



Experiences and perceptions of nurses caring for pediatric COVID-19 patients: A qualitative study

Pediyatrik COVID-19 hastalarına bakım veren hemřirelerin deneyimleri ve algıları: Nitel bir alıřma

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ABSTRACT

Purpose: The aim of this study was to determine the experiences of nurses caring for pediatric COVID-19 patients.

Method: This qualitative study was conducted by interviewing a sample of 15 nurses caring for pediatric COVID-19 patients. The data were evaluated using thematic analysis by first transcribing and reviewing the interviews, followed by coding, categorizing, and identifying themes.

Results: Thematic analysis of the study data revealed four themes: mental wellbeing of nurses, severe work-related stress, reactions of children and parents, precautions and pandemic management. Nurses who care for pediatric COVID-19 patients work under difficult conditions and are at risk for mental health problems. COVID-19 positive children and their parents experience more intense fear than other patient groups. For this reason, pediatric nurses more frequently encounter anger and aggressive reactions from parents of children with COVID-19.

Conclusion: COVID-19 in children psychosocially affects their families and the nurses caring for them as well as the children themselves. Supportive interventions should be implemented to mitigate these problems. We determined that nurses working with pediatric COVID-19 patients faced general problems as well as field-specific problems and that interventions to address these issues are needed. Based on the results of this study, we recommend improving nurses' working conditions and developing support programs for children treated for COVID-19, their parents, and nurses.

Keywords: COVID-19; hospitalized children; life change event; pediatric nursing

ZET

Ama: Bu alıřma, pediyatrik COVID-19 hastalarına bakım veren hemřirelerin deneyimlerini belirlemek amacıyla yapılmıřtır.

Yntem: Bu nitel alıřma, pediyatrik COVID-19 hastalarına bakım veren 15 hemřireden oluřan bir rneklemle grřlerek gerekleřtirilmiřtir. Veriler, nce grřmelerin yazıya dklmesi ve gzden geirilmesi, ardından kodlanması, kategorize edilmesi ve temaların belirlenmesi yoluyla tematik analiz kullanılarak deęerlendirilmiřtir.

Bulgular: alıřma verilerinin tematik analizi sonucunda; hemřirelerin zihinsel saęlıęı, iřle ilgili řiddetli stres, ocukların ve ebeveynlerin tepkileri, nlemler ve pandemi ynetimi olmak zere drt tema ortaya ıkmıřtır. Bulgularımıza gre, pediyatrik COVID-19 hastalarına bakım veren hemřireler, zor kořullar altında alıřmakta ve ruh saęlıęı sorunları aısından risk altındadır. COVID-19 pozitif ocuklar ve ebeveynleri, dięer hasta gruplarına gre daha yoęun korku yařamaktadır. Bu nedenle pediyatri hemřireleri, COVID-19'lu ocukların ebeveynlerinin fke ve saldıęan tepkileriyle daha sık karřılařmaktadırlar.

Sonular: ocuklarda COVID-19, ocukların yanı sıra ailelerini ve onlara bakan hemřireleri psikososyal olarak etkilemektedir. Bu sorunları azaltmak iin destekleyici mdahaleler uygulanmalıdır. Pediyatrik COVID-19 hastalarıyla alıřan hemřirelerin alana zg sorunların yanı sıra genel sorunlarla da karřılařtıklarını ve bu sorunlara ynelik mdahalelere ihtiya duyulduęunu belirledik. Bu alıřmanın sonularına dayanarak, hemřirelerin alıřma kořullarının iyileřtirilmesini ve COVID-19 tedavisi gren ocuklar, ebeveynleri ve hemřireler iin destek programları geliřtirilmesini neriyoruz.

Anahtar Kelimeler: COVID-19; hastanede yatan ocuklar; yařamı deęiřtiren olay; ocuk hemřirelięi

Introduction

COVID-19 (SARS-CoV-2) was first identified as a cause of severe acute respiratory syndrome in pneumonia patients in Wuhan, China in December 2019 and was declared a pandemic by the World Health Organization (WHO) on March 11, 2020 (Liang et al., 2020; WHO, 2020). The rapid spread of the disease has negatively affected the provision of health services worldwide (Baykal et al., 2020). Due to the sudden increase in patient numbers, many normal hospital wards not originally designed for infectious diseases

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were hastily converted into isolation wards for COVID-19 patients. However, some of these converted wards lacked equipment and did not meet the standards for infectious disease units (Liu et al., 2020). This has had a serious impact on frontline health workers in the fight against COVID-19, especially nurses (Kalateh Sadati et al., 2020).

As SARS-CoV-2 is transmitted via droplets and close contact, nurses who are in direct contact with COVID-19 patients are at high risk for transmission (Eghbali, Negarandeh, & Froutan, 2020). Despite this high risk, nurses have experienced many problems during the pandemic, such as difficulty acquiring personal protective equipment (PPE), extended working hours with poor working conditions (e.g., inability to adequately rest and eat), and the inability to go home and care for their children and other family members due to anxiety and fear about their health and the health of those around them (Góes et al., 2020; Şenol Çelik et al., 2020). In their study of pediatric healthcare professionals, Chen et al. (2020) observed that workers exposed to COVID-19 had higher rates of anxiety accompanied by depression compared to those who were not exposed. An article conveying the feelings and thoughts of a nurse working in the intensive care unit stated that the nurse had difficulty breathing while providing care in heavy protective equipment, was unable to meet their most basic needs while working and felt vulnerable and afraid of death because of their colleagues who had lost their lives (Karasu & Öztürk Çopur, 2020). Other problems faced by nurses during the pandemic include having to work in different, unfamiliar units due to high patient density (Kiraner, Terzi, Turkmen, Kebapci, & Bozkurt, 2020; Renke et al., 2020). Studies of pediatric nurses have demonstrated that they experience psychological problems such as sleep disorder, depression, anxiety, and stress during the pandemic (Di Filippo et al., 2020; Zheng et al., 2020). All of these problems have caused nurses to feel inadequate and unprotected (Schwartz, King, & Yen, 2020). Nurses must be actively supported both during and after the pandemic in order to avoid major psychological problems that can lead to burnout and loss of nursing workforce (Fernandez et al., 2020).

In the literature, it is reported that nurses experienced predominantly negative emotions at the beginning of the pandemic but started to have more positive emotions over time by gradually developing coping methods (Sun et al., 2020). Kang et al. (2020) found that nurses read books about mental health during the COVID-19 pandemic, engaged in social media-based activities to enhance their coping abilities, and sought professional psychological support. It has also been determined that nurses are willing to fulfill their professional roles because they feel a sense of professional duty and commitment to patient care regardless of the conditions (Lam, Kwong, Hung, & Chien, 2020). Working in difficult and dangerous circumstances is seen by nurses as a part of their professional role and obligations (Fernandez et al., 2020; Kim, 2018). Nevertheless, it is known that positive emotions in nurses is generally associated with multifaceted support from patients, relatives, colleagues, the government, and social groups, and social support is essential for nurses, especially during epidemics (Su et al., 2007; Sun et al., 2020).

Due to the low number of children infected and hospitalized during the COVID-19 pandemic, studies in the literature have primarily focused on the nurses caring for adult patients, with few studies including pediatric nurses (Chen, Zhou, Zhou, & Zhou, 2020; Di Filippo et al., 2020; Góes et al., 2020; Zheng et al., 2020). There has been no previous study on the experiences of nurses caring for COVID-19-positive pediatric patients in Turkey. Therefore, in this study we sought to characterize the experiences of nurses caring for pediatric patients hospitalized for COVID-19 in hopes of providing guidance in identifying solutions to the problems experienced by pediatric nurses during the COVID-19 pandemic both in Turkey and worldwide. In this context, the questions related to the subject of our research are as follows:

1. What was the experiences of nurses while providing care for children with COVID-19 and their parents?

2. What are the attitudes of children and their parents to the health care provided during the COVID-19 pandemic?
3. What are the effects of the COVID-19 pandemic on the psychological well-being and working life of nurses providing care to pediatric patients with COVID-19?

Methods

Design

This descriptive study was conducted using the interview method of qualitative research. The data were reported using the Consolidated Criteria for Reporting Qualitative Research (COREQ) criteria (Tong, Sainsbury, & Craig, 2007).

Research team

The first two researchers in the research team had PhD degrees, while the last two researchers had MSN degrees. The field of the second researcher is internal nursing, while the field of the others is pediatric nursing. All researchers have received training in qualitative research. In addition, the last researcher took a course on qualitative research during her doctoral education, where she is currently working on her dissertation. Gender of all researchers is female. Third author, who works as a nurse at the same hospital with participants, conducted the interviews. Participants knew the interviewer beforehand.

Participants and data collection procedure

For this study we used purposeful sampling and determined the sample size based on the principle of data saturation (Braun & Clark, 2021). The study sample consisted of 15 nurses caring for pediatric COVID-19 patients at least six months (Table 1). The data were collected at the clinics between April 1, 2021 and April 30, 2022. Before the study, a pilot interview was conducted with one nurse whose data were not included in the analysis. COVID-19 protection measures were strictly followed during the interviews, which lasted an average of 30 minutes. The nurses participating in the interview were determined according to their availability and they were alone during the meetings.

Table 1. Demographic characteristics of pediatric nurses ($N = 15$)

Characteristic	Frequency	Percent (%)	Mean
Age (years)			27.6 (21-40)
Gender			
Female	13	86.6	
Male	2	13.4	
Education Level			
High school	4	26.7	
Undergraduate	10	66.7	
Postgraduate	1	6.6	
Ward			
Pediatric COVID-19 ward	12	80	
Pediatric intensive care unit	3	20	
Nursing Experience (Years)			5.4 (2-15)
Weekly Working Hours			49.7 (40-80)

In descriptive qualitative research, data collection is generally aimed at exploring who, what, and where events or experiences occurred, or the fundamental nature and form of these (Sandelowski, 2000). Therefore, data collection in this study is aimed at exploring the fundamental nature of the Covid-19

pandemic process and the experiences and perceptions of nurses during this process. In this study, Sandelowski's (2010) idea that the data of qualitative descriptive studies are interpreted less and thus yield findings that are more closely related to the original data was adopted. Therefore, the findings of the study include quotes from the participants' statements.

A semi-structured questionnaire and an information form questioning the characteristics of the participants were used in data collection during the interviews. The following main and substitute questions guided the interviews (Table 2):

Table 2. Main and substitute interview questions

Interview Questions

1. What do you think about the COVID-19 pandemic? What does this process mean to you?
 - Did you expect such a pandemic before the COVID-19 disease appeared?
 - What has changed in your life with the onset of the pandemic? How did these changes affect you?
 - What are your views on the management of the pandemic process in Turkey and in the world?
 - What are your feelings and thoughts about your task in the fight against the pandemic?
 2. What did you experience while caring for children with COVID-19 positive? Can you share your experiences with us?
 - How did you feel when you were first assigned to COVID-19 ward? How did you feel while caring for the first positive case?
 - How do you feel yourself at the moment?
 - What did you observe about the reactions of children who know that they are positive for COVID-19? How was the parents' reaction?
 - What are the difficulties you encounter while caring for COVID-19 positive children?
 3. How has the COVID-19 pandemic affected your health?
 - Have you had any physical or psychiatric health problems related to the COVID-19 pandemic? Can you explain? Have you received any treatment for it?
 - Have you had COVID-19? Where could it have infected you? (If passed) What did you experience?
 - What do you think about COVID-19 vaccines? Have you vaccinated?
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Ethical considerations

Ethics committee, institutional, and Turkish Ministry of Health approval was obtained prior to the study. All nurses who participated in the study provided written informed consent. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Data analysis

The data were evaluated using the thematic analysis method described by Braun and Clarke (2006; 2019) following the coding recommendations of Saldana (2013) and applying the reliability criteria of Lincoln and Guba (1985).

According to the six stages of thematic analysis recommended by Braun and Clarke (2006), the third researcher first transcribed audio recordings of her interviews in Microsoft Word to yield 65 pages of transcription notes. The first researcher then read the transcripts repeatedly to become familiar with the data and annotated the transcripts. After becoming familiar with the data, initial codes were extracted from statements that answered the research question. In the third stage, these codes were collated to generate potential themes. The themes were reviewed in the fourth stage, then defined and named in the fifth stage. In

the sixth and final stage, the findings were reported, including quotations that explain the themes in an appropriate and interesting way.

We also applied Lincoln and Guba's four trustworthiness criteria: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The peer debriefing method was used to ensure credibility. The first researcher performed the data analysis and the second researcher conducted the peer review. The second researcher also provided expert opinion on the study method and data analysis. The first and second researchers held online meetings and agreed on the themes. Transferability was ensured using the thick description method. The study procedure and findings have been explained in detail to allow the results to be transferred to other environments. The inquiry audit technique was used to ensure dependability. The fourth researcher reviewed the study procedure and findings and provided feedback. Finally, the reflexivity method was used for confirmability. To avoid reflecting their subjective feelings in the data analysis process, the first researcher recorded their views in a reflective journal from the beginning to the end of the study.

Results

Four themes were identified in this study: mental wellbeing of nurses, severe work-related stress, reactions of children and parents, precautions and pandemic management.

Mental wellbeing of nurses

The nurses included in the study mostly emphasized the mental health issues related to the pandemic and the negative emotions they experienced. Young and newly recruited nurses were always assigned to COVID-19 clinics probably because it was emphasized that COVID 19 affected young people less at the beginning of the pandemic. Although the participating nurses were in the first years of their profession, almost all of them had a pessimistic view and were hopeless about the future. Emotional reactions expressed by the nurses included fear, worry, anxiety, anger, sadness, guilt, loneliness, worthlessness, helplessness, and longing. These negative emotions were caused by factors such as fear of transmitting the disease, inability to meet with loved ones, loss of relatives, unexpected deterioration of a patient's condition, and uncertainty and lack of information about the disease. Children with chronic illness were making nurses more anxious, as their condition worsened more often.

Social isolation was identified as a problem that nearly all nurses experienced. Some nurses said that they were completely alone in the clinics and that even the nurses working in other clinics abandoned them. Three nurses reported being diagnosed with depression during the pandemic. Although more than two years have passed since the beginning of the pandemic, the hospital did not have any psychosocial screening, follow-up or support program for nurses working with pediatric COVID-19 patients. However, despite all these difficulties, the nurses stated that they had become accustomed to the pandemic.

It was unexpected. I had gotten off my shift, I was at home and my phone rang. Here's what happened. I was assigned to [the] COVID [ward]. It was early on. The minister had just announced that COVID was in our country. So you don't know what the process is. You don't know what you're facing, and at that moment I was really upset. It wasn't rebellious; it was a different attitude. I mean, I was devastated, really devastated. I was depressed, let me put it that way. But when I came and understood a little more about COVID... I mean it seems like a normal disease to me now. (Female, 3 years of nursing experience)

Severe work-related stress

The nurses expressed dissatisfaction with different issues such as the intense workload, low salary, inability to take leave, violence in the workplace, and inability to receive adequate support in the hospital

environment. Some nurses reported caring for sick children as well as their COVID-19-infected parents on the same ward. As the number of nurses working in the clinic remained the same, this practice led to an increase in the workload of pediatric nurses. One of the other factors that increased the nurses' burden was that nurses would sometimes test positive for COVID-19 at the same time. However, the nurses stated that they were aware of the importance of their job despite the difficult working conditions and that they were proud. Moreover, some nurses believed that awareness of and respect for their profession increased during the pandemic.

A lot of nurses got sick at that time; there was a staffing shortage. We had an extremely intense workload. When there were many nurses here, one nurse could care for one patient. But at that time, like it or not, 2 nurses took care of 6 patients and we always felt very tired. We didn't even have time to sit down and have tea. We could barely eat even. After a lot of colleagues resulted positive, we used N95 [masks]. (Female, 6 years of nursing experience)

Reactions of children and parents

Nurses who participated in the study said that parents were confused when the diagnosis was first made, and some did not understand where the disease came from. Additionally, they observed an intense fear of death in parents and older children and that parents were apprehensive about COVID-19 transmission to siblings. Some children were upset because of the diagnosis. While some adolescents understood their disease better and adhered to the treatment, some adolescents refused the treatment. Nurses emphasized that young children, especially those with mild disease, were not very aware of the situation. They stated that some children were afraid of the protective equipment worn by nurses. In general, children's reactions varied from child to child and by age.

They are scared. They are afraid because we have to establish vascular access, but especially when they see these clothes, the children try to escape as if they've seen the bogeyman. They are terrified. Because their families do not accept that they have COVID-19, they say why are you dressing up this much, do you have the virus? (Female, 5 years of nursing experience)

In addition, some nurses reported that the parents of children with COVID-19 were angrier and more aggressive than the parents of other pediatric patients. The nurses stated that some patients' relatives who did not want to comply with quarantine measures exhibited aggressive behaviors and there were frequent incidents involving the police. One nurse explained that families had difficulty accepting the diagnosis, while another stated that she decided to leave the profession because of the violent behaviors of parents.

Even if they accept it, they always question the process. I mean they question every step. What will happen now? What are we going to do? I mean, over the top. Much more reaction than to bronchiolitis, for example. They are afraid, especially in the first three days. So it takes a good 3 days until they accept it. (Female, 3 years of nursing experience)

The police have been here many times. [Families of] the patients tried to attack because we weren't letting visitors in. Because we're not letting companions switch. Because we don't let mothers out of the room. Because companions of positive patients can't switch out. [Families of] patients are mobbing people like that. Our motivation is decreasing. For example, you don't want to take care of that patient. You do your job, but your motivation falls because of that behavior. We don't deserve it after all. (Female, 1 year of nursing experience)

Precautions and pandemic management

None of the nurses had expected a pandemic like this. When the news of the pandemic first broke out, they experienced substantial shock. This was primarily because they had limited knowledge about

pandemics before COVID-19. Their knowledge of pandemics was restricted to their school education, experience of working with infectious diseases, and the H1N1 virus outbreak. Some of the nurses believed it was a biological attack. While some nurses believed that the pandemic would continue with the new variants of the virus, the majority thought that the pandemic would end with the vaccines. One of the nurses stated that the mask will always have a place in our lives from now on.

Most of the nurses thought that there were problems related to the pandemic management all over the world, including Turkey. For example, paradoxically, pandemic training for nurses was conducted face-to-face in crowded lecture halls. One nurse was angry that although the pandemic was not over, people behaved as though it had been. Yet, the nurses did not support stricter pandemic measures for the society. They generally emphasized that more education is needed for the compliance with measures. The nurses underlined that parents still had inadequate information about the transmission routes of the virus, the importance of hygiene, and vaccines. A nurse complained about the excessive use of bleach in disinfecting the clinic and talked about its negative effects.

Because this is the COVID clinic, a lot of bleach is used. Everywhere is wiped too much with bleach... You know, too much disinfectant is used to clean, to kill germs, and since we have been exposed to them for two years, allergies and sensitivity to them have developed... Everyone needs to be educated on this issue. The cleaning staff might be trying to clean the clinic with good intentions, but they make us all sick, along with themselves. (Female, 3.5 years of nursing experience)

The nurses reported that they initially had problems acquiring PPE, but then it was no longer an issue. The nurses often emphasized the difficulties related to the use of PPE, such as sweating, fogging, difficulty working and breathing, and fainting. One nurse stated that they received oxygen because they were in a poor condition after spending a long time with a patient. The nurses generally held positive attitudes towards COVID-19 vaccines, and those who had not had COVID-19 reported that they were vaccinated. They often took vitamin supplements to protect themselves. Some nurses were not able to protect themselves and had contracted COVID-19.

Gown, mask, visor, and double masks! The coveralls especially make us soaking wet; I mean we get so sweaty. It takes 5 minutes to get these on, and we can't take the children out of the room. Normally, interventions need to be done in the procedure room. Leaning over the patient's head in the room and standing in these coveralls with all the equipment... Vascular access is what gives us the most trouble. (Male, 2.5 years of nursing experience)

Discussion

The COVID-19 outbreak has indirectly affected pediatric health care services. Pediatric health care institutions have had to make changes in the provision of care services, in clinical practices, and in immunizations during the pandemic. This process has especially affected nurses working in pediatric wards. Due to the high patient density during the pandemic, nurses working in pediatric units were sometimes assigned to adult intensive care units (Karaođlan, atikođlu, & Devrim, 2020; Peck & Sonney, 2021). However, in our literature review, we noted that there were few studies on the experiences of nurses working with pediatric COVID-19 patients (Góes et al., 2020; Karaođlan et al., 2020; Zheng et al. 2021). Therefore, we believe this study to reveal the problems experienced by nurses caring for pediatric COVID-19 patients during the pandemic will provide guidance for future research and the development of solutions to these problems.

Many studies have pointed out nurses' psychosocial responses since the start of the COVID-19 pandemic. The most common emotion experienced during the COVID-19 pandemic is fear. Uncertainty about the disease was the main cause of fear initially, whereas later in the pandemic, concerns of contracting COVID-

19, spreading the disease or transmitting it to loved ones, and not having sufficient protective equipment and information led to an increase in fear (Akkuş, Karacan, Güney, & Kurt, 2021; Góes et al., 2020). Hu et al. (2020) reported that nurses experienced intense fear and 3.3% experienced anxiety due to the COVID-19 outbreak (Hu et al., 2020). Similar to nurses working in adult units, it has been determined that pediatric nurses experienced anxiety, depression, and burnout during the COVID-19 pandemic (Peck & Sonney, 2021; Quispe-Sancho et al., 2021). Góes et al. (2020) reported that “fear” was the third most repeated word in their qualitative study conducted with pediatric nurses (Góes et al., 2020). Similar to other studies, social isolation and stigma were among the psychosocial and mental health problems experienced by the nurses in this study during the COVID-19 pandemic. Health workers, especially nurses, have been subjected to discrimination leading to social isolation and even stigmatization during the pandemic because they care directly for patients with COVID-19 (Manik, Natalia, & Theresia, 2021). In addition, this discrimination comes not only from the community, but also from the colleagues of healthcare professionals working in COVID-19 wards. The fact that nurses already fighting the pandemic are also subjected to discrimination has intensified the psychological impact and contributed to burnout (Faris & Arifianto, 2020).

In their study analyzing 72314 cases in China, Wu and McGoogan (2020) found that 1% of patients were aged 10 years or younger and another 1% were between the ages of 10 and 19 years (Wu & McGoogan, 2020). These results demonstrate that the prevalence of COVID-19 in children is low compared to the adult group. However, children have been the group most affected by the COVID-19 pandemic due to school closures, social distancing and stay-at-home orders, inability to access adequate care and vital services, malnutrition, and domestic violence (OECD, 2020). The results of this study indicated that children are mostly unaware of the disease, but family reactions impact the care process. The findings obtained by Shteinbuk et al. (2022) from interviews with parents of children hospitalized for COVID-19 in Israel support the findings of this study. Researchers have determined that COVID-19 is an emotional roller coaster for parents, and they might experience intense anxiety and fear during hospitalization. Families have also been significantly affected during the COVID-19 pandemic because parents' working conditions changed, they had to oversee children's education at home, and new responsibilities led to increased anxiety. A parent's anxiety can be further exacerbated when their child contracts this unknown disease (Vanderhout et al., 2020). Violence against nurses and healthcare professionals has increased worldwide. Patients and their relatives were known to resort to violence against healthcare professionals when their demands were not met even before the COVID-19 pandemic. Violence has particularly increased for all healthcare professionals during this period for reasons such as the desire to visit COVID-19 patients or obtain a contact report (Esen & Uysal, 2020).

It is very Important to provide PPE to protect healthcare professionals fighting COVID-19. However, lack of PPE was a serious problem all over the world at the start of the pandemic. Numerous studies have reported that nurses have had problems related to PPE access or use during the COVID-19 pandemic (Akkuş et al., 2021; Atay & Cura, 2020; Góes et al., 2020). Hoedl et al. (2021) reported that stress increased in association with hours of PPE use (Hoedl, Eglseer, & Bauer, 2021). PPE use may impact nurses working in pediatrics more negatively than nurses in other fields. Before the COVID-19 pandemic, it was known that children experience fear due to the procedures performed or unfamiliarity with the hospital environment. As seen in this study, the PPE used because of the pandemic increased children's fear and made it more difficult for the nurses to work. Carter (2020) also emphasized that PPE may cause anxiety in children and recommended the development of child-friendly PPE.

As in the rest of the world, nurses in Turkey have shown extraordinary performance during this pandemic. Despite serious outbreaks, nurses have worked and continue to work on the front lines because of the increasing demand on the health system and limited resources. In Turkey, nurses and other health

workers were applauded nationwide at 9 o'clock in the evening, as seen elsewhere in the world. This support from society and media was initially motivating for nurses but its effect faded with time due to the intense workload, lack of improvement in personal rights, ongoing violence, and lack of support from other healthcare professionals. With the increased patient numbers during the COVID-19 pandemic, nurses have experienced various emotions ranging from hopelessness and uncertainty to acceptance and resilience (Lulgjuraj, Hubner, Radzinski, & Hopkins, 2021). Pandemic conditions have led to operational changes in all health care institutions. Some hospitals were designated as pandemic hospitals, and nurses and healthcare professionals were quickly assigned to these centers. Another consequence of the pandemic has been its effect on in-service training in pediatric hospitals, because no patients are hospitalized other than those with COVID-19 (Penwill et al., 2021). A study on the experiences of pediatric nurses caring for adult COVID-19 patients identified themes such as nurses' unpreparedness for care, safety concerns, emotional reactions, and persevering together (Lulgjuraj et al., 2021). Similarly, in this study we noted that pediatric nurses had to care for adult patients with no preparation.

Global pandemics will inevitably occur periodically. During pandemics, people face various difficulties, and insufficient information can lead to inadequate preparation and prevention measures (El-Monshed, Amr, Ali, Elmasry, & Zoromba, 2021). All of the nurses in this study stated that they had not expected such a deadly pandemic before the COVID-19 pandemic. However, in 2005, the WHO published an action plan due to the risk of an influenza pandemic (WHO, 2005). This action plan highlights the evolving nature of viruses, draws attention to potentially lethal variants and possibility of a pandemic. This demonstrates once more how important it is that guidelines published by reference institutions do not stagnate as online files and that regular information and awareness initiatives related to guidelines for health professionals be implemented before problems arise.

As in the rest of the world, information about SARS-CoV-2 is still being updated in Turkey. Being a newly discovered virus, rapid transmission of information to the field was imperative during the pandemic. Health professionals in Turkey were informed about COVID-19 through messages from the Ministry of Health. Briefings were initially done in normal face-to-face meetings, while different methods were later adopted. Although information about COVID-19 is useful, the intense and constant barrage of updated information through every platform, including social media, caused anxiety in nurses and the community to increase over time. In another study, it was determined that nurses preferred to obtain information from the Ministry of Health or WHO website instead of social media (El-Monshed et al., 2021). A study conducted in Turkey showed that those trained in the care of COVID-19 patients had significantly lower anxiety (Yigit & Acikgoz, 2021). The nurses in this study also stated that education regarding the pandemic and its management was important for nurses. However, precautions to prevent COVID-19 transmission should be observed during this education.

Limitations

This study has several limitations. One of the main limitations was the difficulty involved in meeting with the nurses due to the risk of SARS-CoV-2 transmission. Another limitation is that physicians and family members were not included in this study. Although the results of this study cannot be generalized, they are important in terms of guiding the care of children with COVID-19. Future studies including all healthcare professionals and families may be beneficial.

Implications for practice

This study demonstrated that pediatric nurses are psychologically, physiologically, and socially affected by the pandemic. The most important finding of this study is related to children's and parents' reactions. The participants stated that parents of children with COVID-19 are more aggressive and more likely to react violently. For this reason, nurses working in pediatric clinics can be trained to deal with the emotions and potential aggressive behavior of parents of children with COVID-19. It was noted in this study that PPE frightened pediatric patients and made working conditions more difficult for nurses. Therefore, the development of child-friendly PPE is crucial. Unfortunately, nurses have seen no improvement in personal rights during the pandemic and have consequently experienced a loss of motivation. This may be mitigated by implementing practices to improve nurses' personal rights and increase their motivation.

Conclusion

This study showed that nurses working with pediatric COVID-19 patients face general problems as well as field-specific problems and revealed the need for interventions to address these issues. We recommend improving nurses' working conditions and developing psychosocial support programs for children being treated for COVID-19 and their parents and nurses.

How might this information affect nursing practice?

- Nurses caring for pediatric COVID-19 patients are at risk of psychosocial problems. Therefore, support programs can be designed for nurses working with these patients.
- The results of this study suggest that parents of children with COVID-19 are more aggressive and prone to violence. For this reason, nurses working in pediatric clinics can be trained to deal with the emotions and potential aggressive behavior of parents of children with COVID-19. In addition, the public should be better informed about pediatric COVID-19.
- Nursing interventions to reduce the fear experienced by children with COVID-19 should be prioritized in the nurse care plan. This can be achieved using age-appropriate creative education methods and art-based interventions for children in good general condition.

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