

A Qualitative Evaluation of the Health-Care Workers Infected with COVID-19

COVID-19 ile Enfekte Olan Sağlık Çalışanlarının Kalitatif Değerlendirilmesi

¹Ulfiye Celikkalp, ¹Faruk Yorulmaz, ²Cem Misirli, ²Nursen Uzun, ²Elif Ustun

¹Trakya University School of Medicine,
Department of Public Health, Edirne,
Turkey

²Trakya University Health Center for
Medical Research and Practice, Edirne,
Turkey

Abstract

This study aims to determine the thoughts and opinions of healthcare professionals working in a pandemic hospital and infected with COVID-19 regarding the reasons for taking the agent, the disease process, and the risks in the environment in which they work. This study was designed as a qualitative descriptive study. The study, which is working in a pandemic hospital in Turkey and 14 health workers who were infected with COVID-19 was carried out between June-July 2020. The researcher collected the data through face-to-face interviews with a semi-structured, in-depth interview form created in line with the aims of the study. In the study, three main themes were determined under the heading of; the negative effects on health of COVID-19 as a healthcare worker during the pandemic process, thoughts about the cause of becoming COVID-19, and experiences and effects during the COVID-19 disease process. During the interviews, healthcare professionals stated that they were caught COVID-19 because of their work and workplace, they were stigmatized due to their illnesses, they lost their health due to COVID-19, and they had concerns that some health problems would not pass. However, they stated that they had a shortage of personal protective equipment at the beginning, they did not receive training on the subject, and the risk of being infected with COVID-19 was high due to the excessive working hours. Healthcare workers suffering from COVID-19 have experienced the infection physically and mentally in a very severe way.

Keywords: Coronavirus, COVID-19, health-care workers

Özet

Bu çalışmanın amacı, bir pandemi hastanesinde çalışan ve COVID-19 ile enfekte olan sağlık çalışanlarının, etkeni alma nedenleri, hastalık süreci ve çalıştıkları ortamdaki risklere ilişkin düşünce ve görüşlerini belirlemektir. Bu araştırma nitel tanımlayıcı bir araştırma olarak tasarlanmıştır. Türkiye'de bir pandemi hastanesinde çalışmakta olan ve COVID-19 ile enfekte olan 14 sağlık çalışanı ile Haziran-Temmuz 2020 tarihleri arasında yürütülmüş olan kalitatif bir çalışmadır. Veriler, araştırmacı tarafından, çalışmanın amaçları doğrultusunda oluşturulan yarı yapılandırılmış, derinlemesine görüşme formu ile yüz yüze görüşülerek toplanmıştır. Araştırmada pandemi sürecinde sağlık çalışanı olarak COVID-19'un sağlık üzerine negatif etkileri, COVID-19'a yakalanma nedeni ile ilgili düşünceler ve COVID-19 hastalık sürecinde yaşananlar ve etkileri başlığı altında üç ana tema belirlenmiştir. Yapılan görüşmelerde sağlık çalışanları yaptıkları iş ve işyerinden dolayı COVID-19'a yakalandıkları, hastalıkları nedeniyle damgalandıklarını, COVID-19'a bağlı olarak sağlıklarını kaybettiklerini ve bazı sağlık sorunlarının geçmeyeceğine ilişkin kaygılarının olduğunu belirtmişlerdir. Bununla birlikte başlangıçta kişisel koruyucu malzeme sıkıntısı yaşadıklarını, konu ile ilgili eğitim almadıklarını ve çalışma saatlerinin fazla olması nedeniyle COVID-19 ile enfekte olma risklerinin fazla olduğunu ifade etmişlerdir. COVID-19 hastalığına yakalanmış olan sağlık çalışanları, enfeksiyonunu bedensel ve ruhsal olarak ağır bir şekilde yaşamışlardır.

Anahtar Kelimeler: Koronavirüs, COVID-19, sağlık çalışanları

Correspondence:

Ülfiye ÇELİKKALP

Trakya University School of
Medicine, Department of Public
Health, Edirne, Turkey

e-mail: ulfiyecelikkalp@trakya.edu.tr

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1. Introduction

In the COVID-19 pandemic, frontline health-care workers (HCW) who provide treatment and care to patients around the world play the most important role. The risk of contamination is very high for the physician, nurse, paramedic, transport personnel and laboratory staff due to their profession, who are in close contact with patients infected with COVID-19 (1). Due to the rapid spread of the disease to many parts of the world, HCW are inadequate in return for the increased patient and workload (2,3). In this pandemic, where societies and the governance systems of countries were caught unprepared, thousands of HCW all over the world were infected with COVID-19 and even died.

Since there is no systematic reporting system for HCW infected with COVID-19, it is difficult to obtain and track up-to-date and accurate data. For this reason, the real number of HCW infected with COVID-19 has not been determined. World Health Organization (WHO) President Dr. Ghebreyesus has stated that the at least 10% of COVID-19 infections in the world is constituted by health care workers and “Physical and psychological fatigue experienced by many health care workers, after working for several months in extremely stressful situations” (4). There are no reports that have been published in Turkey about how many health workers infected with COVID-19, according to their profession, age the group, treatment processes. It has been reported that the number of HCW who are diagnosed with COVID-19 is more than 40 thousand now, and who died is 107 (5). In the press release issued by the Health Minister of the Republic of Turkey on October 14, 2020. According to these data, in Turkey at that time, the ratio of total COVID-19 diagnosis of HCW is 11.8% in the total number of diagnoses, the proportion of total deaths is 1.2% in the total number of deaths. It has been reported that 3.8% of cases in China (1716-44672) and 14% of cases in Italy are HCW (6). In fact, in January 2020, the rate of infected HCW in some hospitals was increased by up to 13%, and in Wuhan, this number was determined as 29%.⁶ In the statement made by the International Council Nursing (ICN) on October 28, 2020, it was

reported that more than 20.000 HCW died due to COVID-19 (7).

Due to the COVID-19 pandemic, the number of patients and deaths continues to increase day by day all over the world. It is predicted that HCW will be more affected, work under severe and adverse conditions, become infected, and even die in the fight against the epidemic, which has not yet an effective vaccine and treatment. This study was planned to identify the causes of COVID-19, the disease process, working environment, and protective practices of HCW who work in a pandemic hospital and infected with COVID-19 during the COVID-19 pandemic process in a university hospital and determine its opinions and recommendations.

2. Materials and Methods

This study is a study in which the phenomenological (case science) method is used as a qualitative study on the HCW working in a pandemic hospital in Turkey, and diagnosed COVID-19 are included in the study. The study population consists of 18 HCW diagnosed with COVID-19 working at XX University Health Research and Application Center. Sampling selection was not made in the study, and although the whole population was planned to be included in the study, the study was conducted with 14 HCW (77.77% of the population) who agreed to participate in the study.

Collection of data

A semi-structured interview form, developed by researchers to collect data, consists of open-ended questions that include the causes of the disease during the COVID-19 pandemic process, the problems they experience as a COVID-19 patient, their working environment and conditions, their feelings and thoughts, and the questions about their experiences with COVID-19 is used.

An in-depth interview method was used for data collection. Verbal consents were obtained to interview health-care professionals who participated in the study. The interview was held in a quiet and calm room whenever the

participant was available. The researcher interviewed by manual recording, considering that the voice recording during the interview may be uncomfortable with recording the information to be provided by the health-care professionals, which may affect the study data. Each individual was interviewed for 30-60 minutes.

Data analysis

After the interview with the participants, the researchers encoded the data, and the themes related to the subject were obtained by the content analysis method. The prepared themes and sub-themes were then concluded with the researchers by gathering together, re-evaluating, and reaching a common view (8).

Ethical consideration

Before starting the study, a study permit was obtained from the Ministry of Health, and ethics committee approval was obtained from the Non-Invasive Clinical Research Ethics

Committee of XX University (Date: 22.05.2020, TÜTF-BAEK / 09/16).

3. Results

The average age of the HCW participating in the study is 35.64 ± 7.29 , 78.5%, and (n = 11) of them are women and 64.28% are nurses. A total of 14 health-care workers, nine nurses, three doctors, one radiology technician, and one cleaning staff participated in the study. Their working time is an average of 10.71 ± 6.96 years; all of them stated that they received COVID-19 from the hospital/patient, and their family members did not have COVID-19.

The statements analyzed are organized under three main themes: The negative effects of COVID-19 on health as a healthcare worker during the pandemic process, thoughts about the cause of being COVID-19, and experiences and effects of COVID-19 disease processes (Table 1).

Table 1. Themes

Themes
- The negative effects on health of COVID-19 as a healthcare worker during the pandemic process
- Thoughts on the reason for being infected with COVID-19
- Experiences and effects of COVID-19 disease processes

1- Being a health-care worker during the COVID-19 pandemic process

The health-care professionals participating in the study reported that they caught COVID-19 during the pandemic process, as they were obliged to take care of patients infected with COVID-19 due to their profession. It has been determined that some employees still have health problems due to this disease and are worried about their health.

“While I was caring for a patient with COVID-19, I also got sick. I had lived very bad days. My recovery process took about three weeks, but I still have trouble breathing. I think I will always continue like this, and I will not be able to regain my old health (nurse,7)”

“We always worked when everyone was afraid of getting sick during the “stay at home” campaigns. It is really difficult to be a health-care professional in this process. I finally got sick. I was so scared and stressed (radiology technician)”

It has been determined that employees cannot go home due to the high contagiousness of COVID-19, and health-care professionals are in the riskiest occupation group, they have to stay separate from their parents, spouses, and children a feeling of death is generally felt during the disease process.

“As I work in the pandemic service, we stayed in separate places to protect my loved ones. Later, “When I became COVID-19, I was in the hospital for a long time, and I was terrified. I thought very much that I would

never see my children again and leave them alone; I mean death. I could not support them in this process (nurse, 1)”

“Since I work in the pandemic service, I stayed in a specified dormitory in order not to infect my children and my wife. Then when I got COVID-19, I felt so alone and helpless. “I thought a lot that I would die and never see my loved ones again. My husband had a hard time taking care of the children; my children were very upset that they couldn’t see me. We missed each other in the same city (nurse, 2)”

Almost all health-care professionals participating in the study stated that they were seen as potential virus carriers by society as they were involved in the care and treatment of patients infected with COVID-19 during the pandemic process. In other words, they were stigmatized, and they were negatively affected during this process.

“Everyone in the apartment where I lived knew that I was a health-care worker. And when I was infected with COVID-19, everyone marginalized my family and me. Of course, there would be social distance, but it was very painful for those around us to escape/ behave like we have the plague (nurse,3)”

“My family and friends were the most supportive in the process of becoming infected with COVID-19. However, local newspapers shared my illness, and everyone around me was talking about me. The attitude of my neighbors in the apartment made me very sad. Patient privacy was not taken seriously. What I went through at that time was a nightmare (nurse,4)”

2- Thoughts on the reason for being infected with COVID-19

The health-care professionals participating in the interview think that; the treatment and care practices with a high risk of contamination due to being a health-care worker, lacking personal protective equipment at the beginning, and not having sufficient training on the subject are the reasons for being COVID-19 infected

Health-care workers participating in the interview have the opinion that they have

Covid-19 disease due to their treatment and care practices with a high risk of transmission due to being a health-care worker.

“Any intervention made on a patient with COVID-19 is very risky. Especially respiratory system practices increase the risk. Moreover, since the patients are alone, we even feed their meals. No matter how much I tried to pay attention to our contact with the patient, I eventually became COVID-19 (nurse,4)”

The participants reported that their personal protective equipment was insufficient. At the beginning of the pandemic process, and therefore they caught COVID-19. This situation was thought to cause anxiety in employees.

“It is very important to use protective equipment in protection from COVID-19. There was a shortage of protective equipment for a while at the beginning. There were no masks, gloves, aprons, and visors. There were times which I bought protective equipment with money. But I think I got COVID-19 because I used the same protective materials for a long time (doctor,2)”

Participants stated that in-hospital training on COVID-19 could not be done face-to-face due to the risk of transmission, and therefore there is a lack of knowledge on how to protect themselves.

“Face-to-face training about COVID-19 was attempted at the hospital but did not happen due to the risk of contamination. The training was provided with videos. I think these training did not reach their exact purpose; we had a lack of knowledge (personnel)”

Participants reported that there were practices such as lockdowns and flexible working for society during the pandemic process, but they continued to work because they were health-care workers, and they always carried a risk. For this reason, they recommended that working hours should be regulated and necessary protective and safety practices should be implemented in order to reduce the risk in working environments.

“During the pandemic process, we employees should have been tested without any symptoms, but they were not done. We could not get the complete necessary training. While other institutions worked flexibly, we worked full time. Material shortages at the beginning were too much. Unless all these problems are fixed, it is not possible for us to stay healthy in such a working environment (doctor 3)”

“I think it is a big deficiency that there is a lack of protective equipment in the working environment, and our health controls are not carried out. In this process, weekly working hours should be arranged by flexible working (nurse,9)”

3- Experiences and effects of the COVID-19 disease process

Employees reported that they were both physically and mentally affected during the disease and that some health problems still persisted.

“The disease started with a fever and cough. When I found out that I had COVID-19, I first couldn't believe it. I thought about how I got infected, and then I wondered if I had infected my children, my wife, my friends. Everyone should do their part to protect themselves and each other. Otherwise, this disease will never end (radiology technician)”

“First of all, my complaints were started with a fever and joint pain. When my test was positive, I was very scared because I am 52 years old. I had very serious respiratory problems, but “Thank God” I was treated without going to intensive care. But I still don't think I'm getting better, I have fatigue, I have breathing problems as I move, and I have psychological stress and sleep problems (personnel)”

Approximately half of the participants stated that the problem is universal and that it can be overcome with less harm if we stay cool in this process, while the other half stated that they were very lonely in this process, and they were psychologically affected by the problems of exclusion from the society.

“Since I already knew the process as a health-care professional, I was able to act calmly by

trying to think positively. I think I managed this process well; it even allowed me to understand the patients and the hospital environment better, it gave me empathy (doctor,2)”

“As a reanimation nurse, I had the hardest time in my profession. In practices such as providing care and treatment to patients with protective equipment, it becomes difficult to “breathe, hear, communicate, and there are times when you cannot wipe your sweat.” Psychologically, the illness affected me very much, we were under constant stress, but I think I did my best as it is the duty of health-care professionals (nurse,6)”

4. Discussion

It is admirable for health-care professionals to work devotedly at the risk of death during the COVID-19 pandemic process. However, as reported in both this study and other studies, HCW have been “stigmatized” that they are seen as potential virus carriers by society (9,10). Stigma is a public health problem that needs to be tackled as an external stressor that can potentially harm at least as much as depression and other mental symptoms (11). In particular, it has been stated that fear arising from discrimination, prejudice, and lack of knowledge has a negative effect on the efforts of health authorities and health-care professionals in China and other countries and triggers chaos (10). In addition, a group of nurses in China were not allowed to enter even the neighborhoods where they were live by their neighbors for fear of spreading disease (10). This process deeply affected health-care professionals psychologically, and some unethical and immoral behaviors observed in this situation created a very serious problem.

As with all infections, the first precaution to be taken in COVID-19 infection is health-care workers' protection.¹¹ Both Centers for Disease Control and Prevention and WHO reports that N95 or higher respirators should be used during aerosol-generating procedures. But as identified in both this study and other studies, HCW experienced problems with personal protective equipment access during the pandemic (12,13). and they are infected

with COVID-19 due to insufficient training. In a study conducted in Wuhan, China, health-care workers' first reason to become infected was insufficient personal protective conditions at the beginning of the epidemic, and their awareness about protection was not strong enough. Therefore, it was reported that HCW did not apply effective personal protection to the patient before any procedure (14). The World Health Organization recommends that health-care professionals exercise their right to refrain from working in risky working environments until necessary precautions are taken (15). Considering the high number of infected health-care professionals and lost their lives during the pandemic, this right is not used by HCW.

COVID-19 is a highly contagious respiratory infectious disease that causes respiratory, physical, and psychological dysfunction in patients (16). Since it is known that 95.8% of the confirmed cases have recovered, patient care is very important after the diagnosis of COVID-19 (17). The current study determined that mostly respiratory distress and fatigue symptoms are experienced by the HCW with COVID-19. Respiratory rehabilitation is recommended for patients diagnosed with COVID-19 and receiving treatment (18). Rehabilitation Association experts in China have developed practical and applicable respiratory rehabilitation guidelines for COVID-19 patients. It is recommended to establish an appropriate rehabilitation program for the individual (16). However, in this study, it is thought that such a program was not implemented for employees and that they continue to work despite respiratory complaints, and thus the recovery process of HCW will prolong.

The Occupational Safety and Health Administration (OSHA) emphasizes that it is important to support employees psychosocially against the COVID-19 epidemic in workplaces to feel safe and reduce the anxiety that may develop (19). The process of coping with both the lack of social support due to being separated from loved ones and the health problems that develop and continue due to COVID-19 continue. Statements that indicate that there is a difference according to pre-pandemic well-

being are important. In the study, it is gratifying that there were no HCW who died in the hospital where the study was conducted due to the young age of those with COVID-19, but thousands of HCW died all over the world. According to the International Council of Nurses (ICN) statement, the number of nurses who died due to COVID-19 is more than the number of nurses who died in World War I, which lasted four years. According to the statement, 1500 nurses in 44 countries died due to COVID-19 (7). However, we think these numbers do not fully represent the true number of HCW infected with COVID-19.

COVID-19 is the first new occupational disease described in this decade (20). In the hospital where the study was conducted, the work accident / occupational disease notification of HCW with COVID-19 was made from the first day by the employee health unit. But it is not yet accepted as an occupational disease in Turkey. It has been reported that employees with a high risk of being infected with the virus are eligible or compensation as work accident / occupational disease in many countries (Italy, Germany, Belgium, South Africa, Canada, Malaysia, the United States) (21). It is thought that making work accident notifications, protecting the rights of employees, as well as disclosing the epidemic information in a transparent manner will be very beneficial for the subsequent psychological interventions, as well as the positive effect on the social and psychological situation.

In the study, HCW requested the implementation of flexible working models in order to conduct COVID-19 tests for control purposes, to reduce patient contact and the number of employees to reduce in-hospital risk. In this context, to reduce the risk, HCW who take care of probable/definite COVID-19 patients and those who care for other patients should be separated or assigned alternately according to the facilities of the institution (22). Web-based forms can be created to facilitate entry by using personal smartphones. Tests and screenings of HCW with fever or respiratory symptoms should be evaluated, if possible, in a separate clinic reserved for employees (14). Training of all personnel

should be reestablished, and personal protective equipment should be adequate and ensured that they are of appropriate quality.

Limitations

The main limitation of the study is that it does not cover only one pandemic hospital and all healthcare professionals. Another limitation of ours is the recording of the interviews, since the participants did not give their consent.

5. Conclusion

Healthcare workers have been one of the most affected professions in the fight against

coronavirus, which has affected the world in a very short time. It is seen how difficult it is to be a HCW in this process. Because HCW are heroes who lost their health so that patients with COVID-19 recover. In the study, it was determined that while working during the epidemic process, HCW had problems, especially in accessing personal protectors, and they were caught coronavirus due to their low awareness and that both their physical and mental health was deeply affected during this process. Broader research should be planned to understand the effects of the COVID-19 pandemic process on health-care workers.

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