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Being a health care professional in the ICU serving patients with covid-19: A qualitative study



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ABSTRACT

Background: The COVID-19 pandemic has placed a great deal of strain on healthcare providers across the world. There has been no research into the experiences of health care providers in Turkey caring for hospitalized patients with COVID-19 in the ICU.

Objectives: To explain the experiences of health care providers who provide services to patients with Covid-19 in an intensive care unit.

Methods: This study used a phenomenological approach to recruit 15 participants (10 nurses and 5 physicians). The data was gathered through semi-structured in-depth interviews conducted face-to-face.

Results: The four primary themes that came up in the results were COVID-19: the unidentified enemy, front-line struggle, psychological struggle, and invasion of social life.

Conclusion: During the epidemic, health care providers encountered several psychological, physical, social, and professional difficulties. All health care personnel must receive information and skills training on what to do in crisis and risk circumstances such as infectious disease, decision-making, anxiety management, and problem-solving during pandemics.

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Introduction

The COVID-19 pandemic has presented numerous obstacles for health care systems and hospital personnel. Healthcare providers (HCPs) give frontline care to critically ill patients with COVID-19 in difficult conditions which include insufficient staffing, prolonged periods of hard work, wearing mandatory safety equipment, and an ongoing risk of infection. According to studies conducted in various nations, HCPs are suffering from anxiety, anguish, dread, hopelessness, burnout, helplessness, worry, tiredness, loss of control, powerlessness, guilt, and remorse.¹⁻⁷

Over the previous four decades, a number of deadlyiest viral pandemics with far-reaching implications have occurred. The last three of these outbreaks, MERS-CoV in 2012, Ebola virus in 2013 and SARS-CoV-2 from 2019 to the present, have occurred within the last decade. As can be observed, the frequency has grown, and this is likely a precursor to future pandemics. HCPs have selflessly taken on duties to battle the COVID-19 pandemic, and throughout this period, HCPs have generally been able to provide critical services despite the

obstacles they face. They have personally encountered hope, hopelessness, bravery, pleasure, sadness, and death. Each HCP who provides services has a story to tell, and it is critical to listen to, comprehend, and attempt to relay this tale. Additional knowledge about the experiences of physicians and nurses working in COVID-19-designated hospitals may aid in the development of effective crisis management programs and self-care initiatives that reduce health care professionals' stress and promote health, overall well-being, and role functioning. This study is one of several phenomenological investigations into this subject that have been conducted in this part of the world. The study, conducted with HCPs on the front lines of the pandemic, is critical in elucidating individual experiences. The objective of the study was to document the experiences of HCPs delivering intensive care to patients with COVID-19 in Turkey.

Methods

Design and participants

The study employed a phenomenological approach. This is a qualitative research method that aims to comprehend the essence of an object by reducing subjective experiences related to an event to a universally applicable explanation. This design was designed to facilitate understanding of they experiences of HCPs during a pandemic and study of HCPs' feelings, thoughts, and perceptions.

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Purposive sampling was used to recruit individuals. The following criteria were used to determine eligibility: HCPs with expertise in caring for severe Covid-19 patients, who were actively involved in the pandemic response and who were willing to share their experiences were included in the study. Intensive care professionals were among the participants. In total, ten nurses and five physicians participated (Table 1).

On March 11, 2020, the hospital where our study was conducted began serving only Covid-19 patients, and all other health care services were discontinued. The hospital contains 400 beds and 109 intensive care units, as well as tertiary health care services. Under a decision made by the hospital's management, people who worked in different parts of the hospital were sent to intensive care and COVID-19 services, if needed.

Data collection and procedures

Between November 2020 and January 2021, the researchers conducted semi-structured, in-depth face-to-face interviews. All interviews were conducted in a discreet, peaceful, and secure environment in the hospital director's room. The interviews ranged in length from 35 to 60 min. All interviews were audio recorded and then transcribed verbatim. Interviews were conducted indefinitely until data saturation was reached.

The interviewers asked "Could you kindly tell us about your experience caring for patients diagnosed with COVID-19?" and "How do you believe the epidemic process in which you are involved will impact your career, social, and familial life?"

Interviews were conducted in the individuals' native language. The participants' statements were translated by a British citizen residing in the country where the research was performed. Another translator reverse translated, and an assessment was made as to whether any meaning was lost.

Data analysis

We evaluated both groups, physicians and nurses, since a comprehensive analysis of the data revealed no significant differences and merging data from different occupations is a typical practice. ^{5,10} Additionally, because the nurses' diagnosis with COVID-19 had no effect on their interactions with patients, physicians and nurses were evaluated jointly.

Following each interview, the second researcher listened to and transcribed the voice recordings verbatim, and the data set was downloaded to the analysis application MAXQDA-Plus. The second researcher completed the first coding. We conducted an interpretative phenomenological (IPA) analysis. This consisted of (1) re-reading, (2) preliminary annotation and analysis, (3) the development of themes, (4) the search for links between themes, (5) the analysis of the next instance, (6) the search for patterns among cases, and (7) extending the interpretation to a deeper level.¹¹

Rigor

To ensure reliability, the analysis and findings of the study were examined by a researcher who was not involved in the study. This researcher conducted an independent analysis of the data. Additionally, any conflicts of opinion were discussed, and a total of three people, two researchers and one non-researcher, collaborated on the codes. To bolster the reliability of the data, the researchers drew on a variety of sources: semi-structured interviews, field notes, and peer review. Additionally, because the researchers provided numerous perspectives and powerful expressions about the subject, the results grew rich and more realistic. To ensure data transferability, the researcher attempted to clearly explain the context in which the

study was conducted through an accurate description of the participants, sampling procedure, and time and place of data collection.

Ethical considerations

All procedures involving human subjects in this study were conducted in compliance with the ethical standards established by the Medical School's Local Ethics Committee (07.22.2020/464) and the 1964 Helsinki Declaration and its subsequent revisions or comparable ethical standards. Participants provided verbal and written consent after being told about the study. One of the interviewers was a psychiatrist, while the other was a PhD-educated psychiatric nurse. The materials contained no identifying information.

Results

Four significant themes emerged from the findings: 1) COVID-19: the unidentified enemy, 2) front-line struggle, 3) psychological struggle, and 4) invasion of social life (Table 2)

COVID-19: the unidentified enemy

This theme was subdivided into two subthemes: "Inadequate knowledge of the clinical course" and "Deficiency of specific treatment".

Inadequate knowledge of the clinical course

A majority of the participants reported that the clinical picture of patients admitted to the hospital with a diagnosis of Covid-19 was significantly different than their previous experience, that they had lost patients with mild/moderate clinical course, and that this occurred rapidly.

"We had an 80-year-old patient with a saturation of 40 who was eating. Typically, a saturation of 40 is used as a cutoff point for intubation. Covid is quite perplexing."

"It's as though Covid defies mathematics in terms of who and what it impacts."

Deficiency of specific treatment

Some of the participants said that established treatment methods did not always work, that they mostly used symptomatic treatments, that treatment protocols were always changing, and that there was no quick treatment.

"We knew how to treat diseases other than COVID, but during the pandemic, we were continuously adjusting treatment regimens due to the lack of a definite cure."

"Therapy is only symptomatic; no acute treatment is available."

Front-line struggle

This theme was subdivided into three subthemes: "Increased workload", "Professional responsibility", and "Unfulfilled expectations".

Increased workload

Increased work hours due to an increase in the number of patients and patients with severe clinical pictures, working with new and inexperienced colleagues because the wards had been converted into intensive care units, not using leave, putting on and taking off personal protective equipment, and the cleaning rituals associated with entering and exiting from seeing patients were all reported to have increased the workload of pandemic hospital HCPs.

"Managers hired employees without intensive care experience to assist them, but because these individuals were unfamiliar with critical care, we ended up doing their jobs as well, which was much more exhausting."

"It's difficult to get into and out of those coveralls; you sweat and it's difficult to breathe."

Professional responsibility

Professional responsibility comes in the form of professional awareness, empathy, moral support, professional satisfaction, dilemmas in professional duties, and successful crisis management for the whole institution.

Participants said that during the epidemic, people who were close to the patients worked selflessly, putting themselves in danger, and thought of this as part of their job.

"You go above and beyond for the patient, putting yourself in danger in the process."

"One of my patients commented, 'That's OK; don't overdo it.' My own children would never look after me in that manner."

Those who thought they were trying to help people thought they were eliciting empathy from people and giving moral support, especially to people who felt alone or hopeless.

"By the expression in their eyes, I can tell that, certain patients fear death. I attempt to console them; I tell them not to despair and to take a deep breath. Individuals can heal with encouragement."

"When they say they're exhausted; we tell them to just try a little harder: 'You have to be optimistic.' We give them the feeling that we are on their side."

They said that when a patient was released from the hospital or when they received positive feedback from patients while in the hospital, they felt good about their work. They said that this was very important and valuable.

"Patients inspire gratitude. They say, 'You are providing such excellent care; may God bless you.' Those who best understand us are conscious patients. They leave the hospital with a thousand prayers for our well-being."

"Our patients pray for us, and that is enough."

The participants stated that they encountered difficulties in their professional roles. Some of these challenges are dealing with patients less to avoid unnecessary contact, detection of the patients' symptoms late and because of the need to wear protective gear, they were not able to intervene quickly in an emergency.

"In the past, we had greater contact with patients, but now, thanks to COVID, we try to avoid going into the room as much as possible. I feel accountable."

The participants stated that their institution successfully managed the problem. HCPs started to feel safe because they did not have enough personal protective equipment, the wards in pandemic hospitals were set up correctly and quickly, and the hospital management took an interest in the staff and informed them about the virus.

"We were terrified that there might be an issue with the equipment after a certain period of time, but there wasn't."

"When our hospital was designated as a pandemic hospital, the entire staff was worried. Every day, infection nurses visited and provided information." **Unfulfilled** expectations

Throughout the pandemic, the state made additional payments to HCPs; however, many participants reported dissatisfaction with the additional compensation. This was because it was insufficient, workers were compensated differently, and the view of the public was that HCPs were well compensated.

"We are unable to obtain cash compensation for our efforts. There is a significant difference between me and my colleague who graduated from high school, yet we perform the same job."

"Some individuals claim that we made a lot of money as a result of the additional payment supplied by the state. Being treated in this manner is quite detrimental."

The participants' expectations regarding violence in health care were disappointed. They voiced dissatisfaction with reports of violence directed against healthcare HCPs, even during the epidemic.

"Laws may be enacted to prohibit violence in health care, but it was not mentioned at all."

Invasion of social life

This theme was subdivided into three subthemes: 'Social isolation', 'Changing daily life: Preventive measures and rituals' and 'Clinical reflections of restrictions.

Social isolation

All participants reported that the pandemic severely curtailed their social lives. Some claimed that they lived an asocial existence, were isolated within their houses, had not seen relatives or friends in a long time, spent their days commuting between home and work, or were unable to leave the house except when necessary. The reasons for these restrictions included a desire to protect themselves, their families, and the people around them, physical exhaustion from the amount of effort, and an understanding of the disease's severity.

"I am unable to entertain guests at my home; it is vital for guests. My family and I live in social isolation."

Changing daily life: preventive measures and rituals

The participants stated that they had altered their daily routines significantly in order to safeguard the family members with whom they were living. Some of the precautions used were to stay inside the house, wear a mask, eat in a separate room, and start cleaning rituals.

"I didn't leave my room for three months."

"When we returned home from the hospital, we stripped naked and tossed our clothing in the washing machine."

Participants who had children tended to avoid close physical contact with them, such as hugging and kissing. The emotional toll of having to restrain their children was considerable. Additionally, it was claimed that communicating to children the altered daily routines and necessary actions was a tough and stressful task. According to the statements, this was an extremely challenging process for the children of HCPs.

"My daughter developed an obsession with viruses and was constantly fearful that something would happen to the people around her."

"Whenever I try to feed her, she says, 'Use gloves."

"For a long time, I did not embrace or kiss my child."

Clinical reflections of restrictions

It has been stated that national-level restrictions have resulted in a significant decrease in the number of clinical cases. As a result, participants anticipated a complete lockdown or stricter limits, earlier implementation of restrictions, more frequent testing, and the absence of normalization.

"Perhaps if the restrictions are increased somewhat further, it will end."

"When the restrictions were implemented, there were far fewer cases; the number of cases decreased significantly."

Psychological struggle

This topic was subdivided into five subthemes: "Anxiety and fear", "Sadness", "Anger", "Helplessness and inadequacy", and "Mental fatigue".

Anxiety and fear

The individuals were most fearful or nervous about contracting an infection or spreading it to others. Being pandemic hospital personnel put them at a high risk of contracting the sickness or spreading it to others. It was found that looking at clinical images, especially of young children in intensive care, made workers more anxious.

"Had I not met critical care patients, I would not have been as upset, as I assumed it would not be serious without a chronic disease."

The participants said that when members of their team were diagnosed with COVID-19, they experienced anxiety and fear about their colleagues' clinical status and about becoming infected themselves, and that they conducted risk assessments.

"Serious incidents have occurred in the lives of my friends. They all recovered, but our anxiety levels naturally increased significantly."

The individuals were anxious and fearful of infecting others with COVID-19, particularly their relatives and others in their immediate vicinity.

"Every time I return home, I have the same fear: Will I infect someone today? I'm not looking to cause harm."

"When I'm on duty, I leave my child with my mother, but I'm frightened of infecting them, and the psychology of it is extremely exhausting."

It was discovered that when family members or people in their immediate vicinity were diagnosed with COVID-19, even if the infection did not originate with them, participants reported worry and anxiety about their knowledge and experiences with the clinical picture.

"When you learn what has happened to other patients, your fear of losing them increases exponentially."

"I'm concerned that everyone who is infected with COVID will perish. I see young patients who are fine one day and intubated the next."

The participants expressed anxiety about their hospitals' being designated as pandemic hospitals and the resulting changes to their clinics. When the entire hospital was converted to critical care, nurses working in units such as the wards, operating theater, emergency service, and outpatients' department learned they would have to work as intensive care nurses. Some people were afraid because they didn't know how to work in pandemic hospitals and intensive care units.

"When they originally informed us that we were in a pandemic hospital, I was afraid we would be unable to return home. That was terrifying."

"We rotate. You are unfamiliar with your shift coworker, which is concerning. You may find yourself at a new location on your next shift. That was the most distressing aspect."

Sadness

Sadness was one of the most fundamental feelings experienced by the participants. Among the causes were the death of young or cognizant patients, intubation of patients, and the hospitalization of someone they knew. While the death of an elderly or chronically ill patient was more acceptable to the participants, the loss of patients who were young, who had a favorable clinical picture, or who could speak was a source of great pain. Simultaneously, the participants viewed intubation as a last resort, and when there was an intubated patient, their belief and experience that their chances of recovery were greatly diminished made them feel unhappy. When a friend or family member was admitted to the hospital where they worked, particularly when they suffered a loss, they expressed greater sadness than when another patient died.

"It may be a young patient who passes away; in such case, you feel sad."

"Patients who arrive conscious, yet die are distressing for us."

"There is no subsequent step after intubation. When we say "intubation," we mean that they have a 1 or 2 percent probability of living, which is distressing."

Anger

Healthcare personnel work extremely hard in tremendous danger, and they are enraged by those who disregard the rules and limits and live a regular life outside.

"When I see individuals without masks, I am enraged."

"You come here, you work hard, you make an effort, but other people act in such a callous manner that it irritates me."

"I'm enraged; many people assert that Corona does not exist."

Helplessness and inadequacy

A lack of understanding about the COVID-19, as well as the lack of a specific treatment, was discovered to contribute to a sense of helplessness and inadequacy among HCPs involved in care and treatment. Some people said that even though they did everything they could and tried every possible treatment, they couldn't save the patient.

"The patient is flailing around in your hands like a fish, yet you can do nothing."

"When a sufferer is unable to breathe, it is a horrible feeling of powerlessness. Why am I unable to do anything as a physician? I am obligated to do something."

"We've tried everything, but to no avail. On a professional level, there is a strong sense of helplessness."

"When we lost so many patients, we began to believe we were ineffective."

Mental fatigue

Long hours of work with little possibility of completion, a sense of professional inadequacy, patients' clinical results, and sudden, unanticipated, and excessive patient losses all contribute to mental tiredness among HCPs.

"Working long hours, losing so many patients, and witnessing this on a daily basis had a significant impact on us."

"This will almost certainly never stop, because the virus is selfrenewing, and we have no idea what to do."

Discussion

This is one of a limited number of studies examining qualitatively the experiences of health care personnel caring for Covid-19 patients hospitalized in an intensive care unit in Turkey.

Due to the high contamination rate of Covid-19, millions of confirmed cases (487 million) and numerous deaths (6.1 million) have occurred worldwide, but no licensed medicine has been identified as of the time of writing. 12 According to discussions with HCPs, one of the most distressing aspects of the pandemic for them has been unexpected deaths or the deaths of young people. HCPs are accustomed to seeing elderly or chronically sick patients die, but the pandemic has altered this. The deaths of patients who were young, otherwise healthy, and expected to recover, the rapidly deteriorating condition of those who were conscious, who were able to communicate, and who had been receiving care for a long period of time, the persistence of patient deaths despite the application of all currently available treatments and the persistence of patient deaths have left HCPs feeling helpless, insufficient, and sad. HCPs who have witnessed this type of death have been profoundly impacted professionally and personally. Recent research indicates that similar experiences are shared globally. 5-7,13 For example, in a study conducted by Shen et al. 14 the psychological difficulties experienced by nurses during the pandemic were attributed to an unfamiliar work environment and working conditions, a lack of experience, and unsuccessful treatment of critical patients. As a result, psychological assistance is critical for HCPs in the event of a pandemic. Conducting stress assessments of HCPs is vital, as is providing competent and ongoing psychological assistance to promote HCPs' mental health.¹⁵

Participants discussed the growing intensity of labor required during the pandemic. Due to the restrictions, other government employees worked more flexible hours, but HCPs worked longer hours and with greater intensity. When a healthcare crisis occurs, it is critical for hospital management to establish reasonable working hours and shift arrangements. ¹⁶ Some participants stated that people's working hours had been shortened while their socializing increased, and they perceived this as an injustice. At a time when HCPs worked selflessly and without regard to their own health, it was observed that they were enraged by people who lacked consideration.

Another cause of contention was the additional compensation paid to HCPs during the pandemic. Extra payment was distributed unequally, was insufficient, and was significantly less than announced, but society responded negatively. The economic difficulties caused by the epidemic have been felt more intensely in developing countries. This situation caused other segments of the society to envy the additional payments given to health workers, although most people believed they deserve it. The payments, which were also different in amount, damaged the sense of justice among the employees. Similar studies conducted in developed countries did not reveal any findings regarding payments. Another study conducted in our country found that the reasons for nurses' anger were society's selfish and callous behavior, unequal workload distribution, and arrangements about overtime pay. 17 Few studies have reported anger as a theme. What distinguishes our research is that the second cause of anger is a reaction to the non-compliance to restrictions of certain people in society.

The hospital in which we conducted this research was designated as a pandemic hospital by the Ministry of Health. The majority of units equipped with beds and operating rooms were converted to intensive care. Nurses working in these facilities in particular were sent to critical care with little expertise. Nurses unfamiliar with clinical procedures, arrangements, and the current intensive care team reported difficulty adjusting and experiencing anxiety. On the other hand, nurses who had previously worked in critical care assumed the duty of training newly assigned nurses about intensive care, and they said that their workload increased as a result. This demonstrates the critical nature of the intensive care nursing specialty. Based on their unique characteristics, nursing specialization in critical care is recommended for all countries. 18 Additionally, continuing medical education and training are necessary to prepare HCPs for public health emergencies.⁶ Infection control, personal protective equipment, mechanical ventilation, ICU clinical assessments, responding to acute respiratory distress syndrome, operating advanced life support technology, liaising with families, and communicating bad news are all topics that can be covered in training programs. Training solutions may include buddy systems that match redeployed HCPs with experienced ICU HCPs, bedside learning coordinators, discussion of practice adjustments, and assessment of HCP comprehension. 19

It was seen that despite the numerous obstacles and difficulties encountered throughout the pandemic crisis, HCPs retained their sense of professional duty. They stated that they viewed the service in which they put their lives at risk as an integral part of their profession, that when patients felt isolated and unlikely to recover, they recommended an empathic approach, and that when a patient was discharged, they gained objective professional satisfaction. Most of our participants stated that the grateful of the discharged patients saying "god bless you" is the most important factor that enables them to forget all the difficulties they experienced and to get professional satisfaction. This data reflects the importance of the faith culture in professional motivation in this region. It is seen that this situation is supported by the results of a study conducted in our country.²⁰ Several studies conducted in other nations found that despite fear and anxiety, HCPs performed their tasks with professionalism and attachment.²¹⁻²³ Our study discovered that patients who were unable to communicate with their families believed they had been abandoned. In a study of family members of COVID-19 patients, it was discovered that they suffered dread, anguish, loneliness, and guilt. One of the primary responsibilities of HCPs in this process has been to act as a conduit for communication and correct information transfer between patients and their families.²⁴ On the other hand, they stated that they limited dialog with patients in order to minimize touch, and that they were unable to assist swiftly in an emergency due to the protective equipment, and this weighed heavily on their consciences. This may reflect their conflicting views about their professional obligations and their fear of infection. This professional conundrum may result in a decrease in the quality of care and treatment delivered, jeopardizing patient safety.²⁵

It was recognized that HCPs and their families were experiencing significant social isolation, in contrast to the normalcy of life outside. They might isolate themselves as a result of witnessing the severe clinical manifestations of the illness, fear of being a source of infection, or having been diagnosed with COVID-19 at least once. On the date of the interviews, there was no effective medicine or vaccination against COVID-19, which may have exacerbated anxiety about being a source of infection.

All participants stated that their lives had been altered by the outbreak of the disease. Daily life changes impose severe constraints on social and familial interactions. Similarly, Eftekhar Ardebili et al.⁶ revealed changes in HCPs' personal lives and an increase in negative effects, while Çeri and Çiçek²⁶ in Turkey discovered that separation from family for a week or more had a detrimental effect on the wellbeing of HCPs.

When caring for patients with infectious diseases, HCPs worry as much about infecting their family and friends as themselves.²⁷ Our study concluded that participants experienced significant anxiety or worry concerning infection. Certain studies have discovered that the primary source of worry for health care professionals is infection.²⁸⁻³⁰

Concerns about infection must be addressed for HCPs. Sufficient personal protective equipment, encouraging chats, and advice such as room separation and clothing changes may all assist in alleviating anxiety.¹⁵

In our study, mental exhaustion was found to be connected to lengthy periods of intense work with no prospect of improvement, a sense of professional inadequacy, and the uncertain course and unexpected death of patients. The primary causes of HCPs' powerlessness and inadequacy were unfamiliar working settings, a lack of expertise, insufficient understanding regarding the clinical course and prognosis of COVID-19, and ineffective therapy.^{5-7,14,15}

Limitations

Purposive sampling was used. The drawback is that each participant was interviewed only once due to the workload. Future research should be conducted with two or more interviews to gain a more complete understanding of the participants' experiences. Getting information from health care providers at different points during the session may help to understand the whole situation better.

Conclusion

This qualitative study is significant because it provides an account of HCPs' experiences during the COVID-19 process in their own words. The study discovered that HCPs encountered numerous psychological, physical, social, and professional difficulties during the pandemic. It is critical to educate and train all HCPs on what to do in a crisis and conditions of risk such as infectious illness and decision-making, anxiety management, and problem-solving during pandemics. Additional remuneration should not result in inequity among HCPs. It is critical to analyze HCPs' challenges and to give them psychological support when needed. By sharing patient and HCP experiences via different communication methods, larger parts of society will gain a better grasp of the gravity of pandemics such as COVID-19 and will adhere to the limits.

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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.

CRediT authorship contribution statement

Erol Ozan: Data curation, Funding acquisition, Formal analysis, Writing — original draft, Writing — review & editing. **Nihan Durgu:** Data curation, Funding acquisition, Formal analysis, Writing — original draft, Writing — review & editing.

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