

Experiences and Needs of Nurses Caring for COVID-19 Patients: A Phenomenological Study

Elif Işık Demirarslan¹ , Sevil Çınar Özbay¹ , Deniz Yorulmaz¹ 

¹Faculty of Health Sciences, Artvin Çoruh University, Artvin, Turkey

Elif IŞIK DEMİRARSLAN
Sevil ÇINAR ÖZBAY
Deniz YORULMAZ

This study has been presented orally at 4th PNAE Congress on Paediatric Nursing, December 18-19, 2020, Turkey

Correspondence: Sevil Çınar Özbay
Faculty of Health Sciences, Artvin Çoruh University, Artvin, Turkey
Phone: +9004662151064
E-mail: cinarsevil87@gmail.com

Received: 03 February 2022
Accepted: 06 July 2022

ABSTRACT

Purpose: This study was conducted by using the qualitative study method descriptive phenomenological approach in order to explore the experiences and needs of nurses working during the COVID-19 pandemic.

Methods and Materials: This study was conducted using a descriptive phenomenological approach. The Questionnaire Form and the Semi-Structured Interview Form were used for data collection.

Results: Themes and sub-themes as a result of interviews with nurses were the effects of the pandemic (psychological effects, working conditions, social effects), fear and worries (stress and uncertainty, infecting beloved ones and others), satisfaction (motivation of being a nurse, care for patients with COVID-19 and interaction with them, team harmony and positive energy), needs (need for auxiliary staff, need for additional nurses, need for psychological support), occupational health and safety (difficulties and pressures related to personal protective equipment, thermal comfort issues, nutritional problems, occupational accidents, relationship between COVID-19 and occupational disease).

Conclusion: Nurses who cared for patients diagnosed with COVID-19 in Turkey were negatively affected by the pandemic both psychologically and socially.

Keywords: COVID-19, nursing, needs

COVID-19 Hastalarına Bakım Veren Hemşirelerin Deneyimleri ve Gereksinimleri: Bir Fenomenolojik Araştırma

ÖZET

Amaç: Bu araştırma, COVID-19 pandemi sürecinde görev yapan hemşirelerin deneyimlerini ve gereksinimlerini belirlemek amacıyla nitel araştırma yöntemi olan tanımlayıcı fenomenolojik yaklaşım kullanılarak gerçekleştirilmiştir.

Yöntem: Bu çalışma, tanımlayıcı fenomenolojik bir yaklaşım kullanılarak yapılmıştır. Araştırmanın verileri Anket Formu ve Yarı Yapılandırılmış Görüşme Formu ile toplanmıştır.

Bulgular: Hemşireler ile yapılan görüşmeler sonucunda ortaya çıkan tema ve alt temalar; salgının etkileri (psikolojik etkiler, çalışma koşulları, sosyal etkiler), korku ve endişeler (stres ve belirsizlik, sevdiklerine ve başkalarına bulaştırma, mesleki doyum (hemşire olmanın motivasyonu, COVID-19'lu hastalara bakım ve etkileşim, takım uyumu ve pozitif enerji), gereksinimler (yardımcı personel ihtiyacı, hemşire ihtiyacı, psikolojik destek ihtiyacı), iş sağlığı ve güvenliği (kişisel koruyucu donanımlar (KKD) ilgili zorluklar ve baskılar, termal konfor sorunları, beslenme problemleri, iş kazaları, COVID-19 hastalığı meslek hastalığı arasındaki ilişki).

Sonuç: Türkiye'de COVID-19 tanısı alan hastalara bakım veren hemşireler pandemiden hem psikolojik hem de sosyal olarak olumsuz etkilenmiştir.

Anahtar kelimeler: COVID-19; hemşireler; ihtiyaçlar

Coronaviruses are a large family of viruses that can cause various diseases ranging from the common cold and influenza (flu) to more severe diseases including severe respiratory failure, Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (1). Today, many subtypes of coronavirus have been reported to cause illnesses in humans. A novel type of coronavirus causing disease in humans was identified in December 2019, in Wuhan City, Hubei province of China and the disease was recognized as Coronavirus disease 2019 (COVID-19) (2). The World Health Organization declared COVID-19 as a “pandemic” when the new type of coronavirus was observed simultaneously in many continents (3).

The COVID-19 pandemic has significantly infected all segments of the populations worldwide. Nurses are one of the most affected groups by this pandemic. Nurses are the major group of healthcare professionals having close contact with the patient while providing care and while communicating with the patients and their relatives (4). Various situations such as intensive working hours, increased workload, inadequate equipments, risk of contamination and spreading of the virus, fear of death, unfair criticism by the society affected nurses adversely during the COVID-19 process. In addition, the lack of specific drugs against COVID-19, staying away from family and beloved ones, death news in the media and insufficient support intensified the effects of the course (5). It was noted in the literature that nurses suffered from psychosocial problems, stress and anxiety disorders, and sleep disorders in this period (6). Sun et al. (2020) conducted a study on the experiences of nurses providing care for COVID-19 patients, where they reported fear and anxiety initially, and different coping strategies to get by (7). Liu et al. (2020) reported that nurses experienced fatigue due to the increased workload, difficulties related with protective equipments, uncertainty and fear of being infected as well as infecting others during the COVID-19 process (8). Kaçkın et al. (2020) indicated that COVID-19 pandemic changed social and business lives of the nurses considerably, and had negative psychological impacts, thus raised the need for psycho-social support (5). Jia et al. (2020) reported that nurses faced ethical problems during the COVID-19 period, had inadequate psychosocial support, and experienced role ambiguities between nurses and physicians (9).

Nursing services can be planned and the strategies supporting the nurses can be developed by determining the needs and experiences of nurses during this COVID-19 pandemic. For this reason, our study aims to identify the

experiences and needs of the nurses providing medical care to COVID 19 patients in this process and to develop relevant solutions.

MATERIAL AND METHODS

Study Design and Setting

This study was conducted using a descriptive phenomenological approach, which is a qualitative research method, with a view to determine the experiences of nurses during the COVID-19 pandemic process. Descriptive phenomenology describes experiences in daily life. These experiences are related to hearing, seeing, feeling, believing, remembering, decision making and evaluating. Descriptive phenomenological research method is chosen when a researcher wants to understand and reveal an event or situation (10). This approach was preferred in the present study with a view to reveal the experiences and psychosocial problems of nurses providing care to COVID-19 patients in Turkey, as well as to understand their feelings, thoughts and perspectives. The present article was written in accordance with the consolidated criteria for reporting qualitative research (COREQ). This study was carried out between September 7 and September 13, 2020 in a state hospital in Turkey.

Participants

The sample of the study consisted of nurses providing care to patients diagnosed with COVID-19. The most important requirement of the phenomenological model in terms of the study groups is that the participants are selected among those having fully experienced the phenomenon in all aspects (11). For this reason, the nurses speaking and understanding Turkish and providing care to the patients diagnosed with COVID-19 were included in this study. Purposive sampling technique was used in this study. Repetition of the responses (reaching the data saturation point) was used to determine the sample size, and a total of 15 interviews were made (12).

Data Collection

The Questionnaire Form and the Semi-Structured Interview Form were used for data collection. The questionnaire form was created by the researchers based on the literature (5,13). This form consisted of 8 questions including the nurses' personal characteristics and business experience. This form includes questions; age, gender, marital status, presence of children, number of children, original department, educational level, working experience. In addition, a semi-structured interview form was also used, prepared by taking advantage of the literature (7,14,15), for determining the experiences of nurses caring for COVID-19 patients (Table 1).

Table 1. Guide for Preparing Interview Questions.

1. How did the pandemic period affect you? Positive: Negative:
2. Could you tell us about your thoughts about COVID-19 patients?
3. What are the issue/issues worrying you at most during the pandemic period? What are the issue/issues that you are worried most during the pandemic period? Can you explain?
4. How did the pandemic affect your social life? Can you explain?
5. How did the pandemic affect your family life? Can you explain?
6. Could you tell us about the care process of COVID-19 patients?
7. How would the quality of care given to COVID-19 patients be increased and be more effective?

The appropriate date and time was as specified for individual interviews with nurses participating in the study. Written consents were obtained from the volunteering nurses, and their permission for using a tape recorder during the interview. For data collection, semi-structured interview technique was used by the researchers interviewing with the nurses in a reserved room within the institution. Each interview took approximately 35-45 minutes, and performed by three researchers. Sufficient repetition of same or similar responses suggested the researchers to terminate the interviews. During the interviews, notes were taken by the researchers and a tape recorder was used.

Data Analysis

Descriptive statistics and thematic content analysis method (semi-structured interview data) were used in the analysis of the data. In content analysis, similar data are brought together within the framework of certain themes and concepts and compiled and interpreted in a way that the reader can understand (16). This research method involves the stages of code, category and theme construction. In the first stage of data analysis, the audio recordings obtained from the qualitative interviews were analyzed by the researchers immediately after the interviews, each interview was transcribed into a separate word file, and 35 pages of data set was obtained at the end. Each tape recording was carefully listened twice after being transcribed. The data were repeatedly read and evaluated by three researchers. The results obtained from study data were analyzed by three researchers at different times. Consensus was reached and the framework was constructed with five categories, considering the topics in the semi-structured interview questions and the literature data. Within this framework, the notes were reviewed several times and the similarities in the expressions were compared and conceptualized. So, the themes and sub-themes that will be placed under the categories were specified.

Data saturation point was tried to be observed in this way. While conducting the analysis, attention was paid to the sub-themes and themes to have a meaningful integrity within themselves and to form an holistic integrity with each other, reflecting the whole concept map. The transcripts were analyzed and evaluated and finally five themes and ten sub-themes were determined through the collaboration of researchers, along with discussions and the exchange of ideas.

Validity and Reliability of the Study

Creswell and Miller criteria were taken into consideration for validity and reliability in the study (17). For this reason, "credibility" was used in place of "internal validity" and "transferability" in place of "external validity". Credibility; This is because the research results are clear, consistent, and can be confirmed by other researchers. The results of the research are given with direct quotations from the nurses' statements. Attention has been paid to the fact that the quotations are relevant and explanatory with the specified themes and sub-themes. Transferability means that research results cannot be generalized, but can be adapted to such settings. The qualitative findings of the study were given in detail in such a way that they can be compared with the data of similar studies.

As for reliability in qualitative research, "consistency" is preferred instead of "internal reliability" while "confirmability" instead of "external reliability". Consistency is to accept the variability of cases and to reflect this variability in the study in a consistent manner (16,17). The researchers asked the questions with a similar approach to each and every participant nurse throughout the semi-structured interviews, and recorded. The qualitative data of the research were presented by using direct quotations. Confirmability is defined as the researcher continuously cross-checking the obtained results by means of the gathered data, and offering a logical explanation to the reader (16,17). The results obtained by the researchers were transferred to readers in a clear and understandable form to ensure confirmability in this study. The qualitative results of the research were compared with the data of similar studies, substantiated by the literature and explained in the discussion section.

Ethical Consideration

The ethics committee permission (Number: 78646441-050.01.04, Date:02/07/2020-E.6972) and institutional permission (Number:11720518-604.02,Date:25/08/2020) were obtained before collecting the data. Participation in the research was absolutely voluntary. The nurses were informed about the aim of the study, and a written statement of consent was obtained for their voluntary participation.

RESULTS

Characteristics of the Respondents

Mean age of the nurses participating in the study was 35.2 ± 6.5 years and total work time was 11.93 ± 7.03 years. It was determined that the majority of the nurses were women (86.7%), had undergraduate education (66.7%), were married (66.7%) and had children (66.7%). Also, 40.0% (n=6) of the nurses were on duty in internal medicine service while 20% (n=3) in the emergency room, and 26.7% (n=4) stated that they stayed away from home during the pandemic. Table 2 outlines the baseline characteristics of the participants.

Phenomenology

We explored the experience of nurses concerning COVID-19 patients during the outbreak using phenomenological methods. The data revealed five levels of themes (Table 3): "effects of the pandemic", "fears and worries", "professional satisfaction", "needs", and "occupational health and safety". The sub-themes that deepen these themes are explained below. Direct quotes were used to present participants' perceptions and views. In the texts cited directly from the nurses' statements, the names of the nurses were coded as Participant 1, Participant 2, and so forth, according to the interview order (Table 4).

Table 3. Summary of Themes and Subthemes.

Themes	Subthemes
Effects of the pandemic	<ul style="list-style-type: none"> - Psychological effects - Working conditions - Social effects
Fears and worries	<ul style="list-style-type: none"> - Stress and uncertainty - Infecting beloved ones and others
Professional satisfaction	<ul style="list-style-type: none"> - Motivation of being a nurse - Care for patients with covid-19 and interaction with them - Team harmony and positive energy
Needs	<ul style="list-style-type: none"> - Need for auxiliary staff - Need for additional nurses - Need for psychological support
Occupational health and safety	<ul style="list-style-type: none"> - Difficulties and pressures related to personal protective equipment - Thermal comfort issues - Nutritional problems - Occupational accidents - Relationship between covid-19 and occupational disease

Table 2. Demographics of Participating Nurses (n=15)

Participants	Age (Year)	Gender	Marital status	Presence of children	Number of children	Original department	Educational level	Working experience (Year)
Nurse 1	37	Female	Married	Yes	1	Emergency	High school graduate	10
Nurse 2	30	Female	Single	No	-	Emergency	Associate's degree	4
Nurse manager 3	42	Female	Single	No	-	Emergency	Bachelor's degree	15
Nurse 4	42	Female	Married	Yes	2	Internal medicine	High school graduate	19
Nurse 5	34	Female	Married	Yes	1	Internal medicine	Bachelor's degree	10
Nurse 6	34	Female	Married	Yes	3	Internal medicine	Bachelor's degree	10
Nurse 7	38	Female	Married	Yes	3	Internal medicine	Bachelor's degree	19
Nurse 8	30	Female	Married	Yes	1	Internal medicine	Bachelor's degree	7
Nurse 9	23	Female	Single	No	-	Internal medicine	Bachelor's degree	1
Nurse manager 10	45	Female	Married	Yes	2	Palliative	Bachelor's degree	25
Nurse manager 11	40	Female	Married	Yes	2	Palliative	Bachelor's degree	15
Nurse 12	40	Male	Single	No	-	Intensive care	Master's degree	20
Nurse 13	23	Female	Single	No	-	Intensive care	Associate's degree	1
Nurse 14	35	Female	Married	Yes	2	Surgical	Master's degree	11
Nurse 15	35	Male	Married	Yes	2	Intensive care	Master's degree	12

Table 4. Themes, Sub-Theme and Sample Quotations Identified in Interviews with Nurses.

Theme	Sub-theme	Quotations
Effects of the pandemic	Psychological effects	<p>- I was the one who contacted the first positive patient in this hospital. Therapy process was uncertain in those days. Everyone was very unprepared. At first they quarantined me at home. I sent my children to my mother. We stayed together with my husband, but I stayed in a separate room. You'd become paranoid in such a situation. I was wiping and cleaning all over. I was feeling as if the virus was spreading from me (Participant 1).</p> <p>- People presume that we are COVID-19 patients just because we are nurses. We are inevitably psychologically affected (Participant 12).</p>
	Working conditions	<p>- We switched to flexible working hours. We work 24 hours a day. We collected a lot of overtime payments. We started working more than usual. I am in the mood that I will continue to another shift the next day. (Participant 1).</p> <p>- We started working for 24 hours. We care for COVID-19 patients as well as other critical patients. We have to don and doff PPE many times a day. We sweat a lot (Participant 2)</p> <p>- I was working in the operating room before. When I first came to this service, I was very afraid that I will take care of COVID positive patients. But there is nothing we can do, there are very few staff. That's why we have to do everything of the patients, daily care and giving treatments. I find myself drenched in sweat after I'm finished with treatments (Participant 13).</p>
	Social effects	<p>- We cannot go anywhere with the children that we used to go before the pandemic. We only go to open air places, to the countryside. Our neighborly relations are almost over. We do not have any contact with anyone (Participant 7).</p> <p>- My social life is affected considerably. I'm afraid of going out at all. I feel safer when I'm in the hospital. I see our COVID-19 patients outside, some of them already recovered or some should be still in quarantine at home, then I get extremely angry and feel concerned, considering that they can infect other people. Although I love traveling, I cannot (Participant 9).</p> <p>- I haven't been to any cafe or restaurant since pandemic started. I feel more concerned outside because I believe that we are more likely to get the disease from the outside, not from the hospital (Participant 5).</p>
Fear and Worries	Stress and uncertainty	<p>- Does this disease infect us? What would happen to us? How will be the whole process? We get very different reactions when we say outside that we are healthcare staff. They immediately put on their masks. They suppose that we spread the virus all over. The last patients admitted to our unit are very critical. When the patients are diagnosed with COVID-19, they start asking questions as to what will happen to them, in anxiety. The other Patients in the hospital have very negative approach to COVID positive patients. When we have our overalls, patients run away from us. (Participant 2).</p> <p>- Sometimes it feels like we run around in circles, we waste time. We fall into despair. We're struggling here. But everyone is very comfortable outside. Uncertainty is also very exhausting (Participant 4).</p> <p>- There is an uncertainty, when will it end and what will happen? We do not know what will be our end. We are right in the middle of this outbreak in person. That's why we're afraid (Participant 5).</p>
	Stress and uncertainty infecting beloved ones and others	<p>- I'm very worried about getting and transmitting COVID-19. I am doing my job. I may get the virus, but I have no right to infect my child and husband. I feel guilty about this (Participant 8).</p> <p>- I was never afraid of having COVID-19. But I was worried about infecting my friends. Beyond that, I wasn't concerned (Participant 9).</p> <p>- What I am mostly worried about is spreading the virus, infecting others (Participant 13).</p>
Professional Satisfaction	Motivation of being a nurse	<p>- They used to consider us as auxiliary health personnel. Now they consider us at a higher status. The COVID-19 pandemic changed the way people see the nurses. Even the way they talk to us changed. They realised that we are an important part of the health sector. They show more respect to us. They look into our eyes with hope (Participant 6).</p> <p>- Nursing is very valuable, I believe there is conscience in those who perform this profession. In other countries, many nurses left the profession. But in our country, nurses work very conscientiously and nobody quit their job (Participant 3).</p>
	Care for patients with Covid-19 and interaction with them	<p>- Some patients are brought to the hospital hurriedly when their test is detected positive. We try to meet their needs in the hospital. It's like a prison for the patients to be here. We are doing our best. We try to give some psychological support. Sometimes families refuse meeting with their patients, sometimes patients don't want to see their families. During this period, nurses and patients begin communicating more than ever. Patients' gratitude and appreciation motivate us, no matter how tired we are (Participant 3).</p> <p>- There are some patients coming from the peripheral villages. Sometimes they don't even have slippers. We meet all kinds of needs for them. Sometimes patients' relatives do not want to stay with them and run away. We work for these patients in close contact while everyone run away from them and we are happy about it. Patients also remark that they are very satisfied with us (Participant 13).</p>
	Team harmony and positive energy	<p>- I think the nurses are getting stronger. Health professionals increased in value in the eyes of the people. Self-confidence increased in nurses. We are more appreciated today. Nurses started reading much more research. Our qualifications increased, we improve, we learn up-to-date new information. Our cooperation increased as well, we care about each other more. Discrimination between doctors and nurses disappeared and this union developed much more today. It was a very positive result indeed. We see more value from the institution, this makes us feel very comfortable. We started acting in unity and integrity. We have a health minister who is concerned about our problems. I am very happy with the current situation. We did not have any big trouble, even our manager himself worked just as we did. (Participant 3).</p>

Needs	Need for auxiliary staff	<p>- We take care of all the personal problems of the patients individually. We provide everything including water and food. We provide their communication with families and even external contacts. We try to reach their relatives whenever they need. While working at this pace, it becomes very difficult to keep up with other patients. It takes a lot of our time to put on and take off overalls (Participant 9).</p> <p>- There should also be a staff for daily care of the patients. Nursing care is different, but we need additional staff to meet self-care needs. For example, there are patients with no relatives or no companion. I think it is necessary to allocate separate staff for such patients. Because we are not working in ordinary times. A separate staff member is required for personal care of the patients. They constantly need this or that. We need to order these, and it takes time (Participant 5).</p>
	Need for additional nurses	<p>- Working hours should rather decrease. More nurses are needed. 24 hours long working is very heavy and exhausting (Participant 2).</p> <p>- We have shifts very often. We are very few nurses. The number of nurses should be increased. 24 hours working is very tiring. Night-time hospitalizations are common because test results are announced at night, (Participant 5).</p>
	Need for psychological support	<p>- We are worried about what would happen to us. The patients are affected very negatively when they see the patients who can't breathe and die on social media, television and internet. If we were not involved in this business, if we were an outside person, we would feel the same. Psychological support is a large part of the treatment. Nurses need psychological support as well. Married health personnel, particularly those with children are also affected in this period very negatively. They manage both hospital and the house. They support both the patients and their households. That's why we have experienced too much burnout (Participant 6).</p>
Occupational Health and Safety	Difficulties and pressures related to personal protective equipment	<p>- After removing the mask, problems such as sore throat and pharyngitis occur. Our breath come back somehow. The mask irritates my throat. (Participant 1).</p> <p>- We can't work comfortably. Goggles and face shields create a lot of difficulty for us. Clothes are very stifling, we sweat a lot. It is very troublesome to put on and remove those overalls, there is a risk to contaminate ourselves with the secretions smeared on us while taking them off. Its psychological aspect is even worse (Participant 5).</p> <p>- We feel tiredness and sleepiness because we wear masks the whole day. Recently, the number of patients with respiratory distress increased and patients became more critical. The risk of contact is higher. People are very unconscious, they don't believe and don't wear masks. In this period, nurses work with more devotion. Except for 2 departments in the hospital, everywhere is reserved for positive cases and all the patients are referred from the emergency room, which increases our workload (Participant 8).</p>
	Thermal comfort issues	<p>- When we wear our overalls, we almost get soaked completely. There is a hanger here and we dry the overalls on the hanger. When we come to the room, we catch colds, since all the windows are open (Participant 6).</p> <p>- Because I love working, the COVID-19 pandemic did not affect me adversely, except for wearing overalls, working in it, sweating and smelling sweat all day long (Participant 9).</p>
	Nutritional problems	<p>- The most important problem for us and for the patients is the meals. They are insufficient and tasteless and the dishes are not compatible with each other. There are complaints from both the patients and the employees. In addition, we suggest to give patients snacks such as fruit, yogurt, etc. I think the meals provided are not nutritionally adequate as well. Patients cannot afford buying everything from the canteen. Patients have trouble with canteen, because it is expensive and you can't find everything. A solution can be found in this respect, by the institution (Participant 9).</p> <p>- We are having trouble with meals. It is an outsourced catering service and we are not happy with that. They are not good in quality and quantity (Participant 12).</p> <p>- Snacks should be added by the institution and fruit should be given as snacks. Volunteer support lines need to be established. There might be volunteers ready to bring along some food for the patients (Participant 14)</p>
	Occupational accidents	<p>- Sometimes those masks and overalls make me nervous. Overalls make me sweat a lot, I can't breathe. Since the face shield becomes foggy, I have difficulty in seeing what I am doing while providing care for the patients. For this reason I'm afraid of making mistakes (Participant 2).</p> <p>- Overalls and face shield induce panic attack. The face shield becomes misted, so it is difficult to implement a vascular access (Participant 12).</p>
	Relationship between Covid-19 and occupational disease	<p>- My hand was pierced by a needle contaminated with a COVID positive patient. So I was very much concerned. I had a test. Now it is 7 days. It was recorded as a work accident. Even if there is no infection, there is a risk. In the classification of occupational diseases, there is a section called contagious occupational diseases. COVID-19 is not included in this section. I think COVID-19 should be considered as an occupational disease. This would increase our work standards (Participant 2).</p>

Theme 1: Effects of the Pandemic

This study revealed that nurses providing care to COVID-19 patients were adversely affected, both psychologically and socially, in Turkey. The nurses reported that ever-changing working conditions and different routines during the pandemic were extremely difficult.

Theme 2: Fears and Worries

The nurses stated that their stress levels increased as the course of COVID-19 pandemic conditions prevailed and uncertainty increased. Most of them remarked that they were under psychological pressure, and suffered fear and anxiety. They felt depressed and anxious as they faced death and other painful scenes.

Theme 3: Professional Satisfaction

Despite tough conditions and various difficulties, most of the nurses reported that they were happy in coping with the disease. First of all, they indicated that they felt the patients' goodwill, respect, cooperation and gratitude. Secondly, the support given by the family and by the colleagues made them happy. On top of these, institutional support and motivation in the hospital made the nurses feel esteemed.

Theme 4: Needs

The nurses stated that they needed supplementary personnel and nurses and psychological support while providing care to COVID-19 patients.

Theme 5: Occupational Health and Safety

Using personal protective equipment (PPE) while working with COVID-19 patients has a protecting effect for the nurses and a limiting effect on infection. However, long time use of PPE caused skin problems, lack of thermal comfort and work accidents. Loss of excessive fluid out of the body due to sweating while in PPE and inadequate intake would cause serious health problems. The nurses also reported that PPE would cause work accidents while treating patients. They pointed out that the COVID-19 disease should be recognized as an occupational disease by the regulations. In addition, they reported that refectory meals were insufficient and with little nutritional value. They claimed that bad hospital meals made it even more difficult for the patients to eat, as they already had no appetite due to COVID-19.

DISCUSSION

In this study, experiences of the nurses providing medical care to COVID-19 patients were examined using phenomenological methods and the findings were summarized in 5 themes: effects of the pandemic, fears and worries, professional satisfaction, needs, occupational health and safety.

Within the framework of the first theme of this study, these nurses perceived the effects of the pandemic, not only psychologically and socially but also in terms of working conditions. It was observed in other parts of the world too, that nurses experience similar fear, anxiety, stress and psychological pressure during outbreaks (7,18). The results of this study are similar. This can be attributed to insufficient knowledge about the pandemic, inadequate preventive measures, and lack of satisfactory community support to nurses.

Fears and worries of nurses constitute the second theme of the study. It was shown that psychological support provided by professional organizations, family, and social environment can relieve their anxiety and stress (19,20). However, in this study, it was observed that nurses could not have adequate social support and they were in stress due to the risk of infecting their families. Uncertainties regarding the course of the disease also caused despair and stress. It was also shown in other studies that, nurses felt hopeless and stressful due to the very same factor (21,22). Due to its specific nature, nursing is a highly stressful profession. Nurses confront severe pain, grief, and death every day, as very few people do.

The third theme of the research is professional satisfaction. Nurses were satisfied with their jobs and remained motivated, despite the burden of a heavy workload and the risk of disease transmission. Nurses fighting against the COVID-19 pandemic were considered as heroes, which caused higher level of job satisfaction and less psychosocial problems (20). These findings are consistent with the results of our study. The initial fears and worries experienced by our nurses working with COVID-19 patients disappeared over time, and their close interactions with patients induced positive emotions in patients (7). This was considered to improve the recovery of patients. Because, positive interactions between nurses and patients was shown to be important in boosting patients' morale and improving patients' satisfaction with healthcare service, coping with disease, compliance with treatment and motivation for recovery (23).

The fourth theme of this study is the needs. Number of nurses in hospitals has been always short of the required number. However, reinforcing pandemic services with extra healthcare and auxiliary personnel is highly important in this pandemic process. Such assistance and support teams were established for nursing management worldwide (24). Again, working hour changes and frequent shifts increased their workload even more. Similar results were obtained also in other studies (25). Additional healthcare staff should be employed in order to reduce the pressure and workload on healthcare personnel and the needs should be provided as soon as possible and at the best conditions (21).

Psychological support is another issue that nurses need most and is disregarded. Regular psychological support must be offered to healthcare staff during the pandemic process (25). As the fight against pandemic continued, it was extremely important to improve and strengthen the mental state of healthcare workers in terms of protecting the health of the patients as well as the healthcare workers. Healthcare professionals could receive online psychological support in this period, if they needed (21). Other duly attempts were also suggested in order to protect the mental health of the nurses. It is even easier to get access to these services in case they are provided through channels such as tv or social media. It was determined that institutional support as well as family and social support helped nurses in reducing stress levels (19).

Occupational health and safety is the last theme of the study. Hospitals are very hazardous places to work (26). Almost all risk factors can be found in hospitals. Nurses were always face to face with these factors, also in pre-pandemic times, but now during the pandemic, they were directly threatened by them. Nurses constitute the largest group among healthcare professionals and they provide direct care to patients diagnosed with COVID-19 at a distance of less than 1 meter. For this reason, it is important for the nurses to know standard, droplet and contact isolation precautions and to use personal protective equipment (PPE) in order to protect themselves and other members of the healthcare team and to provide care safely (27).

Changes in PPE use in particular, and increased use of PPE caused stress and difficulties in care. Working with overalls and other protective equipment for a long time causes excessive sweating in the staff, leading to great discomfort and excessive fluid loss as well as skin reactions requiring medical treatment (28). In addition, prolonged and possibly inadequate use of PPE made them worried about its safety in terms of disease transmission risks (29). The nurses participated in the study had sufficient knowledge about the use of PPE and had updated trainings, reviewed new brochures, and followed the instructions regularly. Our data were in line with the data of the studies measuring the knowledge of nurses on PPE use (30,31). Increasing the number of employees and rest breaks, and eventually minimizing the duration of PPE use, will definitely reduce these problems (30). Although nurses suffered from PPE deficiency in the early stages of the pandemic, they stated that this problem was resolved in a very short time.

Regular donning and doffing PPE causes also physical fatigue and stress (32). However, proper use of PPE is obligatory even for routine procedures (33). It was also reported that skin problems occur due to wearing overalls and medical treatment is required (28). Wearing a full-body PPE also causes the staff not to meet their physical needs during this period. Nurses' complaints including fatigue, weakness, dizziness, etc., may be due to fluid-electrolyte imbalance as a result of excessive fluid loss and failure in its replacement. Inadequate or poor quality PPEs, and fluid loss were shown to cause dermatoses all over the body, particularly on the lips, nose, around the eyes and hands (34,35). It is recommended that, nurses should be provided appropriate and high quality PPEs, a healthy and balanced daily diet, sufficient amounts of fluid, and frequent breaks during shifts (33).

Occupational accident is another sub-theme of occupational health and safety. Nurses generally hold PPE responsible as the main reason for the work accidents they had. They stated that they experienced accidents especially because PPE was not convenient for working comfortably, face shield was preventing vision due to fogging up and equipment was even creating situations like panic attack. Needlestick injuries are recognized as the major occupational accident in the health sector. Likewise, injury by contaminated sharp material or contact with contaminated material also creates a significant occupational hazard for the staff (36). Increased use of PPE during the pandemic period resulted in high probability occupational accidents for nurses.

Legal recognition of COVID-19 as an occupational disease is another important theme concerning all healthcare professionals and mentioned by the nurses in this study. A guide was published for recognizing COVID-19 as an occupational disease, why and how this could be implemented. In this guide, very high-risk professions were determined and nurses were included in the high-risk group (37). Moreover, it was emphasized in the guide that COVID-19 should be an occupational disease and the healthcare staff who died because of that should be considered as occupational martyrs (38). In the diagnosis of occupational disease, it is important to diagnose the disease correctly and prove that the disease is caught at the workplace (39).

Impact of the Research

This study was produced a deep understanding regarding the experiences of the nurses providing care for COVID-19

patients. Besides, it was emphasized in this study, we found that positive emotions co-exist together with negative emotions during the pandemic, on the basis of professional satisfaction. It is also realized that burnout can occur due to the increased workload on nurses during the pandemic period and well-known difficulties of working with protective equipment. Therefore, significant interventions should be planned to reduce the risks of burnout and help nurses deal with their problems effectively. This study is considered to contribute to the psychological intervention plans, to be applied for the psychological effects of the COVID-19 pandemic.

Limitations

The present study also had certain limitations. First, because of the nature of epidemic prevention and control, we couldn't hold focus group discussions and collect data from multiple centers in order to avoid cross-infection. Secondly, this is a short-term study. We did not have the opportunity to follow the changes in the nurses' experiences longitudinally.

CONCLUSION

This study used a phenomenological approach, and provided a comprehensive and thorough understanding of the experiences of nurses providing care for COVID-19 patients in Turkey. It revealed that nurses were adversely affected by the pandemic both psychologically and socially. Although the nurses participated in this study were mostly supported by the society, occasionally they also encountered stigmatizing attitudes.

DECLARATIONS

Acknowledgments

The authors would like to thank all of the nurses who agreed to participate in this study

Author Contributions

Designed the study: EI, SCÖ, DY. Collected data: EI, SCÖ, DY. Analyzed data: EI, SCÖ, DY. Supervised the analysis: EI, SCÖ, DY. Contributed to interpretation of findings: EI, SCÖ, DY. Drafted the paper: EI, SCÖ. Critical review providing important intellectual content: EI, SCÖ. All authors have approved the final version of the paper.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding

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

REFERENCES

- Cowling BJ, Leung GM. Epidemiological research priorities for public health control of the ongoing global novel coronavirus (2019-nCoV) outbreak. *Eurosurveillance*. 2020;25(6):2000110. doi: 10.2807/1560-7917.ES.2020.25.6.2000110.
- Guest JL, Del Rio C, Sanchez T. The three steps needed to end the COVID-19 pandemic: bold public health leadership, rapid innovations, and courageous political will. *JMIR Public Heal Surveill*. 2020;6(2):e19043. doi: 10.2196/19043
- Shi Y, Wang J, Yang Y, Wang Z, Wang G, Hashimoto K, et al. Knowledge and attitudes of medical staff in Chinese psychiatric hospitals regarding COVID-19. *Brain, Behav Immunity-Health*. 2020;4, 100064. doi:10.1016/j.bbih.2020.100064
- Karasu F. Koronavirüs (COVID-19) vakaları artarken salgının ön safındaki bir yoğun bakım hemşiresi: "cephede duran kahramanlar." *Yoğun Bakım Hemşireliği Derg*. 2020;24(1):11-14.
- Kackin O, Ciydem E, Aci OS, Kutlu FY. Experiences and psychosocial problems of nurses caring for patients diagnosed with COVID-19 in Turkey: a qualitative study. *Int J Soc Psychiatry*. 2020; 67(2), 158-167. doi:10.1177/0020764020942788
- Jun J, Tucker S, Melnyk BM. Clinician mental health and well-being during global healthcare crises: evidence learned from prior epidemics for covid-19 pandemic. *Worldviews Evidence-Based Nurs*. 2020;17(3):182-184. doi:10.1111/wvn.12439
- Sun N, Wei L, Shi S, Jiao D, Song R, Ma L, et al. A qualitative study on the psychological experience of caregivers of COVID-19 patients. *Am J Infect Control*. 2020;48(6):592-598. doi:10.1016/j.ajic.2020.03.018
- Liu JJ, Bao Y, Huang X, Shi J, Lu L. Mental health considerations for children quarantined because of COVID-19. *Lancet Child Adolesc Heal*. 2020;4(5):347-349. doi: 10.1016/S2352-4642(20)30096-1
- Jia Y, Chen O, Xiao Z, Xiao J, Bian J, Jia H. Nurses' ethical challenges caring for people with COVID-19: A qualitative study. *Nurs Ethics*. 2021; 28(1), 33-45. doi:10.1177/0969733020944453
- Edmund H, Dorion C. Cartesian meditations: an introduction to Phenomenology. trans. Dorion Cairn; 1999.
- Creswell JW, Poth CN. *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications; 2016.
- Yıldırım A, Simsek H. *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin. 2008.
- Fawaz M, Samaha A. The psychosocial effects of being quarantined following exposure to COVID-19: A qualitative study of Lebanese health care workers. *Int J Soc Psychiatry*. 2020; 66(6), 560-565. doi:10.1177/0020764020932202
- Zhang Y, Wei L, Li H, Pan Y, Wang J, Li Q, et al. The psychological change process of frontline nurses caring for patients with covid-19 during its outbreak. *Issues Ment Health Nurs*. 2020; 41(6), 525-530. doi:10.1080/01612840.2020.1752865
- Mohammadi F, Farjam M, Gholampour Y, Tehranineshat B, Oshvandi K, Bijani M. Health professionals' perception of psychological safety in patients with coronavirus (COVID-19). *Risk Manag Healthc Policy*. 2020;13:785-794. doi: 10.2147/RMHP.S261410
- Yıldırım A, Şimşek H. *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayınları. *Introd Sect master theses Total 189 citations, Introd Sect*. 2011.
- Creswell JW, Miller DL. Determining validity in qualitative inquiry. *Theory Pract*. 2000;39(3):124-130, doi: 10.1207/s15430421tip3903_2

18. Mo Y, Deng L, Zhang L, Lang Q, Liao C, Wang N, et al. Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. *J Nurs Manag.* 2020;28(5):1002–1009. doi: 10.1111/jonm.13014
19. Labrague LJ, De los Santos JAA. COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience and social support. *J Nurs Manag.* 2020;28(7):1653–1661. doi: 10.1111/jonm.13121
20. Tu Z, He J, Zhou N. Sleep quality and mood symptoms in conscripted frontline nurse in Wuhan, China during COVID-19 outbreak: A cross-sectional study. *Medicine (Baltimore).* 2020;99(26):e20769. doi: 10.1097/MD.00000000000020769
21. Çevik Aktura S, Özden G. Salgınin psikolojik etkileri: covid-19 hemşireleri. *J Int Soc Res.* 2020;13(73):1146-1151.
22. Rosa WE, Ferrell BR, Wiencek C. Increasing critical care nurse engagement of palliative care during the COVID-19 pandemic. *Crit Care Nurse.* 2020;40(6):e28–36. doi:10.4037/ccn2020946
23. Başol E. Hasta ile sağlık çalışanları (doktor ve hemşire) arasındaki iletişim sorunları ve çözüm önerileri. *Int Anatolia Acad Online J Soc Sci J.* 2018;4(1):76–93.
24. Wu X, Zheng S, Huang J, Zheng Z, Xu M, Zhou Y. Contingency nursing management in designated hospitals during COVID-19 outbreak. *Ann Glob Heal.* 2020; 86(1): 70, 1–5. doi: 10.5334/aogh.2918.
25. Yüncü V, Yılan Y. COVID-19 Pandemisinin sağlık çalışanlarına etkilerinin incelenmesi: bir durum analizi. *igdir university journal of social sciences.* 2020; 373-401.
26. ÇSGB. (2009). İş sağlığı ve güvenliğine ilişkin tehlike sınıfları listesi tebliği. Çalışma ve Sosyal Güvenlik Bakanlığı. <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16909&MevzuatTur=9&MevzuatTertip=5>
27. Sarmasoğlu Ş, Çelik GHT, Korkmaz F. İnceleme: COVID-19 hastalığından korunmaya yönelik kişisel koruyucu ekipman kullanımını. *Hacettepe Üniversitesi Hemşirelik Fakültesi Derg.* 7(Özel Sayı):47–65.
28. Nacar H, Turan A. Pandemide sağlık çalışanlarının kişisel koruyucu ekipman kullanımına bağlı olumsuz cilt reaksiyonlarının belirlenmesi. *Çukurova Anestezi ve Cerrahi Bilim Derg.* 3(3):162–169.
29. Ong SWX, Tan YK, Sutjipto S, Chia PY, Young BE, Gum M, et al. Absence of contamination of personal protective equipment (PPE) by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). *Infect Control Hosp Epidemiol.* 2020;41(5):614–616. doi:10.1017/ice.2020.91
30. Kim K, Lee O. Knowledge, attitudes and perceptions of nurses on personal protective equipment: Response to the middle east respiratory syndrome coronavirus. *J Korean Acad Fundam Nurs.* 2016;23(4):402–410. doi:10.7739/jkafn.2016.23.4.402
31. Miranda FMA, Santana L de L, Pizzolato AC, Saquis LMM. Working conditions and the impact on the health of the nursing professionals in the context of covid-19. *Cogitare enferm.* 2020;25:e72702. doi:10.5380/ce.v25i0.72702
32. Gan WH, Lim JW, Koh D. Preventing intra-hospital infection and transmission of coronavirus disease 2019 in health-care workers. *Saf Health Work.* 2020;11(2):241–243. doi: 10.1016/j.shaw.2020.03.001
33. Kiyat İ, Karaman S, Ataşen Gİ, Kiyat ZE. Yeni Koronavirüs (Covid-19) ile Mücadelede Hemşirelik. *Türk Hemşireler Derneği Derg.* 1(1):81–90.
34. Singh M, Pawar M, Bothra A, Maheshwari A, Dubey V, Tiwari A, et al. Personal protective equipment induced facial dermatoses in healthcare workers managing Coronavirus disease 2019. *J Eur Acad Dermatology Venereol.* 2020;34(8):e378–380. doi: 10.1111/jdv.16628
35. Lee HC, Goh CL. Occupational dermatoses from Personal Protective Equipment during the COVID-19 pandemic in the tropics—A Review. *J Eur Acad Dermatology Venereol.* 2020.
36. Akgün S. Sağlık sektöründe iş kazaları. *Sağlık Akad Derg.* 2015;2(2):67–75.
37. Şahan C, Özgür EA, Arkan G, Alagüney ME, Demiral Y. COVID-19 Pandemisi'nde meslek hastalığı tanı kılavuzu. İş ve Mesl Hast Uzm Derneği ve Halk Sağlığı Uzm Derneği. 2019.
38. Saatçı E. COVID-19 Pandemic and Family Medicine. *Turkish J Fam Pract.* 2020;24(2):56–57. doi: 10.15511/tahd.20.00256
39. Alıcı NŞ, Beyan AC, Şimşek C. Meslek Hastalığı Olarak COVID-19. Şer Göğüs Hast Uzm Bilmesi Gerekenler'başlıklı ek sayısında derlemeyi: 151.