stronger as nurses. We saw the importance of teamwork more." (N9)

### Discussion

In this study, COVID-19 pandemics of intensive care nurses involved throughout the process to determine both physical and psychological problems they experience in this process, how they cope with this problem, is conducted to determine what they feel. This study results have shown

**Table 8. Positive contribution to the pandemic process**

Themes	Sub-themes	Nurses statements
Positive contribution to the pandemic process	Did not contribute positively	N12: "Don't think it has a positive effect. We are exhausted physically and psychologically."
	Professional development	N9: "Our professional development has increased in a short time. We learned fast patient care. We better understood the importance of seconds inpatient intervention."
	Increasing the value of the profession in society	N9: "It has been seen that the nursing profession has a very different and valuable dimension that distinguishes it from other professions. It has been seen how valuable and needed nurses who work for 24 h in patient care are during a pandemic. We have seen that we can overcome all difficulties."
	Crisis management	N1: "I feel more advanced. I learned more about nursing initiatives, nursing care, and crisis management in a short time. I used my coping skills."

once again the burden of nurses working in the pandemic. It is aimed to identify the aspects that need to be supported by nurses, who constitute the largest part of the healthcare system and to make their problems visible to increase their motivation. Nurses who experienced fear in the first periods of caring for COVID-19 patients reported that they provided care in a more comfortable and experienced manner in their shifts two months later. Nurses who provided care with negative emotions at the beginning of the process reported that negative emotions were replaced by positive emotions over time. In the Ebola and Middle East Respiratory syndrome coronavirus epidemics, the problems of nurses such as working hours, fatigue, and stress were similar to the problems in the COVID-19 pandemic. similar (5,23,24). In parallel with the study conducted by Sun et al. (25), in this study, nurses were afraid of transmitting the virus to family members. In the literature, many negative situations such as fear, anxiety, anxiety, and helplessness have been reported in healthcare professionals in epidemic disease situations (23,26). In this study, it was observed that nurses experienced fear and anxiety at the beginning of patient care.

In cases of an epidemic, nurses should be included in psychological support programs in the early period. As in the results of other studies, nurses in this study reported that they were afraid of the virus infecting themselves and their relatives (21,27). In addition to working in difficult conditions with fear, the fact that the nurses distanced themselves from their relatives reduced their social support, and the nurses who stayed home distanced themselves from their families in the form of room isolation. In many studies, epidemic diseases cause psychological trauma to

caregivers (26,28). Because of this study, it was observed that nurses experienced negative emotions such as fear and anxiety during the patient care process. It has been reported that situations such as being appreciated, applauded, and thanked by society in addition to negative emotions make nurses proud. The nurses participating in the study reported that they were exhausted during this process, had difficulty staying with protective equipment during long working hours, and had many physical problems due to the equipment. They reported physical problems such as sweating a lot due to overalls, and low back and leg pain due to standing for a long time. because of the addition of fatigue and stress factors, the immune system of the nurses weakened, and the risk of getting sick increase. Liu et al. (29) In their study, reported that nurses had difficulties working with protective equipment, especially staying in overalls made them sweat and made movement difficult. Sun et al. (25) in their study "I have a headache, chest tightness, palpitations due to wearing protective clothing for a long time." nurses who care for patients infected with the COVID-19 virus have reported that working continuously with protective equipment increases their workload (1,30,31). It has been observed that the high workload of intensive care nurses affects both the risk of burnout and the quality of care (32).

Liu et al. (29) the sudden development of the epidemic dragged intensive care nurses onto an unknown path, but they reported that seeing a large number of cases in this short period of time contributed greatly to their professional development. Similar results were obtained in a study (30). Despite the various difficulties they face, the only aim of intensive care nurses is to serve their patients been to



providing quality care and ensuring their recovery. They have succeeded in overcoming situations such as fear, anxiety, and stress. They stated that the most important support systems in this process were their teammates, and they also stated that they had moral support from their families, albeit from a distance. During this difficult period, almost all of the intensive care nurses did not receive psychological support. However, it is recommended that nurses struggling with the epidemic receive expert support. Thanks that will help them deal with the problem (33). Some nurses who participated in this study had not seen their children for months. Some nurses stayed away from their children in the same house, and in this process, nurses needed psychological support. Nurses weren't afraid of getting infected. They had a fear of infecting their families. Sun et al. (25) "My child and my mother cry every day, they are afraid that will infect me with a virus, but I am more worried about them..." Even if it is difficult to provide individual support programs, nurses' stress can be relieved by group interviews with the intensive care team. Studies on previous outbreaks have also reported that nurses experience burnout, fatigue, exhaustion, and a high workload (33). Nurses also had to contend with psychological and physical challenges. It is recommended that manager nurses and psychologists bring appropriate solutions to these negative situations experienced by intensive care nurses (34).

## Conclusion

This study has shown that nurses play an important role in health care during the pandemic. Concrete measures should be taken, such as the need to develop support systems for nurses who are physically and psychologically under a heavy burden, increase the number of staff, reduce long working hours, and make plans to minimize the risk of contamination. In this study, it was observed that nurses experience positive and negative emotions at the same time.

While thinking about their families, they also worried about their patients, and despite their physical exhaustion, they managed to provide the best patient care.

The fact that nurses who experienced fear and anxiety at the beginning of the pandemic gave care in a more comfortable, self-confident, and experienced manner in their shifts two months later shows that they came out of the negative process stronger. This study is important in terms of determining the needs and difficulties of intensive care nurses in the fight against a pandemic that will occur in the future and taking facilitating measures. It has shown that nurses, who are such a strong professional group, should be prioritized and supported more during this and similar crisis process.

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## Ethics

**Ethics Committee Approval:** Ethics committee approval was obtained for this research. After the approval of the Dokuz Eylül University Non-Interventional Research Ethics Committee (decision no: 2020/19-26, date: 17.08.2020), written institutional permission was obtained from the state hospital in İzmir, where the research will be conducted.

**Informed Consent:** Informed consent was obtained from the individuals participating in the study.

**Peer-review:** Externally peer-reviewed.

## Authorship Contributions

Surgical and Medical Practices: D.B.B., Concept: D.B.B., M.G., Design: D.B.B., M.G., M.D, Data Collection and Process: M.G., Analysis or Interpretation: D.B.B., M.D., Literature Search: M.G., M.D., Writing: D.B.B., M.G., M.D.

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