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Everyone is Someone's Child: The Experiences of Pediatric Nurses Caring for Adult COVID-19 Patients

Diana Lulgjuraj, MSN, RN, CPN^{a,*}, Taylor Hubner, BSN, RN^a,
Nicole Radzinski, MSN, RN, CPN^a, Una Hopkins, DNP, RN, FNP-BC^b

^a Children's Hospital at Montefiore Department of Nursing, NY, United States of America

^b Montefiore Medical Center Department of Nursing, NY, United States of America

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ABSTRACT

Purpose: During the COVID-19 pandemic, pediatric nurses at one medical center in New York assumed care of COVID-19 adult patients. The purpose of this study was to understand pediatric nurses' experiences during the peak of the COVID-19 pandemic, when they were caring for patients outside of their usual practice.

Design and methods: A qualitative descriptive study was implemented, and a descriptive survey was sent to all pediatric nurses who worked during the peak of the pandemic, from March 2020 – May 2020. Categorical responses were analyzed using descriptive statistics and free texts were coded to develop central themes.

Results: Four themes emerged from the data: concerns for safety, unprepared to care, nurses' emotional responses, and persevering together.

Conclusions: As pediatric nurses adjusted to caring for a new disease and a new population of patients, concerns of safety and preparedness emanated. The need for teamwork and support was emphasized by nurses. The impact that nurses' experiences had on their emotional wellbeing was also highlighted.

Practice implications: Exploring pediatric nurses' experiences during a pandemic is important, as it furthers understanding and guides efforts to enhance preparedness for a future pandemic or public health emergency. Findings from this study illustrate the need to provide nurses with support for both their physical and emotional health.

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Introduction

A new coronavirus disease, now known as COVID-19, emerged in Wuhan, China in December 2019 and spread extensively resulting in the declaration of a global pandemic by the World Health Organization (WHO) on March 11, 2020 (WHO, 2020). New York City (NYC) saw its first case of COVID-19 on February 29th, 2020 and by May 2020 more than 200,000 confirmed cases were reported across the city (Thompson et al., 2020). With this exponential rise in cases, NYC was named an epicenter of the COVID-19 pandemic (Thompson et al., 2020). To prepare hospitals for the expected influx of patients, the Center for Disease Control and Prevention (CDC, 2020a) provided direction and guidance for surge capacity, as providing care for this influx of patients required a change in hospital operations.

Children are not immune to COVID-19, but pediatric departments have been spared from the surge of patients amidst the pandemic. In a report by the CDC COVID-19 Response Team (2020), less than 2% of confirmed COVID-19 cases occurred in children and of those children with

COVID-19 only a small number required hospitalization. To assist and alleviate the demands on their adult nursing and medicine counterparts, some institutions redeployed pediatric providers (Renke et al., 2020) and others converted pediatric units to care for adult COVID-19 patients (Philips et al., 2020). This latter approach makes use of available resources and personnel, while maintaining a degree of familiarity during a time of unfamiliarity and uncertainty; pediatric nurses stay within their usual environment as they shift their practices to care for adults. The pediatric nurse's experience within this context merits further understanding.

Nursing in a pandemic presents an extraordinary experience. With serious widespread disease, increasing demands on health systems, and scarcity of resources, nurses are amongst those working on the frontlines. As they care for a surge of patients, a myriad of emotions pervaded nurses from frustration and uncertainty to acceptance and resilience (Fernandez et al., 2020; Lapum, Nguyen, Fredericks, et al., 2021). For many, fear of contagion and inadvertent disease transmission emanated, and feelings of isolation and loneliness followed (Fernandez et al., 2020; Lapum, Nguyen, Fredericks, et al., 2021; LoGiudice & Bartos, 2021). Yet, amidst the challenges of weathering a new disease, a systematic review on nurses' pandemic experiences revealed

* Corresponding author.

E-mail address: DLulgjuraj@montefiore.org (D. Lulgjuraj).

they remained committed to providing quality patient care (Fernandez et al., 2020).

While the literature explores the experiences of nurses during a pandemic, no study explores the experiences of pediatric nurses caring for adult patients during a pandemic. This phenomenon presents a unique experience for pediatric nurses, who must provide care not only for patients with a novel disease process, but for patients outside of their normal population. Understanding pediatric nurses' experiences is vital to ensure they are supported. The information gained can assist in identifying what tools, resources, and education are needed when pediatric nurses take on an adult nursing role.

Pediatric nurses at a children's hospital in New York set aside their child-centered practices and broadened their scope of practice to care for an adult COVID-19 population during the height of the pandemic. Mirroring the trends in NYC, the health system affiliated with the pediatric institution experienced an increase in patients admitted with confirmed COVID-19 from 3 patients on March 11, 2020 to more than 2000 patients on April 12, 2020, whereas the children's hospital saw a decrease in admissions. With a surplus of resources in a time of great need, the children's hospital transformed practices and units to meet a novel demand by having pediatric nurses and providers care for adults with COVID-19. The purpose of this study was to understand pediatric nurses' experiences during the peak of the COVID-19 pandemic, when they were caring for patients outside of their usual practice.

Methods

A qualitative descriptive study was conducted in order to explore the pandemic experiences of pediatric nurses. Qualitative descriptive research aims to gain insight and provide a meaningful summary of an event or experience (Sandelowski, 2000). This design facilitates the discovery of an experience through naturalistic inquiry and findings stay close to the data (Sandelowski, 2000). A qualitative descriptive design allows pediatric nurses to share their experiences while recognizing their subjective and unique nature. Capturing the elements of nurses' pandemic experiences allows for a comprehensive summary of an experience where little is known.

Survey development

A descriptive survey was created to explore the experiences of pediatric nurses. This survey was constructed based on experiential accounts and recent literature. A group of nurses from each unit at the children's hospital came together to discuss their own COVID-19 experiences. This process was facilitated by one of the researchers, who was not involved in direct patient care during the pandemic. Twelve pediatric nurses, including the other three researchers, were involved in the discussion. Overarching themes of nurses' experiences were identified and included the stress of the pandemic, teamwork, and resilience. A search of the literature was then conducted to explore what is known about nurses' pandemic experiences in order to develop a survey grounded in prior research. Studies conducted on health-care providers' experiences during the COVID-19 pandemic were reviewed. Common findings identified in the literature included challenges and worries of the pandemic; lack of preparedness; resilience and transcendence; emotional effects and psychological wellbeing; support and coping; and providers' sense of duty (Kackin et al., 2020; Liu et al., 2020; Nyashanu et al., 2020; Pappa et al., 2020; Sun et al., 2020; Zhang et al., 2020). Together, these themes guided the development of survey questions.

Survey questions consisted of both closed-ended and open-ended questions. Closed-ended questions were used to collect demographic information and additional information that would be used to supplement the understanding of nurses' experiences. These included questions regarding the population of patients cared for during the pandemic and whether nurses worked overtime, became sick, or had

prior experience working with adults. Closed-ended questions, including some whose answer choices utilized a five-point Likert scale, were also used in order to quantify and explore different aspects of nurses' experiences, as identified in the literature. These included questions on nurses' preparedness, feelings of safety, degree of stress, level of teamwork, and use of resources. Open-ended questions were used to follow up and allow participants to expand on responses to these closed-ended questions. Participants were also asked to share as much of their experience as they felt comfortable through an open-ended question allowing for free recollection.

Setting and sample

This survey was distributed to all pediatric nurses employed at one children's hospital. Located in New York, this pediatric institution is one of the 11 hospitals in the affiliated health system. The children's hospital typically admits children up to the age of 21 years, and consists of a pediatric emergency department (ED), three acute care units, a critical care unit, operative services, and various specialty clinics. In March 2020, the ability to care for patients expanded by admitting patients up to age 30, regardless of COVID-19 status, and by admitting COVID-19 positive adults, regardless of age. The post-anesthesia care unit (PACU) was converted to a COVID-19 adult intensive care unit (ICU). The pediatric critical care unit (PCCU) expanded to include care of critically ill COVID-19 adults. The three acute care units, which typically differ by specialty services, were consolidated into two pediatric acute care units and the remaining unit was converted into an adult COVID-19 unit. The hospital functioned in this transformed capacity until May 2020. While the PACU and the acute care units returned to normal practice and populations, the PCCU continued to care for adult patients who remained in critical condition. Amongst the many changes that took place at the children's hospital, a change of nurses and providers was not one of them. Pediatric nurses and providers continued to assume the care of the adult COVID-19 patients admitted to the children's hospital.

A purposive sampling method was used for this study. Nurses were included in this study if they engaged in direct patient care at the children's hospital during the peak of the COVID-19 pandemic, March 2020 – May 2020, and were currently still employed during the study period. Inclusion was limited to the staff nurse role. While some nurse practitioners, administrators, and educators also engaged in patient care, their role was multifaceted; their experiences during the peak of the pandemic would not be limited to patient care. Nurse practitioners, nurse administrators, and nurse educators were excluded. Nurses were recruited by email and by word of mouth. Lists of all nurses currently employed at the children's hospital were obtained from each unit's nurse manager or nurse educator. An initial recruitment email, with the link to access the survey, was sent to all eligible nurses by the researchers when the survey opened. Email reminders were sent to nurses approximately every seven–10 days during the study period by one of the researchers. Reminder emails were sent on different days of the week and different times of the day. Announcements about the study were also made during staff meetings and unit-based huddles throughout the study period by the researchers. Members of the children's hospital nursing research and evidence-based practice council also disseminated information regarding the study to their respective units' huddles and staff meetings. Nurse managers were not involved in study recruitment. Recruitment continued throughout the two-month study period, and final sample size was determined by the number of nurses who completed the survey.

Ethical considerations

This study was approved by the Institutional Review Board (IRB) at the affiliated health system's college of medicine. Informed consent was obtained from nurses through the survey link prior to proceeding

to the survey questions. Participants were allowed to skip any question they did not feel inclined to answer. No identifiable information was collected from the study and responses remained anonymous.

Data collection and analysis

Following IRB approval, the survey was uploaded to *Survey Monkey*. A unique link was created and distributed to all pediatric nurses via email. Participants were able to take the survey at the time and place of their convenience. The survey took about 15 min to complete and remained open for a two-month period (December 2020 – January 2021). Data analysis consisted of descriptive statistical analysis for closed-ended questions. Frequencies and percentages of responses were calculated for each categorical response. Responses from open-ended questions were analyzed using Braun and Clarke's (2006) six-step process of thematic analysis. First, data entries were read and re-read by the researchers in order to become familiar with the data. Initial ideas and thoughts about the data were noted. Next, a formal coding process was undertaken independently by three authors (DL, NR, TH). The authors coded the data manually by using different color highlighting to indicate patterns and distinguish different codes. The authors (DL, NR, TH) then met as a group and discussed differences in coding, which were minimal. Data that differed in coding were revisited, rationales for codes given, and differences resolved by group discussion. A final list of codes as identified across the data was constructed. The search for themes in phase three was done inductively by the authors as a group (DL, NR, TH). The list of codes was reviewed to identify relationships and links between codes; themes were subsequently developed. Next, themes were reviewed and refined until the themes reflected the coded data extracts. With a group consensus of themes, a name was then given to capture each theme. The authors wrote up the findings, including descriptive examples and data extracts for each theme. Findings from the closed-ended questions were integrated into the write-up as they illustrated support for the development of each theme. To confirm credibility of the final analysis, one author (UH) reviewed the write-up and randomly selected surveys to confirm themes were representative of the participants' experiences.

Trustworthiness

To assure trustworthiness of the findings derived from qualitative inquiry as outlined by Lincoln and Guba (1985), various measures were taken. Themes were developed through triangulation, using both data from the closed-ended questions and from participants' free text entries. Once themes were identified, rich anecdotes were selected to support the development of each theme. Negative cases were also taken into account and analyzed in relation to findings. A reflexive journal was kept by the principal investigator outlining events that occurred throughout the study period. Lastly, peer debriefing was utilized in order to establish credible and confirmable findings. Three of the researchers were pediatric nurses who provided direct patient care to adult COVID-19 patients during the pandemic. In order to minimize researcher bias and ensure trustworthiness of the findings, a doctoral prepared nurse researcher who did not engage in direct patient care during the COVID-19 pandemic reviewed data and identified themes.

Results

Demographics

Eighty-one nurses participated in the study, representing a response rate of approximately 26%. A majority of participants were female (90.1%), with a bachelor's degree as their highest level of education (71.6%). The years of nursing experience varied, with 43% of nurses having zero to five years, 43% having six–20 years, and 14% having 21 or more years of experience. Almost all participants (92.6%) were

employed full-time during the peak of the COVID-19 pandemic. Table 1 displays the demographic findings of study participants.

Survey responses

Responses from the 13 closed-ended questions are displayed in Table 2. Responses to these questions were analyzed together with the responses from the seven open-ended questions. Supportive of the qualitative findings, the quantitative-based findings are integrated within the discussion of themes. Four themes emerged from the qualitative data: unprepared to care, concerns for safety, nurses' emotional responses, and persevering together.

Unprepared to care

During the peak of the pandemic, 90% of participants had provided care to adult patients. The majority of pediatric nurses (69%) cared for both children and adults, while a small percentage cared for children or adults only, 10% and 21% respectively. Almost all nurses were caring for adult patients and many did not feel equipped to take on this role. Approximately 60% of participants felt 'not at all' or 'to a small extent' prepared to deliver care. One of the first nurses to work on the transformed adult unit explained, "as the patients arrived one after another, I was nervous as to what I will encounter." Caring for adults is unlike caring for children; pediatric nurses were nervous as they transitioned practices to provide care for a population unfamiliar to them. A pediatric critical care nurse emphasized, "I've never taken care of adult patients in ANY setting, let alone during a pandemic in an ICU setting." The adjustment to care for a new patient population under the enormity of a pandemic was a significant transition and highlighted by many.

Table 1
Demographics of survey respondents (N = 81).

Characteristic	n (%)
Age	
20–25	10 (12.5)
26–30	25 (31.3)
31–40	19 (23.8)
41–50	12 (15.0)
51–60	14 (17.5)
61 +	0 (0)
Gender	
Male	7 (8.6)
Female	73 (90.1)
Transgender male-to-female	0 (0)
Transgender female-to-male	0 (0)
Transgender – do not identify as exclusively male or female	0 (0)
I choose not to self-identify	1 (1.2)
Highest Level of Education	
Diploma	0 (0)
Associates Degree	3 (3.7)
Bachelor's Degree	58 (71.6)
Master's Degree	20 (24.7)
Doctoral Degree	0 (0)
Years of RN experience	
0–2 years	16 (19.8)
3–5 years	19 (23.5)
6–10 years	23 (28.4)
11–20 years	12 (14.8)
21 + years	11 (13.6)
Employment Status	
Per Diem	3 (3.7)
Part Time	3 (3.7)
Full Time	75 (92.6)

Note: Percentages calculated based on number of respondents for each question.

Table 2
Survey responses (N = 81).

Survey Item	n (%)
Worked Overtime	
Yes	27 (33.3)
No	54 (66.7)
Went Out Sick	
Yes	19 (23.5)
No	62 (76.5)
Population Cared For	
Pediatrics only	8 (10.0)
Adults only	17 (21.25)
Both pediatrics and adults	55 (68.75)
Prior Adult RN Experience	
Yes	40 (49.4)
No	41 (50.6)
Living Arrangements	
Home – normal living arrangements	54 (66.7)
Home – separated from others	22 (27.2)
Hotel/Airbnb	3 (3.7)
Other	2 (2.5)
Feeling Prepared to Provide Patient Care	
1 – Not at all	25 (30.9)
2 – To a small extent	23 (28.4)
3 – To some extent	21 (25.9)
4 – To a moderate extent	11 (13.6)
5 – To a great extent	1 (1.2)
Feeling Safe to Provide Patient Care	
1 – Not at all	28 (34.6)
2 – To a small extent	17 (21.0)
3 – To some extent	23 (28.4)
4 – To a moderate extent	9 (11.1)
5 – To a great extent	4 (4.9)
Extent of Being Stressed at Work	
1 – Not at all	0 (0)
2 – To a small extent	3 (3.7)
3 – To some extent	11 (13.6)
4 – To a moderate extent	20 (24.7)
5 – To a great extent	47 (58.0)
Extent of Being Stressed at Home	
1 – Not at all	2 (2.5)
2 – To a small extent	9 (11.1)
3 – To some extent	12 (14.8)
4 – To a moderate extent	23 (28.4)
5 – To a great extent	35 (43.2)
Teamwork Before Pandemic	
1 – Poor	3 (3.7)
2 – Fair	11 (13.6)
3 – Average	19 (23.5)
4 – Good	33 (40.7)
5 – Excellent	15 (18.5)
Teamwork After Pandemic	
1 – Poor	4 (4.9)
2 – Fair	3 (3.7)
3 – Average	9 (11.1)
4 – Good	35 (43.2)
5 – Excellent	30 (37.0)
Prepared for Another Pandemic	
Yes	29 (35.8)
No	52 (64.2)
Considered Leaving Bedside Nursing	
Yes	43 (53.75)
No	37 (46.25)

Note: Percentages calculated based on number of respondents for each question.

Many nurses expressed concerns caring for a new population that differed from their usual pediatric population, not only in age, but in medical conditions and comorbidities. For more than half of those

who cared for adults, it was the first time in their nursing career doing so. One half of participants had no previous experience caring for adults; student clinical rotations were the last time some nurses cared for adults. While one half of participants once held an adult nursing role, this background did not ensure nurses' preparedness to care for adults again. Few participants (15%) felt more than some extent prepared during the pandemic. However, of the twelve nurses who felt prepared 'to a moderate extent' or 'to a great extent', eight listed past adult experience as a benefiting factor. While past experience was beneficial to some, several nurses had no previous nursing experience at all. Twenty percent of participants were newer nurses, with zero to two years of nursing experience. A novice nurse explained, "I was a new grad only off of orientation for two months, it seemed like everything we learned no longer mattered." The novice nurses' transition to pediatric nursing and the nursing profession was interrupted by the uncharted territory the pandemic brought.

The uncertainty and unknown of caring for patients with a novel virus supplemented nurses' lack of preparedness. "This was new to us; we didn't know what was going on," stated a nurse who was "scared for [her] life." COVID-19 was new for all; guidelines, policies, and practices were often changing as new information became available. For this reason, most nurses did not feel prepared nor safe.

I am a new nurse on the unit and many of my coworkers were sick and were calling out. I was with float nurses for many nights and had to try to explain to them what was going on, when I did not even know myself

The lack of knowledge and constantly changing regulations caused confusion and fear; nurses found it hard to feel safe amidst the unknown. Nurses who did feel safe in the care they delivered attributed it to having support, adequate supplies, and safe staffing. However, a nurse who felt safe 'to a great extent' explained that "[feeling safe] did not eliminate the dread and fear that came with dealing with an unknown deadly virus." Worry lingered as the effects, transmission, and management of COVID-19 remained unclear.

The new virus and new population presented additional challenges for pediatric nurses related to the care they delivered. Nurses were not emotionally prepared for the effects of COVID-19, especially witnessing the high death rates that ensued. "I felt stressed and defeated every single day walking into work because it felt like nothing we did for our patients was doing any good." Being accustomed to witnessing the benefits of care rendered, nurses felt crushed and powerless when patients did not improve. Nurses grappled with their desire and duty to provide care as they sought to protect themselves. Limiting the frequency and time spent in rooms presented nurses with uncomfortable feelings. Several novice nurses, with zero to two years of experience, expressed feelings of stress and uneasiness regarding their role and the care they could offer; "I felt like a bad nurse." Nurses wanted to do more for their patients, but the trials of the pandemic presented obstacles to doing so.

Concerns for safety

More than half of nurses felt 'not at all' or 'to a small extent' safe when caring for patients. Concerns regarding personal protective equipment (PPE) were a primary worry amongst participants – the worry of not having enough PPE, of reusing PPE, and of possibly running out of PPE. "Using a face shield until it was too difficult to see through, or my N95 until the straps broke" or "wearing a mask for a week or [being] given one gown for the entire shift" threatened nurses' safety and increased their risk of exposure. Nurses felt they were putting themselves and others at risk. Nurses were concerned and feared bringing home the virus to loved ones. Subsequently, one third of participants adapted their living arrangements, separating themselves from others. The constant worry of becoming exposed was highlighted by an ED nurse, "it

[was] always running in the back of my mind someone sitting next to me might be covid positive, which ended up happening multiple times.” It was not unusual for nurses to contract COVID-19; approximately 25% of participants became sick during the peak of the pandemic. Witnessing patients their own age and their colleagues come down with COVID-19, nurses “knew that there was nothing stopping us from contracting COVID[-19].” Nurses felt vulnerable to an unknown, deadly virus.

Nurses were not only concerned for their loved ones' and their own safety, but for their patients' safety. Nurses reported supplies and equipment were limited; intravenous pumps were shared between patients and necessary medications, such as sedation and paralytics, and crucial oxygen therapy devices, such as nonbreathers and high flow machines, were scarce. “At times I felt like we were in a third world country with lack of supplies.” It was difficult to provide safe care when essential supplies were not readily available. This challenge was identified by many nurses, but particularly highlighted by those that were relocated to other non-acute care settings of the hospital. The operating room (OR) had been converted into a COVID-19 isolation room and a PACU nurse explained,

There were no meds and no supplies in the OR. Every time we needed something, we had to call outside the OR and wait for someone to bring it to us. It was stressful and unexpected. It was not safe.

Nurses were working in a new context of care delivery and conditions were not always conducive to meet the needs of the pandemic. It was difficult for nurses to not worry when they did not feel equipped physically or psychologically for the pandemic.

Nurses' emotional responses

A variety of emotions encompassed nurses' experiences, including stress, anxiety, fear, and worry. These feelings stemmed from the various adjustments in practice, the safety concerns, lack of preparedness, and the increased demand on nurses. Working through the peak of the COVID-19 pandemic was emotionally taxing for nurses.

It was hard, it was devastating. It was nerve-racking. Nothing about it was good. It was a learning experience but traumatizing at the same time. We were caring for people while not being able to do the full extent of our practice, all while risking our own lives

Many nurses were overwhelmed and described their experiences as chaotic and frightening.

We were left to do the best we could. Families would call for an update, and I did not have time to speak with them while I ran from bedside to bedside, making sure pressors and sedation [drips] did not run dry, the patient was not crashing, drawing labs, giving meds, and providing patient care. It was traumatic and I will never forget [it].

Nurses worked tirelessly to withstand the dynamic and severe nature of the COVID-19 pandemic, which was both physically and emotionally demanding.

Nurses unanimously found the pandemic experience to be stressful. All participants reported feeling stressed at work during the COVID-19 crisis, with more than 80% reporting feeling stressed 'to a moderate extent' or 'to a great extent'. The stress nurses experienced was not limited to the work environment; more than 70% of nurses reporting feeling stressed 'to a moderate extent' or 'to a great extent' at home as well. The pandemic was inevitably stressful, and nurses were emotionally exhausted. A PCCU nurse disclosed, “I found myself breaking down at what seemed to be somewhat random times.” COVID-19 was an ongoing challenge and at times seemed insurmountable. Experiences were traumatic, anxieties were high, and the repercussions were not

short-lived. Nurses revealed the emotional hardships and the negative effects of their pandemic experiences. Consequently, about 54% of participants reported that they have thought about leaving bedside nursing since experiencing the peak of the pandemic. Pediatric nurses felt thrown into a challenge and were emotionally laden. Yet, despite the challenges and stress faced amongst nurses, many were proud to be on the frontline. Nurses saw themselves as being in a position to help when care seemed out of their control. They were proud of the lives that were saved and of the teamwork they had during this critical time. “I feel that my unit responded well to the situation, and that considering a good amount of staff never worked with adults before, we saved a serious amount of lives. I was very proud of how we functioned.” Amid the chaos of the pandemic, nurses were still able to identify the positive responses.

With an array of emotional responses, nurses dealt with their stress in different ways. Many nurses turned to family and friends, describing the comradeship and the words of encouragement that helped them. Some nurses engaged in prayer, meditation, and exercise and others turned to entertainment, food, and alcohol. Few nurses sought professional help, while several did not deal with the stress experienced. “I didn't really deal with it, I just kept working. It's not like we had an option to stop.” COVID-19 was traumatic for many, and the emotional toll on nurses was profound. Some felt they did not have time to process the emotional effects of their experience; as they made their primary focus on rendering patient care, nurses let their needs go unmet. The affiliated health system offered physical and emotional essentials throughout the pandemic to assist in meeting the needs of health care workers. While many nurses utilized these resources, not all nurses knew what was available to them. The majority of participants (90%, 89%, and 78%, respectively) were aware of the free parking, scrubs being provided, and free meals, but few participants (31% and 11%, respectively) were aware of the staff emotional support line and the check-ins with an emotional support ally. The most utilized resources were physical resources, while the staff emotional support line and emotional support ally check-ins were utilized by so few (3.8% and 2.5%, respectively). Table 3 displays participants' awareness and utilization of the various resources offered to support them.

Persevering together

During the peak of the COVID-19 pandemic, nurses worked together as a team, supporting each other emotionally and physically. Teamwork was not unusual to pediatric nurses, but improved with the pandemic. ‘Good’ or ‘excellent’ teamwork was reported by approximately 60% of participants before the pandemic and rose to 80% after the pandemic. It was not just teamwork amongst nurses that was highlighted, but teamwork amongst nurses and physicians. Nurses described the unity and ability to rely on colleagues amidst the stress of the pandemic; “nine times out of ten, I could turn any corner and know that there

Table 3
Nurses' awareness and utilization of resources offered by health system (N = 81; N = 79, respectively).

Resource	Aware of Resource n (%)	Utilized Resource n (%)
Hotel Accommodations	32 (39.5)	3 (3.8)
Emotional Support Ally Check-ins	9 (11.1)	2 (2.5)
Free Meals	63 (77.8)	47 (59.5)
Free Parking	73 (90.1)	69 (87.3)
Relaxation Lounge	33 (40.7)	27 (34.2)
Support Lounge	14 (17.3)	11 (13.9)
Scrubs	72 (88.9)	50 (63.3)
COVID Intranet Page with Resources	14 (17.3)	7 (8.9)
Staff Emotional Support Line	25 (30.9)	3 (3.8)
Email Updates from CEO	46 (56.8)	26 (32.9)

would be a colleague ready to help.” Nurses were grateful for each other and took pride in the camaraderie that existed and persisted. “Working together has become the norm...So together we faced it, and together we will continue facing it.” The significance of teamwork in order to endure the pandemic was emphasized by many. However, few nurses felt teamwork was not always readily available and particularly stood out when team members were driven by their fears. “I feel I was the nurse as well as the rest of the team who didn’t want to do their job due to fear of getting COVID-19.” The lack of collaboration left nurses with additional responsibilities, increased their workloads, and attributed to their exhaustion. This led some to raise staffing and systems concerns, as they felt unsupported.

Support was a necessity for nurses. Nurses reported mixed feelings and responses regarding support from administration. Some nurses found management and leadership to be supportive and considered them members of their team. Others sought more from the leadership team, such as better communication and frequent updates as plans changed. A nurse described the value of this support, as she shared, “just having that peace of mind helps us face the challenges of the day more comfortably with less stress and more cohesively, since we feel we are in this together.” Nurses wanted to know that everyone was in the fight together, because when they did, nurses felt better equipped to tackle the ongoing crisis.

When asked whether they would feel prepared if another pandemic were to occur, more than 60% said they would not. While some list supplies and education as measures to feel secure for a future pandemic, many nurses asserted, “there’s no way to be prepared for a pandemic.” Of those who do feel prepared for another pandemic, experience weathering the present pandemic offers nurses a feeling of security. Because, despite the challenges the COVID-19 pandemic presented, nurses persevered. “As nurses, we did what we always do – bond together and do all possible for our patients, and make the best with the little we had.” Though challenging and frightening, nurses continued to deliver and provide the care their patients needed. Pediatric nurses did not give up and they continued to show up as they cared for critical adults. Describing the care of a critical patient, one nurse compellingly concluded, “my shift was done, and I said to myself, ‘my patient and I endured and survived.’”

Discussion

Permeating throughout pediatric nurses’ experiences of caring for adult patients amid the COVID-19 pandemic were concerns for safety, preparedness, and adjusting to the unfamiliar, which subsequently resulted in nurses’ emotional responses and physical perseverance. Amongst the many transformations that took place to accommodate for the influx of adults at the children’s hospital, one of the most significant transformations was the pediatric nurse’s role. While the conversion of a children’s unit to an adult unit allowed nurses to remain in a familiar setting and work with known colleagues, pediatric nurses had to shift their mindset and practices to care for the parents and grandparents of their typical patients. As pediatric nurses and providers transitioned to care for adult patients, the specialty of care they knew became distant, but it was not gone. Although they may not have cared for their usual population of young children, every patient cared for, young and old, was someone’s child.

Fear, stress, and worry encompassed nurses’ thoughts as they cared for a population of patients outside of their everyday practice. The emotional response that evolved out of participants’ experiences is not unique to pediatric nurses grappling with an adult pandemic. The findings of this study are consistent with adult acute care and critical care nurses’ experiences caring for COVID-19 patients; nurses around the world shared the same uncertainty with the frequently changing guidelines, the same helplessness watching patients deteriorate, the same stress and emotional exhaustion, and the same worry of becoming exposed and exposing others (Iheduru-Anderson, 2020; Lapum, Nguyen, Fredericks, et al.,

2021; LoGiudice & Bartos, 2021; Schroeder et al., 2020). Nurses underwent significant changes in their practices and battled a virus that had no consistency in scientific understanding, all while risking their own lives (LoGiudice & Bartos, 2021). The media labeled nurses as heroes, but nurses were emotionally burdened (Pappa et al., 2020).

Almost all participants cared for adult patients during the peak of the COVID-19 pandemic and half had no past adult nursing experience to rely on. Although adult acute and critical care nurses shared similar responses to the pandemic, the emotional responses of pediatric nurses in this study were likely exacerbated by their sudden transition of nursing specialty. In addition to caring for patients with a novel disease process, pediatric nurses were now also caring for a new population. Nurses took on a role they were unaccustomed to, at a time when much was unknown about the virulence and transmission of the new disease affecting their patients. With limited time for preparation or education on adult nursing care and comorbidities, pediatric nurses began caring for acutely and critically ill adult patients. Many nurses highlighted how this sudden transition was stressful and challenging. The adjustments to care for adults was nonetheless difficult for nurses with no previous experience, but also for nurses who once worked in adult patient care settings. Some of those with earlier adult nursing experience attributed that experience to feeling better prepared, but others felt their past experiences minimally prepared them. While the survey did not ask about nurses’ prior experience working with adults, it would be interesting to study whether the number of years of adult nursing and the number of years since adult nursing are correlated to pediatric nurses’ comfort and preparedness in transitioning back to adult nursing in times of need.

A pandemic stimulates a change in hospital processes and care delivery. With increased demands on health systems, operations change in order to withstand. A concern shared by almost all participants was the lack of proper PPE. Nurses feared contamination, exposure, and illness (Iheduru-Anderson, 2020; Lapum, Nguyen, Fredericks, et al., 2021; LoGiudice & Bartos, 2021). With a nationwide shortage of the essential PPE, institutions followed the CDC (2020b) guidelines to optimize use of PPE, which advised healthcare workers to extend the use and reuse PPE. While this practice optimized supply of PPE, it did not ensure the supply. The possibility of running out of PPE exacerbated the fear and worry nurses already had as they recycled equipment intended for single use (Lapum, Nguyen, Fredericks, et al., 2021).

The pediatric nurses caring for COVID-19 adult patients in this study were resilient. While much of the world went on ‘pause’ and issued ‘stay at home’ orders, nurses continued to show up. Many of the nurses in this study did not feel prepared nor safe for the role they were undertaking, nonetheless, they endured the unpredictability of the pandemic. Nurses remained committed to their roles and to their patients; echoing others (Lapum, Nguyen, Fredericks, et al., 2021; LoGiudice & Bartos, 2021; Schroeder et al., 2020), pediatric nurses were proud to provide nursing care. Even when outside of their comfort zone, participants retained and valued their professional nursing identity. Amid the negative emotions, positive attitudes did not dissipate; Sun et al. (2020) found that positive emotions occurred with nurses’ negative emotions, allowing nurses to grow under the pressure of the pandemic.

Nursing is widely recognized as a science and an art. As nurses fulfilled the science of nursing care in the pandemic, some nurses struggled as the other side of nursing was not easy to uphold (Iheduru-Anderson, 2020; Lapum, Nguyen, Fredericks, et al., 2021). Healthcare providers were advised to limit physical contact with patients in order to protect themselves and prevent inadvertent spread of the virus. Nurses in this study felt uneasy making this sacrifice and felt their nursing role was being challenged. Providing humanistic and holistic care becomes difficult when one must wear layers of PPE, maintain physical distance, and reduce the time spent in patient rooms. Stress and negative emotions ensued as pediatric nurses yearned to do more, and conditions of the pandemic presented obstacles to doing so. Nonetheless, it is important for nurses to recognize the value of the care provided. As some nurses stated, they have done all that was possible.

It was apparent that nurses in this study were emotionally impacted and distressed by their COVID-19 experiences. Nurses' mental wellbeing is just as important as their physical wellbeing. Many nurses in this study reported stressful, traumatic, and unforgettable experiences. These findings align with research that reported the prevalence of stress, trauma, anxiety, depression, and burnout amongst nurses during the COVID-19 pandemic (Chen et al., 2021; Murat et al., 2021; Pappa et al., 2020; Sampaio et al., 2020). It is likely that nurses in this study were burnt out as well, as more than half of participants considered leaving bedside nursing since experiencing the peak of the pandemic. Although nurses were resilient, care should not be all-encompassing. Nurses on the frontlines care for others, but they also need to care for themselves. Interventions to promote and maintain the mental health and wellbeing of nurses during a pandemic is paramount. Yet, nurses must also be aware that resources are available to them. Throughout the pandemic, the larger health system offered healthcare workers check-ins with individual emotional support allies, by pairing providers with personnel from the psychology department, and a staff emotional support line, but few nurses were aware of them. Less than 5% of participants utilized these two resources. Nurses may find individual resources such as these or peer and group support activities valuable to their wellbeing. Although the offered emotional resources were not used, nurses listed numerous self-care measures they engaged in to cope with stress, such as prayer, mindfulness activities, going for walks, watching television, and connecting with family and friends. Support from colleagues was just as important and influential to participants' wellbeing. Similar to the nurses' experiences in this study, the camaraderie of peers and the engagement in self-care and self-coping emerged naturally amongst nurses who were emotionally challenged by their COVID-19 experiences (Lapum, Nguyen, Lai, et al., 2021). Lapum, Nguyen, Lai, et al. (2021) also found that nurses emphasized the value in the intentional forms of support, such as available psychologists and psychiatrists; debriefs and check-ins with counselors; frequent, transparent updates from leadership; adequate supplies and resources for patient care; and advocacy, recognition, and support from nurse leaders. A multifaceted approach to offer support was found to be most beneficial (Lapum, Nguyen, Lai, et al., 2021); both nurse leaders and colleagues are instrumental in assuring nurses' emotional wellbeing.

Nurses relied on each other for restorative emotional support, but also for physical support (LoGiudice & Bartos, 2021). Teamwork was characteristic of pediatric nurses' experiences, and for the majority, teamwork was positive. Yet, some nurses described instances where they felt teamwork was lacking. When support staff was lacking or failed to perform their roles out of fear, not only did nurses' workloads increase, but stress and emotions were heightened as well. Adequate staffing and accountability of roles will better capitalize on the teamwork that nurses seek and develop during a pandemic. Teamwork facilitated pediatric nurses' ability to endure the COVID-19 pandemic. The help and support of colleagues brought light to a stressful time, and many reported the positive impact that ensued on their units.

With all the changes that took place to accommodate care for adult COVID-19 patients, nurses found processes to be disorganized. When a pandemic strikes, nurse leaders enter a crisis management mode. Staff nurses were not aware of the planning that was occurring behind the scenes and sought better communication from leadership teams regarding plans and changes. Shared governance is not foreign to the children's hospital, but during the peak of the pandemic council meetings were put on hold. Lal (2021) and Hess et al. (2020) described the positive impact of shared governance amidst times of crisis and change. Including staff nurses in systems discussions is crucial to not only ensure they hear others, but so their voice is heard as well.

While this study aimed to understand pediatric nurses' experiences during the peak (March 2020 – May 2020) of the COVID-19 pandemic,

another surge occurred during data collection. About two weeks into data collection, the PCCU began admitting COVID-19 adults and hospital medicine expanded to once again include adults up to 30 years old. During the final two weeks of data collection, one of the acute care units began to admit COVID-19 adults again. At the time the study closed, adults remained admitted to the children's hospital. Approximately two-thirds of participants had responded they would not feel prepared for another pandemic. Unbeknownst to them, many would experience caring for adult patients in another surge of the pandemic.

The COVID-19 pandemic presented a public health emergency as an influx in adult cases was seen and hospitals' capacities were insufficient. Many institutions repurposed pediatric units and transitioned clinical practices to meet the needs of this global crisis (Joyce et al., 2020; Levy et al., 2020; Philips et al., 2020; Yager et al., 2020). Reports described the transformation of pediatric units, with physical spaces converted, staffing models restructured, and supplies and equipment replaced or adjusted for adult use (Joyce et al., 2020; Levy et al., 2020; Philips et al., 2020). Like the pediatric nurses in this study, pediatric nurses and providers in these reports continued to care for adult patients on their restructured units. However, pediatric providers were not left to face this challenge alone. Leadership, support, and collaboration facilitated the pediatric provider's transition to caring for adult patients, as pediatric providers consulted with adult hospital medicine providers, educators reviewed protocols with providers, and resources were provided to familiarize pediatric staff with adult medications and conditions (Joyce et al., 2020; Philips et al., 2020; Yager et al., 2020). Providers commented on the benefits that ensued – the care that was provided, the lives that were saved, the relationships that were built, the knowledge that was gained, and the recognition that pediatric providers are equipped to care for adult patients (Joyce et al., 2020; Levy et al., 2020; Philips et al., 2020). This study adds to the current literature on pediatric providers caring for adult patients and provides an understanding of what pediatric nurses' experiences were like amidst the changes, the challenges, and the benefits.

Further research is needed to explore pediatric nurses' experiences with the COVID-19 pandemic. With progression of the pandemic and scientific understanding, nurses' experiences, concerns, emotional responses, and physical responses may differ. Future research is also needed to recognize the long-term effects working during a pandemic may have on nurses and to discover measures to promote nurse's emotional health during such times. Quantitative analyses exploring relationships between different variables, such as years of nursing experience, past adult nursing experience, years since last adult nursing practice, highest nursing degree, employment status, etc., with nurses' degree of preparedness, level of stress, burnout, or resilience will provide a better understanding into the effects of taking on an adult nursing role as a pediatric nurse. Future research should also exemplify education needs and resources that support nurses who take on new roles.

Practice implications

In times of public health emergencies, pediatric providers may be required to take care of adult patients. Preparedness for this transition of roles is essential. Nurses need to be as equipped as possible for the changes in practice that will occur. While difficult to prepare for a novel and unknown disease process, preparation for the pediatric nurse's care of adult patients is not impossible. Once plans are announced to care for adult patients, education can be provided to pediatric nurses on conditions, medications, and care specific to adults. Standard and specific adult policies and protocols can be reviewed, and resources made available to ease the transition to caring for a new patient population. Collaboration with adult care nurses and nurse educators can also facilitate this process.

Support was instrumental for nurses in this study. Support can be displayed through various measures – comradeship, physical support,

mental health support, informational support, and resource support. Encouraging teamwork amongst nurses, physicians, and ancillary staff members is instrumental. By lending a helping hand in patient care, checking in with one another, or venting to each other, colleagues can support one another through the challenges and persevere together. All attempts should be made by nurse leaders to ensure adequate staffing is maintained and staff members are held accountable for their roles in order to capitalize on the teamwork that is instrumental during crises. Having visible and accessible nurse leaders provides nurses with a sense of comradeship, so nurses do not feel alone in the fight. Frequent and transparent communication, even if there are no changes to report, keeps nurses aware and helps with the uncertainty of the time. The unknown and uncertainty presented many concerns and fears for nurses. Open communication of plans with nursing staff is encouraged to keep nurses informed of system changes. Ensuring safety plans, specifically optimization and supply of PPE, is encouraged to keep nurses protected and additional worries mitigated.

With a variety of challenges, concerns, and subsequent emotional responses reported, nurses' emotional health should not go unnoticed. Specifically, witnessing high death rates may be unusual for the pediatric nurse. Nurse leaders can help facilitate nurses' coping with these losses and the additional challenges described. It may be helpful to provide nurses with some time to briefly step away from the patient care area and fully recognize their experiences. Debriefings amongst team members and readily available psychologists can help promote nurses' wellbeing. Some nurses described their experiences as traumatic and unforgettable, and some have not managed their stress effectively. Nurses' emotional wellbeing is a priority and emotional health resources should be offered to support them. It is vital that nurses are made aware these resources exist and are encouraged to utilize them. Support from one another is paramount to aid pediatric nurses through the challenging transition of caring for adults amidst a pandemic.

The findings of this study add to the literature on nurses' lived experiences during an unprecedented time in history, especially when nurses transition to a new role. Nurses reported many concerns and fears that would be important to address if another pandemic were to occur. Findings also illustrated the needs of pediatric nurses caring for adult patients, both physically and psychologically. With this insight, nurse leaders can guide preparatory efforts to meet pediatric nurses' needs during extraordinary times.

Limitations

This study explored pediatric nurses' experiences of caring for adult patients at the epicenter of the COVID-19 pandemic and presents a unique nursing perspective during the height of the pandemic. This study is limited to the experiences of pediatric nurses at one institution, during one timeframe of the pandemic, as a one-site convenience sample was used. Nurses' experiences during other timeframes and surges of the pandemic may differ. This study was not conducted immediately after the peak of the pandemic; the changes that occurred throughout the year, specifically throughout the data collection period and second surge, may have affected nurses' responses. The descriptive survey used was developed by the researchers and not tested for reliability or validity. However, previous literature on nurses and health care providers' experiences were used to support survey development. The study was guided by naturalistic inquiry and did not employ a theoretical framework. Lastly, there was the potential for researcher bias as three of the researchers were pediatric nurses who worked at the institution during the pandemic. However, measures were taken to ensure trustworthiness of study findings, including triangulation of data, peer debriefing, rich descriptions, and negative case analyses. Despite limitations, this study contributes important scientific knowledge to understand pediatric nurses' experiences during the peak of a pandemic and how they are affected by their experiences.

Conclusion

Pandemics are challenging times. Pediatric nurses rose to the challenge when they assumed care of COVID-19 adult patients during the peak of the pandemic. To our knowledge, this is the first study to explore the experience of the pediatric nurse who cared for adult patients amidst a pandemic. Caring for a novel disease process and a population outside of their usual practice, nurses were outside of their comfort zone. Numerous adjustments to practice were implemented to ensure safe delivery of care as pediatric nurses' roles transformed. Nurses found it hard to feel safe and to feel prepared due to the unknown and uncertainty the pandemic presented. Yet, amidst a plethora of negative emotions and challenges faced, pediatric nurses persevered. As they resiliently cared for an adult population in lieu of pediatric patients, pediatric nurses remind us that everyone is someone's child. Though experiences were taxing, pediatric nurses helped meet the demands of the time. However, findings imply that the needs of nurses must also be met. It is important for health care systems and nurse leaders to understand the emotional and physical experiences of pediatric nurses, to support and protect their nurses, and to recognize these needs and experiences as they prepare for future public health emergencies, especially when a transition of role is warranted.

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Declaration of Competing Interest

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