Being A Hemodialysis Nurse During the COVID-19 Pandemic: A Phenomenological Approach

Alev Yıldırım Keskin¹ and Sibel Şentürk²

Abstract
This study aimed to research the experiences of hemodialysis nurses during the COVID-19 pandemic. This study was designed with a descriptive phenomenological approach. The study was conducted with a total of 18 hemodialysis nurses. Content analysis method was used in the analysis of the data. As a result of the content analysis, six themes were determined. These were (I) encountering COVID-19, (II) social isolation, (III) difficulty maintaining nursing care, (IV) organizational issues, (V) professionalism, and (VI) coping methods. The research revealed that hemodialysis nurses experienced difficulties in their family lives, social lives, working environment and patient treatment during the pandemic. It was concluded that hemodialysis nurses need support physically and psychologically to cope with the fear of death, anxiety, exhaustion, and fatigue that they have experienced while working selflessly and vigorously with a small number of teams.

Keywords
COVID-19, hemodialysis nurse, nurse experience, phenomenological approach

Introduction
COVID-19 is a viral disease that has continued to affect the whole world since it first appeared in Wuhan on 12 December 2019 (Wang et al., 2020; Zhou et al., 2020). It has

¹Department of Nursing, Aksehir Kadir Yallagoz Health School, Selcuk University, Aksehir-Konya, Turkey
²Department of Nursing, Bucak Health School, Burdur Mehmet Akif Ersoy University, Bucak-Burdur, Turkey

Corresponding Author:
Sibel Şentürk, Department of Nursing, Bucak Health School, Burdur Mehmet Akif Ersoy University, Bucak-Burdur, Turkey.
Email: sibelsenturk@mehmetakif.edu.tr
been stated that there were 340,543,962 cases and 5,570,163 deaths all over the world (WHO, 2022). The total number of cases was reported to be 9,850,488 while the number of patients who died was 83,388 in Turkey (MH, 2022). From the moment the virus appeared, many healthcare workers both in Turkey and around the world caught the virus and/or died from it. For this reason, one of the most important problems globally has been the number of healthcare workers who became infected while dealing with COVID-19 (WHO, 2020).

The life-threatening virus has also become important for nurses working in hemodialysis (HD) units. This was particularly true because HD patients have continued to attend HD units for regular HD sessions and to ensure care. In addition, HD patients’ mortality rate has increased due to their lack of opportunity for isolation at home, their need for dialysis in crowded HD units at least two or 3 days a week, using public transportation to reach the unit, and their susceptibility to disease due to their chronic disorder and COVID-19 (Ma et al., 2020; Prasad et al., 2020; Watnick and McNamara, 2020).

Hence, HD nurses worked overtime with the opening of additional COVID-19 HD sessions, and they were exposed to more close contact in the treatment and care of their patients (Abelson, 2021; Ma et al., 2020). Public transportation in dialysis vehicles has also led to stress, fear, anxiety, and disease among both patients and healthcare professionals (Verma et al., 2020).

During the COVID-19 pandemic, nurses faced physical, emotional, social, and psychological difficulties due to having to work while taking personal protective measures, having to remain in quarantine, staying away from their homes or having to live in separate rooms at home, being isolated from their loved ones, and the fear of infection and death (Arenas et al., 2020; Kang et al., 2020). In this period, COVID-19 made it difficult for HD nurses to carry out every aspect of their duties (Kumar & Dongre, 2020). HD nurses need to protect their physical and psychological health from COVID-19, as well as that of their dialysis patients, and prevent the spread of the infection while working with protective equipment in difficult conditions during the patients’ treatment and care (Verma et al., 2020; Watnick & McNamara, 2020).

When the literature is examined, it is seen that qualitative studies on the physical and psychological problems of nurses during the COVID-19 pandemic process in different countries are limited (Chegini et al., 2021; Keaveney et al., 2021; Rathnayake et al., 2021; Şentürk & Yıldırım Keskin, 2021). Further clarification of the experience of caring for COVID-19 patients in different cultures can help nurses better understand and cope with the situation. Providing care under difficult working conditions and sanctions during the pandemic is a special experience. Turkey is one of the countries most severely affected by the pandemic. It is very important to determine the difficulties, achievements and coping strategies experienced by hemodialysis nurses in Turkey in the process of caring for COVID-19 patients. It is believed that the results of this study will help develop global solutions to the problems related to possible future epidemics.
Aim

This study aimed to research the experiences of hemodialysis nurses during the COVID-19 pandemic.

Methods

Study Design

This study was designed with a descriptive phenomenological approach.

Participants and Setting

The population of this study consisted of hemodialysis nurses who provided care to dialysis patients in a district state hospital. A purposeful sampling method was used. In qualitative research, no rule has been determined for the number of samples (Gürbüz & Şahin, 2018). In qualitative studies with in-depth interviews, the sample numbers are between 5 and 25. When the answers given by the participants to the study questions start to be similar, this shows that the study has reached data saturation and the data collection process is then stopped (Yıldırım & Şimşek, 2016). The study was completed with 18 dialysis nurses who met the inclusion criteria, reached data saturation, and agreed to participate in the study. The inclusion criteria in were: (1) working in an HD unit, (2) providing treatment and care to an HD patient with COVID-19, and (3) volunteering to participate in the study.

Instruments

The data were collected using the Nurse Information Form and the semi-structured Interview Question Form prepared by the researchers in consultation with the literature (Aksoy & Koçak, 2020; Arenas et al., 2020; Choi et al., 2020). The Nurse Information Form contained 12 questions to define the socio-demographic characteristics of the HD nurses (age, gender, marital status, education, child status, occupation and hours worked in the HD unit, working hours before and after COVID-19, chronic disease status, and status of HD application to a COVID-19 positive/contact patient). The Interview Question Form contained five open-ended questions to describe the experiences of the HD nurses during the pandemic.

Data Collection

The data were collected by face-to-face interview method, following mask, distance, and hygiene rules. The interview with each HD nurse to collect the data took approximately 30–35 minutes. The answers given by the nurses to the questions in the Nurse Information Form and in the semi-structured interview were written down by the
researchers and recorded with a voice recording device. Semi-structured interview questions:

- How did you feel when COVID-19 first appeared?
- Can you talk about your experiences in caregiving for hemodialysis patients as a hemodialysis nurse during the COVID-19 pandemic process?
- What is the meaning of providing care to hemodialysis patients for you as a hemodialysis nurse during the COVID-19 pandemic process?
- What kind of problems did you experience due to caring for hemodialysis patients during the COVID-19 pandemic? Why?
- How did you cope with changes in your professional and personal life in the COVID-19 pandemic process?

Data Analysis

To analyze the data collected in the study, the content analysis method was used. The main purpose of content analysis is to find the notions and relationships that can explain the data obtained (Yıldırım & Şimşek, 2016). In the first phase of the data analysis process, the audio recordings were listened to by the researchers one-by-one, computerized and transcribed verbatim. To make sure that the transcripts of the audio recordings were correct, the original audio recordings were listened to again and were compared to the initial transcriptions, and thus, the transcription process was finalized. The 234 expressions formulated, reflecting the experiences of hemodialysis nurses during the COVID-19 pandemic process. It was observed that 67 words were repeated. Coding was done by naming the parts (such as a word, sentence, paragraph) included in the data after they had been subjected to content analysis. Classifications of the opinions of the participants were made within the framework of sub-problems and divided into 6 themes and 13 sub-themes. The opinions of a faculty member from the Department of Sociology and two faculty members from the Field of Nursing were obtained regarding the codes, themes, and sub-themes and a common decision was reached.

Validity and Reliability Studies

In order to ensure reliability in phenomenological studies, participants are asked to read the written transcripts of their interviews, state their opinions and confirm that their opinions have been correctly conveyed. This method aims to provide internal validity and reliability (Başkale, 2016). In order to increase the consistency and reliability of the data, the researchers read the forms one-by-one with two experts and gave their opinions regarding each question. Reliability in phenomenological research is evaluated as consensus/consensus and dissensus. A consensus of 80% of the opinions expressed about the content of the answers given by the participants to the questionnaires is considered sufficient for reliability. In this study, it was determined that the
questionnaire form was reliable as there was a 95% consensus between the opinions of the two experts and researchers regarding the question-and-answer content (Başkale, 2016; Yıldırım & Şimşek, 2016).

**Ethical Consideration**

Before the study data was collected, the approval of the Ethics Committee of the Non-Interventional Clinical Research Ethics Committee of Burdur Mehmet Akif Ersoy University (Decision No: GO 2020/325) and the approval of the Ministry of Health (2020-12-04T19_39_40) was obtained. Verbal and written informed consent was obtained from the HD nurses. Assurance was given about the confidentiality of the information and sound recordings used in the study. In the study, code names “H1, H2, H3…, H18” were given to the questionnaires instead of the names of the participants. This study was conducted in accordance with the Good Clinical Practice and Reporting Standards of Qualitative Research in the Declaration of Helsinki.

**Results**

**Descriptive Results**

It was found that 15 of the dialysis nurses participating in the study were women, aged between 23 and 57. Seven were vocational high school graduates, 10 were married, 12 had children, the years of employment in the occupation were between 2 and 39 years, while years of employment in the HD unit varied between 1 and 24 years (Table 1).

It was found that 15 of the dialysis nurses did not have any chronic diseases, that the weekly working hours before the COVID-19 pandemic ranged from 48 to 51 hours, while the weekly working hours after the COVID-19 pandemic ranged between 50 and 60 hours, and that 18 nurses had applied HD to COVID-19 contact and positive patients (Table 2).

**Thematic Results**

As a result of the in-depth interviews, 6 themes and 13 sub-themes identified under the headings of “Encountering COVID-19”, “Social isolation”, “Difficulty in maintaining nursing care”, “Organizational issues”, “Professionalism”, and “Coping methods” (Table 3).

**Theme 1: Encountering COVID-19**

This theme focused on the dialysis nurses’ first encounters and struggle with an unknown disease during the COVID-19 pandemic. It was determined that they were shocked at first, did not know how to provide care and treatment to patients, and that they and their families experienced complex feelings.
**Table 1.** Socio-demographic Characteristics of the Hemodialysis Nursing (n = 18).

| Code | Sex   | Age | Marital status | Education status          | Working experience in hemodialysis unit | Years of working | Child status |
|------|-------|-----|----------------|---------------------------|----------------------------------------|------------------|-------------|
| H1   | Female| 40  | Married        | Associate degree          | 3 years                                | 9 years          | Yes         |
| H2   | Female| 28  | Married        | Associate degree          | 6 years                                | 10 years         | Yes         |
| H3   | Male  | 44  | Single         | health vocational school  | 13 years                               | 27 years         | No          |
| H4   | Female| 26  | Married        | bachelor’s degree         | 2 years                                | 2 years          | No          |
| H5   | Female| 36  | Married        | associate degree          | 8 years                                | 9 years          | Yes         |
| H6   | Female| 42  | Married        | health vocational school  | 10 years                               | 21 years         | Yes         |
| H7   | Female| 43  | Single         | health vocational school  | 11 years                               | 19 years         | No          |
| H8   | Female| 45  | Married        | health vocational school  | 19 years                               | 21 years         | Yes         |
| H9   | Female| 41  | Single         | health vocational school  | 10 years                               | 16 years         | No          |
| H10  | Female| 23  | Single         | bachelor’s degree         | 1 years                                | 2 years          | No          |
| H11  | Female| 27  | Married        | Associate degree          | 1 years                                | 2 years          | Yes         |
| H12  | Female| 57  | Single         | health vocational school  | 21 years                               | 39 years         | Yes         |
| H13  | Female| 41  | Single         | bachelor’s degree         | 10 years                               | 20 years         | Yes         |
| H14  | Female| 46  | Married        | bachelor’s degree         | 18 years                               | 28 years         | Yes         |
| H15  | Female| 46  | Married        | health vocational school  | 24 years                               | 27 years         | Yes         |
| H16  | Male  | 54  | Married        | associate degree          | 17 years                               | 33 years         | Yes         |
| H17  | Female| 46  | Single         | bachelor’s degree         | 20 years                               | 28 years         | Yes         |
| H18  | Male  | 38  | Single         | associate degree          | 9 years                                | 21 years         | No          |

The average Age: 40.16 ± 9.28 (Min: 26; Max: 57)

Min: Minimum, Max: Maximum.

**Sub-theme 1.1: Ambivalent Emotions**

Dialysis nurses stated that they were shocked when they first heard about COVID-19. They were anxious and afraid because they did not know how to fight against something unknown, and experienced ambivalent emotions, including anger, regarding
Table 2. Characteristics of Hemodialysis Nurses Related to COVID-19 (n = 18).

| Code | Chronic illness condition | Weekly working hours before COVID-19 | Weekly working hours after COVID-19 | HD application status to the patient with COVID-19 contact | HD application status to COVID-19 positive patient |
|------|---------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|--------------------------------------------------|
| H1   | No                        | 51                                  | 60                                | Yes                                                      | Yes                                              |
| H2   | No                        | 45                                  | 50                                | Yes                                                      | Yes                                              |
| H3   | No                        | 48                                  | 50                                | Yes                                                      | Yes                                              |
| H4   | No                        | 50                                  | 60                                | Yes                                                      | Yes                                              |
| H5   | No                        | 50                                  | 60                                | Yes                                                      | Yes                                              |
| H6   | No                        | 50                                  | 58                                | Yes                                                      | Yes                                              |
| H7   | No                        | 50                                  | 58                                | Yes                                                      | Yes                                              |
| H8   | No                        | 48                                  | 50                                | Yes                                                      | Yes                                              |
| H9   | No                        | 48                                  | 50                                | Yes                                                      | Yes                                              |
| H10  | No                        | 48                                  | 50                                | Yes                                                      | Yes                                              |
| H11  | No                        | 50                                  | 58                                | Yes                                                      | Yes                                              |
| H12  | Yes                       | 48                                  | 50                                | Yes                                                      | Yes                                              |
| H13  | No                        | 51                                  | 60                                | Yes                                                      | Yes                                              |
| H14  | Yes                       | 51                                  | 60                                | Yes                                                      | Yes                                              |
| H15  | No                        | 48                                  | 60                                | Yes                                                      | Yes                                              |
| H16  | No                        | 48                                  | 60                                | Yes                                                      | Yes                                              |
| H17  | Yes                       | 48                                  | 60                                | Yes                                                      | Yes                                              |
| H18  | No                        | 50                                  | 60                                | Yes                                                      | Yes                                              |

Table 3. Themes and sub-themes created from the experiences of hemodialysis nurses.

| Themes                                     | Sub-Themes                                           |
|--------------------------------------------|-------------------------------------------------------|
| 1. Encountering COVID-19                   | 1.1. Ambivalent emotions                              |
| 2. Social isolation                        | 2.1. Restriction                                      |
|                                            | 2.2. Loneliness and longing                           |
|                                            | 2.3. Stigma—person who spreads death                 |
| 3. Difficulty maintaining nursing care     | 3.1. Personal protective equipment discomfort         |
|                                            | 3.2. Increase in psychological distress               |
|                                            | 3.3. Occupational hesitancy                           |
| 4. Organizational issues                   | 4.1. Working conditions                               |
|                                            | 4.2. Financial dissatisfaction                        |
| 5. Professionalism                         | 5.1. Commitment to the profession                     |
| 6. Coping methods                          | 6.1. Mask, distance and hygiene                       |
|                                            | 6.2. Religious rituals and self-comfort               |
|                                            | 6.3. Health hazards; cigarettes and alcohol           |
issues such as death, fear of contamination, and transmission. Some of the participants’ statements about these feelings were as follows:

✔ It was also extremely sad to witness the death of people I know very well and their patients. My worries are still not over. (H5)
✔ We are experiencing the uncertainty of a war with an unknown enemy and we are afraid. (H7)
✔ My anger has increased toward people who don’t follow the rules. I’ve become an obsessive person. (H15)

**Theme 2: Social Isolation**

Most of the dialysis nurses stated that they had isolated themselves from other people, including their families, because they were afraid of contracting/transmitting the disease, that they experienced restrictions, and were feeling lonely and missing people. At the same time, they stated that they were seen as the carriers of the disease by society and this situation had become disturbing.

**Sub-theme 2.1. Restriction**

Most of the dialysis nurses stated that they were deprived of many things during the pandemic, and that their social activities and lives were over. They stated that social isolation had caused them to feel restricted, to be inactive, to gain weight, and to become unhappy and anxious. Some of the participants’ statements were as follows:

✔ I felt a sense of stagnation due to being inactive and limiting my social activities. (H17)
✔ Being restricted from doing many things and being sedentary, which has caused weight gain (H8)
✔ We could not take our permits at work, we were confined to homes on weekends due to quarantine, we could not go out of the province, we were severely restricted and tired (H14)

**Sub-theme 2.2. Loneliness and Longing**

Dialysis nurses stated that after meeting COVID-19, they felt more lonely, isolated, and longed for many things. The statements of some of the dialysis nurses participating in the study were as follows:

✔ I missed my family, my mother, my father, and my siblings. I just wanted to be at home, hug my children and stay like that. (H8)
✔ I felt so lonely. It’s very bad that we have to isolate ourselves from society and even those we are closest to because we are healthcare workers. (H15)
Our need to relax, and meet with our loved ones has increased. (H14)

**Sub-theme 2.3. Stigma-Person Who Spreads Death**

Many of the dialysis nurses participating in the study stated that during the COVID-19 pandemic they had been excluded by friends in other healthcare teams in the hospital, society in general, and their own family members due to both being a member of the healthcare team and providing additional sessions for COVID-19 positive dialysis patients. Some of the nurses’ statements were as follows:

- It is a pity that after our COVID-19 positive dialysis patient sessions began, my friends and neighbors working in the hospital behaved as if we were COVID-positive and stayed away from us. (H3)
- Since I am a healthcare worker, I need to be extra careful and there is a different perspective toward us from those outside, as if the infection is being transmitted through us. (H1)

**Theme 3: Difficulty Maintaining Nursing Care**

In this theme, most of the dialysis nurses stated that working in the dialysis unit with personal protective equipment affected them physically and psychologically, so they had difficulty in maintaining patient care and treatment.

**Sub-Theme 3.1. Personal Protective Equipment Discomfort**

The dialysis nurses stated that working with protective equipment was physically tiring, made difficult to breathe, caused muscle and joint pain, headaches, and dermatological disorders (itching, allergies) due to excessive sweating. Some of the participants’ statements were as follows:

- Working with protective equipment is quite tiring and difficult. It is like working in the sauna all the time and not even being able to breathe. (H5)
- The protective coverall gets wet within 4 hours. One day my slippers slipped when I took the patient on dialysis into the intensive care unit, and a nurse said that water was coming out of the slipper holes and that was why I had slipped. It is really hard to breathe wearing a mask and protective coveralls for three to 4 hours. There is sweat, itching and allergies, and after 1 week you have joint and muscle pain. (H18)
Sub-Theme 3.2. Increase in Psychological Distress

The dialysis nurses stated that while working with HD patients, they were also psychologically affected. They experienced fatigue and anxiety due to intense stress, and felt guilty and worthless. Some of the participants’ statements were as follows:

✓ We are mentally affected. The anxiety about becoming sick is already devastating. (H1)
✓ There have been many days when I was feeling fatigued. (H5)
✓ A month ago in January, I became COVID-positive. My daughter is 22 years old and she became COVID-positive a week later. Getting sick and infecting people even when I was being really careful made me feel guilty and worthless. (H17)

Sub-theme 3.3. Occupational Hesitancy

Dialysis nurses stated that they experienced occupational hesitancy during the pandemic and therefore had difficulties in maintaining the treatment and care of HD patients. Some of the participants’ statements were as follows:

✓ Workload and shift frequency increased at some periods and we got very tired. It made us very exhausted to be working like this and I didn’t want to treat and care for patients. From time to time I even thought of quitting. (H7)
✓ I wanted to treat the patients and leave the patient immediately after. There was also miscommunication with the team. I had trouble maintaining the distance at first and then I adapted. (H9)

Theme 4: Organizational Issues

The dialysis nurses stated that they experienced organizational problems regarding working conditions and financial dissatisfaction. In addition, they emphasized that they had only been praised by political figures during this struggle and that this situation did not satisfy them either materially and morally. Some of the participants’ statements were as follows:

Sub-theme 4.1. Working Conditions

The dialysis nurses gave negative feedback about their working conditions in the pandemic. They stated that patients and their colleagues having COVID-19 increased their work load, they were not able to take any days off and they had difficulties in maintaining social distance. Some of the participants’ statements were as follows:
We took COVID-19 patients from other clinics and started to have additional dialysis sessions. It was difficult to work with protective equipment, wash your hands frequently, and maintain social distance. (H14)

The workload, the fear of getting sick and carrying the disease increased due to the fact that our colleagues caught COVID-19. Also, the fact that we can’t take any days off makes me anxious. (H15)

Sub-theme 4.2. Financial Dissatisfaction

Some dialysis nurses stated that their working conditions should be improved, their rights should be protected and they should be supported both financially and emotionally. They also emphasized that they wanted to feel valued as healthcare workers. Some of the nurses’ statements about this sub-theme were as follows:

I wish dialysis nurses could have their material and emotional needs met without discrimination, that their efforts weren’t ignored, and their value was known. (H2)

We worked hard, it is very difficult to work with overalls and masks, etc. We sweated and starved. We didn’t get any reward of our efforts, either materially or psychologically, and this is another issue. (H8)

Theme 5: Professionalism

The dialysis nurses stated that despite the difficulties and ambivalent feelings they had experienced during the pandemic, they had behaved like professional nurses, empathized with HD patients, and remained committed to their profession.

Sub-theme 5.1. Commitment to the Profession

The HD nurses stated that they had continued to fight the disease regardless of the conditions, provided a high quality of service, tried to do their job in the best way possible, behaved as their job required, and had not stopped feeling empathy or being professional. Some of the nurses’ statements were as follows:

There were many moments when I was anxious and sad, and feeling exhausted, but I approached this situation like a soldier who has to make all kinds of sacrifices in a war. (H5)

Even if my patients were positive for COVID-19, I didn’t feel angry, I constantly empathized with them. (H4)

Themes 6: Coping Methods

The dialysis nurses stated that when they had equipment shortages at the beginning of the pandemic, they did use positive coping methods, including looking after their
spiritual health through praying, while continuing to follow mask, distance, and hygiene rules. However, they also used negative coping methods such as cigarette smoking and alcohol.

**Sub-theme 6.1. Mask, Distance, and Hygiene**

The dialysis nurses stated that they had been wearing masks from the moment the pandemic started. They said that although their job required close contact, they paid attention to distance, constantly washed their hands, and used disinfectant. The statements of some of the dialysis nurses regarding this sub-theme were as follows:

✓ I tried to stay protected by taking precautions (mask, gloves, being careful in social areas etc.) and extra hygiene. I did my best regarding precautions. (H1)
✓ I paid more attention to masks, distance, hygiene, and cleaning rules. We gathered our strength as much as we could and both struggled against the disease and provided a quality service. (H17)

**Sub-theme 6.2. Religious Rituals and Self-Comfort**

Some dialysis nurses stated that they had turned to spirituality to cope with the COVID-19 pandemic, and followed religious rituals such as prayer, reading the Quran, praying, and self-comfort. Some of the nurses’ statements regarding this sub-theme were as follows:

✓ I read the Quran and prayed a lot to get rid of this disease as soon as possible. (H2), (H9), (H14), (H15), (H18)
✓ Even though I was afraid, I just looked at my children and felt grateful. (H12)
✓ My orientation toward spirituality and prayer has increased. (H17).

**Sub-theme 6.3. Health Hazards: Cigarettes and Alcohol**

Some dialysis nurses had started to use materials that were harmful to health or had increased their usage as a coping method in the struggle with COVID-19. Some of the nurses’ statements regarding this sub-theme were as follows:

✓ My cigarette and alcohol consumption increased due to stress and fear. (H5), (H13), (H14), (H15)
✓ Most of the time, we worked with the thought that this disease was too close for comfort, so I started smoking to reduce my stress. (H17).
Discussion

This study shows that HD nurses encountered difficulties in patient care and treatment, their family, social, and professional lives, experienced ambivalent emotions, and developed various coping methods during the COVID-19 pandemic. When the literature is reviewed, it is seen that nurses have experienced fear and anxiety during the pandemic for reasons including the uncertainties regarding COVID-19, the increase in the number of deaths and cases, changing working conditions, difficulties in using equipment, working overtime, insufficient number of personnel, and a lack of financial and emotional support (Lee et al., 2020; Nemati et al., 2020; Sun et al., 2020). Maintaining the physical and psychological well-being of nurses plays an important role in alleviating the negative consequences of the COVID-19 pandemic and maintaining quality care and treatment for patients.

This study thus investigated the experiences of HD nurses during the COVID-19 pandemic. The HD nurses in this study experienced shock, uncertainty, and ambivalent feelings when encountering COVID-19. An in-depth investigation of the literature indicates similar results to our findings: nurses caring for COVID-19 patients experienced shock at first, then uncertainty, anxiety, and fear of death due to not knowing the disease (Galehdar et al., 2020; Gordon et al., 2021; Kaçkıııın et al., 2021; Karimi et al., 2020; Lee and Lee, 2020; Okuyan et al., 2020; Shahmari et al., 2020). The results of this study show that providing psychological support to enable nurses to cope with the intense ambivalent emotions they experience is important for maintaining patient care and treatment in a healthy way.

Social isolation, the second theme in the study consisted of the sub-themes of restriction, loneliness and longing, and stigma. An in-depth investigation of the literature indicates similar results to our findings: nurses have negative emotions and go through social isolation and stigmatization; they thus stay away from others, live alone, and feel worthless (Kaçkıııın et al., 2021; Muz and Yüce Erdoğan, 2021; Shahmari et al., 2020). These emotions experienced by nurses may threaten patient safety by causing a deterioration in the quality of care. These findings demonstrate that healthcare managers should be supportive and enable nurses to cope with these emotions by improving social networks. This will contribute to improving nurses’ and patients’ health.

Difficulty in maintaining nursing care, the third theme in the study, was discussed using the sub-themes of an increase of physical and psychological difficulties and occupational hesitancy. An in-depth investigation of the literature indicates similar results to our findings: it is unfortunately difficult for nurses, especially those working in intensive care, to keep their physical distance from patients during treatment and care and they all start to have obsessive thoughts (Galehdar et al., 2020; Gordon et al., 2021; Karimi et al., 2020). Due to the nature of their occupation, nurses are required to be in close contact with patients, colleagues, and community members, which makes occupational risks inevitable (Kaçkıııın et al., 2021; Shahmari et al., 2020). Nurses stated that working with protective equipment caused physical (sweating, difficulty in breathing, pressure marks, inability to properly meet their physiological needs) and psychological difficulties, that communication was much more challenging and that the
care and treatment period was therefore more difficult (Galehdar et al., 2020; Shahmari et al., 2020). The findings of this study show us that managers and senior staff have a significant role to play in maintaining patients’ care by supporting the physical and psychological efforts of the nurses throughout the pandemic.

Organizational problems, the fourth theme in the study, was discussed in terms of working conditions and financial dissatisfaction. An in-depth investigation of the literature indicates similar results to our findings: nurses work in very difficult working conditions and that praise alone does not make them happy; they want their working conditions and rights to be improved, their self-care needs to be met, and to be supported financially and emotionally. It has been stated that nurses need psychological support rather than physical support (Gordon et al., 2021; Karimi et al., 2020; Muz & Yüce Erdoğan, 2021; Okuyan et al., 2020). Worsening working conditions and changing routines negatively affect the quality of patient care and lead to ethical dilemmas (Karimi et al., 2020). World Health Organization (WHO) managers refer to nurses as the backbone of the healthcare system (WHO, 2020). Considering the basic roles of nurses during the COVID-19 pandemic, the support provided to nurses by the senior management in healthcare institutions is an important factor in the sustainability of care delivery. Based on the results of this study, to solve the problems that nurses experience at the organizational level due to the treatment and care roles the following measures need to be taken to provide quality care: increasing the number of staff, reducing working hours, eliminating equipment deficiencies, providing additional financial support, allowing nurses to take days off, and establishing psychological counseling centers in hospitals for the healthcare team.

Professionalism, the fifth theme determined in this study, was addressed in the sub-theme of commitment to the profession. An in-depth investigation of the literature indicates similar results to our findings: nurses are proud to be nurses, and they do not give up fighting even in the presence of chronic diseases and however difficult the circumstances (LoGiudice and Bartos, 2021; Shahmari et al., 2020); they love their profession, they continue to fulfill their professional responsibilities to provide the best care for their patients (Karimi et al., 2020; Muz and Yüce Erdoğan, 2021; Shahmari et al., 2020; Şimşek & Günay, 2021); and they try to maintain their role as carers even when that means risking their physical distance (Okuyan et al., 2020). The WHO stated that nurses and other healthcare professionals had also demonstrated their compassion and courage in the face of the epidemic (WHO, 2020). These results, showing us that nurses work devotedly maintain their commitment to the profession, especially during pandemics, and try to provide professional treatment and care, are a positive sign in terms of professional development.

Coping methods, the sixth theme determined in the study, was discussed in the sub-themes masks, following distance and hygiene rules, religious rituals and self-comfort, health hazards and the use of cigarettes and alcohol. An in-depth investigation of the literature indicates similar results to our findings: protecting themselves and their patients’ health with protective equipment, receiving support from colleagues, maintaining mental/physical health, and turning to spirituality/faith were used as coping methods (Gordon et al., 2021; Okuyan et al., 2020). Based on these results, the
nurses had developed many coping methods to protect their physical and mental health, but these were insufficient. Therefore, nurse managers need to determine how the nurses working in their institutions are trying to cope, and support positive coping methods while helping to remove those which are negative.

**Conclusions**

This study showed that while the HD nurses were able to reveal the difficulties, ambivalent feelings, and struggles they had experienced in their work, family, social lives during the COVID-19 pandemic, they had also tried to do their job professionally and remain empathetic. At the same time, it was determined that it is important to support HD nurses financially, emotionally, socially, educationally, and politically in order to protect their physical and psychological health. Those who lead and manage healthcare services should be in constant communication and interaction with nurses, giving them priority in determining what support it required. It is thought that the results of this study will provide a guide to how to establish the necessary support centers to meet the problems and needs of HD nurses in a holistic way.

**Implications for Nursing Practice**

The results obtained in this study is also supported by other studies on nurses. It is clear that the COVID-19 pandemic has caused negative physical, social and psychological effects on the dialysis nurses who provide treatment and care for HD patients. In order to minimize the difficulties experienced by dialysis nurses, more nurses should be employed, frequent rotation should be carried out to ensure more time off, nurses should be supported psychologically, and an environment should be created where they can meet their self-care needs. The COVID-19 pandemic is a major pandemic and it has led to many deaths. Despite vaccines being developed, the mutated virus continues to spread rapidly and can cause death. This study shows that nurses, who are at the forefront of fighting this virus, love their profession and try to do their best. The efforts of the nurses in this struggle should not be unreciprocated and they should be supported and rewarded by political leaders worldwide.

**Acknowledgments**

The authors would like to thank all the participants.

**Authors’ Contributions**

Concept – A.Y.K., S.Ş.; Design – A.Y.K., S.Ş.; Supervision – A.Y.K, S.Ş.; Resource – A.Y.K, S.Ş.; Materials – A.Y.K, S.Ş.; Data Collection and/or Processing – A.Y.K., S.Ş.; Analysis and/or Interpretation – A.Y.K., S.Ş.; Literature Search – A.Y.K., S.Ş.; Writing – A.Y.K., S.Ş.; Critical Reviews – A.Y.K., S.Ş.; Other – A.Y.K., S.Ş.
Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

Ethical Approval
Ethics committee approval was gained from the Ethics Committee for Non-Interventional Clinical Studies at Burdur Mehmet Akif Ersoy University (Decision Number: GO 2020/325, the approval of the Ministry of Health, 2020-12-04T19_39_40).

ORCID iDs
Alev Yıldırım Keskin  https://orcid.org/0000-0003-0981-5364
Sibel Şentürk  https://orcid.org/0000-0002-5634-174X

References
Abelson, R. (2021). Dialysis patients face close-up risk from coronavirus. The New York Times. https://www.nytimes.com/2020/04/11/health/dialysis-riskcoronavirus.html.pdf
Aksoy, Y. E., & Koçak, V. (2020). Psychological effects of nurses and midwives due to COVID-19 outbreak: The case of Turkey. Archives of Psychiatric Nursing, 34(5), 427-433. https://doi.org/10.1016/j.apnu.2020.07.011
Arenas, M. D., Villar, J., González, C., Cao, H., Collado, S., Barbosa, F., Crespo, M., Horcajada, J. P., & Pascual, J. (2020). Protection of nephrology health professionals during the COVID-19 pandemic. Nefrologia, 40, 395-401. https://doi.org/10.1016/j.nefro.2020.06.001
Başkale, H. (2016). Determination of validity, reliability and sample size in qualitative research. E-Journal of Dokuz Eylul University Nursing Faculty, 9(1), 23-28.
Chegini, Z., Arab-Zozani, M., Rajabi, M. R., & Kakemam, E. (2021). Experiences of critical care nurses fighting against COVID-19: A qualitative phenomenological study. Nursing Forum, 56(3), 571-578. https://doi.org/10.1111/nuf.12583
Choi, K. R., Skrine Jeffers, K., & Cynthia Logsdon, M. (2020). Nursing and the novel coronavirus: Risks and responsibilities in a global outbreak. Journal of Advanced Nursing, 76(7), 1486-1487. https://doi.org/10.1111/jan.14369
Galehdar, N., Kamran, A., Toulabi, T., & Hendari, H. (2020). Exploring nurses’ experiences of psychological distress during care of patients with COVID-19: A qualitative study. BMC Psychiatry, 20, 489. https://doi.org/10.1186/s12888-020-02898-1
Gordon, J. M., Magbee, T., & Yoder, L. H. (2021). The experiences of critical care nurses caring for patients with COVID-19 during the 2020 pandemic: A qualitative study. Applied Nursing Research, 59, 151418. https://doi.org/10.1016/j.apnr.2021.151418
Gürbüz, S., & Şahin, F. (2018). Research methods in social sciences (5th ed., pp. 407-436). Seçkin Publishing.

Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Lai, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. The Lancet Psychiatry, 7(3), e14. https://doi.org/10.1016/S2215-0366(20)30047-X

Karimi, Z., Fereidouni, Z., Behnammoghadam, M., Alimohammadi, N., Mousavizadeh, A., Salehi, T., Mirzaee, M. S., & Mirzaee, S. (2020). The lived experience of nurses caring for patients with COVID-19 in Iran: A phenomenological study. Risk Management and Healthcare Policy, 13, 1271-1278. https://doi.org/10.2147/RMHP.S258785

Kaçkıı, Ö., Ciydem, E., Aci, Ö. S., & Kutlu, F. Y. (2021). Experiences and psychosocial problems of nurses caring for patients diagnosed with COVID-19 in Turkey: A qualitative study. International Journal of Nursing Social Psychiatry, 67(2), 158-167. https://doi.org/10.1177/0020764020942788

Keaveney, C., Mc., Reid, J., Carswell, C., Bonner, A., de Barbieri, I., Johnston, W., Maxwell, A. P., O’Riordan, J., Strini, V., Walsh, I., & Noble, H. (2021). Experiences of renal healthcare practitioners during the COVID-19 pandemic: a multi-methods approach. BMC Nephrology, 22, 301. https://doi.org/10.1186/s12882-021-02500-0

Kumar, P. R., & Dongre, A. (2020) Challenges faced by dialysis unit staff during COVID-19 times: A qualitative study (1-12). https://doi.org/10.1101/2020.10.20.20215715

Lee, J. Y., Hong, J. H., & Park, E. Y. (2020). Beyond the fear: Nurses’ experiences caring for patients with Middle East respiratory syndrome: A phenomenological study. Journal of Clinical Nursing, 29(17-18), 3349-3362. https://doi.org/10.1111/jocn.15366

Lee, N., & Lee, H.-J. (2020). South Korean nurses’ experiences with patient care at a COVID-19-designated hospital: Growth after the frontline battle against an infectious disease pandemic. International Journal of Environmental Research and Public Health, 17(23), 9015. https://doi.org/10.3390/ijerph17239015

LoGiudice, J. A., & Bartos, S. (2021). Experiences of nurses during the COVID-19 pandemic: A mixed-methods study. AACN Advanced Critical Care, 32(1), 14-26. https://doi.org/10.4037/aacnacc2021816

Ma, Y., Diao, B., Lv, X., Zuhu, J., Liang, W., Liu, L., Zhang, S., Shen, B., & Wang, H. (2020). COVID-19 in hemodialysis (HD) patients: Report from one HD center in Wuhan, China. Bmj: British Medical Journal, 1-19. https://doi.org/10.1101/2020.02.24.20007201

Muz, G., & Yüce Erdoğan, G. (2021). Experiences of nurses caring for patients with COVID-19 in Turkey: A phenomenological enquiry. Journal of Nursing Management, 1-10. https://doi.org/10.1111/jonm.13240

Nemati, M., Ebrahimi, B., & Nemati, F. (2020). Assessment of Iranian nurses’ knowledge and anxiety toward COVID-19 during the current outbreak in Iran. Archives of Clinical Infectious Diseases (COVID-19), 15, e102848. https://doi.org/10.5812/archicid.10284

Okuyan, C. B., Güneş, E., & Yeşilyurt, E. (2020). The experiences of a nurse giving the nursing care to COVID-19 positive patients: A case report. Online Turkish Journal of Health Sciences, 5(4), 705-708. https://doi.org/10.26453/otjhss.757164

Prasad, N., Bhatt, M., Agarwal, K. S., Kohli, H. S., Gopalakrishnan, N., Fernando, E., & Jha, V. (2020). The adverse effect of COVID pandemic on the care of patients with kidney disease in India. Kidney International Reports, 5, 1545-1550. https://doi.org/10.1016/j.ekir.2020.06.034
Rathnayake, S., Dasanayake, D., Maithreepala, S. D., Ekanayake, R., & Basnayake, P. L. (2021). Nurses’ perspectives of taking care of patients with Coronavirus disease 2019: A phenomenological study. *PLoS One, 16*(9), 1-17. https://doi.org/10.1371/journal

Republic of Turkey Ministry of Health (2022, January 24). *Current situation in Turkey*. Republic of Turkey Ministry of Health Website https://covid19.saglik.gov.tr/

Şentürk, S., & Yıldırım Keskin, A. (2021). Experiences of intensive care nurses in caregiving for coronavirus (COVID-19) patients: a phenomenological approach. *Ordu University Journal of Nursing Studies, 4*(2), 197-207. https://doi.org/10.38108/ouhcd.909322

Shahmari, M., Nasrabadi, A.N., & Ghobadi, A. (2020). Lived experiences of Iranian ICU nurses in the care of patients with Covid-19: A phenomenological study. *Research Square, 2*-20. https://doi.org/10.21203/rs.3.rs-72171/v1

Şimsək, C. D., & Günay, U. (2021). Experiences of nurses who have children when caring for COVID-19 patients. *International Nursing Review, 1*-9. https://doi.org/10.1111/inr.12651

Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control, 48*(6), 592-598. https://doi.org/10.1016/j.ajic.2020.03.018

Verma, A., Patel, B. A., Tio, C. M., & Waikar, S. S. (2020). Caring dialysis patients in time of COVID-19. *Kidney Medicine, 1*-6. https://doi.org/10.1016/j.xkme.2020.07.006

Wang, W., Tang, J., & Wei, F. (2020). Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. *Journal of Medical Virology, 92*(4), 441-447. https://doi.org/10.1002/jmv.25689

Watnick, S., & McNamara, E. (2020). On the frontline of the COVID-19 outbreak: Keeping patients on long-term dialysis safe. *CJASN, 15*(5), 710-713. https://doi.org/10.2215/CJN.03540320

WHO (2020). *World health day. 2021: Support nurses and midwives* 2020. https://www.who.int/campaigns/world-health-day/2021

WHO (2022, January 24). Coronavirus World Health Organization (WHO) Website https://www.who.int/health-topics/coronavirus#tab=tab_1

Yıldırım, A., & Şimsək, H. (2016). *Qualitative research methods in the social sciences* (10th ed., pp. 101-312). Seçkin Publishing.

Zhou, P., Yang, X. L., Wang, X. G., Hu, B., Zhang, L., Zhang, W., Si, H. R., Zhu, Y., Li, B., Huang, C. L., Chen, H. D., Chen, J., Luo, Y., Guo, H., Jiang, R. D., Liu, M. Q., Chen, Y., Shen, X. R., Wang, X., Zheng, X. S., & Shi, Z. L. (2020). A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*. https://doi.org/10.1038/s41586-020-2012-7

**Author Biographies**

**Dr. Alev Yıldırım Keskin** works at Selçuk University Akşehir Kadir Yallagöz School of Health in Department of Nursing. She completed her PhD in 2016 at Erciyes University, Turkey, with her research focused on the treatment of hemodialysis. Especially she is interested in aromatherapy, end of life, critical care and geriatric nursing.

**Dr. Sibel Şentürk** works at Burdur Mehmet Akif Ersoy University Bucak School of Health in Department of Nursing. She completed her PhD in 2014 at Erciyes
University, Turkey, with her research focused on the treatment of Osteoarthritis. Especially she is interested in hijama, ginger kidney compress, aromatherapy, anthroposophical nursing, end of life, critical care and geriatric nursing.