Received: 27 October 2023 | Revised: 20 December 2023 | Accepted: 3 January 2024

DOI: 10.1002/emp2.13108

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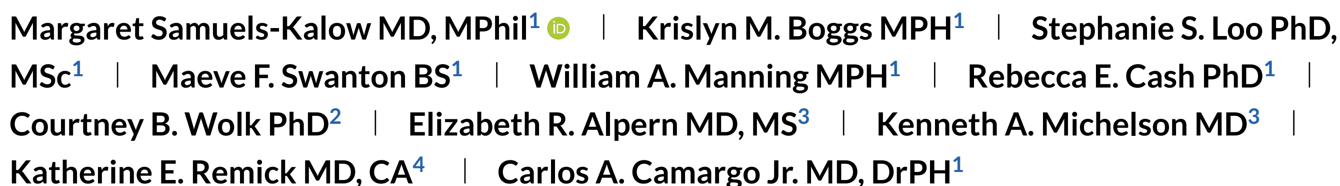
ORIGINAL RESEARCH

Pediatrics

"Right now, it's kind of haphazard"—Pediatric emergency care coordinators and quality of emergency care for children: A qualitative study



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Funding information
National Institute of Child Health and Human Development, Grant/Award Number: 1R01HD103637-01A1

Abstract

Objectives: Pediatric readiness varies widely among emergency departments (EDs). The presence of a pediatric emergency care coordinator (PECC) has been associated with improved pediatric readiness and decreased mortality, but adoption of PECCs has been limited. Our objective was to understand factors associated with PECC implementation in general EDs.

Methods: We conducted semistructured qualitative interviews with a purposively sampled set of EDs with and without PECCs. Interviews were completed, transcribed, and coded until thematic saturation was reached. Themes were identified through a consensus process and mapped to the Consolidated Framework for Implementation Research (CFIR).

Results: Twenty-four interviews were conducted and mapped to themes related to innovation, individuals and implementation process, outer setting (health system), and inner setting (hospital/ED). Addressing innovation, individuals, and implementation process, the primary theme was variability in how the PECC role was defined and who was responsible for implementing it. Regarding the outer setting, participants reported that limited system resources affected their ability to implement the PECC role. Key inner setting themes included concerns about limited visit volume, a lack of systems for measuring pediatric quality of care, and significant tension around change.

Conclusions: Implementation of the PECC role appears to be limited by heterogeneous interpretations of the PECC, de-prioritization of pediatrics, and limited system resources. However, many participants described motivation to improve pediatric care

Supervising Editor: Matthew Hansen, MD, MCR

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and implement the PECC role in context of increasing pediatric visits; they offered strategies for future implementation efforts.

KEYWORDS
pediatric emergency care, quality, readiness

1 | INTRODUCTION

1.1 | Background

Most children who receive emergency care are evaluated in general emergency departments (EDs), rather than pediatric EDs.[1] Readiness to care for children varies widely between EDs.[2] Guidelines for pediatric readiness recommend that all EDs appoint physician and nurse pediatric emergency care coordinators (PECCs). These individuals have multiple responsibilities including training, quality improvement, and establishing procedures and supply requirements.[1] This may be particularly important in conditions of high pediatric volume, such as the recent 2022 winter respiratory surge.

1.2 | Importance

The presence of a PECC is associated with higher pediatric readiness scores, as measured by the National Pediatric Readiness Program (NPRP),[3] lower trauma and critical illness mortality,[4–7] and reduced disparities of care.[8] However, rates of PECC adoption remain low, with reports ranging from 22%[9] to 37% in general EDs.[2] Even among EDs with a PECC, there is marked variation in responsibilities and protected time.[10]

1.3 | Goals of this investigation

To improve PECC uptake, it is critical to understand the contextual factors associated with differential implementation of the role, as well as potential motivations for implementation. The goal of this study was to understand differences in PECC implementation and preferences regarding the PECC role in a diverse sample of EDs.

2 | METHODS

2.1 | Study design and setting

We conducted in-depth interviews with ED staff in four states (Florida, Maryland, New York, and Wisconsin). This study was reviewed by the Mass General Brigham Human Research Committee and classified as exempt; for more details, see COREQ questionnaire (Supporting Information Appendix).

2.2 | Selection of participants

National Emergency Department Inventory-United States of America (NEDI-USA) is a comprehensive database of all nonfederal, nonspecialty EDs.[11] As part of NEDI-USA, we administer an annual survey to all US EDs.[12] The current study used the 2018 NEDI-USA for sample selection regarding PECC availability, which included a total of 642 EDs open in Florida, Maryland, New York, and Wisconsin. These four states were selected given their geographic and ED diversity, and the ability to link ED-level data between NEDI-USA and their respective State ED Databases (SEDD) and State Inpatient Databases (SID), which was needed to select the ED sample for interviews. Given the goal to learn about PECC implementation in the context of hospital-level capabilities and processes through these interviews, EDs that were not hospital based (ie, freestanding, $n = 76$) and that did not report presence or absence of PECC as part of the 2018 NEDI-USA survey ($n = 85$) were excluded; 18 EDs were excluded for both reasons.

Of the remaining EDs, we flagged 172 potential children's hospitals by identifying those with any of the following in 2018: a PECC, a dedicated ED area for children, pediatric admission capabilities, or ≥70% of ED visits by children. One investigator (MSK) manually reviewed this list and created a reduced list of definite, likely, or possible children's hospitals ($n = 30$); all 30 were excluded due to expectations that all leaders in a pediatric-only setting are involved in coordinating pediatric care and thus there is not one individual assigned to the PECC role.

Finally, we linked EDs in NEDI-USA with EDs in their respective SEDD and SID using previously described methods.[13] EDs that could not be linked were ineligible ($n = 71$). This process resulted in 398 eligible EDs.

We categorized EDs into four groups based on previously described quality measures[14] (see Supporting Information Methods). Briefly, EDs were assessed on process measures (e.g., left without being seen) and utilization measures (e.g., chest x-ray for asthma). Twenty EDs were higher performing and had a PECC, 73 were higher performing and without a PECC, 71 were lower performing and had a PECC, and 234 were lower performing and without a PECC (Figure 1). ED groups were purposively sampled until thematic saturation was reached.

2.3 | Measurements

We completed interviews with a single person per ED: ED leadership or PECC. Participants were first contacted by phone or email to schedule a time for the interview. Recruitment and interviews started in July

2022 and ended in July 2023. Participants underwent a verbal consent process. Interviews were completed via a recorded telephone call, with both interviewers and participants at their workplace. Interviewers took notes to supplement the recorded calls. If an ED's PECC status changed since 2018, we administered the interview based on their current PECC status.

The interview guide was developed by the authorship team, which includes multiple experts in qualitative interviewing and in pediatric emergency care. The interviews were conducted by trained research coordinators (MFS and WAM). Their training was led by a physician-researcher with extensive qualitative interviewing experience (MSK) and involved conducting practice interviews and debriefing. The study team met regularly to assess the quality of the interviews.

Participants completed a brief demographic survey followed by the qualitative interview. Interviews queried about the hospital system, and how emergency care generally and pediatric care specifically were organized and delivered. We inquired about how the ED measures quality of pediatric care, changes in ED visit volume during the 2022 pediatric respiratory virus surge, general recommendations for improving pediatric emergency care, and the ED's completion of specific PECC responsibilities[1]: participating in pediatric-focused quality improvement initiatives; providing pediatric education to ED clinicians; verification of staff skills and knowledge regarding the emergency care of children; ensuring adequate medications, equipment, supplies, and resources for children; promoting pediatric disaster preparedness for the ED and participating in hospital disaster-preparedness activities; and promoting patient and family education in illness and injury prevention. Quality improvement, disaster planning, and focused procedures for pediatric care were identified as specific important gaps to target in a recent NPRP study.[2] As part of the interview, we confirmed each ED's current PECC status. Among those with a PECC, we asked additional questions about the individual who fills the PECC role and their associated responsibilities (Supporting Information Appendix).

The Bottom Line

This qualitative study on hospital emergency department pediatric emergency care coordinators (PECCs) found that barriers to PECC implementation included significant variability in how the PECC role was defined, general de-prioritization of pediatrics, and limited system resources.

2.4 | Analysis

The recorded interviews were professionally transcribed. A coding tree (Supporting Information Appendix) was developed and refined. Each transcript was coded by at least two independent members of the research team who met regularly to assess agreement. Differences were resolved by consensus discussion. Coding was documented using Dedoose (UCLA, Los Angeles, CA). Coding and theme development were ongoing throughout the study, with adjustment of the coding tree and interview guide as themes emerged. Interviews were conducted until thematic saturation, identified by consensus, was reached among EDs within each of the four predefined groups. A quantitative summative analysis was used for closed-ended questions (e.g., PECC role tasks) to provide context for the EDs sampled. Thematic analysis was used for the open-ended questions. Themes were identified through a consensus process and mapped to the Consolidated Framework for Implementation Research (CFIR) (Figure 2).

3 | RESULTS

3.1 | Study participants and theme construction

There were 197 EDs contacted of which 24 (12%) participated (Table 1). The interviews ranged from 15 to 43 min (median 26 min).

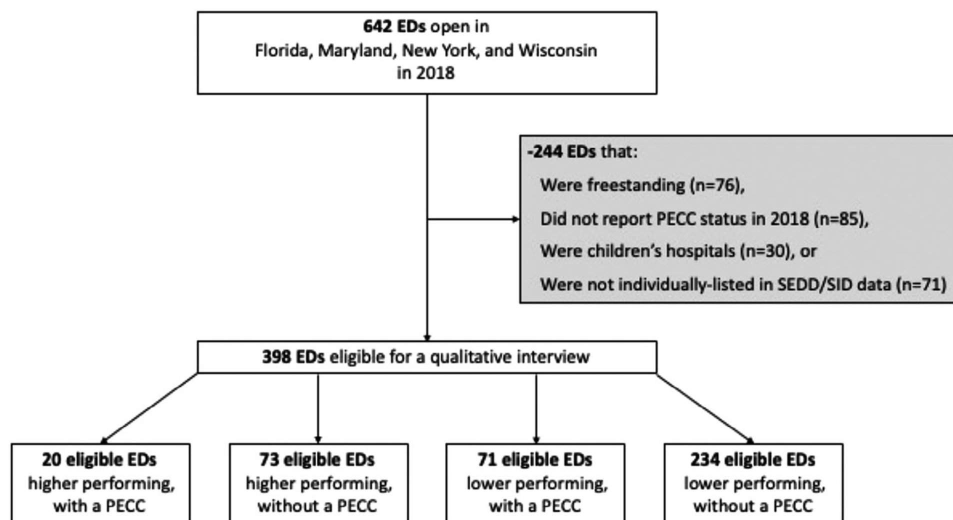

FIGURE 1 Theme connections. The following diagram demonstrates the connections between the identified themes in our study, with each of resource limitations, volume, heterogeneity, and tension around change impacting pediatric systems of care.

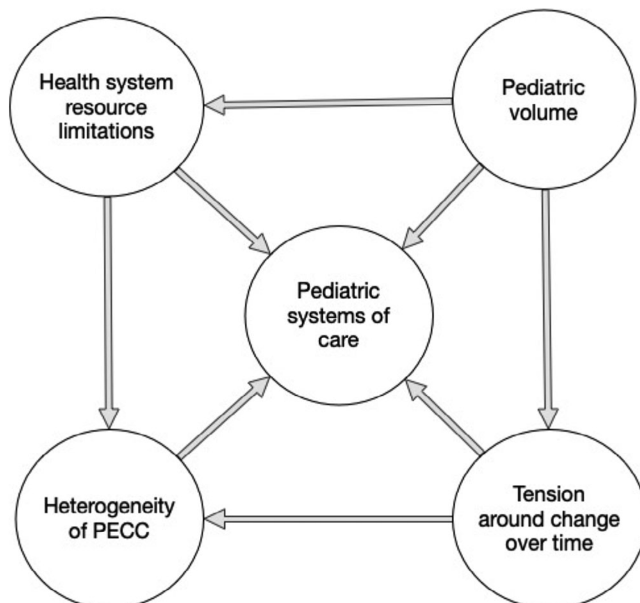

FIGURE 2 Emergency department (ED) eligibility. The flow chart shows how EDs were assessed for eligibility and selection for the qualitative interviews.

Eighteen EDs (75%) had no distinct ED pediatric area. Ten of the responding EDs reported at least one PECC. Among those, two reported both physician and nurse PECCs, four reported physician PECCs only, and four reported nurse PECC only. Range of self-reported completion of PECC task domains ranged from completion of all six specified activities to only two. Among the existing CFIR domains, we constructed themes related to innovation, individuals and implementation process, outer setting (health system), and inner setting (hospital/ED), as seen in Figure 2. Overall, themes were not markedly different by hospital performance group. The themes that emerged were as follows.

3.1.1 | Innovation, individuals, and implementation process: Heterogeneity of the PECC role

Encompassing innovation, individuals, and implementation process, the primary theme was variability in how the PECC role was defined and adapted, and who was responsible for implementing it.

Some PECCs were responsible for equipment, whereas others reported staff scheduling as a primary PECC responsibility. Other respondents described creating educational and training programs addressing pediatric needs: "So what we do is we ask our staff… . If someone didn't do something on a pediatric patient, or they didn't document appropriately, or they skipped something, or they didn't give an injection correctly, then we have them present at our next staff meeting. They have to pick a topic in regards to pediatrics and present it" (higher performing [H], PECC [P]).

However, even non-PECC EDs described staff members with PECC-like roles. These individuals had responsibility for setting up training programs, and supplies and equipment preparation: "So there's a significant amount of training that goes into just using the correct equipment, using the pediatric equipment. We got a Broselow cart here, which they never had before. So we've got to make sure that we have the right equipment. So we've done a lot of training on equipment in the last several months" (lower performing [L], non-PECC [NP]). However, several non-PECC EDs described challenges in organizing pediatric-specific supplies; "We are kind of implementing a process to making sure that some of the airway stuff that we have is all together. Just right now, it's kind of haphazard. We do have a peds crash cart, but sometimes that doesn't have everything we need… . And we do have those pediatric and neonatal very sick kids that need intubation and resuscitation" (L, NP).

3.1.2 | Implementer characteristics

The type of individual implementing the role also varied. Most often, the PECC role was subsumed in their existing responsibilities: "It's just kind of absorbed into my current role. Again, part of the reason why I do it is because of my other administrative duties, and it kind of falls into that. I think, it would be challenging for someone who doesn't already get nonclinical time, unless they had a special interest in pediatrics, to really spend their time doing this sort of thing, because there are labor intensive portions of it" (L, P).

3.1.3 | Implementation

Numerous participants emphasized the role of the PECC as reinforcing the importance of pediatric care, specifically in a hospital that cares for all age groups: "What I like is that it focuses on pediatrics and does not allow pediatrics to get lost in the overall much larger focus on adult emergency nursing and emergency medicine… . I think what the staff like is they like having a go-to person as a resource" (L, P). Even clinicians in non-PECC EDs described the importance of having one person as a local advocate for pediatrics: "I don't identify myself as a PECC role, but certainly, I enjoy that I'm able to help nurses provide safe care to pediatrics because that's a huge burden for the hospital…we didn't have dedicated pediatric nurses… . It is completely different to what you do with adult nursing. And that hasn't yet maybe sunk in with some of the people in authority" (L, NP). The lack of leadership support and prioritization from this quote also relates to the distribution of system resources (see Section 3.2).

3.2 | Outer setting: System resources

Most participants described resource limitations that affected their ability to optimize pediatric care delivery and to implement the PECC role. For example, "I think that the limitations are likely to be financial and based on resources the hospital has" (L, NP). The limitations were frequently described as affecting stocking and equipment supplies:

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TABLE 1 Participating sites: States, emergency department (ED) type, and National Pediatric Readiness Program (NPRP) adherence.

		ED configuration	PECC responsibilities[b]						
Type[a]	State	Mixed ED	QI	Staff education	Skills verification	Supplies	Disaster planning	Family-centered care	Total
No PECC, high performance	NY	Mixed ED	X	X	X	X	X	X	6
	FL	Mixed ED	0	0	X	X	0	0	2
	NY	Mixed ED		X	X	X			3
	NY	Mixed ED	0	X	X	X	X		4
	WI	Mixed ED	0	0	X	X	X	X	4
	NY	Mixed ED	X	0	0	X	X	0	3
	FL	Mixed ED	0	0	X	X	X	0	3
PECC, high performance	FL	Mixed ED	X	X	X	X	X	X	6
	FL	Pediatric area	0	X	0	X	0	X	3
	NY	Mixed ED	0	X	X	X	0	0	3
No PECC, low performance	WI	Mixed ED	0	0	X	X	X	X	4
	WI	Mixed ED	0	0	X	X	X	0	3
	MD	Mixed ED	X	0	X	X	0	0	3
	NY	Mixed ED	0	X	0	X	0	0	2
	NY	Mixed ED	0	X	X	X	X	X	5
	NY	Mixed ED	0	X	0	X	0	X	3
	FL	Mixed ED	X	X	0	X	0	X	4
PECC, low performance	MD	Pediatric area	0	X		X	0	X	3
	NY	Pediatric area	X	0	X	X	X	0	4
	MD	Pediatric area	X	X	X	X	0	X	5
	NY	Pediatric area	X	X	0	X	X	X	5
	MD	Mixed ED	X	0	0	X	X	X	4
	NY	Mixed ED	X	0	X	X	0	0	3
	MD	Pediatric area	0	0	0	X	0	X	2
Total			10	13	15	24	12	13	

Note: QI: Participating in pediatric-focused quality improvement initiatives for your ED. Education: Providing pediatric education to ED clinicians. Verification: Verification of staff skills and knowledge regarding the emergency care of children. Supplies: Ensuring adequate medications, equipment, supplies, and resources for children. Disaster: Ensuring pediatric disaster preparedness for the ED and participating in hospital disaster-preparedness activities. Family-centered care: Promoting patient and family centered care in illness and injury prevention.
Abbreviation: PECC, pediatric emergency care coordinator.
[a]Participants ages ranged from 33 to 65 years; the median age was 48. Forty-two percent were men and 58% were women. In terms of titles, six participants were PECCs; 17 were ED directors, chiefs, or chairs; six were in nursing leadership; and one was the ED manager.
[b]X is a task that was reported to be completed; 0 is a task that the site did not complete; a blank box means the task was not addressed in the interview.

"I think it would be helpful to have someone who has at least some dedicated time spent to revisiting every single thing that could be stocked and necessary for pediatric care. And it's just tough with limited resources and people" (H, NP). In addition, EDs described limited capability to admit children, with rare exceptions around surgical procedures in adolescents (Table 2).

PECC respondents also described positive implications of system resources: "A lot of it's high yield… . Because we're part of a big health system, there are certain things that don't apply to our site but that we go over during our meetings because part of our health system is the tertiary site… . So there's certain guidelines and protocols for things that we never would see at a small community hospital. But we kind of have to go through the motions of making sure everything's in place for them" (L, P; please see Table 2 for additional quotations for each theme).

Overall, respondents from both non-PECC and PECC EDs were eager for more information to be disseminated from primary pediatric centers: "I do think it's helpful when things get pushed back out from a pediatric referral center… . And then they do occasionally push out recommendations of things to improve on. Our case reviews, that kind

TABLE 2 Themes and selected quotes (for full table, please see the Supporting Information).

CFIR domain(s)	Theme	No PECC, high performance	PECC, high performance	No PECC, lower performance	PECC, lower performance
Innovation, individuals, implementation process	Heterogeneity of PECC role	[If you need have a PECC in your ED, what tasks might they be responsible for]: So equipment inventory and optimization. Up to date protocols. Whether it can be somebody who does education or COVID effect on a two year old.	[What do you think is the most important tasks in terms of your PECC duties?] Honestly, educating the new nurses that are coming out.… When you're cathing a baby, you have to aim down to the bottom of the mattress. When you're cathing an adult, you have to aim up toward their belly button. Just little things like that, they don't teach anymore. I feel like it's becoming a lost unless you work at a pediatric facility, a lot of that doesn't get taught anymore.	I think, as a resource to my ER, that would be somebody I could touch base with. "What supply should we have in our PALS cart?" If there's any information to pass on to families, if there's any education for my nurses—this would be a really good course for your nurses to take—somebody who could focus on peds and give me that information. So for instance, I know other places, they have crayons and coloring books and stickers and whatever, and we don't have any of those for our patients.	Collection of quality data and completing the dashboard. They're responsible for product selection, reviewing pediatric policies and procedures, and developing new ones, staff evaluations, performance reviews. They participate in the hiring and firing process, but they are not solely responsible for it.
Outer setting	Importance of health system resources	[describing a time of challenging capacity]: They had a couple conference calls with our administration on kind of how to manage kind of sub acutely manage a patient who may need oxygen who is a pediatric respiratory patient when they were completely full. And so that kind of communication with the leadership was helpful	[And in your opinion, do you think the current number of PECCs is sufficient for your health system?] think I have too much on my plate, and I don't think it gets enough time from me	I just think that if we have these guidelines, I think we could put together a team to talk about it and how we could implement it in the facility, and then most certainly send it out to staff as an education module, so they get educated.	I think mainly because we're a large health system with a lot of resources. So I think that as long as someone has the time to do it, then I think they're going to prioritize doing it or having one. And I think, within our health system, there will be someone to have the time to do it because, I mean, they have the resources to allow for that.
Inner setting	Importance of pediatric volume as driver of priorities	Honestly, I've been here a year, so I honestly don't think that there's been a huge need because, like I said, we haven't had a lot of pediatric patients and just picking up now. So probably the answer to the question is not regularly because there was no need, I guess, but now there's been a recognized need to set that up.	We don't admit pediatrics to this hospital very rarely. Only surgical cases.	I think it would be hard to have somebody just dedicated to that because we don't see a ton of pediatrics here. So I think it would be hard, and we're a small community hospital, and we're definitely working with certain constraints, including financial constraints.	So I think this so it's all about business, right? And at the end of the day, hospitals look at what's viable and what's not viable for business… Not my decision, but it certainly isn't the top priority for the organization either because of the low volume.

(Continues)

TABLE 2 (Continued)

CFIR domain(s)	Theme	No PECC, high performance	PECC, high performance	No PECC, lower performance	PECC, lower performance
	Challenges around pediatric systems of care, particularly quality measurement	So when you look at quality, it's grouped in with all the other patients. It's not broken down by age.	[do you participate in Pediatric Focus Quality Improvement Initiatives for your ED?] Unfortunately, no. I would like to. We're getting there, but we haven't gotten there yet.	Although like a week ago, we got a new age friendly coordinator, so she'll be a nice resource. I think right now she's focusing more on geriatric care… [how does your ED measure the quality of its pediatric care?] I don't know if there's any specific measurement tools in place, to be honest	So it's not pediatric specific. We have a lot of metrics that we do observe and audit.
	Tension around change over time	I just want to say I know you know a lot about this and you're doing this research as part of your job, but every emergency medicine physician like myself, we go through years of pediatric training within our own residencies because we're expected to care for all ages of life. So it almost infers that if we don't have a PECC or whatever you called it, that all of a sudden, we're flying blind. But every ER doctor has pediatric training and should know what to do. I think the PECC could be used more for equipment, optimization of rooms and environments, like stuff that's not medical, but really does make a difference for each care. So let me change my answer. I would say maybe we do need one, honestly, because it's so important.		Definitely talking with you, though, has made me kind of definitely think about some things that we could be doing better and tracking some of those things and making sure education is given not just to the doctors, but also the nurses and everyone involved.	So with the surge of respiratory illnesses that's fortunately dying down a little bit, she was very instrumental in collaborating with some of our other hospitals, kind of take stock of what resources we had, expertise, equipment, and kind of brainstorm on how we could deploy those resources if needed to other hospitals that might be under resourced.

Abbreviations: CFIR, Consolidated Framework for Implementation Research; PECC, pediatric emergency care coordinator.

of thing. So any increased communication from the referral centers is helpful to us" (H, NP).

3.3 | Inner setting (hospital/ED): Volume, systems of care and measurement, and tension around change

In the inner setting, key themes included concerns about limited visit volume, a lack of systems for measuring pediatric quality of care, and significant tension around change, including changing perspectives on the importance of the PECC over the study period.

3.3.1 | Visit volume and pediatric experience

Participants often described low pediatric volume as a reason why the PECC role was not needed: "No need, currently…less than 10% of our patient population is pediatric" (H, NP) and "Probably because we have a low number of pediatric patients, and the leadership team in the emergency department, I think, has felt that they were able to cover the issues surrounding pediatric patients without designating someone specifically in that role" (L, NP).

3.3.2 | Value of pediatrics

Additionally, participants felt that pediatrics was not well valued by the hospital: "Just lack of definition and lack of resources and lack of respect. I think pediatrics in general is kind of looked down upon a little bit, because it's not the money maker of the hospital, but we have such an important role for children and families that I would like to get us more respect" (L, P). One participant commented that hospitals were faced with a challenging decision about whether to emphasize pediatrics: "It would be nice to have the hospital decide to go in one way or another. Meaning, either we develop our pediatric program and try to expand our volume and get those resources, or we shut the program down completely. It's a little bit challenging to maintain in its current form, which is kind of limping along without space, without the specialty trained staff" (L, P).

3.3.3 | Measurement

The largest difference between PECC and non-PECC EDs was seen in the discussion of quality of care measurement. Most non-PECC participants described limited ability to measure pediatric quality of care: "I know that we have a Joint Commission survey that comes in to measure the quality of all of our care. And I know that they specifically pull pediatric charts. I know that we have a Broselow cart and a Broselow bag, which is just stocked with best practice guidelines" (H, NP). Quality measurement was largely based on adult standards: "We use all of the same quality measures that we use for the adults and make sure that they're getting their care in a timely manner. It's meeting quality measures for Medicaid and Medicare" (L, NP). Several EDs commented on a new focus on geriatric-specific measures: "To be honest, we're kind of doing a little focus on geriatric patients at this point. We're trying to look at geriatric certification. So we kind of put our focus more that way" (L, NP).

However, many PECC sites described pediatric-specific measures, including "sepsis, door to provider time, length of stays in the department, quality of care for bronchiolitis, sepsis, fevers in newborns, things like that, and trauma. And then, we have a monthly Pediatric Quality Council meeting, that kind of is with representation from every site within our system, to go over these sort of metrics as well as updates that we could disseminate out to our staff" (L, P).

3.3.4 | Changing perceptions

Participants often became increasingly enthusiastic about the potential utility of a PECC for their site, with one respondent saying, "it's definitely something I will be bringing up at our ED meeting on Monday… . I think it would be good to look outside the box. We do get, I would say, probably 25% of our patients are pediatric and there are things that we could probably improve on for pediatric care if we went forward with this" (L, NP). Many also reported changing their mind after the 2022 pediatric surge in visits. When asked if the current number of PECCs is sufficient for their health system one participant replied: "I would say if you would have asked me this question six months ago, I would have said yes, but I'm going to say no now. And the reason I say that is because of the significant surge in pediatric volume that we're seeing and the level of acuity that we're seeing now" (L, P).

4 | LIMITATIONS

Study limitations include only a four-state sample for interviews, although we selected states with geographic diversity. Additionally, many respondents to the NEDI survey were unwilling to participate in the qualitative interview, and some sites did not answer the PECC question and so were ineligible. Additionally, we have limited rural and academic representation due to sites declining participation in the interview, although reasonable geographic and volume diversity. However, the role of the PECC may be most important at nonacademic sites with more limited resources. We assessed only a limited sample of quality measures that were available in administrative data for generation of the sampling frame, and so describe hospitals as being relatively higher versus lower performing. These measures were selected based on availability in SEDD/SID and may not fully represent hospital capabilities. Additionally, there is potential for social desirability bias as respondents knew the subject of the interview, or for the interview itself to serve as a motivator for change or interest in the PECC role.

5 | DISCUSSION

In this qualitative study of general EDs, we identified significant variation in the definition and construction of the PECC role and significant limitations based on system resources and pediatric volume. Because of resource constraints and variable investment in PECCs, EDs had limited measurement and implementation of pediatric quality measures and quality improvement initiatives. Encouragingly, there has been a rapid evolution and perspective change due to the surge in pediatric visits during the course of this study, which may provide a timely opportunity to increase the penetration and efficacy of PECCs. This is particularly critical because of prior reports showing associations between PECC presence and higher readiness scores,[3] which are associated with improved outcomes for children.[4–7]

The purpose of the PECC is to optimize the quality of care provided to children in EDs; the PECC role can be filled by more than one individual, and a person in the PECC role can have other duties (e.g., medical or nursing director).[1] A recent study found higher quality of pediatric resuscitative care in EDs that had designated both a physician and nurse PECC,[15] emphasizing the importance of the PECC role specifically. However, the enormous variation in how the PECC role was defined suggests variable interpretation of the role and its significance. Many hospitals with a reported PECC were not engaged in core PECC activities, as defined by the NPRP.[1] Some hospitals without a designated PECC assigned PECC tasks to other individuals. This variability suggests it may be challenging to measure the impact of the PECC role, which will limit our ability to assess how it may or may not improve quality and outcomes for children. Our study demonstrates the range of tasks completed by PECCs, and the overlap with tasks completed by those who were not identified as PECCs. This suggests that efforts to formalize the role and appoint PECCs[16] could empower non-PECC clinicians doing PECC activities to receive the title and support to increase their efforts. More research is needed to understand which components of the role are most impactful to improve outcomes, which may enable a more limited version for settings with fewer resources. Even in hospitals that have a PECC, more education around the NPRP PECC roles and responsibilities is needed; a recent survey demonstrating that 71% of PECCs feel more training is needed.[17] Overall, more clarity is needed about the core functions of a PECC, with guidance around how the role can best serve general EDs, and more detailed instructions for implementation, funding, and sustainability.

Additionally, there was variation in the investment in the pediatric population in the ED, specifically the perceived importance of pediatric care and the implementation of pediatric-specific quality measures. There is ongoing work to develop pediatric-specific ED quality measures,[18] especially those that can be ascertained using administrative data.[14] The significant limitations around system resources and pediatric volume likely reflect ongoing regionalization of pediatric care[19] and increase the challenge for sites with smaller pediatric volumes to remain up-to-date and prepared. Dissemination efforts around pediatric quality measurement best practices, and guidelines from local pediatric referral centers, were identified as actionable strategies from these interviews. Policy level changes could include national consistency on pediatric ED designations[20] and funding for the PECC role. Finally, these data do provide additional information about how to potentially address pediatric care challenges; respondents were generally interested in improving pediatric care. Participants reported an increased emphasis on this work during and immediately following the 2022 winter respiratory surge, suggesting the potential to use disaster and surge preparedness as a motivation for PECC adoption. Potential solutions include increasing the role of pediatric referral centers to provide training or access to local pathways and clinical guidelines and just-in-time guidance, potentially via telemedicine, to help strengthen pediatric care and PECC training in nonpediatric hospitals.

Overall, these results provide important context for understanding the current variable implementation of PECCs, the potential impact of a PECC, and several paths forward for intervention to increase PECC penetrance and efficacy. Given the likely efficacy of the PECC role, increased attention to supporting implementation consistency is warranted.

ACKNOWLEDGMENTS

This study was supported by the National Institutes of Health (R01 HD-103637). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Samuels-Kalow M, Boggs KM, Loo SS, et al. "Right now, it's kind of haphazard"—Pediatric emergency care coordinators and quality of emergency care for children: A qualitative study. *JACEP Open*. 2024;5:e13108.
https://doi.org/10.1002/emp2.13108

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