

Olgu Sunumu

# Being One of The First Nurses To Be Infected With Covid-19: A Case Report Covid-19 Bulaşan İlk Hemşirelerden Biri Olmak: Bir Olgu Sunumu

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#### ABSTRACT

#### Ö ZET

COVID-19, which first appeared in China in December 2019, rapidly spread all over the world and caused a pandemic. Although it is difficult to cope with this epidemic in every aspect, the biggest burden is on healthcare personnel and especially nurses. This study focuses on the physical and psychological difficulties experienced by a nurse who was one of the first nurses to catch COVID-19 while servingher patients in Turkey and who has been working as a nurse for 4 months, from diagnosis to the end of the treatment process. Due to the fact that a nurse who caught Covid-19 is a healthcare worker, it is thought that the physical and psychological problems experienced are greater. İlk olarak Aralık 2019'da Çin'de ortaya çıkan COVID-19, hızla tüm dünyaya yayıldı ve bir pandemiye neden oldu. Bu salgınla her yönüyle baş etmek zor olsa da en büyük yük sağlık personeli ve özellikle hemşireler üzerindedir. Bu çalışmada, Türkiye'de hastalarına hizmet verirken COVID-19'a ilk yakalanan hemşirelerden biri olan ve 4 aydır hemşire olarak çalışan bir hemşirenin, tanıdan tedavinin sonuna kadar yaşadığı fiziksel ve psikolojik güçlükler üzerinde durulmuştur. Covid-19'a yakalanan bir hemşirenin sağlık çalışanı olması nedeniyle yaşanan fiziksel ve psikolojik sorunların daha fazla olduğu düşünülmektedir.

Key Words: Covid-19, Nurses Infected with Covid-19, Case Report

Anahtar Kelimeler: Covid-19, Covid-19 ile Enfekte Olan Hemşireler, Olgu Sunumu

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#### **INTRODUCTION**

Coronaviruses (CoV) are a large family of viruses that can cause more serious diseases such as severe respiratory failure, MERS-CoV, and SARS, in addition to causing simple flu, and common cold. Up to the present time, many subtypes of coronaviruses have caused diseases in humans. In 2019, a new type of coronavirus was found to cause disease in humans in Wuhan, Hubei province, China, and the disease was named Covid-19 (Til, 2020; Cowling and Lueng, 2020; Kakodkar et al., 2020; Rabi et al., 2020; Yi et al., 2020).

The COVID-19 case, which first appeared on 29 December 2019, was reported to the World Health Organization on December 31. The World Health Organization recognized Covid-19 as a pandemic on 11 March 2020, after the Coronavirus outbreak was seen in many countries and continents (Shi, 2020; Guest et al., 2020). Against the rapidly spreading virus, the medical infrastructure of even developed countries has been inadequate in the face of the severity and urgency of the outbreak (Jianhua, 2020).

It has been repeatedly stated that epidemics are mirrors of power balances, class conflicts, and social changes in society. It has been witnessed from past to present that epidemics affect many aspects of human life. Outbreaks have hit commercial activities and paralyzed social life. This increased people's anxiety levels (Yolun, 2012). Despite the Coronavirus (Covid-19) epidemic, it also reveals that while countries are struggling with different approaches, they are generally caught unprepared (Demir et al., 2020). In the globalizing world, while the spread of the disease is developing faster than expected and expected, the development of the information required for the control of the disease and the establishment of the surveillance system do not progress at the same pace. However, healthcare professionals are also insufficient in the face of increasing patient and workload (Karasu and Öztürk Çopur, 2020; Ng et al., 2020). While the health system and infrastructure are questioned in many countries, the insufficiency of the medical personnel and the lack of medical equipment and supplies lead to chaos. Although there are support activities such as the supply of materials necessary for the solution of these problems, the

establishment of accommodation facilities for healthcare personnel, the support of society, and psychological assistance, health personnel may experience burnout from time to time. Being isolated, working in high-risk positions, and contacting infected people have been common causes of trauma and burnout. These problems can even lead to psychological problems in healthcare professionals and especially in nurses (Kang et al., 2020).

Nurses are key members of the healthcare system. Among healthcare professionals, nurses are professionals who communicate with patients the most and devote the most time to them (Jianhua, 2020). Nurses have always played an important role in infection prevention, control, isolation, treatment, care, and providing psychological support (Mo et al. 2020). While fulfilling these important roles in the pandemic process, it is important to understand the situation of nurses, improve the process, and create protocols related to the process. It is thought that it is necessary to reveal the feelings, thoughts, and difficulties of a nurse who caught Covid-19, especially during the working process. Based on this point, it was aimed to make a case report of a nurse who caught Covid-19.

In this article, the name and personal information of the client are kept confidential.

## **Ethical Considerations**

Voluntary participation was provided. In addition, after the participant was informed about the purpose of the study and how to use the results, his written consent (informed consent form) was obtained. The participant was informed that their information would be kept confidential and the privacy policy was complied with.

## CASE REPORT

H.K is a single, 24-year-old nurse who has been practicing nursing for 4 months. She did not use cigarettes, alcohol, or addictive substances, and she do not have any chronic illness or medication she use continuously. When the Covid-19 epidemic started to be seen in Turkey, pandemic services started to be opened in hospitals, after the pandemic services were established, health personnel from other departments in the hospital were assigned to these services. In a puclic hospital where H.K. works, nurses who have just started the profession, as well as senior nurses, were assigned to pandemic services. After working in the cardiovascular surgery service for two months after graduation, H.K. was chosen as one of the nurses to work in these services. When it became clear that H.K. would serve in the pandemic service, they were very excited that we did not know much about it and that they would fight against a virus the world is fighting, saw their work as sacred, thought that the lives of all healthcare personnel were not worth less than their own and that when such a disaster struck our country, everyone should take responsibility.

H.K. started to work in the pandemic service after a short training. At the beginning of the epidemic, they were told to use protective equipment carefully and when necessary, and H.K. had no difficulty in accessing protective equipment in the services where she worked. She stated that goggles, masks, and overalls among the protective equipment she used prevented them from working comfortably and that overalls and glasses made them sweat a lot. She also stated that her clothes were wet with sweat and even the sweat flowing from their forehead and nose while wearing glasses wetted their mask, so the patient had difficulty even when performing a basic intervention such as opening the vascular access. She stated that besides the visual difficulty caused by the fogging of the glasses, the wounds, scars, and bruises caused by the constant use of masks also affect her psychology negatively.

During the study period, H.K, who felt a very mild sore throat, itching in the throat, burning in the eyes, and a pain radiating to the ear, thought that they would have flu. A few days after noticing these symptoms, they woke up at night with a shiver, felt cold and the house was cold, and dressed thicker. She did not notice that her body temperature had increased, and the next day, when their temperature rose above  $38 \degree C$ , they applied to the emergency room. In addition, she was sent home when she complained of bone pain and weakness, and she was given 2 days off to rest. H.K felt that what they had experienced during this period was different from the usual flu and applied to the hospital again with a worsening sore throat. The Covid-

19 test was applied to H.K., who had a fever of 38 °C, upon her application to the hospital. Unfortunately, she continued to work in the service at that time (1 day) until the result of the test was clear. The result of the test was positive on March 26, 2020. H.K, who was hospitalized in the pandemic ward where she worked the same day, had new symptoms 2 days later. In the first cases, it was not clear exactly how to follow, being the first positive nurse in the hospital, and being one of the first positives among healthcare professionals in the country, wornout H.K. in this process and made them experience the disadvantages of this situation. When she learned that they had the disease, they felt great anxiety and fear, and they felt both the uncertainty of the process and the difficulty of learning by living the process. H.K. stated that the uncertainty and complexity have been eliminated today, there is the possibility of vaccination, testing is easier and faster today, the healthcare team is more dominant in the disease, and the morale and motivation increase as we see the people who survive the disease.

H.K. stated that there was an increase in her sleep pattern during their hospitalization (8 days), her feeling of tiredness and tendency to sleep increased after their hospitalization, and she felt very tired despite constantly sleeping and resting. At that time, she did not have any complaints about feeding and excretion, but she had problems with communication. There were signs of hoarseness and hoarseness in her voice, difficulty in speaking, inability to speak in one breath without resting, and even panting even when talking slowly, and they experienced shortness of breath even while sleeping during the aggravating process. . H.K., who also received oxygen therapy during this period, stated that oxygen saturations also decreased from time to time. H.K, who lives in a city separate from their family, was able to get support from their loved ones only by telephone and stated that they were out of breath during telephone conversations and that their friends and relatives who witnessed this did not cry. H.K., who was impressed by this situation, stated that she was very sad after the interviews and that they felt very inadequate in those days. In particular, she describe the first 3 days after their hospitalization as the worst, nightmare days of their life.

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Immediately after H.K was diagnosed with Covid-19, their roommate was also taken into the isolation and treatment process. She stated that in this process, in addition to isolation measures, they are trying to fulfill their personal hygiene practices. This situation created a feeling of guilt in H.K. and she felt uncomfortable in terms of conscience. When the treatment process was completed, she separated their homes with their friends. When the isolation period in the house was over, H.K. applied to the hospital again and the Covid-19 test was negative. H.K., who was isolated at home for two more days, felt better during this period, and the symptoms of the disease gradually decreased. First, fever, cough, sore throat, shortness of breath, and finally hoarseness/bifurcation improved. H.K., who had a retest, got a negative result for the second time. Feeling good, H.K. stated that she would like to return to work if it would not pose any risk, and since the infection experts did not see any risk, H.K. returned to the pandemic service. Returning to work in the pandemic service, H.K. thought that when she returned service, she would be stigmatized and felt bad by those around them, but when she returned to the service, these thoughts were counterproductive. Especially the support of her friends motivated H.K. a lot. She wanted to give care to the patients who were hospitalized in the service and had fear and anxiety, and especially to the patients who did not have a chronic illness at a young age, and she told the patients that H.K. also overcame this disease. H.K. expressed that she understood the patients very well, what she experienced, and what she felt, and tried to support them. Seeing someone who has healthily survived the disease has given hope to the patients. This situation increased H.K's job satisfaction and stated that she felt better mentally.

Finally, H.K said, "People should never feel lonely, we are with them. As our country is clamped with any negativity, we will come together in this difficult process by paying attention to our social distance and I believe that we will overcome it in the best mood."

## DISCUSSION

The prevalence of COVID-19 in the general population in many countries, the unpredictable and high infection rate, the need for distance and isolation, and the high morbidity/mortality rates make the usual coping methods dysfunctional. This necessitates the development of effective ways of dealing with the crisis and creates an unprecedented burden on all healthcare professionals worldwide (WHO, 2020).

In this case, H.K. was assigned to the pandemic service quickly from the service they worked for due to the epidemic. Due to the increasing number of patients in the epidemic, the need for more nurses in clinics, emergency rooms, and intensive care units where care is provided for COVID-19, and their quarantine due to the infection of healthcare personnel in this process caused the workload of all healthcare professionals, especially nurses, to increase and to work more (Maben and Bridges, 2020). Employing nurses from different services/departments to meet the need for nurses, having to work in areas that are unfamiliar and require a lot of knowledge, skills, and experience, such as intensive care, increases the work stress of nurses (Hiçdurmaz and Üzar Özcetin, 2020). This situation brings an extra burden, especially when it is considered that the nurse in the case is a nurse who has started a new profession.

In the presented case, it was stated that the protective equipment was too difficult to work and nursing practices could be performed with difficulty. It has even been stated that the materials used leave traces and bruises on the body. In fact, it is thought that these scars leave deep marks not only on the face but also on the psychology. It is obvious that especially long-term use can increase physical discomfort and further strain the already stressful covid-induced patient care process. Protective equipment prevents nurses' use of gestures, facial expressions, and gestures, which are important tools in therapeutic communication, even preventing the nurse's voice from being heard, seeing their face, and limiting nurse-patient interaction. In addition, personal protectors used for a long time also have negative effects on the skin. In the study conducted by Abiakam et al., It was stated that N95 and surgical masks cause skin reactions in many areas, mostly the nose bridge and ears. It has been reported that the most common skin reactions are rash, itching, and pressure damage. In addition, a significant relationship was found between adverse skin

reactions and the duration of daily personal protective use in the study (Abiakam et al., 2021). In another study, it was found that N95 face masks and protective glasses caused headaches in healthcare workers and exacerbated pre-existing headaches (Ong et al., 2020). In a study conducted by Hu K. et al., it was stated that the most common skin reactions among healthcare workers wearing protective clothing (overalls/aprons) were dry skin, itching, sweating, and difficulty in meeting basic needs (eating, going to the toilet, etc.) (Hu et al., 2020). However, in a study, it was stated that taking high levels of precaution and increasing the rate of using protective equipment decreased the rates of stress, depression, and anxiety (Polat and Coşkun, 2020). However, protecting the mental health of nurses, who form the backbone of the health system in the delivery of care services, is very valuable in managing the process more effectively. For this reason, all measures should be taken to reduce stress, depression and anxiety.

In the presented case, not knowing how to follow in the first cases and being one of the first COVID positive nurses in Turkey forced H.K. much more in this process and they experienced the disadvantages of this situation. In a study conducted, it is stated that anxiety can occur in the early stages of the epidemic and can be seen in depression and psychophysiological symptoms in later times. In addition, being isolated, working in high-risk positions, and contacting infected people are among the common causes of trauma (Kang et al., 2020). The Covid-19 outbreak causes fear, stress, stigma, and anxiety in all people. However, while everyone is escaping from the Covid epidemic, healthcare workers fighting at the front of the epidemic and especially nurses who spend the most time with patients may experience more severe stress, fear of death, anxiety, and stigma. Considering the studies on this subject; In the study by González-Gil, et al report that 37.5% of nurses working in Covid-19 intensive care and emergency departments work for fear of being infected, 28.2% of them have increased workloads and shifts that are not allowed to rest. In addition, 21.2% reported that they had deficiencies in communication with patients, 53.5% were unable to provide psychosocial care and emotional exhaustion to patients and their families, and 44.9% had difficulty expressing their emotions (González-Gil MT et al., 2020). In the study of

Doğan and Candan Dayilar, nurses in Covid-19 services initially experienced intense anxiety and crisis due to the uncertainty of the process and the disease, they stated that their knowledge about this issue increased and when a sufficient number of protective equipment was provided, they overcome the crisis process faster and work effectively and more efficiently. Nurses stated that caring for patients in Covid-19 services is proud and gives professional satisfaction, despite the intense stress, anxiety, and fears associated with uncertainty, contamination, fear of death, and infecting their relatives (Doğan and Candan Dayılar, 2020). However, if we consider that one of the most important factors that provide professional motivation is working in an environment where people can feel safe, these data are extremely thoughtprovoking.

H.K. stated that they had difficulty meeting with their family and that their family and friends were very affected by this situation. H.K. stated that especially the first 3 days after their hospitalization were the worst days of their life. With the COVID-19 pandemic, when the infection, protecting themselves and their relatives from infection and their responsibilities regarding the family is added, the difficulties experienced by the nurses who are already working with heavy workload are taken to a higher point. In the study conducted by Nelson H. et al., it was found that healthcare workers especially fear loneliness. It has been stated that healthcare professionals fear infecting their friends, families, and society and therefore decide to isolate themselves from the people around them (Nelson et al., 2021). According to the study by Chopra et al, healthcare professionals caring for patients with COVID have been stigmatized. People who are stigmatized are more likely to be reluctant to seek treatment, leading to delayed treatment and increasing morbidity/mortality (Chopra and Arora, 2020). In a study conducted, it was reported that there was a significant increase in anxiety levels in healthcare workers during the epidemic process (Pan et al., 2020). As in our case, the first responses of healthcare workers diagnosed with Covid-19 were questioned, and it was reported that there were reactions such as death, worry for family and relatives, shock, confusion, fear, feeling lonely, and self-blame (Aşkın et al., 2020).

The uncertainty of the process, especially at the beginning of the epidemic process, affected everyone and left healthcare professionals in a difficult situation. It is thought that not performing the test immediately when H.K. has the first sign of fever is a disadvantage due to the unknown process and the fact that they are the first infected nurse in the hospital. In a study conducted in Italy, it was stated that healthcare workers with Covid-19 -PCR positive were approximate twice the average monthly working time compared to those who were negative. In the same study, it was reported that 20% of healthcare workers working in COVID-19 clinics were infected within the first two months (Lahner and Dilaghi, 2020). In this process, it can be said that not only the sick individuals/society, but also the nurses are both physically and psychosocially affected by the process because they are members of the society and work at the front line under serious risk.

#### CONCLUSION

In this study; the physical and psychological difficulties experienced by a nurse infected with Covid-19, one of the nurses, who have an important place in the fight against the Covid-19 epidemic affecting all humanity, were emphasized. Especially in the epidemic period, it is important to define the problems faced by nurses working in the front stages and to solve these problems in combating the epidemic. Because, as stated by WHO, "Nurses are the backbone of the health system and are at the forefront of combating COVID-19".

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