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The COVID-19 pandemic through the eyes of pediatric nurses: A qualitative study

Margaret Malague MacKay, DNP, RN, APRN/CNS, CPN, CNE ^{a,*},
Kelly Powers, PhD, RN, CNE ^b, Kathleen Jordan, DNP, RN, FNP-C, ENP-C, SANE-P, FAEN ^b

^a Levine Children's Hospital at Atrium Health, USA

^b University of North Carolina Charlotte School of Nursing, USA

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ABSTRACT

Purpose: This study explored pediatric nurses' lived experiences during the first calendar year (2020) of the COVID-19 pandemic.

Design and methods: An electronic survey used an exploratory-descriptive qualitative approach to gather data from 231 pediatric nurses working in a variety of settings across the United States. The survey consisted of seven open-ended questions to capture participants' experiences in the workplace. Thematic analysis was conducted to identify themes and associated subthemes.

Results: Seven themes emerged: *Unique Aspects of COVID-19 in the Pediatric Population*; *Visitor Restrictions and Isolation Increased Stress*; *Navigating Changing Knowledge and Misinformation*; *Personal Protective Equipment Challenges*; *Living in Fear*; *Pride in the Profession*; and *Profession at Risk*.

Conclusions: Pediatric nurses working in the initial year of the COVID-19 pandemic faced numerous challenges consistent with those shared by the profession at large in addition to some unique to their patient population. Of greatest concern is the dismay many participants conveyed in their perception of administrative and public support and in their flagging commitment to the profession.

Practice implications: This study highlights the need for nurse self-care, cultural reform in healthcare settings to engage front line providers in decision making, and proactive strategies to recruit and retain professional nurses.

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Introduction and Background

The Year of the Nurse 2020 posed unprecedented challenges for the caring profession worldwide. Nurses cared for critically ill patients amid a scarcity of supplies that compromised safety of nurses and patients alike. The COVID-19 pandemic was and is a universal phenomenon that has affected patient populations differently. Nurses caring for children had experiences distinct from those caring for adult patients (Lulgiaraj et al., 2021). This project sought to capture and describe that experience.

Presentation of COVID-19 in children was relatively mild during the initial wave of the pandemic in 2020 (American Journal of Nursing, 2021; Jackson et al., 2022; Khan et al., 2022; Rubenstein et al., 2021) with more severe illness seen in older children, those with higher BMI, and those with underlying conditions (Elwell et al., 2021;

Guzman et al., 2022; Rubenstein et al., 2021). Regardless, pediatric clinicians have reported burnout (Moerdler et al., 2022), fear of exposure, anxiety, and depression (Silistre et al., 2022; Sinsky et al., 2021), moral distress (Elwell et al., 2021), a sense of being undervalued by their organization (Kase et al., 2022), and an intent to decrease work hours (Sinsky et al., 2021). One qualitative study of pediatric nurses in a single setting focused on those deployed to care for adults during the early days of the pandemic, and chronicled concerns for safety, feeling unprepared yet committed to persevering together. More than half of the participants considered leaving bedside nursing secondary to their experiences during the pandemic (Lulgiaraj et al., 2021). In the interest of capturing a broader perspective of pediatric nurses' experiences during the COVID-19 pandemic, we surveyed the Society of Pediatric Nurses (SPN) membership and used snowballing for broader reach of pediatric nurses over a 3-month period; 231 pediatric nurses nationwide participated to share their experiences. Findings of this exploratory-descriptive qualitative study are important to add to the limited knowledge about the experiences of pediatric nurses, shedding light on their unique triumphs and challenges during the pandemic.

* Corresponding author at: 5919 Brace Road, Charlotte, NC 28211, USA.
E-mail address: Margaret.mackay@atriumhealth.org (M.M. MacKay).

Methods

Design and purpose

This exploratory-descriptive qualitative study used a survey design to investigate pediatric nurses' experiences during the first calendar year (2020) of the COVID-19 pandemic.

Sample and recruitment

A convenience sample of 231 pediatric nurses working across the United States was obtained. Inclusion criteria were: employment as a registered nurse (RN) during the COVID-19 pandemic and working in inpatient or outpatient settings where care is provided for children under age 18 years. Participants were recruited via study advertisements disseminated by SPN via email and postings on their website and social media sites over a 3-month period. Snowballing was also used, since any SPN member who received the survey link could share it with others. Being a member of SPN was not required to participate, and no data was captured as to whether participants were or were not members. No incentives were offered for participation.

Data collection

Recruitment and data collection began after review and approval by the Institutional Review Board at the research team's University and the SPN's Clinical Practice and Research Committee. Data collection occurred from the end of October 2020 through January 2021, when study postings and emails were released to members every 2 weeks for a total of three months. Each email and advertisement included a link to the online survey site in Qualtrics, where participants first viewed study information. Survey completion conveyed consent to participate.

The survey began with 12 items to collect demographic and professional information. In addition to demographics, items also asked about years of RN experience in general and in pediatrics, current work setting, position and shift, and geographic location (to assess for national representation). No identifying information was collected. Next, five items asked participants how many times they had cared for a child with COVID-19 and how many times they worked when COVID positive children were receiving care in their setting even if they were not the primary RN, how often they had been reassigned to a different work setting, the extent to which their income was affected by the pandemic, and their degree of access to necessary personal protective equipment (PPE). Finally, seven open-ended questions sought to capture participants' experiences during the initial year of the COVID-19 pandemic (Table 1). Due to the anonymous survey design, participants were not contacted to further explore responses to open-ended questions.

Table 1
Open-ended questions.

1. In your own words, please describe your experiences caring for children diagnosed with COVID-19 and their families.
2. What were the most positive aspects of caring for these patients in your experience?
3. What were the greatest challenges for you in caring for patients affected by COVID-19?
4. Please describe how, if at all, this experience has affected your feelings about your profession or position?
5. If you had to describe your experience caring for children with COVID-19 in one or two words, what would those words be?
6. Has caring for children with COVID-19 added any additional stressors (at work or at home)? If so, please explain.
7. In the spirit of capturing this human and professional experience, is there anything else you would like to share?

Data analysis

Descriptive statistics were used to analyze participants' demographic and professional information, and the 5 quantitative items that collected information related to interaction with patients affected by COVID-19 and the effect of the pandemic on work assignment, income, and PPE. Participants' responses to the open-ended questions were downloaded from Qualtrics to produce Microsoft Word transcripts for analysis. Thematic analysis used Braun and Clarke's (2006) method and was conducted by the three members of the research team to promote trustworthiness through investigator triangulation. First, each researcher immersed themselves in the data by independently reading and re-reading the transcripts, taking detailed notes to identify codes and preliminary themes. Next, the research team met on Zoom to discuss their personal biases and independent analyses until a consensus on themes and subthemes was reached. The team lead recorded meeting notes which were emailed to the research team who re-checked data sources to confirm the validity of the themes. All researchers were experienced nurses, with two of the three practicing in pediatric settings during the COVID-19 pandemic. The third researcher was experienced in qualitative analysis and led the team through this process. Having a research team comprised of pediatric and non-pediatric nurses, performing individual and team analyses, and prolonged engagement with the data enhanced the credibility and dependability of the results. Confirmability and transferability were enhanced by recording an audit trail.

Results

There were 252 individuals who began the survey; however, 21 RNs did not complete items focused on COVID-19. Thus, the final sample size was 231 nurses (91.7% completion rate). Participant age was fairly evenly spread; however, the sample was not diverse with regard to gender (97.0% female) or race/ethnicity (92.2% non-Hispanic white). A Baccalaureate (58.9%) or Master's (27.7%) degree was held by most participants. Years of general and pediatric RN experience varied, with more than half having 10+ years' experience (63.2% and 60.6%, respectively). Most participants provided direct patient care (67.5%) on day shift (78.8%) and worked in urban locations (70.0%). Participants worked in a wide range of care settings, including inpatient general and intensive care units (ICU), emergency departments (ED) and urgent care, and outpatient settings such as clinics and schools. See Table 2.

Analysis of quantitative data related to COVID-19 revealed that about half of participants (46.8%) had not provided direct care to a patient diagnosed with COVID-19; however, almost three-fourths (69.7%) had worked when COVID+ patients were receiving care on their unit. Over one-third (37.7%) had been reassigned to work outside of their typical practice environment, and about half (48.0%) had their income affected by the pandemic. Lastly, half of the sample (49.6%) reported no issue with PPE availability. See Table 3.

Thematic analysis revealed seven themes that described participant experiences during the COVID-19 pandemic.

Theme 1: unique aspects of COVID-19 in the pediatric population

For many of the pediatric RNs, the work experience early in the pandemic was largely one of watchful waiting. Words like "worried," "scared," "anxious," "terrified," "sense of doom and gloom," and "panic" were used to describe daily care for children potentially exposed, children with ill family members, and children who tested positive for the virus despite lack of symptoms. Information about the course of infection and treatment was so new and so fluid that one participant described families as "terrified" and another stated that children feared they would die. One participant recalled efforts to provide guidance for a patient's mother: "I had to explain to her as much and as well as I could

Table 2
Sample information.

	n	%
Age		
Less than 30 years old	39	16.9%
30–39 years old	55	23.8%
40–49 years old	45	19.5%
50–59 years old	63	27.3%
60 years and older	29	12.6%
Gender		
Male	7	3.0%
Female	224	97.0%
Race/Ethnicity		
American Indian or Alaska Native	1	0.4%
Asian	3	1.3%
Black or African American	5	2.2%
Hispanic or Latino	8	3.5%
Native Hawaiian or Other Pacific Islander	0	–
Non-Hispanic White	213	92.2%
Multiple or Other Race/Ethnicity	1	0.4%
Highest Nursing Degree Obtained		
Diploma degree	4	1.7%
Associate degree	18	7.8%
Baccalaureate degree	136	58.9%
Master's degree	64	27.7%
Doctoral degree	9	3.9%
Years of RN Experience		
Less than 2 years	9	3.9%
2–5 years	37	16.0%
6–10 years	39	16.9%
11–20 years	49	21.2%
More than 20 years	97	42.0%
Years of Pediatric RN Experience		
Less than 2 years	14	6.1%
2–5 years	40	17.3%
6–10 years	37	16.0%
11–20 years	60	26.0%
More than 20 years	80	34.6%
Current Job Position		
Direct Patient Care RN	156	67.5%
Nursing Management	29	12.6%
Nursing Education	17	7.4%
Advanced practice nurse	11	%
Other (phone triage/telehealth, case management, quality/compliance/accreditation, research)	18	7.8%
Type of Unit*		
Neonatal ICU	19	8.2%
Pediatric ICU	37	16.0%
Pediatric Progressive Care	21	9.1%
Pediatric General Medical-Surgical	74	32.0%
Medical-Surgical for Adults & Children	5	2.2%
Float Pool/Resource RN	6	2.6%
Emergency Department/Urgent Care	19	8.2%
Surgical Services (operating room, PACU, outpatient surgery, procedural)	15	6.5%
Ambulatory Care (outpatient general & specialty clinics/offices)	49	21.2%
K-12 Schools	8	3.5%
Other (education, hospital-wide administration roles, call center, home health)	32	13.9%
Shift Worked		
Day Shift	182	78.8%
Night Shift	49	21.2%
Workplace Location		
Urban	161	70.0%
Suburban	58	25.2%
Rural	11	4.8%

* Could select more than one response option; percentages do not total 100%.

Table 3
Sample information related to COVID-19.

	n	%
Number of times cared for child diagnosed with COVID-19		
Never	108	46.8%
1–4 times	79	34.2%
5–10 times	20	8.7%
11–20 times	12	5.2%
More than 20 times	12	5.2%
Number of times worked when COVID+ patients were on unit		
Never	70	30.3%
1–4 times	62	26.8%
5–10 times	39	16.9%
11–20 times	22	9.5%
More than 20 times	38	16.5%
Number of times reassigned to work outside typical practice environment		
Never	144	62.3%
1–4 times	39	16.9%
5–10 times	14	6.1%
11–20 times	9	3.9%
More than 20 times	25	10.8%
Extent income was affected by COVID-19 pandemic		
Not at all	120	52.0%
Less than 10%	59	25.5%
11–25%	32	13.9%
More than 25%	20	8.7%
Frequency of adequate access to needed PPE during COVID-19 pandemic		
Less than 10%	8	3.5%
Between 10 and 25%	3	1.3%
Between 25 and 50%	2	0.9%
More than 50%	89	38.7%
All the time (100%)	114	49.6%

and most were asymptomatic,” and a third reported diagnoses made as incidental findings. Children were reported to be less likely than adults to have respiratory symptoms, more commonly showing gastrointestinal symptoms and dehydration. One participant expressed concern about the patients who were symptomatic healing more slowly due to their restricted activities and isolation in their rooms. Some children who had pre-existing conditions were observed to become more ill, and others without prior medical history were reported to suffer from multisystem inflammatory syndrome in children (MIS-C), a rare but serious complication of COVID-19 characterized by systemic inflammation and multisystem organ involvement. Some of these young patients required intensive care. Children perceived by the participants as vulnerable (such as oncology and transplant patients) were of heightened concern to parents and nurses alike: “COVID is still concerning for pediatrics due to the ‘unknown’ of how it could affect certain children who are immunocompromised.”

Theme 2: visitor restrictions and isolation increased stress

Patient stress

Visitor restrictions were common in inpatient settings, and most often allowed only one parent being present at the bedside. Participants felt that the “family separation” increased stress for pediatric patients who were “scared and lonely,” longing to see both parents, siblings, and extended family. When children did have a visiting parent, they were “confined” to their hospital room to prevent disease spread, and RNs felt the required isolation negatively affected mental health: “the patient and family are always secluded from everything...they always seem depressed.” Nurses tried to mitigate the negative effects of isolation: “It was very difficult to restrict patients to their room and potentially caused them to heal slower. I had to make an increased effort to provide things for distraction.” Finally, participants described instances when a child’s parents were also ill with COVID-19: “Children who are positive are sometimes left alone when they are hospitalized if their parents are also sick.”

with the knowledge I had.” For pediatric RNs who specialize in family-centered care, the uncertainty was described as “unbearable”.

Compounding the uncertainty surrounding COVID-19, children exhibited different signs of illness than adult patients. “Rarely are the children sick enough to require anything but supporting care at home,” one participant stated. Another echoed that patients had “mild symptoms

Family stress

While some facilities permitted parents to take turns at their child's bedside, others allowed only one designated visitor who could not leave or "they can't come back." Nurses felt this increased parental stress: "The parent allowed to visit gets stressed and worn out fast." Another explained that "parents demonstrated increased anxiety and stress because they were their child's only support system. The parent did not have access to their partner/support system unless both parents were away from the bedside, leaving the child alone." Interestingly, RNs who worked with newborns had mixed views about visitor restrictions. One suggested "the isolated family time (only one visitor being the father/support person) has been beneficial for bonding and private family time," whereas, another neonatal RN stated: "We have limited visitors and this is completely contrary to our family-centered care model. It's emotional and extremely difficult for families to have a newborn in our unit and not be able to show them off to grandparents, siblings, and other important people in their lives."

Nurse stress

Having to restrict visitors was also difficult for RNs. Some participants described parents being angry about the restrictions and that it was "hard to enforce the visitation restrictions when families challenge us." Restricted visitation also required RNs to provide more emotional support than the norm: "Nurses caring for this population have become more than the nurse. Due to visitation restrictions, they have become the mother, the father, the sister, the brother to patients." Another RN stated: "This has made the bedside nurse the person that becomes their mental, emotional, and physical support...now more than ever. Not only do we need to take care of patients, it is also the guardians...and being their best friend that they just met when their child is critical or dying." One caregiver, however, found reward in this shift, to "be able to provide emotional support as one of the only people able to be present with them in person." Nurses described feeling isolated at times when caring for COVID-19 positive patients because "nobody wants to come into your room to help you."

Theme 3: navigating changing knowledge and misinformation

Nurses reported "feeling vulnerable and unsure what to believe" about the virus, and a flagging trust in the Centers for Disease Control (CDC) as their information source. They recalled contradictory recommendations, the political distortion of available information, and multiple versions of reality. There was dissonance between expert opinion and local policy, or as one participant described it, a "lack of universal leadership in the community that aligned with healthcare experts." Facility educators described long hours educating staff about fluid rules and changing standards, with staff sensing their uncertainty: "It was fearful and uncertain eyes looking at me and questioning what I was saying. It was repeating, 'this is hospital policy' instead of saying 'I don't like what I am saying to you either.' It was repeating standards from the CDC when I was questioning their advice."

This lack of confidence in available information left Pediatric RNs at a loss to empower parents with accurate counsel: "everything was unsure...finding out different information hour to hour." "Having to say we don't know many times throughout the day," another stated, was "heart-breaking and frustrating." Nurses were also challenged by parents who misrepresented their exposure to COVID-19, and those who doubted the veracity of the threat: "Getting the parents to understand this is real...this is a real disease that needs real interventions. And just because social media says it's a hoax does not mean it is." Frustration was magnified in school and outpatient settings: "Many parents truly did not believe COVID 'was real' until a few weeks ago when the county experienced the same increase in cases as the rest of the state. Now, parents are overwhelming me daily with calls. The same parents are not listening to my recommendations and are still contributing to the spread of the disease. I feel

like I spend my days talking to myself because no one else is listening. It's exhausting." The tendency for children to display milder symptoms confounded RNs' efforts to educate about infection potential: "In primary care...the biggest stressor for me as a nurse is trying to educate parents about quarantine, isolation and prevention of spread."

Theme 4: personal protective equipment challenges

Lack of PPE

Availability of PPE varied according to work setting, and lack of it was an enormous stressor. For example, "urgent care is more controlled and we have the proper PPE and testing...in the school setting I work for, we do not have access to N95s or surveillance testing." Shortages in supply left nurses without needed masks, many reporting prolonged use of a single mask over an entire shift or longer, "knowing full well that these practices are 'normally contraindicated.'" "We were told that we have to wear the same mask for days before we could get another one... the N95s were being held hostage or so we were made to feel." RNs found themselves in a dichotomy between clinical judgment and supplies available to protect themselves: "We are only allowed to use an N95 mask during patient care if they are requiring aerosol producing treatment. Otherwise, we have to go into the room with a plain surgical mask. It's stressful to wonder if you're being properly protected." In the ensuing months when supplies were more readily available, participants reported less stress: "having PPE and experience helps" and work was "initially very stressful and scary...but less scary as time has gone on and I feel safe with the PPE provided." Operating Room nurses, conversely, voiced concern about the impact pandemic changes could have going forward: "During COVID, everything was so far deviated from our standards that I am not sure staff will respect the standards when instructed to return to pre-COVID status. I fear questions like, 'If one single surgical mask is sufficient to use for my whole shift during a pandemic, why change masks between patients when there is no pandemic?'"

Participants voiced dismay at apparent bias in facilities' handling of shortages: "There is still so much confusion on the use of PPE and differing rules for different units and professions. Voiced frustrations because the nursing staff were told to care for COVID+ patients wearing only a procedure mask but physicians and therapists had N95 masks. As the supply improved, nurses were able to wear N95s if in the room for longer than 15 minutes but the message this sent was very clear...nurses were expendable." On a broader level, RNs saw the healthcare system as a whole as unprepared for this pandemic, especially as it related to PPE supply: "There needs to be a system to protect healthcare workers that is on the staff's side...running short on PPE is unacceptable."

Effect of PPE on care provision

Needing to wear layers of PPE was described as "uncomfortable and suffocating." Further, wearing it for full shifts over an extended length of time was felt to negatively affect RN health: "Wearing the mask, face shield, and gown all day...sweating, dehydration, skin breakdown, exhaustion" and "The N95 masks have changed and hurt our faces." Participants were also concerned that the time required to don and doff PPE impaired workflow. Nurses described the time consumed with new PPE for each room entry and "donning and doffing PPE for the smallest things is time consuming." Safety protocols also required RNs to spend additional time "having to find someone to watch you don and doff PPE... even though you have done this for 20 years."

Aside from personal impact, nurses also felt wearing PPE impacted their patient interaction: "Caring for families in full isolation and PPE has been awkward and difficult." Most often, RNs described how PPE impaired their ability to communicate effectively: "Having to 'yell' to be heard through a mask and shield lends to less than desirable interactions" and "Difficulty hearing patients and families through masks, face shields, and fans to provide negative pressure...added to the feeling of separation

and disconnectedness.” Wearing PPE also impairs non-verbal communication as described by a neonatal RN: “As nurses, we do our best to meet not only physical needs, but emotional needs as well. To do that, we smile for our parents to reassure them everything is ok or we cry with them when things get rough. Wearing all this PPE shadows our true emotions and makes it difficult to be real with some of these families who can't even see our faces.” Because wearing PPE impairs communication, RNs suggested it was more difficult “to form a trusting relationship with patients and families.” Masking was hardest for the youngest of patients. According to participants, “older babies were scared of masks and goggles” and “not being able to see smiling and encouraging faces is hard for small children to understand.” One felt that receiving care from masked staff caused an infant to “stop smiling.”

The disconnect was further magnified by trying to conserve PPE and limit exposure in patient rooms: “We're trying to conserve PPE, so we go in and out of rooms as little as possible... which robs us of an opportunity for interaction.” From a safety standpoint, PPE posed a perceived delay in care: “It is a new way of thinking before going into rooms. You have to be safe at all times, which means even if the child is coding, you have to don all of the PPE needed before entering.”

Theme 5: living in fear

Fear of becoming ill and harming others

Participants were fearful for themselves: “Always afraid I'll contract the disease,” and their family members shared that concern: “My husband is very stressed out whenever there is a patient with COVid on my unit” and “The stress of me working in an ED was overwhelming for my husband...he asked me if I could just stay home.” Although fear of contracting COVid-19 was likely not unique to RNs in pediatrics, participants felt that because their patient population was often asymptomatic, this could increase likelihood of becoming unwittingly infected: “Each time we have had a COVid patient on our unit the situation is different, leaving questions and adding additional stress. More and more we are having asymptomatic patients test positive, so you never know if and when you could be potentially exposed.”

Nurses were fraught with fears of transmitting the virus to family members: “The greatest challenge has been the worry of carrying it to my family.” They expressed feeling “always afraid” and “constantly worried” about this risk, and those fears were magnified among those whose children and other loved ones were immunocompromised. In the face of school and daycare closures, children were often in the care of elder family members who were at greater risk of infection. RNs described being “scared to go home some days” and those fears affected their mental wellbeing. One described having “a serious mental duality going on within me...wanting to do the job I have been called to do and protecting my own loved ones.” They recalled being “extra and overly cautious,” and work days being filled with a “main focus on how I can fully protect myself so I do not get it or take it home to my own family,” and “Always in fear of accidental exposure at work.”

For many, their worries crept beyond the work setting: “At home, I was scared to go near my family members and touch them or hug them for months. Currently whenever I develop any symptoms, I immediately seek testing and quarantine. My OCD traits around cleaning and germophobia have increased.” Because of “paranoia about what you might be carrying home with you,” RNs took measures at the end of their work days to help protect their families. Commonly, participants had a routine of “making sure my scrubs and shoes went straight into the washer when I got home” and getting “directly into the shower...no contact with family until after that.” Others described more severe protective measures, sometimes influenced by their family: “My tennis shoes that I wear to work, not to work in, cannot come into our house. I am not allowed to touch anything when I get home. I go straight to the shower that is on for me. I have to Lysol the inside and outside of my car every day I work. I have to Lysol every surface that I may have touched

prior to showering, and my dirty work clothes have their own hamper and I cannot wash them with any other clothes. My husband and I had to make a game plan as to where I would quarantine if I were to be positive.”

Isolation breeds loneliness

Fear of infecting others caused some RNs to isolate themselves: “My parents are both 75 years old so I have had to isolate from them based on my exposure at work. I have also isolated from friends as I worry about potential exposure at work and bringing it to them.” Participants' words reflected the impact on their mental health: “I am feeling very lonely. I have no energy to reach out by phone or Facetime after 12 hours at work.” Another RN wrote: “I definitely feel stressed at home. My partner is 66 years old, and when I work in the ED we quarantine from each other for 4-5 days to prevent my infecting him before I am symptomatic. It makes my life at home sad and lonely. I also don't get to see my teenage daughter as often because she stays with her dad if I have been working in the ED to avoid getting COVid.” Participants also isolated themselves to protect their patients: “I need to make sure I don't bring COVid to work, so for weeks I have not left my house for anything other than my work shifts. It is so lonely.”

Other participants describe feeling ostracized due to their potential for exposure at work: “I have numerous family members and friends who do not want to come near me (even if we maintain proper social distance) because I am a nurse and work with sick patients.” Another recalled how “some dear friends were afraid to be around me socially because of my profession. I argued that at the hospital we take all possible precautions, and they were likely in more danger from shopping at Costco than from coming in contact with me.” Being a nurse caused one participant to perceive unfair treatment: “I found that the world doesn't really think so highly of nurses. I have been shunned from family events and refused service at retail places due to working in healthcare.” Conversely, one participant was grateful to work as an RN: “I have been so thankful to work in the hospital during the pandemic. I am an extrovert and the ability to spend a few nights a week with colleagues, patients, and families has been so important to my mental health.”

Theme 6: pride in the profession

Amidst the mayhem and uncertainty of caring for children and families during a pandemic, there was also a sense of pride and purpose among participants. The experience was described by some as “rewarding” and “humbling,” as well as “a blessing” and “an honor.” Several described “making a difference...being there when others can't” and being part of something bigger than themselves: “I feel I am living in history, that someday we will look back at this time and know we did all we could to care for people,” and “We step forward when others stand back.” There was a sense of feeling needed “To help people going through COVid and do our part in preventing the spread.” Some participants felt the public had a greater sense of respect for RNs as front-line workers, which made them “proud to be a nurse in these times” and “to be part of such a valued profession.” One RN wrote, “Pediatric nurses are amazing! They haven't lost their ability to nurture, to find their heart in the midst of all this chaos. They still have the child and family's well-being as their north star.”

Multiple participants described a sense of shared purpose, of being “in this together,” “all in the same boat,” and “all in this ship together trying to navigate new waters.” While being an RN during the pandemic “has been a very draining time emotionally...it's also a time of coming together” as “shared experiences build stronger bonds between colleagues.” Another RN elaborated: “Out of something so dreadful and negative there have been positive sides. Our team has come together to help and are more vocal about everyone's wellbeing and safety. We tend to say what we feel and how much we care for one another more.” Participants expressed a more pragmatic gratitude as well for the job security that nursing provided in uncertain times.

Theme 7: profession at risk

Although many participants felt pride for their profession and their work during the pandemic, an equal number expressed dismay in their work and a lack of appreciation. This led some participants to experience symptoms of burnout and a desire to leave their current position or the profession altogether.

Feeling stress and distress

Being an RN during the COVID-19 pandemic was described as the “hardest thing I have ever faced in my very long nursing career.” On top of feeling stress due to changing knowledge, lack of PPE and fear of contracting the virus, pediatric RNs experienced additional job-related stress. Early in the pandemic, hospitals experienced a low pediatric patient census and RNs were reassigned to work in other settings: “Being forced to relocate to adult COVID ICUs taking care of patients for which I had no prior knowledge, training or certification...it is extremely unsafe.” Reassignment was also described as unfulfilling: “I am very sad about my work these days. I don't enjoy my job at all. I spend most of my shifts as a screener for visitors and employees at our hospital, and that is dreary and thankless work. I don't get to use my critical thinking skills or my nursing knowledge, and I don't get to interact with patients and family members like I did before the pandemic.” Others were not as fortunate to be reassigned in times of low patient census, and instead had their “hours cut drastically...paychecks are nowhere near what they were before.” Pay was also reduced when RNs were forced to quarantine when exposed to COVID-19 at work. It was suggested that stress over salary was more pronounced in pediatrics as COVID-19 funding was directed towards adult settings: “Many of us pediatric RNs feel forgotten and left behind when it comes to resources and financial support. I know many who did not get risk incentive/increase in pay, and rather experienced furloughs or decreased pay due to lower census and overstaffing during the pandemic.” Shifts were changed according to staffing needs which made it “very difficult to manage a schedule at home.” Meanwhile, participants with children at home reported no childcare assistance from work and “with schools virtual or only at 50% capacity, I have had to take on homeschooling...childcare has been challenging.” Another RN described it as “very hard and stressful being a mom and a nurse during this never-ending pandemic.” As the pandemic evolved, staffing shortages were a source of stress: “When staff are off ill or with kids off due to COVID, the unit is short staffed with a lackluster back up plan” and “We had our own COVID outbreak...7 of the 10 RNs were positive...we worked the same amount of work with extreme short staffing...that was very stressful.”

Participants also described experiencing moral distress at work. Nurses struggled with having to alter the care they provided in order to prevent disease spread; this included having to put layers of PPE between themselves and patients, restricting visitors, and clustering care to reduce time in patient rooms. Balancing their own safety with proper patient care was a significant source of distress: “Concerned over limiting time in the room per hospital policy versus isolating/neglecting the patients.” They also experienced distress when witnessing inadequate patient care due to fears of becoming infected: “Maintenance, doctors, ultrasound, x-ray, lab...everyone it seems like has denied care to these patients” and “Very disappointed in doctors who have refused care to these patients simply due to their positive status...the delay in care has sometimes been weeks.” As one participant stated, “the incivility and delays in care cause significant moral distress.”

Feeling unappreciated

As the pandemic evolved, there was an expressed sense that patients' family members did not appreciate participants' efforts: “I used to feel like nursing was a respected position, and my patients and families really took what I told them to heart. Now they don't listen to a word I

say...I feel like it is not worth the breath I am wasting trying to teach them. Nurses have lost respect because of this pandemic.” Participants felt unappreciated by their communities and the public at-large: “In the beginning, I felt more appreciation from the general public than I ever have as a nurse. As time has progressed, this attitude of appreciating healthcare workers has sadly dissolved, and now it seems as though people care less and less about our safety and the safety of our families.” It was felt that this lack of appreciation occurred because “people don't see what we see and therefore don't know what we go through.” Nurses grew frustrated by the public's waning attention: “It is extremely frustrating that the community is not treating the virus as a real threat and it feels like all of the work we have done to decrease the spread has been for nothing because we're starting over again” and perceived political influences: “We were looked at as heroes when the pandemic started, which we are. But currently we are being vilified because of politics. It breaks my heart.”

Lack of appreciation within the workplace was also expressed. Participants stated that “nurses do not feel taken care of or appreciated.” For some, lack of hazard pay or adequate compensation left them feeling undervalued: “I feel that nurses are underpaid and underappreciated, more so now as we are not just putting ourselves in danger but our families.” Some participants expressed dismay over health care being profit-driven: “I feel that my hospital does not care for me as an employee...that it's all about money” and “It has made me rethink working for the corporation I work for and whether patients and staff come before profits.” One RN suggested a profit-driven approach impaired the response to the pandemic: “This is a public health emergency but with hospitals being run in a BUSINESS model, we are unable to respond like a SERVICE.” For another participant, hospital priorities were a source of dismay: “Extremely frustrated with upper management...it is all about how it looks in the press. They applaud themselves but do not care for the frontline workers.” Participants felt unheard when decisions were made without their input: “We are not asked before changes are made, and they are big changes, and we are told to just roll with it.” Others described how “management would not hear our thoughts/concerns/needs as the designated COVID unit” and “nurses' worries fell on deaf ears.” One participant elaborated: “Our biggest challenge was communication with hospital executives. We felt very alienated, being told what to do, working in unfamiliar environments for long hours, extra shifts. We felt unsupported by upper management that had no risk in their jobs.” The sense of being unheard and uninvolved in decision-making, as well as a perception of upper management “holding back information from the staff,” caused RNs to lose trust. Participants wrote: “This experience has shown me that it is difficult to trust management...I am not sure they are always looking out for our best interest” and “We don't know if we can trust our superiors to do what is in our best interest as front-line workers.”

Experiencing burnout

Indicators of burnout or risk for burnout pervaded survey responses. Some described symptoms such as “increased fatigue and decreased patience over time,” while others acknowledged more severe symptoms: “I am worried about COVID-related job trauma...almost more than the health effects of the virus itself” and “I wouldn't be surprised if I am told I developed mild PTSD from the experience, and I strongly believe others will have PTSD from it for a long time. I am advocating that nurses and healthcare professionals seek therapy because it is needed to debrief and process.” Nurses report “inexplicable trauma” while having “lost all faith.” This left RNs feeling “very defeated” and “dismayed at the realm that we are in.” One participant warned that if current conditions persist, the likelihood of burnout will increase: “I love my job or I wouldn't be here, but we are human and get tired and stressed...one can only give so much before they are burnt out and empty.” For some, the signs are more foreboding: “Working in healthcare during the epidemic has caused anxiety, stress and feelings of despair. There are times I have wished I never went into healthcare.”

Questioning their future

Participants longed to return to the pre-pandemic nursing career they loved: *"I miss loving my work. I love helping kids and their families. I hate dreading my job every day. I hate feeling unsafe."* They voiced being *"scared for the nursing profession," "Concerned about the future of our profession,"* and the need for advocacy. *"If anything it continues to show the undervalued profession of nursing and why we need to do a better job advocating for ourselves."*

Some participants were contemplating leaving their position due to stress and lack of support, with an interest in *"leaving bedside nursing for other areas of nursing."* Others questioned whether they should leave nursing altogether: *"Makes me question how long I can maintain this career with the physical, emotional, and mental stress."* Several stated they were contemplating early retirement, while others were *"reconsidering my profession and staying in nursing."*

Discussion

Though the COVID-19 pandemic is a worldwide phenomenon, the experience of patients and the nurses who care for them cannot be painted with a single brush. Pediatric nurses experienced COVID-19 from a distance at first, with mildly symptomatic or asymptomatic patients and circumstances that went counter to the heart of family-centered care. Patients and families were isolated either together or from one another, magnifying the stress and terror of a new and little understood illness. Nurses suffered from lack of information and confidence to reassure fearful families. The lack of PPE left them feeling vulnerable, expendable, and afraid. They feared for their patients, for themselves, and for their families at home. At first, their broader community lauded them but then grew weary of the impact of the pandemic on normal life, and nurses felt ostracized at times. There was, however, a swell of pride in being part of a critical life force during a frightening time, for *"stepping up when others step back."*

The contrast between nurses caring for adults and nurses caring for children during the pandemic was greatest in the early days of the pandemic when there were lower numbers of hospitalized children. This resulted in nurses being redeployed to care for adult patients or experiencing loss of work hours. This window into the experiences of pediatric nurses mirrors that of adult nurses' experiences in an alarming way: it revealed a waning commitment to the profession itself. Though there was pride in the work, many nurses described fatigue and despair that was fueling their exploration of options outside of bedside nursing. This thematic finding is consistent with the limited research to date on the impact of the pandemic on pediatric clinicians. [Kase et al. \(2022\)](#) described similar feelings of isolation, fear for family members, and compassion fatigue among pediatric physicians, while [Moerdler et al. \(2022\)](#) also studied pediatric physicians and described their decreased trust in leadership and high levels of burnout. [Silistre et al. \(2022\)](#) studied workers from intensive care units for prevalence of depression and anxiety related to COVID-19 and found one third of study participants had moderate to severe levels of concern and nurses were more likely than other professionals to experience symptoms. Similarly, [Sinsky \(2021\)](#) reported that nurses voiced higher rates of intention to reduce hours related to anxiety and depression because of pandemic conditions and that 2 in 5 nurses stated they planned to leave practice altogether. Nurses want to feel supported in their work, protected when at risk, and proud of what they do. Those that lack that anchor may leave their position or even the profession. With a global nursing workforce shortage that is worsening under the conditions of the pandemic ([International Council of Nurses, 2022](#)), it is imperative to foster education and work culture that nurtures and values nursing as critical to patient care.

Recommendations for research and practice

Our findings demand that those in clinical leadership address the needs of nurses, and to recognize that those caring for children were most certainly also affected by the pandemic. Nurses crave strong cultural and infrastructure support that helps them feel valued and prepared for the care they provide. As a profession, it is paramount to stem the loss of qualified personnel to do the work central to patient care. New nurses also need a supportive and nurturing environment in which to work, one where they feel supported, heard, and prepared. For bedside nurses, self-care is essential to preserve stamina and mental well-being, and taking time to care for oneself needs to be a priority. Likewise, leadership must encourage self-care and provide opportunities for nurses to receive the support they need to prevent or mitigate burnout. Based on the identified themes, action must be taken to help nurses process the traumas sustained during the pandemic and to provide support. Without such action, the profession is at risk. Lastly, action is needed at a broader level. Policy makers must take steps to help retain and attract nurses through ensuring safe and rewarding work environments. A focus on certainty that the nation is better prepared for future pandemics is also vital.

The findings of this study describe pediatric nurses' experiences during the first calendar year of the COVID-19 pandemic. As the pandemic is ongoing and has changed with emergence of different variants, the experiences of nurses may now be different than they were in the first year. More studies are needed to examine the pandemic experiences of pediatric nurses and nurses as a whole during Delta and Omicron variants and beyond. Research to examine the effect of the pandemic on nurse health is also needed. Such studies are vital to identify strategies to rebuild the nursing workforce and to ensure positive health outcomes of nurses. It is difficult to measure turnover resulting from the pandemic; the literature shows study of turnover intent rather than actual turnover since the COVID-19 pandemic is ongoing. [Tolksdorf et al.'s \(2022\)](#) systematic review summarized turnover intent and risk factors largely related to work experience level and perceived control over work environments. These findings can help define targeted interventions for empowering nurses.

It is beyond the scope of this project to suggest strategies to mitigate what has become known as "The Great Resignation," except to say that while healthcare may be the industry hardest hit by the phenomenon, it is by no means alone. One in four Americans quit a job in 2021 ([Parker & Horowitz, 2021](#)). Reasons cited by workers are familiar: workplace ostracism and incivility ([Gou et al., 2022](#); [Kavakli & Yildirim, 2022](#)), burnout, exhaustion, desire for greater flexibility and work life balance, and not feeling valued or listened to ([Poindexter, 2022](#)). The way forward has yet to be defined, and further research on nurse turnover, in general and as a result of the pandemic, is important in light of the ongoing nursing workforce shortage.

Limitations

It is noteworthy that this work was completed during the first of three distinct waves of the COVID 19-pandemic, with Delta and Omicron variants having very different presentations in children. Self-selection bias is a potential limitation of this study, and nurses who opted to participate may have done so because they had strong feelings about the pandemic and its impact on their nursing practice. Lack of diversity among the sample is another potential limitation. The sample was not diverse with respect to gender or race/ethnicity, and experiences among diverse pediatric nurses may be different. Also, recruitment occurred through the SPN and employed snowballing. For this reason, no associations can be made between membership and participant responses. Finally, the data were collected using an anonymous online survey format, and the authors were not able to further explore participant responses to the questions posed. Despite these limitations, the

findings provide insight on the experiences of pediatric nurses during the initial year of the COVID-19 pandemic.

Conclusion

In the interest of capturing the unique experiences of pediatric nurses during the COVID-19 pandemic, a nationwide survey was conducted. Analysis of responses to open-ended questions revealed seven themes: the unique characteristics of the virus among children, visitor restrictions and resultant isolation, a dearth of knowledge about the virus, PPE concerns, fear for safety, pride in the profession, and a profession at risk. The most concerning theme to the authors was the last, which revealed fractures in the commitment some nurses felt to their professional roles and identities. Attention to nurse retention and the need for self-care among nurses is paramount, and practice change and research in this area is warranted.

Author Credit statement

Conceptualization (MMM, KP), Methodology (KP), Formal Analysis (MMM, KP, KJ), Data Curation (MMM, KP, KJ), Writing-Original Draft (MMM, KP, KJ), Writing-Review and Editing (MMM, KP), Project administration (MMM, KP), Funding Acquisition (MMM).

Declaration of Competing Interest

We have no known conflict of interest to disclose.

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