

# A Qualitative Analysis Using Social Listening Method: Turkish Nurses' Experiences in Coronavirus Disease 2019 Pandemic

Sosyal Dinleme Yöntemi Kullanılarak Nitel Bir Analiz: Koronavirüs Hastalığı 2019 Pandemisinde Türk Hemşirelerin Deneyimleri

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## ABSTRACT

**Objective:** This study's objective was to examine the opinions and concerns expressed by nurses on social media platforms to gain a better understanding and illustrate the 2-year pandemic era.

**Methods:** In this study, tweets posted by nurses between 11 March 2020 and 11 March 2022 were retrieved using Mozdeh software. The data were analysed by content analysis method and the experiences of nurses during the pandemic period were examined. MAXQDA 2022 software was used for data analysis. Consolidated criteria for reporting qualitative research were followed.

**Results:** After analyzing tweets from Turkish nurses over a 2-year period, three themes emerged: (i) health issues (psychological and physiological effects), (ii) working conditions and challenges (staff and equipment shortages, personal rights and financial problems, violence, and administrative discrimination), and (iii) social life (family life, vaccination and adherence to precautionary measures, and social exclusion).

**Conclusion:** The content of the tweets highlights the key issues faced by nurses and emphasizes the need for policymakers and authorities to take necessary precautions to address future pandemics.

**Keywords:** Coronavirus, experience, qualitative research, nurse, social media

## ÖZ

**Amaç:** Bu çalışmanın amacı, sosyal medya platformlarında hemşireler tarafından ifade edilen görüşleri ve endişeleri inceleyerek, 2 yıllık pandemi dönemini daha iyi anlamak ve betimlemektir.

**Yöntemler:** Bu çalışmada, 11 Mart 2020 ve 11 Mart 2022 tarihleri arasında hemşireler tarafından paylaşılan tweetler Mozdeh yazılımı aracılığıyla elde edilmiştir. Veriler içerik analizi yöntemi ile analiz edilmiş ve hemşirelerin pandemi sürecindeki deneyimleri incelenmiştir. Veri analizi için MAXQDA 2022 yazılımı kullanılmıştır. Nitel araştırmaların raporlanması için konsolide kriterler takip edilmiştir.

**Bulgular:** Türk hemşireler tarafından iki yıl boyunca atılan tweetlerin analiz edilmesinin ardından üç tema ortaya çıkmıştır: (i) sağlık sorunları (psikolojik ve fizyolojik etkiler), (ii) çalışma koşulları ve zorluklar (personel ve ekipman eksikliği, özlük hakları ve mali sorunlar, şiddet ve idari ayrımcılık) ve (iii) sosyal yaşam (aile yaşamı, aşılanma ve önlemlere uyum ve sosyal dışlanma).

**Sonuç:** Tweet'lerin içeriği, hemşirelerin karşılaştığı temel sorunları vurgulamakta ve politika yapıcılarının ve yetkililerin gelecekteki pandemilere karşı gerekli önlemleri alması gerekliliğini vurgulamaktadır.

**Anahtar Kelimeler:** Koronavirüs, deneyim, nitel araştırma, hemşire, sosyal medya

## INTRODUCTION

The World Health Organization (WHO) declared coronavirus disease 2019 (COVID-19) a pandemic on March 11, 2020, and the first case was announced in Turkey on the same date.<sup>1,2</sup> According to WHO 2022 report, since the outbreak began, the number of confirmed cases in Turkey has reached 15,043,379 and the death toll stood around 98,846 as of May 11, 2022.<sup>3</sup> The WHO estimated that between January 2020 and May 2021, 115,000 healthcare workers died because of the coronavirus. Until March 16, 2022, 506 healthcare workers lost their lives due to the coronavirus in Turkey.<sup>4</sup>

Nursing professions, which are most affected by the pandemic, have faced numerous difficulties during this struggle. The pandemic has affected nurses psychologically, physically, as well as socioeconomically.<sup>2,5-7</sup> Psychological challenges such as fear of getting the disease and spreading it to family members, anxiety, major depression, and insomnia have been observed in frontline nurses.<sup>8,9</sup> Social exclusion and stigmatisation also contributed to increased stress and burnout.<sup>10</sup>

A dearth of healthcare workers, a lack of personal protective equipment (PPE), long working hours, and poor wages have all exacerbated the workplace stress among nurses during pandemic.<sup>11</sup> To reduce this stress and overcome the rapid spread of the COVID-19, the human and material resources were quickly increased by the authorities. Human resources are being augmented by transferring existing staff to COVID-19 services and nurses have had to frequently change departments within their hospitals during the pandemic and the reallocation has led to disorientation among nurses.<sup>12</sup> While the number of COVID-19 cases increased dramatically, the number of caregivers remained quite inadequate, and they felt exhausted.<sup>13</sup> Some of the nurses intended to leave their profession.<sup>5,14</sup>

Most of the physical issues the nurses struggled with were headaches, weight loss, muscle tension and stress-related diarrhea. PPE-related pressure sores and other skin problems were more common over the nose (nasal bone/bridge of the nose), ears, forehead, and cheeks<sup>15</sup> and frequent use of disinfectants led to skin problems on the hands.<sup>16</sup>

Twitter, one of the social platforms where people can instantly share their feelings and experiences and where mutual interaction and information dissemination are strong, has been a voice for nurses to let the world know about the difficulties they faced.<sup>17,18</sup> Social media has been used by nurses not only to share their personal experiences but also to raise public awareness in the fight against the pandemic and to support their colleagues by sharing information.<sup>12,19,20</sup> Furthermore, this seemed to be an opportunity to change the negative perception of the nursing image in society.<sup>21</sup>

To the best of our knowledge, there are limited studies in Turkey that have examined the experiences of caregivers during some waves of the pandemic.<sup>2,5,22,23</sup> However, these studies have only been conducted with a few nurses as face-to-face or video chat interviews. In our study, we considered showing a pathway to the authorities responsible for healthcare so that action can be taken quickly in the event of a possible pandemic in the future. The voices of nurses need to be heard in a place where caregivers can freely and objectively share their thoughts and feelings to have a good understanding of nurses' needs. Therefore, this study aims to analyse the experiences of nurses who have been

struggling with the COVID-19 pandemic for two years by using Twitter platform.

### Research Questions

1. What were the main challenges faced by nurses in Turkey during the pandemic?
2. How was the health and social life of nurses affected during the pandemic?

## METHODS

Consolidated Criteria for Reporting Qualitative Research were followed to ensure study rigor.<sup>24</sup>

### Study Design

Descriptive phenomenology is widely used in social science research as a method to study and describe the lived experience of individuals.<sup>26</sup> In this descriptive phenomenological study, nurses' experiences with the phenomenon of COVID-19 were examined via Twitter based on the content analysis method of Graneheim and Lundman.<sup>25</sup>

### Sample

Purposeful sampling was used, and the sample comprised nurses' tweets, which were posted between March 11, 2020 and March 11, 2022. The following inclusion criteria were searched on Twitter: (i) written in Turkish, (ii) publicly available, and (iii) care users identified as caregivers on their Twitter page. To identify nurse users, a search was performed using the words "hemşireyim" or "hemşireyim" (I'm a nurse). A total of 18,986 users were recognized using these words in their tweets. Duplicate usernames and unidentified users were removed, and 7804 tweets remained. These collected data included nurses as well as newspaper reports. Also, some of the user accounts where a word of a nurse typed in their username were identified as fake accounts. Because of this, it was decided to read all tweets to verify the nurse users, and then identified nurses were included in the sample. We eliminated those who had fewer than 50 tweets because they were inactive users. This study excluded tweets from news sources, student nurses, retired nurses, and nurses who stated they were not employed to reveal the experiences of those who actively practice the nursing profession. First and second authors independently reviewed the tweets and found that 3823 of the users were nurses.

### Data Collection

We used Mozdeh software<sup>27</sup> as a Twitter data mining tool. All tweets posted by nurses in 2 years identified according to the inclusion criteria were retrieved via the Mozdeh software. A total of 3 705 315 tweets were detected. Due to the Twitter API's restrictions on data access to protect the privacy of individuals, all tweets shared by people in 2 years could not be accessed. Therefore, only as much data as Twitter allowed for access were obtained for the 2-year period. The words "covid19, covit19, covid-19, korona, salgın, pandemi, kovit, corona, #Covid19, #covid-19" are likely to be applied in Turkish and were searched in the obtained data. Duplicates and retweets were separated from the detected tweets via the Mozdeh software, and the final data of 9330 tweets were transferred to Microsoft Excel. The process of obtaining and extracting the tweets was done by the first author. The researcher shared the final Excel sheet with the research team for coding.

### Statistical Analysis

The MAXQDA 2022 qualitative data analysis software<sup>28</sup> was used for coding. Researchers focused on manifest and latent content

during the content analysis procedure. The qualitative content analysis process of Graneheim and Lundman (2004) was followed. The first and second authors read the text several times. The data about nurses' experiences were extracted and brought together into one text which created the units of the analysis. The text was divided into condensed units of meaning. A total of 1051 meaning units emerged. The meaning units were abstracted and coded. Different and similar codes were compared and classified into categories. Two researchers discussed about the categories until 100% agreement was ensured. The data were submitted for third-author approval for critical review. After the revisions of the categories were made, the themes were formed by all team members with a consensus. The inclusion of participant quotes under the topic described in detail demonstrates the verifiability of the study. Reading the tweets multiple times, discussing, and negotiating with all members of the research team in all data analysis and interpretation processes and the fact that the coders perform the data coding process independently show trust and credibility. The fact that the reader can repeat each step of the study one-to-one is evidence of transferability. Two of the researchers have experience in qualitative research studies and are experts in their field (professor and assistant professor), and the first author is a Ph.D. student who has training in qualitative research methods.

## RESULTS

As a result of the analysis, 3 major themes emerged with 9 categories: (i) health issues (psychological and physiological effects), (ii) working conditions and challenges (shortage of staff and equipment, personal rights, financial problems, violence, and exposure to administrative discrimination), and (iii) social life (family life, call for vaccination and adherence to precautions, and social exclusion). The proportions of emerged categories with themes are shown in Figure 1.

### Health Issues

This theme describes the psychological and physiological effects of the COVID-19 pandemic on the health of nurses. The burden of nurses working under harsh conditions increased even more during the pandemic. Nurses frequently expressed their emotions based on the fear of infection and increased stress levels due to a lack of information about novel coronavirus at the onset of the pandemic. Afterward, these emotions gave way to feelings of

worthlessness, depression, and hopelessness. Not only their feelings but also the physical effects of the tough working conditions were reflected. Some common physical problems were reported as aching legs, facial redness, and swelling.

### Psychological Effects

According to the inferences obtained from the analysis of the data, the biggest psychological problem that nurses experienced was the stress and fear of infecting themselves and their families. The death of colleagues has deeply affected them.

*On the one side the intensity of the corona, on the one side the stress of catching a disease and infecting our family, on the other side, lack of motivation and morale, may God give strength to all health professionals #NobodyCaresAboutHealthcareworkers.*

Nurses expressed that they had to live in isolation from everyone for a long time due to their profession and had to go back and forth between home and work, and this situation made them very uncomfortable. The nurses reported that they were mentally exhausted during the long-running pandemic and that they had lost hope that it would ever end.

*It has been a year since the epidemic started. I seriously realized this now and seeing that we haven't made much positive progress since then and that the virus has spread, even more, drove me to despair. As if this difficult process will never pass. I'm in depression again.*

### Physiological Effects

The nurses stated that they went to work overtime and stood for long periods, so varicose veins appeared on their legs in a short time. Furthermore, nurses had to wear their masks in all environments, including their homes and workplaces, and because of the prolonged use of masks, redness, swelling, and wounds appeared on their faces. Not only the masks, but also the overalls and disinfectants used caused problems such as weight loss, sweating, and urticaria. Musculoskeletal system problems were also among the most frequently complained about.

*I am a nurse working in a pandemic hospital, what about our efforts? In every shift, due to sweating in those clothes part of my body strains and my stomach hurts from taking painkillers, what more can I say.*

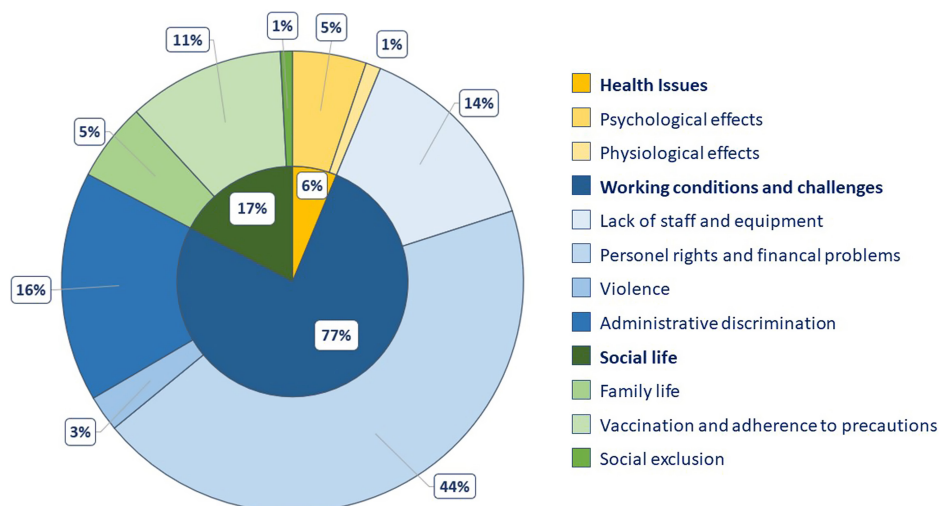


Figure 1. The proportions of emerged categories with themes.

### Working Conditions and Challenges

This theme illustrates the challenges that nurses face in the workplace. These challenges include management, colleagues, and patients. The nurses indicated that they had to struggle with many external factors while struggling with the infection. While the problems of lack of equipment, busy working hours, and not including nurses in the scientific committee were at the forefront at the start of the pandemic, problems related to the burden of financial problems and personal rights became more prominent later pandemic. On the other hand, being exposed to violence by patients has always been and continues to be an issue in Turkey.

### Shortage of Staff and Equipment

The nurses stated that with the emergence of the pandemic, the number of patients and their monthly working hours doubled, and the number of staff, even normally insufficient, was quite inadequate for the newly opened units during the peak of COVID-19 cases, and they worked almost like robots. The existing staff was used to fill the void left by the nurses contracting the COVID-19 infection. Nurses from across the country tweeted about filling the staff shortage by assigning new staff to public hospitals. The workload of nurses increased day by day while everyone was locked in their homes and working flexible shifts. The nurses stated that they were exhausted under these tough working conditions, and they could not stand to work under these conditions any longer.

*Healthcare staff are exhausted, we are tired of pandemic shifts every other day and working without permission, new staff should be recruited, and it should not be forgotten that we are not robots.*

Not only staff but also PPEs were insufficient. Hospital management had difficulties in providing equipment to healthcare professionals. Nurses claimed that they had to wear overalls that were too loose for them and sometimes they tried to protect themselves by wearing surgical gowns over their uniforms because they could not provide them. Some nurses had to wear 1 N95 mask for more than 24 hours. As hospitals could not provide them with equipment, nurses purchased their own masks from outside to avoid being infected at work.

*.....We can't keep up; the equipment is insufficient. We write our name on an N98 mask and use it for 1 week. #GiveSuppliestoHealthcareworkers #COVID19*

### Exposure to Administrative Discrimination

Nurses reported that they were exposed to discrimination by the executives. Nurses felt unfair and discriminated against because of the payment of the amounts given to health workers under the name of supplementary payment with differences that would create a gap between doctors and nurses.

*I am an intensive care nurse in a pandemic hospital, we work in overalls and sweat until the morning. While both professional groups are civil servants, why glorify this doctor in both the institution and the ministry, and humiliate nurses?*

### Personal Rights and Financial Problems

The salary was one of the most common issues raised by nurses on social media. Healthcare professionals had to put forth extraordinary effort during this time because the Ministry of Health had restricted their rights to annual leave, resignation, and retirement and had increased their working hours. Nurses requested the government to enhance their working conditions during these challenging times. The nurses declared that their

salaries, which are slightly higher than the minimum wage, are insufficient to make a living. The nurses also stated that struggling with economic problems in all these efforts made them very worn out and therefore they demanded a raise in their salaries. One of the requested adjustments was the removal of the cadre status distinction between health workers which has existed for years.

*While everyone was staying at home, we fought the corona, we sweated, and you did not go beyond applauding saying that your rights will not be paid. We want an increase in our salaries and an improvement in our personal rights. We don't want a cadre status difference. We are all public servants; we are all healthcare professionals. #HealthcareprovidersWillNotBeSilenced.*

Unions play an important role in ensuring that health workers' rights are upheld. However, nurses claimed that unions were not doing enough to advocate for their rights.

*What did you do for the rights of healthcare professionals? We have been overwhelmed under pandemic conditions for 1.5 years... you let us down #SyndicateOnTwitterWhat'sYourBusiness.*

Salary deductions and the title of martyrdom were among the topics discussed by the nurses. Nurses were more likely to be infected with coronavirus because of close contact with patients. Nurses who became ill were isolated and thus unable to continue working. Their wages were reduced during this period of absence. The nurses also demanded that COVID-19 be recognized as an occupational disease for their colleagues who died because of the coronavirus and that the deceased be designated as martyrs.

*I am a human first and then a healthcare professional. More than 120 thousand infections, and 219 deaths, but we are still not considered martyrs. Let Corona be considered an occupational disease. #First Human.*

### Violence

Nurses reported that they were exposed to violence by patients and their relatives even during this pandemic period when they were working with great devotion. Sticks and beatings followed the applause.

*While I was trying not to show any shortcomings for a moment, I gave the first white code of my professional life when my patient walked over me. Thank you to those who tried to beat us by first applauding and then insulting us.*

### Social Life

This theme describes how nurses are excluded from society due to their negligence in spreading infection, their family life is negatively affected, and the nurses played a role in training society during the pandemic process.

*During the corona period, most of the people who said, "You are a healthcare professional, can you keep your social distance with us?" called me and asked for help because the corona test was positive, including their families, because they did not maintain social distance with other people...*

In the early days of the pandemic, nurses were excluded by society due to the possibility of carrying an infection, and after the spread of the infection to the whole society, the exclusion decreased. The nurses educated society about hygiene, using PPE, and keeping social distance and warned people not to engage in rituals that required community, such as holidays, weddings, funerals, and

hospitality through social media. Moreover, they called for the public to be vaccinated after discovering the coronavirus vaccine.

*I'm a nurse in the intensive care unit, people can't breathe, we can't do anything... I felt the desperation to the bone today... Please let's get these vaccines before Covid gets more of us... #COVID19.*

The families of the nurses, who had to live away from their families and isolated, greatly suffered during the pandemic. As a result of the closure of schools due to the pandemic, the children of health workers had to stay at home alone. They had nowhere to leave their children, and no one wanted to care for them. This has had a negative impact on the health of both parents and children.

*Healthcare professionals who are actively involved in the pandemic cannot find caregivers for their children, our spouses should be considered on administrative leave, the children are left in the middle, we don't know what to do.*

## DISCUSSION

This study reveals the problems faced by nurses during the COVID-19 pandemic period and contributes to developing insights of health managers. The present study was conducted to identify the main challenges that Turkish nurses have faced during the pandemic and the effects of COVID-19 on the health and social life of the nurses. The most common psychological health effects of COVID-19 on nurses were anxiety, stress, and fear due to the high likelihood of getting and spreading the infection to others and dying in the end. Our findings are consistent with the previous studies. It was reported that 73.6% of the nurses experienced stress, 65.5% anxiety, 61.6% fear of being infected with COVID-19 infection, and 14.7% fear of death during the pandemic.<sup>29</sup> The uncertain progress of the pandemic had a major impact on depression and burnout among nurses. In a study examining the impact of COVID-19 on the mental health of caregivers, it was found that 62.4% of caregivers had difficulty dealing with uncertainty and 42.62% of them requested psychological support.<sup>30</sup> Another study showed that the fear of uncertainty led to disorientation in nurses.<sup>31</sup> In the present study, nurses similarly reported that they required psychological support. According to our findings physical health was related to working conditions and PPE use. Personal protective equipment leads to headache, physical discomfort, difficulty in breathing, sweating and skin related problems.<sup>32</sup> Fatigue and physical discomfort were also most important side effects of PPEs.<sup>22</sup> As a result of the rapid spread of the novel coronavirus in a global scale, shortage of supplies in healthcare facilities occurred in the beginning of the pandemic.<sup>33,34</sup> Many of the hospitals in various countries such as Turkey were caught unprepared for the pandemic conditions and had difficulties in delivering PPE.<sup>5</sup> First, hospital administrations allowed each nurse to use only one mask for 24 hours; then, this number increased to three.<sup>35</sup> In this study, some of the nurses stated that they had to wear a same mask for more than a week. The use of masks was further restricted in units other than the Covid-19 service and intensive care units of hospitals. Furthermore, some of intensive care and services were dedicated in hospitals to meet the need for new hospitalizations like the other countries.<sup>12</sup> Thus, the workload of the existing staff was increased even more. Although it was stated that no more than 12 hours a day should be worked to reduce infection exposure, nurses worked with shifts of 16-24 hours to compensate for the shortfall.<sup>35,36</sup> Contrary to our study, in the study of Sezgin et al. (2021), nurses found 16-24 working hours more manageable. Annual

leaves, resignations, and retirement processes are restricted by the government.<sup>37</sup> Until the circular numbered 2020/8 on "Normalisation and Measures to be taken in Public Institutions and Organisations within the Scope of Covid-19" published in the Official Gazette on 29.05.2020 entered into force, even nurses with chronic diseases or pregnant women had to take part in this struggle. On the other hand, the Ministry of Health acted quickly and recruited new staff to hospitals and the vulnerable staff was given administrative leave.<sup>37,38</sup> However, despite the new recruitments, the number of staff in this struggle was still insufficient.<sup>38</sup> To sum up, these results demonstrate that the managers response of Turkey to the Covid-19 epidemic was insufficient. It can be concluded that the managers should cover the existing staffing shortfall without pandemics and supply timely staffing by anticipating potential pandemics.

Our results highlighted nurses were dissatisfied with their salaries and felt discriminated against and ignored by their managers. Likewise, Cengiz et al (2021)<sup>22</sup> also reported that nurses are struggling to exist, and their motivation is low. It was emphasized that during the pandemic period, feeling worthless, injustice, and managerial discrimination cause low performance and motivation and affected the intention to leave, and it would be difficult to find qualified caregivers in the future.<sup>22,39</sup> In light of these findings, the importance of meeting the needs of nurses in increasing job satisfaction and quality has emerged.

Although the impact of the COVID-19 pandemic has decreased these days, new pandemics are emerging around the world. Thus, healthcare managers need to take precautions and create insight for the future based on past experiences. To enhance the job performance and satisfaction levels of nurses by protecting their physical and mental health in extraordinary situations such as pandemics, it is recommended to conduct studies and in-depth interviews with managers and employees to develop new policies.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the ethics committee of Koç University (Date: October 6, 2022, Number: 2022. 319.IRB3.135).

**Informed Consent:** In this study, the consent of the people was not required, as the shares that people made publicly on Twitter at their own will were used.

**Peer-review:** Externally peer-reviewed.

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**Hasta Onamı:** Bu çalışmada kişilerin kendi iradeleri ile Twitter'da herkese açık olarak yaptıkları paylaşımlar kullanıldığı için kişilerin onayı aranmamıştır.

**Hakem Değerlendirmesi:** Dış bağımsız.

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