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Araştırma Makalesi/Research Article

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## Experiences of Nurses Caring For COVID-19 Patients: A Qualitative Study \*

COVID-19 Hastalarına Bakım Veren Hemşirelerin Deneyimleri: Nitel Bir Araştırma

## \*\* <sup>(1)</sup> Nezaket YILDIRIM<sup>1</sup> <sup>(1)</sup> Veliz AKATIN<sup>2</sup>

<sup>1</sup>Faculty of Nursing, Department of Nursing Management, Akdeniz University, Antalya, Turkey. <sup>2</sup>Izmir University of Health Sciences Tepecik Training and Research Hospital, İzmir, Turkey.

## Abstract

**Objective:** To explore the experiences and perceptions of nurses caring for COVID-19 patients

**Material and method**: Qualitative descriptive study design. In the study, semi-structured interviews were conducted with 15 nurses by using the purposeful sampling method.

**Results**: In the study, four themes were determined; being in the pandemic, psychological burden of the disease, perception of the profession, support for nurses in dealing with challenges.

**Conclusion and recommendations**: The findings of the study are expected to be a guide in determining the problems and needs of nurses and developing solutions for them.

Keywords: COVID-19, nurse, qualitative study

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# HALK SAĞLIĞI HEMŞİRELİĞİ DERGİSİ JOURNAL OF PUBLIC HEALTH NURSING

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Öz

Amaç: COVID-19 hastalarına bakım veren hemşirelerin deneyimlerini ve algılarını keşfetmektir.

Gereç ve Yöntem: Nitel tanımlayıcı araştırma tasarımı. Araştırmada amaçlı örnekleme yöntemi kullanılarak 15 hemşire ile yarı yapılandırılmış görüşmeler yapılmıştır.

**Bulgular:** Araştırmada dört tema belirlenmiştir; pandemi içinde olmak, hastalığın psikolojik yükü, mesleğe bakış, zorluklarla baş etmede hemşirelere destek.

**Sonuç ve Öneriler**: Araştırma bulgularının hemşirelerin sorun ve gereksinimlerinin belirlenmesinde ve bunlara yönelik çözümlerin geliştirilmesinde yol gösterici olması beklenmektedir.

Anahtar Kelimeler: COVID-19, hemşire, nitel araştırma

## **INTRODUCTION**

Coronavirus 2019 (COVID-19) has taken its part in the world agenda as a widespread epidemic worldwide (Huang et al., 2020). The virus affects large populations psychologically, sociologically, politically and economically (Arpaci et al., 2020). Healthcare workers are always at the forefront of any epidemic and risk their lives to fulfill their duties. Because they are more likely to be in close contact with COVID-19 patients, they are particularly vulnerable to infection and are more likely to spread the virus among colleagues and family members (Huang et al., 2020; Kang et al., 2020). The COVID-19 pandemic, which spreads rapidly and progresses with severe symptoms, causes disruptions in health care services. With the increase in the number of patients followed in intensive care units and services, the workload of health workers increases and they have to provide services with insufficient numbers (Lai et al., 2020). For these reasons, healthcare workers have caused mental health problems such as intense stress, anxiety, depressive symptoms, insomnia, denial, anger and fear during the fight against COVID-19 (Huang et al., 2020; Kang et al., 2020).

Since they comprise the majority of the healthcare workforce, nurses are crucial to maintaining the effectiveness of healthcare systems throughout the world (Nayna Schwerdtle et al., 2020). However, the emergency caused by COVID -19 has created intense pressure on nursing services (Mo et al., 2020). Because nurses perceive personal risks as very high, some decide to quit their jobs (Martin et al., 2013). Without a healthy and consistent nursing workforce, it will be impossible to provide appropriate patient care (Horan & Dimino, 2020).

It has been noted that it is critical to share nurses' perspectives during the pandemic, as well as the effects on patients and the health-care system (Lee et al., 2020). Therefore, in this study, it was aimed to explore the experiences and perceptions of nurses caring for COVID-19 patients. In addition, the results of the study are expected to contribute to institutions and policy makers while developing strategies for the problems and needs of nurses.

## MATERIAL AND METHOD

## **Research Design**

In this qualitative study, qualitative descriptive design in order to discover the experiences and feelings of nurses who give care to individuals diagnosed with COVID-19 (Kim & et al., 2017).

## **Participants**

The sample for the present study consisted of nurses who worked in the COVID-19 clinics and intensive care units of a Training and Research Hospital in the west of Turkey. The sample was chosen using the purposeful sampling technique. Because the COVID-19 infection is highly contagious and access to hospitals was restricted, the participants were chosen from nurses working at the hospital where one of the researchers was working.

Inclusion criteria: Nurses who worked in the COVID-19 service and intensive care units during the pandemic process, who gave care to the patient with a positive diagnosis of COVID-19 and who wanted to participate in the study voluntarily were included in the study. Interviews were conducted with the nurses who met the study inclusion criteria and volunteered to take part. Because there is no clarity regarding how large the sample size should be in qualitative studies, data collection is completed when new information is not revealed and the data starts to repeat (Polit & Beck, 2006). In the current study, data collection was terminated when the data were repeated. The saturation point was reached in data collection by interviewing 15 nurses who agreed to participate in the study.

#### **Data Collection**

The data were collected using the in-depth face-to-face interview method between November 2020 and January 2021. The interviews were conducted by the second author. The interviews were conducted in a quiet environment determined by the researcher and the nurse, where no one else was present. Researchers have experience and training in qualitative research methods.

The study's aim and importance were explained to the participants before arranging the appointment time. During the interviews, the researcher encouraged the participants to speak freely and used the active listening method. The researchers prepared a Semi-Structured Interview Form and a Personal Information Form in accordance with the literature to collect the data. A pilot study was conducted with three nurses for the interview form and the comprehensibility of the prepared questions was tested. The Personal Information Form included items questioning the participating nurses' age, sex, educational status, marital status, length of service in the profession and institution, the COVID clinic / COVID intensive care unit they work in, length of service in the COVID clinic / COVID intensive care unit they work in. In the Semi-Structured Interview Form, the participants were asked open-ended questions focusing on their experiences (Table 1). In the study, audio recordings were taken with the permission of the participant during the interviews. Each interview lasted 20-30 minutes.

#### Table 1. Semi-structured interview form

Could you describe the COVID-19 process? How did your working order, working style,

care style have changed during this period? Could you please share your experiences?

What kind of challenges did you encounter, how did you cope?

Have there been any changes in your thoughts about your profession? If so, can you explain?

#### **Data Analysis**

Nurses who met the inclusion criteria were interviewed until the data were repeated.

The data were analyzed using content analysis method. A content analysis approach is a research methodology for determining the content of data in a way that is repeatable and accurate (Graneheim & Lundman, 2004). In the present study, the audio-recorded interviews were listened to and transcribed by both of the researchers independently of each other within 24 hours after the interviews. The same, similar, and different expressions were found and coded by both researchers after reading transcriptions repeatedly. The themes of the study were formed by bringing the similar expressions together. After the themes were determined and revised, feedback was received from two participants for validation. To ensure the confirmability, the data were evaluated by a person who was an expert in this field but not included in the study. In cases when the researchers were undecided, they discussed it, made revisions and reached a decision.

#### **Ethical Considerations**

The Ethics Committee of the Hospital approved this study (Decision date: November 16, 2020, Decision number: 2020/13-59). In order to conduct the research, the necessary permissions were obtained from the institution where the research was to be conducted. The participants were informed that their credentials would be kept confidential. Verbal informed consent was obtained from each participant before the interview. In order to ensure the privacy of the participants and the confidentiality of the data, pseudonyms were used instead of the respondents' names.

#### RESULTS

Of the participating nurses, 12 were women, aged 26-48 years, 14 were undergraduate graduates, nine were married. Their working time in the profession was between 3 and 28 years, and working time in the COVID-19 department was varied between two and five months (Table 2).

Code	Age	Sex	Education	Marital status	With whom she/he lives	Working time in the profession (years)	Working time in the institution (years)	Worked COVID-19 department	Working time in the COVID- 19 department (months)
N1	28	Female	Bachelor's degree	Married	Family	5 years	1.5 years	ward	2 months
N2	26	Female	Bachelor's degree	Single	Family	3 years	1.5 years	ward	2 months
N3	32	Male	Bachelor's degree	Married	Family	6 years	5 years	emergency	4 months
N4	22	Male	High school	Single	Alone	3 years	3 years	emergency	4 months
N5	45	Female	Bachelor's degree	Married	Family	28 years	12 years	ward	3 months
N6	43	Female	Bachelor's degree	Married	Family	16 years	14 years	ward	4 months
N7	37	Female	Master's degree	Single	Family	11 years	5 years	ward	2 months
N8	36	Female	Bachelor's degree	Married	Family	12 years	6 years	ward	5 months
N9	28	Male	Bachelor's degree	Single	Alone	10 years	5 years	emergency	4 months
N10	52	Female	Bachelor's degree	Single	Alone	32 years	12 years	emergency	5 months
N11	44	Female	Bachelor's degree	Married	Family	25 years	5 years	ward	5 months
N12	32	Female	Bachelor's degree	Married	Family	10 years	3 years	ward	2.5 months
N13	30	Female	Bachelor's degree	Single	Alone	8 years	5 years	ward	2.5 months
N14	39	Female	Bachelor's degree	Married	Family	22 years	11 years	ward	5 months
N 15	48	Female	Bachelor's degree	Married	Family	28 years	11 years	ward	5 months

## Table 2. Baseline characteristics of participants (n = 15)

Using the content analysis method, four main themes and ten sub-themes were identified (Table 3).

Halk Sağlığı Hemşireliği Dergisi

N. Yıldırım, Y. Akatın

Sub-theme				
Sub-theme I: Uncertainty, anxiety and fear				
Sub-theme II: Fear of contracting and transmitting the disease				
Sub-theme III: Difficulty in using personal protective				
equipment (PPE)				
Sub-theme IV: Changes in the patient care				
Sub-theme I: Self-isolation				
Sub-theme II: Traumatic effect				
Sub-theme I: The meaning of the nursing profession				
Sub-theme II: Feeling stronger				
Sub-theme I: Support from team members				
Sub-theme II: Support from the manager				
-				

## Table 3. Themes and sub-themes identified in interviews with nurses

#### 3.1 Theme 1: Being in the pandemic

This theme includes four sub-themes: 1) Uncertainty, anxiety and fear, 2) Fear of contracting and transmitting the disease, 3) Difficulty in using personal protective equipment (PPE) and 4) Changes in the patient care.

## 3.1.1 Sub-theme I: Uncertainty, anxiety and fear

Most of the participants stated that they experienced uncertainty, anxiety and fear. One participant' statement was as follows:

'In the early days there was a great unknown. Confusion, fear, anxiety, chaos, worry and anxiety.' (P3)

## **3.1.2** Sub-theme II: Fear of contracting and transmitting the disease

Most of the participants stated that they were afraid that they might contract and transmit the disease. One participant' statement was as follows:

'Considering the possibility of getting an infection here, people always have a fear. We have great concerns about taking this virus home, carrying it to their relatives.' (P1)

## 3.1.3. Sub-theme III: Difficulty in using personal protective equipment

Participants did not express that they had a shortage of equipment. However, most of the participants stated that wearing personal protective equipment and working with the equipment on when entering the patient's room was very tiring. One participant' statement was as follows:

'It is very difficult to dress and work with equipment. It is difficult to work with double gloves. Working with glasses and visors is more difficult in terms of fogging. Sweat flows from our faces and we cannot touch or wipe our faces at that time.' (P14)

## **3.1.4 Sub-theme IV: Changes in the patient care**

Some of the participants reported that felt that psychological aspects of care were inadequate, because they spent limited time in the patient's room due to the use of equipment and fear of being infected. Some participants' statements were as follows:

'Our contact with the patient was infrequent and short-lived. We could not share much. We tried to schedule the applications for the follow-up, treatment and care needs of the patients, generally at the same time. The most difficult part of this way of working was to accept the needs of the patient as if they were just treatment and follow-up.' (P7)

'All of the patients are in a state of panic. They are left alone psychologically. ... Also, the psychological trauma of the patient, they feel like the plague. We enter the room, from afar, this creates a trauma in the patient.' (P15)

#### 3.2 Theme 2: Psychological burden of the disease

This theme includes three sub-themes:1) Self-isolation, and 2) Traumatic effect

#### 3.2.1 Sub-theme I: Self-isolation

The most of the participating nurses stated that they kept to themselves out of fear that they would get sick and spread it to others. Some participants' statements were as follows:

'I isolated myself as much as possible. I was staying in the same house with my family, now I left them and went on rent. Because there are both elderly people and chronic diseases.' (P7)

'An asocial more isolated lifestyle has entered our lives. Everyone is afraid of each other.' (P10)

#### 3.2.2 Sub-theme II: Traumatic effect

Some participants stated that it was a mentally tiring and traumatic process. Participants' statements were as follows:

'This process had a traumatic effect on me... getting dressed, undressing, psychological trauma, the risk of contamination of the disease, etc. was a great trauma in that respect.' (P15)

#### **3.3** Theme **3.** Perception of the profession

This theme includes two sub-themes: 1) The meaning of the nursing profession and 2) Feeling stronger.

#### **3.3.1** Sub-theme I: The meaning of the nursing profession

Some of the participating nurses stated that they understood what nursing means. One participant' statement was as follows:

'At first, why me? I was asking. A nurse I trust told me, 'Of course, we will be there my friend, who is other than us?' said. Yes, I am a nurse. I will be me in the disaster, I will be me in the earthquake, I will be me in everything. I accepted this in this process. I never thought about it until now. I never thought about what would happen in any natural disaster. This process made me think of this. This is my job, I have to do this.' (P2)

#### **3.3.2 Sub-theme II: Feeling stronger**

Some of the participants stated that they feeling stronger during the pandemic process. One participant' statement was as follows:

'I felt much better. I felt that I should be strong. I also understood better that I was doing a very good job.' (P5)

#### 3.4 Theme 4: Support for nurses in dealing with challenges

This theme includes two sub-themes: 1) Support from team members and 2) Support from the manager.

## 3.4.1 Sub-theme I: Support from team members

Most of the nurses participating in our study stated that the support of the team was good and they were effective in managing this process. Some participants' statements were as follows:

'We got the best support from our teammates.' (P10)

'Our teammates are very good, we got support from them. We were always on guard with the same person, always supporting each other with my teammate.' (P12)

#### 3.4.2 Sub-theme II: Support from the manager

While most of the participants talked about the support of their managers, others stated that their managers were invisible in this process. Some participants' statements were as follows:

'Our manager was like a superman. He never left us alone in this process. It improved our working conditions and supported them.' (P4)

'My manager buried her head in the sand like an ostrich, she didn't even notice what was going on around her.' (P8)

#### DISCUSSION

The study provides an understanding of the experiences of nurses. Our findings also have important implications for improving the adaptation process of nurses in such crises. The experience of nurses, the largest group of healthcare professionals, is important because it can affect their professional satisfaction and burnout levels. Understanding the perspectives of nurses is critical for informing future workforce policies and institutional responses, and more research is needed (Fernandez et al., 2020).

In the present study, it was determined that the nurses experienced uncertainty, anxiety, and fear most during the COVID-19 pandemic. In previous studies, nurses were reported to experience feelings such as anxiety and fear due similar reasons (Kang et al., 2020; Zhang et al., 2020). In the meta-analysis study by Pappa et al. (2020), 12 studies were also examined. As a result of the study, it was determined that anxiety and depression levels increased in nurses working in emergency and intensive care areas (Pappa et al., 2020). The findings of this study show that nurses may experience anxiety and fear for various reasons in the management of the pandemic process. Because the work environment and conditions have changed during the pandemic, it can be said that it is natural for them to experience such feelings.

In the present study, it was determined that most of the nurses were afraid of being infected with Corona virus and even more, of transmitting infection to others around them. In previous studies, nurses were reported to experience feelings such as anxiety and fear due similar

reasons (Kang et al., 2020; Zhang et al., 2020). On the other research nurses felt altruistic and professionally responsible however they were afraid and guilty that they might infect their families (Sheng et al., 2020). Because nurses are in close contact with COVID-19 patients, they are likely to spread the virus among colleagues and family members (Huang et al., 2020; Kang et al., 2020).

The nurses participating in the study did not mention that they lacked equipment but did talk about the following difficulties of working in that equipment: difficulty in breathing, excessive sweating, and facial injuries due to prolonged use of the equipment. Nurses frequently stated in the study by Sheng et al. (2020) that wearing personal protection equipment (PPE) for extended periods of time contributed to their weariness. The heavy, airtight PPE made nurses' physical and professional demands more difficult and tired them out (Sheng et al., 2020). Similar difficulties were reported in previous studies (Atay & Cura, 2020; Kim, 2018). Despite many other problems faced during the pandemic, it is gratifying that there were no equipment shortages.

The limited use of time in the patient room due to difficulties in using equipment and fear of contamination and the inadequacy of psychological aspects of care is an important finding of this study. It is understood from the statements of the nurses that they think that especially the psychological aspect of care is lacking. In the process of COVID-19, it is regrettable that patients do not receive the exact care they need. Nurses are more likely to experience ethical and moral distress as a result of the responsibility of making decisions about the use of resources and the initiative to provide care (Alharbi et al., 2020; Greenberg et al., 2020; Lee et al., 2020).

Some of the participating nurses stated that they were psychologically affected by the process and even the situation had a traumatic effect on them. Similarly, in other studies, it was reported that the pandemic process could have both short-term and long-term psychological consequences for nurses (Fernandez et al., 2020; Kang & et al., 2020; Koh, 2020; Zhang et al., 2020). Social distancing and quarantine can increase nurses' fears, and negatively affect their psychological health (Labrague & Santos, 2021), and they may face loneliness as long as they stay isolated and indoors (Mo et al., 2020). Increasing social support between nurses can reduce the impact of heavy workload on their health (Garcia - Rojas et al., 2015). Therefore, the social support system for nurses should be activated in accordance with the conditions of the pandemic. In addition, it will be beneficial to make institutional and national plans for the psychosocial support needs of nurses during and after the pandemic.

Some of the participating nurses stated that they understood what nursing means and felt more powerful. In previous studies, it was determined that working in difficult times and dangerous situations was seen by nurses as a part of their professional roles (Kim, 2018). Nurses giving care to COVID-19 patients stated that difficult prevention efforts strengthened their willpower and helped them discover their potential (Sun et al., 2020). Crisis is a complex process during which various experiences are gained, it provides an opportunity to develop self-awareness (Kim, 2018) and problem-solving skills (Lee et al., 2020). In this study, similar to the literature, it is promising for the nursing profession that nurses feel stronger.

Most of the nurses participating in this study stated that the support of the team was good and they were effective in managing this process. Similarly, in Kim's study (2018) during a previous epidemic, colleague support amongst nurses working during a pandemic was high. Especially in stressful situations, nurses seek the support of their colleagues to improve their

self-psychological balance (Muz & Erdoğan Yüce, 2021). In the study conducted in China, nurses stated that the public, hospital administrators, and teammates provided support in various ways. These supports, financial, logistical support, trust of teammates and the public made them feel safe and strong. Nurses stated that they felt valued as well as their social images had changed (Sheng et al., 2020). In addition, some nurses emphasized the importance of sharing the burden and protecting each other, and compared this experience to being at war (Kang et al., 2018). It is very important for nurses to get support from their colleagues in such a crisis environment (Kim, 2018; Muz & Erdoğan Yüce, 2021). Therefore, it is gratifying that most of the participants positively evaluated the team support they received in this process.

While most of the participants in this study talked about the support of their managers, others stated that their managers were invisible in this process. Lack of support from managers causes nurses to leave the profession (Tuckett et al., 2015). It is important for nurse managers to demonstrate their leadership skills, especially during a crisis like COVID-19. Under the leadership of the crisis, communication, clear vision and values ve caring relationships are emphasized (Moore, 2020). The findings of the study underline that the approaches of managers in health institutions during the crisis process should not be left to chance and their crisis management skills should be developed.

## CONCLUSION AND RECOMMENDATIONS

This study reveals important perceptions of nurses' experiences in the pandemic process, such as fears, perspectives on their professions, ethical conflicts and moral distress in patient care, supported situations in dealing with difficulties. It is thought that these results can guide policy makers, management of hospitals and nurse managers in planning health service delivery by recognizing the experiences and needs of nurses, who are active members of health care professionals.

**Ethical Considerations:** The Ethics Committee of the Hospital approved this study (Decision date: November 16, 2020, Decision number: 2020/13-59).

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## REFERENCES

- Alharbi, J., Jackson, D., & Usher, K. (2020). The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. *Journal of Clinical Nursing*, 29, 2762-2764. https://doi.org/ 10.1111/jocn.15314
- Arpaci, I., Karataş, K., & Baloğlu, M. (2020). The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S). *Personality and Individual Differences*, 164, 110-108. https://doi.org/10.1016/j.paid.2020.110108.
- Atay S, & Cura ŞÜ. (2020). Problems encountered by nurses due to the use of personal protective equipment during the coronavirus pandemic: Results of a survey. Wound Management&Prevention, 66(10), 12-16. PMID: 33048827

- Fernandez, R., Lord, H., Halcomb, E., Moxham, L., Middleton, R., Alananzeh, I., & Ellwood, L. (2020). Implications for COVID-19: a systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. *International Journal of Nursing Studies*, 111 (2020), 103637. https://doi.org/10.1016/j.ijnurstu.2020.103637
- Garcia Rojas, I., Choi, B., &Krause, N. (2015). Psychosocial job factors and biological cardiovascular risk factors in Mexican workers. *American Journal of Industrial Medicine*, 58(3), 331-351. https://doi.org/10.1002/ajim.22410
- Graneheim, U., &Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112. https://doi.org/10.1016/j.nedt.2003.10.001
- Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *The BMJ*, 368, m1211. https://doi.org/10.1136/bmj.m1211
- Horan, KM., & Dimino, K. (2020). Supporting novice nurses during the COVID-19 pandemic, *American Journal of Nursing*, 120 (12), 11. https://doi.org/10.1097/01.NAJ.0000724140.27953.d1
- Huang L, Xu F, &Liu H. (2020). Emotional responses and coping strategies of nurses and nursing college students during COVID-19 outbreak. *PLoS One.* 15(8), e0237303. https://doi.org/10.1101/2020.03.05.20031898.
- Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B.X. & Chen, J. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*, 7(3), e14. https://doi.org/10.1016/S2215-0366(20)30047-X
- Kim, Y. (2018). Nurses' experiences of care for patients with Middle East respiratory syndrome-coronavirus in South Korea. American Journal of Infection Control, 46(7), 781-787. https://doi.org/10.1016/j.ajic.2018.01.012
- Kim, H., Sefcik, J.S., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing & Health*, 40 (1), 23-42. https://doi.org/10.1002/nur.21768
- Koh, D. (2020). Occupational risks for COVID-19 infection. Occupational Medicine, 70 (1), 3-5. https://doi.org/10.1093/occmed/kqaa036
- Labrague, L.J., & De los Santos, J.A.A. (2021). Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. *Journal of Nursing Management*, 29(3), 395-403. https://doi.org/10.1111/jonm.13168
- Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, Wu J, Du H, Chen T, Li R, Tan H, Kang L, Yao L, Huang M, Wang H, Wang G, Liu Z & Hu S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3), e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976
- Lee, J.Y., Hong, J.H., &Park, E.Y. (2020). Beyond the fear: Nurses' experiences caring for patients with Middle East respiratory syndrome: A phenomenological study. *Journal of Clinical Nursing*, 29(17-18), 3349-3362. https://doi.org/10.1111/jocn.15366

- Martin, S.D., Brown, L.M., & Reid W.M. (2013). Predictors of nurses' intentions to work during the 2009 influenza A (H1N1) pandemic. AJN The American Journal of Nursing, 113(12), 24-31. https://doi.org/10.1097/01.NAJ.0000438865.22036.15.
- Mo, Y., Deng, L., Zhang, L., Lang, Q., Liao, C., Wang, N., Qin, M., & Huang, H. (2020). Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. *Journal of Nursing Management*, 28(5), 1002-1009. https://doi.org/10.1111/jonm.13014
- Moore, C. (2020). Nurse leadership during a crisis: ideas to support you and your team. *Nursing Times [online]*, 116, 12, 34-37.
- Muz G, & Erdoğan Yüce G. (2021). Experiences of nurses caring for patients with COVID-19 in Turkey: A phenomenological enquiry. *Journal of Nursing Management*, 29(5), 1026-1035. https://doi.org/10.1111/jonm.13240
- Nayna Schwerdtle, P., Connell, C. J., Lee, S., Plummer, V., Russo, P. L., Endacott, R., & Kuhn, L. (2020). Nurse expertise: A critical resource in the COVID-19 pandemic response. *Annals of Global Health*, 86(1), 1-5. https://doi.org/10.5334/aogh.2898.
- Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, VG., Papoutsi, E., & Katsaounou, P. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. Brain, Behavior, and Immunity, 88, 901-907. https://doi.org/10.1016/j.bbi.2020.05.026
- Polit, D. F., & Beck, C. T. (2006). *Essentials of Nursing Research: Methods, Appraisal, and Utilization*. 6th ed. Philadelphia, PA: Lippincott Williams & Wilkins.
- Sheng, Q., Zang, X., Wang, X., & Cai, C. (2020). The influence of experiences of involvement in the COVID-19 rescue task on the professional identity among Chinese nurses: A qualitative study. *Journal of Nursing Management*, 28, 1662-1669.
- Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control*, 48(6), 592-598. https://doi.org/10.1016/j.ajic.2020.03.018
- Tuckett, A., Winters-Chang, P., Bogossian, F., &Wood, M. (2015). 'Why nurses are leaving the profession... lack of support from managers': What nurses from an e-cohort study said. *International Journal of Nursing Practice*, 21, 359-366. https://doi.org/10.1111/ijn.12245
- Zhang, S., Diao, M., Yu, W., Pei, L., Lin, Z., & Chen, D. (2020). Estimation of the reproductive number of novel coronavirus (COVID-19) and the probable outbreak size on the diamond princess cruise ship: a data-driven analysis. *International Journal of Infectious Diseases*, 93, 201-204. https://doi.org/10.1016/j.ijid.2020.02.033