



# Feelings, Difficulties, and Solution Suggestions of Nurses During Covid-19 Pandemic Period: The Case of Turkey

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## Abstract

**Background:** The aim of the study is to determine nurses' feelings, difficulties, and suggestions during covid-19 pandemic.

**Method:** The data of this descriptive type study were obtained from the nurses who could be reached online between 3-9 April 2020. The sample of the study consisted of 1039 nurses, who filled out the online questionnaire completely during the data collection time.

**Results:** When the feelings of the nurses were examined, they were sad because they could not touch their child/loved ones (83.1%), and afraid of getting infection (70.2%). A great majority of nurses had difficulty partially or completely in accessing personal protective equipment. It was determined that the nurses were mostly afraid of being infected and infecting their families and they were sad since they could not see their families and children. Conclusion: Nurses mostly made suggestions about providing personal protective equipment, increasing the number of nurses, and regulating the working hours.

## Keywords

COVID-19, Pandemi, Nurses, Feelings, Difficulties

## Background

COVID-19, which started in China for the first time, was announced as a pandemic by WHO at the end of January 2020. COVID-19 pandemic has led to a wide range of changes in the health systems and daily life of countries [1]. Many difficulties are encountered in many countries of the world during COVID-19 pandemic. In COVID-19 pandemic, it is estimated that 60% of the society would have an infection. It is reported that almost 80% of those with infection are treated as outpatients, 20% are hospitalized for treatment and 5% of these patients develop Acute Respiratory Failure Syndrome (ARDS). The studies showed that patients with severe lung failure have forced the healthcare system and increased the workload [1,2].

Although some precautions have been taken to manage the pandemic which started in early March in Turkey, it has been seen that new cases are reported every day, there are many losses and the number of healthcare professionals diagnosed with COVID-19 is gradually increasing. In Turkey, as of May 24, 2020, it was reported that COVID-19 test of 156.827 patients was positive, 4340 patients lost their lives and COVID-19 tests of approximately 7600 healthcare professionals were positive (Turkey Republic of Health Ministry).

Nurses are at the forefront in maintaining the care and treatment of patients with COVID-19 infection [1]. It is known

that especially nurses, providing primary care to patients, among the healthcare professionals who work in cooperation and are at serious risk in the pandemic, are involved in the most risky group [1,3]. Having enough and experienced nurses during the pandemic is of vital importance in fighting with the pandemic. The insufficient number of nurses makes it difficult to manage the crisis. For a quality and safe care, nurse workforce and support systems should be planned well [1]. Negative effect of increased workload of nurses on intensive care patients is pointed out [4]. As in the rest of the world, failure to provide sufficient number of skilled and qualified nurse workforce is an important problem in Turkey.

It is known that nurses, who are in constant and closest contact with patients and are exposed to the highest risk, experience many problems due to rapid increase in the number of patients in pandemics even if preparation is

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made. Improving the working conditions, evaluating the organizational and structural barriers and developing solution suggestions during pandemic periods are important. It will be a guide for countries to share their experiences during the epidemic period. This study was conducted to determine the feelings, difficulties, and solution suggestions of nurses in COVID-19 pandemic period. We expect these results to provide clues for problems experienced by nurses due to COVID-19 pandemic.

## Method

This descriptive cross-sectional study was conducted between 3-9 April 2020 in order to determine.

## Population and sample

The population of the present study was composed of 190.000 nurses (Ministry of Health, 2019) working in Turkey. All of 1039 nurses, who were voluntary to participate in the study and completed fully the online research questionnaire in the 1-week period allocated to collect the data of the study, were included in the sample.

## Data collection tools

The data were obtained with the questionnaire that was prepared by the researchers upon the literature review and was composed of expressions examining the nurses' socio-demographic characteristics (age, education status, marital status, working characteristics etc.) as well as their opinions about pandemic and difficulties they experienced.

## Data collection

The questionnaire was transferred to online environment by one of the researchers by using the survey program. The link of the questionnaire transferred to the online environment was sent to the nurses over their personal e-mail addresses and whatsapp groups and they were asked to fill it based on a personal statement. It took averagely 5-10 minutes to complete the questionnaires.

## Data assessment

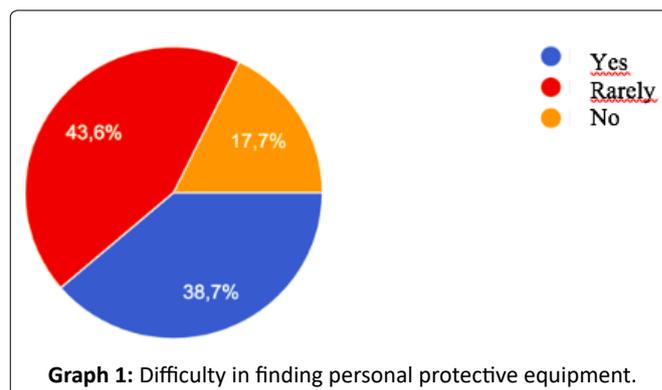
The data obtained at the end of the study were evaluated in the SPSS 21.0 packaged software. Number, percentage, mean and standard deviation were used in descriptive statistics to assess the data.

## Results

It was determined that the mean age of the nurses participating in the study was  $32.17 \pm 7.74$  years, 88% of them were female, 55% were married, 45% had children and 64% provided care to their children with their spouses in turn, 88.6% had a bachelor's degree and 58.6% were working as a nurse for less than ten years (Table 1).

It was determined that 38.7% of the nurses had difficulty in finding personal protective equipment (Graph 1).

It was found that hospitals, where 86.9% of the nurses were working, had COVID-19 pandemic clinic and 70.5% of them provide care to patients diagnosed/suspected with



**Table 1:** Socio-demographic and working characteristics of the nurses (n:1039).

Variables	n	%
<b>Gender</b>		
Female	913	87.9
Male	126	12.1
<b>Marital Status</b>		
Married	572	55.1
Single	467	44.9
<b>Those with children</b>		
Yes	470	45.2
No	569	54.8
<b>Family Type</b>		
Nuclear family	783	75.4
Extended family	89	8.6
Single parent (Widow)	49	4.7
Living alone	118	11.3
<b>Child Care (n:470)</b>		
Spouses care in turn	301	64.0
Cared in the house of family elders	84	17.8
Cared by family elders in our house	74	15.7
Nanny	11	2.5
<b>Those with chronic disease</b>		
Yes*	235	22.6
No	804	77.4
<b>Education status</b>		
Health vocational high School	118	11.4
University graduate	920	88.6
<b>Working institution</b>		
Public Hospital	651	62.7
University Hospital	181	17.4
Private Hospital	140	13.5
Family Health Center	67	6.4
<b>Working Department</b>		
Internal Medicine – Surgery	158	15.2
Pediatric - Pediatric emergency	90	8.7
Adult intensive care - emergency	224	21.6
Pediatric – newborn intensive care	143	13.8
Outpatient clinic-Operating Room -FHM-venipuncture -ECG	424	40.7
<b>Working year</b>		
10 years and less	609	58.6
11 years and more	430	41.4
<b>Shift type</b>		
Day	343	33.0
Shift	426	41.0
24 hour block	270	26.0

COVID-19. 58.2% of the nurses received training on COVID-19 and 67.9% followed publications/guides on COVID-19 (Table 2).

When the nurses' feelings about COVID-19 pandemic in Table 3 were examined, they were observed to be afraid of carrying an infection to their families (92.5%), sad about being unable to touch their children/loved ones (83.1%), afraid of getting infected (70.2%) and tired due to intensive working tempo (60%) (Table 3).

Priority problems experienced by nurses and their solution suggestions were asked open-ended. Nurses (n:703) stated the priority problems they experienced about COVID-19 pandemic as the lack of personal protective equipment (PPE), inability to see their families, shelter, fatigue, lack of information, exclusion by the society, etc.

In terms of frequency order, the solution suggestions of 57.8% of the nurses (n:601) concerning COVID-19 pandemic were observed to be appropriate distribution of PPE, increasing the number of nurse, regulating the working hours, arranging the regulations about social isolation of the society, testing the healthcare professionals without waiting

symptoms, giving days off to healthcare professionals with chronic disease, increasing the trainings of the workers, and informing the public about the pandemic.

## Discussion

Many difficulties are encountered concerning COVID-19 pandemic in many countries of the world today. Pandemic has caused significant changes in the healthcare systems of countries [1]. The studies have pointed out the workload increasing due to the patients who develop severe lung failure in COVID-19 [2] and the negative effect of increased workload of nurses on the intensive care patients [4]. The willingness of healthcare professionals can be increased by providing a suitable place and a safe working environment with providing adequate PPE for them and giving training and correct and fast information in pandemic period [5]. This study was conducted to determine the feelings, difficulties, and solution suggestions of the nurses in COVID-19 pandemic period in Turkey.

Since COVID-19 virus is highly infectious, it is recommended for all people to wear masks in daily life. Using PPE is much

**Table 2:** Preparations for the COVID-19 pandemic (n:1039).

Variables	n	%
<b>Having a COVID-19 pandemic clinic in the hospital</b>		
Yes	903	86.9
No	136	13.1
<b>Providing care for patients suspected/diagnosed with COVID-19</b>		
Yes	733	70.5
No	306	29.5
<b>Receiving training about COVID-19</b>		
Yes*	605	58.2
No	434	41.8
<b>Finding the training sufficient (n:605)</b>		
Sufficient	198	32.7
Insufficient	407	67.3
<b>Following COVID-19 publications / guidelines</b>		
Following	706	67.9
Not following	333	32.1

\* Use of protective equipment, protection from infection, Covid 19 patient care

**Table 3:** Feelings and difficulties experienced by the nurses about COVID-19 pandemic (n:1039).

Opinions	Agree	Partially agree	Disagree
	n (%)	n (%)	n (%)
I'm tired because of the busy work hours	623 (60)	327 (31.5)	89 (8.6)
I feel exhausted	561 (54)	351 (33.8)	127 (12.2)
I'm afraid of getting infection	729 (70.2)	237(22.8)	73 (7)
I am afraid of carrying infection to my family	961 (92.5)	54 (5.2)	24 (2.3)
I am sorry not to see my family	713 (68.6)	221 (21.3)	105 (10.1)
I'm sorry I couldn't touch my child/loved ones	863 (83.1)	128 (12.3)	48 (4.6)
I am angry with people who do not take the pandemic seriously/do not stay at home	866 (83.3)	155 (14.9)	18 (1.7)
I am hopeful that we will overcome the pandemic	409 (39.4)	522 (50.2)	108 (10.4)
I am satisfied with the solidarity of the medical team	384 (37)	487 (46.9)	168 (16.1)
I am satisfied with the solidarity of my colleagues	420 (40.4)	478 (46)	141 (13.6)
I have difficulty in reaching/communicating with the managers	298 (28.7)	411 (39.6)	330 (31.8)

more important for the safety of the professionals, who take an active role in treatment, care and follow-up of these patients in the healthcare system, and those they come into contact with. The risk is known to increase more due to the interventions applied to critical patients in the emergency services and intensive care units where nurses encounter particularly with hard cases and death in the pandemic period [6]. PPE needs to be primarily provided to healthcare professionals at risk [2]. The lack of Personal Protective Equipment (PPE) has been seen in many countries during the Covid-19 period [6-8]. It was determined that 38.7% of the nurses in the study group had difficulty in finding PPE [9]. Found that 60.2% of the nurses were concerned about the lack of PPE during Covid-19 pandemic [10]. It is quite remarkable that lack of PPE is experienced in Turkey which is a textile country.

It is stated that nurses achieve to manage the process with their knowledge about care in COVID-19 pandemic [6]. In their study on nurses (n:453) during pandemic period, [10] found that 72.4% received training on infection prevention [10]. In the study, it was seen that more than half of the nurses (58.2%) received training and only 32.7% found the training they received sufficient. In pandemic period, it is important to give up-to-date information about protection from infection to the health care professionals first in terms of patient and employee safety. Training needs of the nurses should be questioned during pandemic period and up-to-date information about needs should be provided.

Those who feel anxiety and concern when their loved ones are sick have difficulties in coping with crisis if their physical and psychological needs are not met [11]. It was determined in the present study that 70.2% of the nurses in the study group were afraid of getting infection and 92.5% were afraid to carry infection to their families. In the studies by [3,12]. It was determined that major concern of the nurses was to carry the virus to their loved ones [3,9] determined that 45.9% of the nurses were afraid of getting infection and 78.8% of them were afraid of carrying virus to their families and friends during COVID-19 pandemic [9]. It is reported that nurses with children are more reluctant to work than other nurses during the pandemic period [5,10]. Found that nurses were afraid to infect their children [10]. It is seen that the anxieties of nurses are similar in different geographies.

It is pointed out that workload and heavy working hours will cause burnout in nurses and they cannot display professional behavior. It is reported that the unexpected pandemic has caused fear and concern in healthcare professionals with high risk of transmission, thus psychosocial support teams have been prepared for healthcare professionals [13]. It was observed in the present study that 60% of the nurses in sample group felt themselves tired, 54% felt exhausted, and 92% were sad because they could not see their families. It is common for nurses who have been in close contact with patients to experience burnout during COVID-19 pandemic [14]. Reported that the anxiety level experienced by healthcare professionals during COVID-19 pandemic is much higher than other people in the community [12]. In a study, it was reported that nurses experienced moderate anxiety

[12]. It was determined that 34% of the nurses working in emergency unit (n:453) had moderate anxiety and those with children had higher anxiety due to the excessive workload and the risk of carrying infection to the family [9,10]. Found that the anxiety scores of nurses, whose social activities are limited, were higher during COVID-19 pandemic [9].

The nurses may feel isolated during the pandemic, therefore, it is recommended to encourage communication and teamwork between employees in order to increase patient safety and quality of care [1]. It was determined that 63% of the nurses in the sample group were not satisfied with the cooperation of the healthcare team and their colleagues. Based on results of the study conducted online for 4 days in order to evaluate knowledge, attitude and behaviors of nurses in Iran (n:85) about COVID-19, approximately half of the nurses obtained information or communicated with digital social applications [12]. Benefiting from digital technologies about social isolation of nurses during pandemic and producing solutions suitable for today's conditions in case the pandemic is prolonged or repeated are necessary.

In line with the literature, the problems experienced by the nurses in sample group related to COVID-19 were stated in order of priority as problem of personal protective equipment, inability to see their families, shelter, fatigue, lack of knowledge, exclusion by the society and working in 24-hour shifts. In a qualitative study conducted with 10 nurses (mean age of  $29.9 \pm 3.62$ ) to determine the needs of nurses in Wuhan province of China, it was reported that nurses missed seeing their family and friends, had the needs of security and protecting their own physical and mental health, and had problems about having PPE. In the study conducted by [10] in China, they determined that 65.5% of the nurses wanted to receive information about COVID-19 (mostly, treatment, prognosis, prevention, transmission and symptoms) [10]. The studies have revealed that nurses experienced similar problems during the pandemic period. Adequate training, accurate and prompt information can increase the willingness of employees [1,5]. Sharing accurate and continuous information about the pandemic is important in terms of taking preventive measures for the health of healthcare professionals and community.

In terms of frequency, the solution suggestions of nurses about COVID-19 pandemic were appropriate distribution of PPE, increasing the number of nurses, regulating the working hours, conducting the regulations about social isolations of the society, conducting tests to healthcare professionals without waiting symptoms, giving day-offs to healthcare professionals with chronic disease, and increasing the trainings of the workers and society. Similar to our study results, in the study by [10]. Nurses suggested increasing the number of nurses, decreasing the number of night shifts and providing adequate resting time, easing the access of nurses to up-to-date information and encouraging nurses to share their clinical experiences and feelings and supporting the families of nurses with children more for the solution of problems. It can be asserted that the problems experienced by nurses in COVID-19 pandemic are similar.

## Limitations

The data are limited to the first week of the COVID-19 pandemic in Turkey and based on the self-report of the nurses.

## Conclusion

Consequently, the majority of nurses had difficulty in accessing personal protective equipment, partially or completely. It was determined that the nurses were most afraid of infecting themselves and their families, and they were sad because they could not see their families and children. Nurses often made suggestions for the provision of personal protective equipment, increasing the number of nurses and regulating the working hours. It can be asserted that the problems experienced by nurses in COVID-19 pandemic are similar.

In line with these results, it is vital to have enough number of experienced nurses during the pandemic. It can be suggested to make regulations by considering the nurses' concerns about their families and children in particular. Nurses can feel themselves isolated, thus, communication and teamwork between staff should be encouraged to improve patient safety and quality of care.

## Ethics Approval and Consent to Participate

Before starting data collection, ethics committee approval was received from Istanbul Okan University Ethics Committee (56665618-204.01.07) and written permission was received from the institution where the study was conducted. The purpose of the study was explained to the nurses participating in the study on the first page of the questionnaire prepared online and their written consents were obtained. They were informed that the study results can be published for scientific purposes without providing their identification information.

## Competing Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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