


ORIGINAL RESEARCH

Pediatrics

Pediatric emergency care coordinator workforce: A survey study

Ashley A. Foster MD¹  | Joyce Li MD, MPH² | Matthew H. Wilkinson MD, MPH³ | Michael Ely MHRM^{4,5,6} | Marianne Gausche-Hill MD^{7,8,9} | Craig Newgard MD, MPH¹⁰ | Katherine Remick MD^{3,11,12}

¹Department of Emergency Medicine, University of California San Francisco, San Francisco, California, USA

²Division of Emergency Medicine, Boston Children's Hospital, Boston, Massachusetts, USA

³Department of Pediatrics, Dell Medical School, University of Texas at Austin, Austin, Texas, USA

⁴Emergency Medical Services for Children Data Center, Salt Lake City, Utah, USA

⁵Department of Pediatrics, University of Utah, Salt Lake City, Utah, USA

⁶Division of Critical Care, University of Utah, Salt Lake City, Utah, USA

⁷Los Angeles County EMS Agency, Los Angeles, California, USA

⁸Departments of Emergency Medicine and Pediatrics, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California, USA

⁹Departments of Emergency Medicine and Pediatrics, Harbor-University of California Los Angeles Medical Center, Torrance, California, USA

¹⁰Center for Policy and Research in Emergency Medicine, Department of Emergency Medicine, Oregon Health & Science University, Portland, Oregon, USA

¹¹Department of Surgery, Dell Medical School, University of Texas at Austin, Austin, Texas, USA

¹²Emergency Medical Services for Children Innovation and Improvement Center, University of Texas at Austin, Dell Medical School, Austin, Texas, USA

Correspondence

Ashley Foster, MD, Department of Emergency Medicine, University of California San Francisco, 550 16th Street, Box 0649, San Francisco CA 94143, USA.
Email: Ashley.foster@ucsf.edu

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Abstract

Objectives: The appointment of pediatric emergency care coordinators (PECC) in emergency departments (EDs) enhances pediatric readiness, yet little is understood regarding this workforce. We describe PECC role characteristics, responsibilities, barriers, and threats to the role among a national cohort.

Methods: We surveyed a sample of PECCs from all regions of the United States who participated in the Emergency Medical Services for Children PECC Workforce and Trauma Collaboratives (2021–2022). EDs were categorized by annual pediatric patient volume: low (<1800), medium (1800–4999), medium-high (5000–9999), and high ($\geq 10,000$). Trend tests were performed to explore the relationship between pediatric volume and PECC characteristics.

Results: Among 187 PECCs, 114 (61.0%) responded. The majority (75.2%) identified as a nurse. There was a significant difference in median hours per week spent on PECC activities by pediatric volume ranging from a median of 2 hours (interquartile range

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[IQR] 0.0–2.3) for low pediatric volume to 16 hours (IQR 4.0–37.0) for high pediatric volume ($P < 0.001$). Most respondents reported more time was needed for PECC activities (58.4%), and desired additional training to support the role (70.8%). Most (74.6%) felt the PECC position should be paid, yet 30.7% reported the role was voluntary. The most frequently assigned responsibilities were education of staff (77.2%) and oversight of quality improvement (QI) efforts (72.8%).

Conclusion: Characteristics of PECC workforce vary but PECC activities of education and QI work are common among all. There is a reported need for additional training and support. Further studies will determine the impact of PECC characteristics on pediatric readiness.

KEYWORDS

pediatric emergency care coordinator, pediatric emergency medicine, pediatric emergency preparedness, pediatric readiness

1 | INTRODUCTION

1.1 | Background

Most children are cared for in general emergency departments that see fewer than 10–15 pediatric patients per day.^{1,2} Pediatric-specific resources within an ED may vary based on ED characteristics, including pediatric annual volume.² A joint policy statement co-authored by the American Academy of Pediatrics (AAP), the American College of Emergency Physicians (ACEP), and the Emergency Nurses Association (ENA) recommends all EDs have both a physician and nurse pediatric emergency care coordinator (PECC) as a critical component of maintaining pediatric readiness.^{3–5} This is endorsed by the National Pediatric Readiness Project (NPRP), a quality coalition formed by the Health Resources and Services Administration's Emergency Medical Services for Children (EMSC) Program, AAP, ACEP, and ENA as well as recommended by the National Academy of Medicine (NAM).^{2,6} The role of the PECC is defined by NAM and the NPRP as a nurse and/or physician who serves as pediatric champion and in an administrative role to coordinate quality improvement and education, ensure policies and procedures to care for children are in place, and liaise between departments and hospitals within a health care system.⁶ Joint AAP, ACEP, and ENA policy states, "The physician and nurse PECCs may be concurrently assigned other roles in the ED (eg, frontline staff designated by leadership) or may oversee more than 1 program in the ED (ie, medical or nursing director or as coordinator for trauma, stroke, or cardiac [ST-segment-elevation myocardial infarction]). PECC roles may be shared through formal agreements with administrative entities, such as within hospital systems, when there is another ED capable of providing definitive pediatric care."⁴ The PECC position might be viewed as the pediatric equivalent of a trauma program manager role in a verified trauma center. The PECC nurse and physician roles are accountable for the development, implementation, and evaluation of pediatric emergency care (coordinating all pediatric-related

services in the ED including overseeing pediatric quality and performance improvement efforts, pediatric patient safety, development of pediatric policies, protocols, and practice guidelines, ensuring pediatric competencies and education for staff, and the availability of pediatric equipment and supplies).⁴

The presence of at least 1 PECC is "central to the readiness of any ED that cares for children."⁴ Prior literature details presence of a PECC within an ED is strongly correlated with higher pediatric readiness, independent of other factors.^{2,7} Importantly, high pediatric readiness EDs are associated with decreased pediatric mortality for children with critical illness and injury compared to facilities with low pediatric readiness.^{8–12}

1.2 | Importance

Although the PECC role has been recommended within the ED to ensure delivery of high-quality emergency care of children and contributes to high pediatric readiness, little detail is known about how the PECC position is implemented within the ED setting. Prior literature estimates the number of EDs in the United States with a PECC ranges somewhere between 17.2% and 59.3%, depending on the survey used and the survey participants (ED nurse manager, ED medical director).^{2,13,14} One study describes additional characteristics of the PECC role, including a median of 12 hours per week (interquartile range [IQR], 5.0–40.0) spent on role responsibilities and highlights participation in a wide variety of activities.¹³ The COVID-19 pandemic also potentially affected the PECC role and availability of staffing for this role due to changes in pediatric emergency volume, particularly in year 2020.^{15,16} Further insight into the existing PECC role, potential responsibilities, funding and support offered for the role, and potential barriers and threats to the sustainability of the role within the ED setting are needed to better inform how to support and increase the PECC workforce.

1.3 | Goals of this investigation

We survey a national cohort of PECCs, to describe the characteristics of individuals serving in the role, assigned responsibilities and estimated time spent, departmental support, ideal role characteristics, perceived benefits of the PECC role, and potential barriers and threats to PECC role implementation within the ED.

2 | METHODS

2.1 | Design, setting, selection of subjects

We conducted a cross-sectional survey study of PECCs from September 2021 to March 2022. Individuals approached were participants in the EMSC PECC Workforce Development Collaborative (September 1, 2022)¹⁷ or EMSC PECC Trauma Improvement Sprint (February 23, 2022 and March 2, 2022)¹⁸ and identified as serving in the PECC role within the ED.¹⁶ Both collaboratives focused on providing PECC resources, practices, and processes to ensure compliance with pediatric readiness guidelines, as well as networking opportunities for individuals serving in the PECC role. All individuals within both collaboratives were required to complete an initial intake questionnaire that contained the following questions, (1) "Do you consider yourself a PECC or a pediatric champion?" and (2) "We are currently conducting a survey to characterize the PECC position across the nation. Would you be interested in completing this additional survey?" All respondents who selected yes to both questions received an email with a link to the online survey via REDCap software.¹⁹ The study was deemed exempt by the Institutional Review Board at the University of Texas at Austin.

2.2 | Survey instrument

Survey questions were designed and informed by prior research, reviewed by ED pediatric readiness experts, and a survey methodologist.^{2,13} Survey questions were refined via an iterative process involving all co-authors. A pilot instrument was sent to 5 individuals (former PECCs or pediatric emergency clinicians) who were not included in the study to assess ease of access, clarity, and flow. Survey questions covered topics of participant hospital and ED characteristics, participant ED role, PECC role characteristics and assigned responsibilities, potential optimal roles and responsibilities, barriers to obtaining additional training, potential barriers and threats to the perceived success in the PECC role, and perceived impact of the COVID-19 pandemic on the PECC role. All survey questions can be found in supplemental material ([Supplemental File](#)).

Reminder emails were sent weekly for up to 3 weeks. For respondents who selected yes to question 1 ("Do you consider yourself a PECC or a pediatric champion?") and no to question 2 ("We are currently conducting a survey to characterize the PECC position across the nation. Would you be interested in completing this additional sur-

The Bottom Line

The deployment of pediatric emergency care coordinators in emergency departments enhances the provision of pediatric emergency care. This paper describes their roles and responsibilities, as well as the barriers and challenges faced by these important members of the ED team.

vey?"), 1 additional email was sent to ask if they would reconsider completing the survey.

2.3 | Hospital and PECC characteristics

Hospital-level variables selected within the study included hospital location by United States region (Northeast, Midwest, South, West, Islands), annual total ED patient volume, annual pediatric ED patient volume, hospital location (urban, suburban, rural, remote, none), hospital categorization (academic, community, county, critical access, none), ED configuration (general ED, pediatric ED, pediatric ED within children's hospital, standby ED, free-standing ED, other), and presence of hospital pediatric inpatient services. United States regions were defined by the census division.²⁰ Annual ED pediatric patient volume was categorized based on prior readiness literature: low (<1800 pediatric visits), medium (1800–4999 pediatric visits), medium-high (5000–9999 pediatric visits), and high ($\geq 10,000$ pediatric visits).² PECC-level variables included current participant position (physician, nurse, physician assistant, nurse practitioner, other), and how participant was assigned to the PECC role (designated by assigned or applied for or full-time position, volunteer, other). Participants were asked if the PECC role is shared with another individual at the hospital. Respondent-reported proportions of assigned PECC responsibilities were multiplied by hours spent on PECC activities to determine the median number of hours per week estimated for each activity. A time deficit variable was defined by the difference in actual time spent on PECC activities and ideal time needed for PECC activities to explore potential discrepancies between the 2. The time deficit proportion was determined by dividing the participant's protected hours for the PECC role by the participant's stated ideal hours for the PECC role, per week.

2.4 | Data analysis

Not all questions were answered by all respondents, so denominators vary in the analyses. Descriptive statistics were used to assess survey responses with Stata V14.2 (Stata Corp, College Station, TX). Analyses using the Kruskal Wallis test, as well as non-parametric and categorical trend tests were performed to explore the relationship between pediatric annual ED volume and participant characteristics, PECC role characteristics, and PECC responsibilities. Statistical tests

TABLE 1 Participant emergency department role characteristics.

	<i>n</i> (%)	Low pediatric annual volume, <i>n</i> = 22 <i>n</i> (%)	Medium pediatric annual volume, <i>n</i> = 34 <i>n</i> (%)	Medium-high pediatric annual volume, <i>n</i> = 24 <i>n</i> (%)	High pediatric annual volume, <i>n</i> = 34 <i>n</i> (%)	<i>P</i> value
Role, <i>n</i> = 113						
Nurse	85 (75.2)	16 (72.7)	26 (76.5)	17 (70.8)	26 (76.5)	0.276*
Nurse practitioner	2 (1.8)	0 (0.0)	1 (2.9)	1 (4.2)	0 (0.0)	
Physician	13 (11.5)	3 (13.6)	1 (2.9)	2 (8.3)	6 (17.6)	
Other	13 (11.5)	3 (13.6)	6 (17.6)	3 (12.5)	1 (2.9)	
Median (years) providing care in the emergency department <i>n</i> [25th, 75th percentile], <i>n</i> = 113	15 [8,20]	13 [7.75, 20]	15 [8, 21.5]	15 [5, 20]	15 [10, 25.5]	0.439**
Required maintenance of certifications/training, <i>n</i> = 113						
Total	46 (40.7)	8 (36.4)	8 (23.5)	10 (41.7)	20 (58.8)	0.037***
Nurse	34 (30.1)	4 (18.2)	5 (14.7)	8 (33.3)	17 (50.0)	
Nurse practitioner	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	
Physician	8 (7.1)	2 (9.1)	1 (2.9)	2 (8.3)	3 (8.8)	
Other	4 (3.5)	2 (9.1)	2 (5.9)	0 (0.0)	0 (0.0)	

*Chi-square test.

***P* trend test.

***Fisher's exact test.

were 2 tailed with an alpha at 0.05. The Kruskal–Wallis, Wilcoxon rank-sum, and non-parametric trend tests were used to assess the relationship between the time deficit and hospital-level predictor variables and PECC-level predictor variables. To ensure significant differences did not exist between individuals who share the PECC role compared to responses for individuals who do not share the PECC role, a sensitivity analysis was performed post-hoc using the chi-square test, Fisher's exact test, or non-parametric trend test, as appropriate.

Responses to 2 free text questions (What do you value most about your role as the pediatric champion/PECC; Please describe any challenges of barriers to success in your role as the pediatric champion/PECC) within the survey were systematically analyzed through inductive iterative review for thematic analysis by 2 authors (J.L., M.E.). Responses were put into an Excel spreadsheet to allow for comparative theme coding. Emerging themes were discussed among the 2 authors until consensus was achieved. The primary author (A.A.F.) served as the external reviewer and examined the data and reviewed themes derived by the authors (J.L., M.E.) for exhaustiveness.

3 | RESULTS

Sixty-one percent (114/187) of the individuals approached completed the survey. Most (75.2%) identified as an ED nurse and have worked a median of 15 years in the ED (Table 1). The affiliated site demo-

graphics were collected for each participant (Table S1). Participants worked within all regions in the United States, with the Midwest most represented (36.0%), and most within a general ED (71.9%). The median time spent in the PECC role was 1 year (Table 2). The majority (54.4%) noted that the PECC role was designated (assigned, applied for, or full-time position) and 30.7% reported the role was a voluntary position. Twenty-nine percent of participants shared the PECC position with another individual. There were no statistically significant differences in PECC role characteristics between participants who shared the PECC role compared to those who did not (Table S1).

A median of 4 hours per week were spent on PECC activities, with a statistically significant difference in hours spent among pediatric annual volume categories (2 hours low volume, 4 hours medium volume, 5 hours medium-high volume, 16 hours high volume, $P < 0.001$). Approximately one third of participants received protected time for the PECC role (32.4%). Among PECCs with protected time, median hours per week of protected time was also directly proportional to the annual pediatric volume category (2 hours low volume, 9 hours medium volume, 20 hours medium-high volume, 38 hours high volume, $P < 0.001$). The most frequently assigned responsibilities for all PECCs were education of staff (77.2%) and oversight of quality improvement (QI) efforts (72.8%) (Table 3). QI also represented the assigned responsibility that required the highest median number of estimated hours per week (1.7 hours, range 0.0–28.8 hours).

TABLE 2 Participant pediatric emergency care coordinator (PECC) role characteristics.

	n (%)	Low pediatric annual volume, n = 22	Medium pediatric annual volume, n = 34	Medium-high pediatric annual volume, n = 24	High pediatric annual volume, n = 34	P value
Median (years) as a PECC n = 113, n [25th, 75th percentile]	1 [0, 4]	1 [0, 2.5]	1 [0, 4]	2 [0, 5]	1 [0, 8.25]	0.163**
PECC selection, n = 114, n (%)						
Designated*	62 (54.4)	9 (40.9)	21 (61.8)	14 (58.3)	18 (52.9)	0.202***
Volunteer	35 (30.7)	10 (45.5)	11 (32.4)	6 (25.0)	8 (23.5)	
Other	17 (14.9)	2 (9.1)	2 (5.9)	4 (16.7)	9 (26.5)	
Role adjuncts offered n = 114, n (%)						
Shift reduction	7 (6.1)	1 (4.5)	1 (2.9)	2 (8.3)	3 (8.8)	0.340**
Preferential scheduling	4 (3.5)	1 (4.5)	0 (0.0)	2 (8.3)	1 (2.9)	0.802**
Monetary compensation	6 (5.3)	0 (0.0)	0 (0.0)	2 (8.3)	4 (11.8)	0.016**
Other	4 (3.5)	0 (0.0)	2 (5.9)	0 (0.0)	2 (5.9)	0.477**
None of the above	84 (73.7)	19 (86.4)	27 (79.4)	16 (66.7)	22 (64.7)	0.042**
PECC position shared, n = 34, n (%)		6 (27.3)	9 (26.5)	5 (20.8)	14 (41.2)	0.256**

*Designated = assigned, applied for, or full-time position.

**P trend test.

***Chi square test.

Participants were asked to provide information on the ideal PECC position. The majority felt more dedicated time was needed to fulfill PECC activities (58.4%), and also desired additional PECC training (70.8%). One hundred percent of participants felt PECCs should have access to state or regional meetings and conferences specifically for PECCs. Most (74.6%) reported the PECC position should be a paid position. There were substantial differences in participant median time spent per week on PECC activities and ideal time to spend on PECC activities per week (Figure 1). The median time deficit for participants was 6.5 hours per week (IQR 4.0–9.8). The median time deficit proportion was 0.4 (IQR 0.3–0.6). There was no statistically significant association found between the time deficit variable and hospital- and PECC-level characteristics.

Participants shared what they value most about the PECC role through free text response that was coded into themes (Table 4). Prominent themes included: serving as a role model for others, being an agent of change, providing training, resources, and high-quality pediatric care, and having a passion for serving as the pediatric champion.

Barriers and threats to the PECC role were explored. The most frequent barriers to obtaining additional pediatric training included allotted time off for professional development (57.5%) and lack of department funding (56.6%) (Figure 2). Participants were asked to describe any challenges or barriers to success in their role as the PECC. Common themes included PECC is not a formalized role, lack

of compensation, lack of time, lack of administrative support, lack of PECC training/guidance, isolation from others, resistance/hesitancy to change practice, ED staff barriers (eg, ED understaffed, high ED staff turnover, staff not understanding value of PECC role or importance of pediatric training), and impact of COVID-19 pandemic (Table 4). Most common ongoing potential threats to keeping the PECC position within the ED included competing programs (32.1%) and change in ED leadership (29.5%) (Figure 3). Respondents reported the COVID-19 pandemic impacted the PECC position in the ED due to decreased patient volume (38.1%), and reassignment to other duties in the ED or hospital (19.5%) (Table S3).

3.1 | LIMITATIONS

Our study has several limitations. First, the participants were selected from workforce collaboratives and do not represent all staff serving in the PECC role nationally. However, as the participants elected to participate in the workforce collaboratives, they likely represent the most motivated individuals to improve pediatric care, who we should be serving to support in their activities. Second, there is variability in survey respondent ED roles and individual experience within the ED (ie, nurse, physician) and we did not perform on-site verification of participant-reported hospital, ED, or PECC characteristics, which may result in differing perspectives on the questions asked as well as

TABLE 3 Assigned responsibilities as a pediatric emergency care coordinator (PECC), proportion of effort spent on activities, and median number of hours per week estimated for each assigned PECC activity.

	n (%)	Mean proportion of effort spent per PECC %	Median number of hours per week estimated for each activity per PECC
Education of staff	88 (77.2)	21.0%	1.1
Quality improvement	83 (72.8)	27.5%	1.7
Liaise with other hospital committees/departments	77 (67.5)	13.3%	0.8
Simulation activities or training	64 (56.1)	11.4%	0.5
Evidence-based guidelines/decision support tools development/maintenance	62 (54.4)	10.9%	0.6
Administration/management of ED policies relevant to pediatric readiness	60 (52.6)	12.4%	0.8
Evaluate/assess pediatric competencies of staff	57 (50.0)	11.0%	0.7
Orientation of staff	55 (48.2)	15.2%	0.8
Pediatric disaster preparedness planning	52 (45.6)	9.0%	0.6
Stocking equipment/medications	47 (41.2)	13.1%	0.6
Interfacility transfer agreement and development and maintenance of pediatric resources not available at your facility	30 (26.3)	4.7%	0.7
Public outreach	26 (22.8)	9.5%	0.9
Research	17 (14.9)	8.8%	1.2
Other	13 (11.4)	45.7%	1.4
None of these apply	7 (6.1)	not applicable	not applicable

reporting bias. Third, we do not have information on survey non-respondents and our results may not be generalizable to all EDs. Additional survey response rate could have shifted the survey results. However, our respondents represent all types of EDs from regions throughout the United States and represents a broad sampling of PECCs in the United States.

4 | DISCUSSION

Historically within the United States, the emergency care of children has been uneven,⁶ with consequences of increased mortality for patients that are seen in EDs that are unprepared to care for children (lower ED pediatric readiness).⁸⁻¹⁰ Despite the association of PECCs with survival,¹² little has been known about PECC characteristics, the time required for the role, and how this time is spent. Through the first national assessment of PECCs, we demonstrated that PECC role characteristics, support, and activities are highly variable. Furthermore, the PECC role seems to experience high turnover, despite the position being filled by experienced nurses, physicians, and nurse practitioners,

suggesting instability of the position. Finally, the PECC position is often underbudgeted, requiring volunteer efforts.

We found that although participants worked in the ED a median of 15 years, they had spent a median of only 1 year within the PECC position. The difference in time within the role may be explained by high frequency of staff and ED position turnover within a hospital, specifically nursing staff. In recent years, ED nursing turnover has become an escalating problem, with literature identifying several factors that contribute to high turnover rates in the ED: workplace violence, critical incidents in the workplace, and the work environment.²¹ Moreover, we found that the majority of respondents did not receive protected time for PECC activities, with many reporting a lack of the PECC as a formalized role, lack of administration support, and lack of compensation. Lack of formalization of the role may create interdependence with other ED positions (eg, clinical nurse educator, trauma program manager). This may also lead to PECC turnover with changes in the ED leadership positions. Furthermore, PECCs identified competing priorities as a threat to the position, which likely worsened during the height of the COVID-19 Pandemic (survey conducted during this time period), when ED staffing and availability of resources experienced

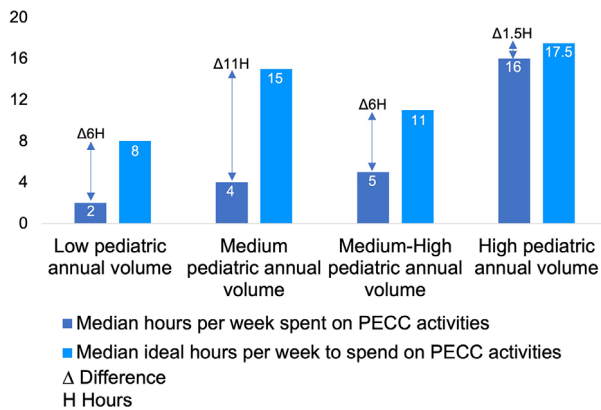


FIGURE 1 Median hours per week spent on pediatric emergency care coordinator (PECC) activities and median ideal hours per week to spend on PECC activities, by annual pediatric volume. Participant responses to questions, “How many hours per week do you spend on pediatric champion/PECC responsibilities and tasks?” and “How many total hours per week spent on pediatric champion/PECC responsibilities would be ideal?” Participants given option to select 0–50. Participants report median of 4 hours per week spent on PECC activities and median of 12 hours per week ideally on PECC activities. Difference in median hours (H) per week spent on PECC activities and median ideal hours per week to spend on PECC activities represented by Δ .

significant strain.^{22–24} As the PECC role serves as an important component to ensuring pediatric readiness, EDs can work toward formal establishment of the PECC role with appropriate compensation and protected time for pediatric-specific work to ensure both sustainability for the individual within the PECC role regardless of stressors to the emergency system and the ED PECC role itself.

We also found a significant difference in both the amount of time spent on PECC activities and the amount of protected time for PECC activities. These differences were proportional to annual pediatric volume. Maintenance of resources and personnel can be financially

prohibitive for hospitals that care for low volumes of children. Consequently, there is greater reliance on pediatric United States tertiary care centers, evident by closure of pediatric inpatient beds, particularly within rural and low-volume pediatric hospitals.²⁵ An increased reliance on pediatric regional centers may impact a hospital's decision to invest in pediatric resources for the hospital, including training, and personnel. However, decrease of pediatric resources within community hospitals may have patient-centered and financial consequences for the health care system.²⁶ For example, regionalization of pediatric care may lead to attrition of frontline hospital capacity to care for children with conditions ranging from common pediatric illness to critical illness.²⁷ This may negatively affect an ED's ability to manage critically ill children until appropriate definitive care can be arranged with interfacility transfer. In 2022, hospitals within the New England region with pediatric inpatient and ICU capabilities were at capacity even outside of expected respiratory surges.²⁸ Subsequently, surrounding EDs had to manage critically ill children for prolonged periods of time and work to transfer sick children in their ED to hospitals sometimes states away.²⁹ As demand for limited pediatric resources may increase, ensuring all EDs are prepared for managing critically ill children will continue to be vitally important. Regions should work to develop collaborative networks between academic pediatric medical centers and general EDs (“hubs and spokes”) and lead quality initiatives aimed to improve pediatric readiness among all participating EDs.^{30,31}

Most survey participants reported that more time was needed to fulfill PECC activities and desired additional education and training. Impressively, all (100%) respondents of the survey desired access to conferences specifically for PECCs. This may signify a desire to not only learn specific education and skills for the PECC role but also the need to socialize and organize as a community of health care clinicians. As in-person conferences can be expensive and require significant time and money to coordinate, state or regional PECC-specific virtual conferences or forums may be a way to provide PECCs with an opportunity to connect and learn. Additionally, workforce collaboratives

TABLE 4 Pediatric emergency care coordinator (PECC) role value and challenges/barriers to success in role as a PECC themes.

Values	Barriers
<ul style="list-style-type: none"> • <i>Role model for others:</i> to improve their own knowledge, leadership skills, and learn from pediatric emergency experts, and to lead within their own EDs • <i>Agent of change:</i> to make a difference, inspire others to be better, and improve pediatric care in their EDs • <i>Provide training and resources for others:</i> to help others to be better prepared, more confident, and knowledgeable in pediatric care • <i>Passion for serving as the pediatric champion:</i> have a true passion for pediatrics and feel it is an essential role to ensure pediatric readiness, participants want to advocate for pediatric care • <i>Provide high-quality pediatric care</i> by ensuring consistent, compassionate, evidence-based care within their communities and retaining care locally 	<ul style="list-style-type: none"> • <i>PECC is not a formalized role</i> • <i>Impact of the COVID-19 pandemic</i> • <i>Lack of compensation</i> • <i>Lack of time:</i> both lack of protected time, insufficient time overall, and having competing priorities • <i>Lack of administrative support:</i> a general lack of understanding of the role of PECC and not seeing value in the role (this is also compounded by low pediatric volume within adult oriented facilities), and there is lack of sufficient funds to support efforts • <i>ED staff barriers:</i> ED understaffed, high turnover, staff not understanding value of PECC role or importance of pediatric training • <i>Lack of PECC training/guidance:</i> lack of expectations, role definition, or general pediatric education • <i>Isolation from others:</i> having difficulty accessing resources or knowledge, and difficulty accessing networking with other individuals who are working to accomplish similar goals • <i>Resistance/hesitancy to change practice</i>

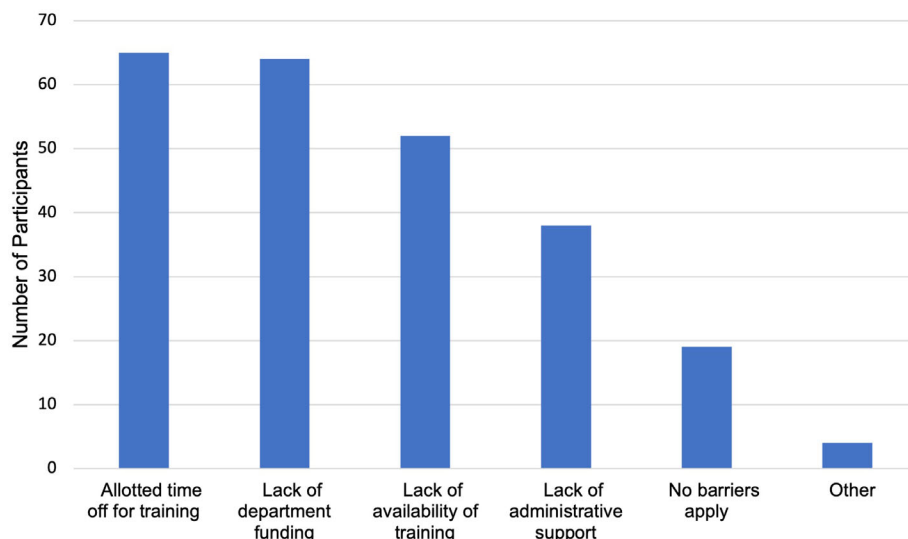


FIGURE 2 Participant-perceived barriers to obtaining additional pediatric training. Participant responses to question, “What are potential barriers to obtaining additional pediatric training?” Participants given option to select all that apply. Allotted time off for training represented the most frequently selected answer choice (65/113).

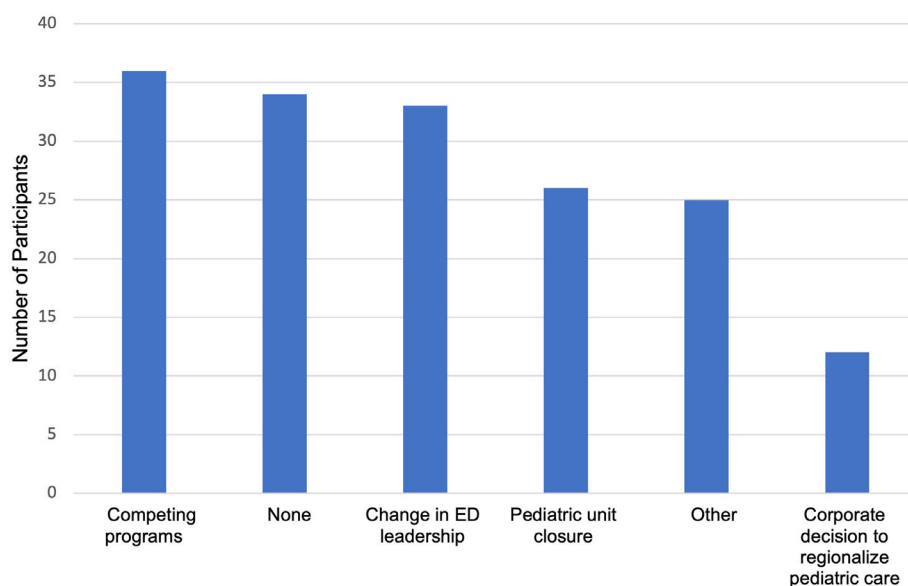


FIGURE 3 Threats to keeping the pediatric emergency care coordinator (PECC) position within the emergency department. Participant responses to question, “What are ongoing potential threats to keeping the pediatric emergency care coordinator position within your emergency department?” Participants given option to select all that apply. Competing programs represented the most frequently selected answer choice (36/112). Abbreviation: ED, emergency department.

aimed to develop individuals who are interested in improving the quality of pediatric emergency care, such as the EMSC PECC Workforce Development Collaborative¹⁷ or EMSC PECC Trauma Improvement Sprint,¹⁸ can supplement educational conferences at no cost to the individual. Respondents also identified barriers to obtaining additional pediatric training including allotted time off for training, lack of department funding, and lack of availability of training. Innovation is needed to bring pediatric-specific education and training to all

EDs and could include previously effective initiatives such as in-situ simulation, shared quality improvement projects among multiple hospitals, and regional conferences organized by state EMSC program managers.³⁰⁻³² Additionally, continued focus on dissemination of existing PECC position resources may be necessary to meet the needs of individuals who may be relatively new to the PECC position.^{33,34}

To our knowledge, this is the first study to provide detail about the ED PECC role, how the role is supported, and perceived “ideal”

characteristics, barriers, and challenges an individual PECC experiences in the role. These data suggest substantial variability in PECC role characteristics and support, a need for increased protected time for the PECC role, and additional resources to help the individuals within their role. More formalized PECC training programs, an increase in collaborative shared learning networks at the state or regional level, and innovative means to standardize role characteristics and responsibilities may aid in ED PECC role sustainability.

AUTHOR CONTRIBUTIONS

Drs. Ashley A. Foster, Joyce Li, and Katherine Remick conceptualized and designed the study. Drs. Ashley A. Foster and Katherine Remick drafted the initial manuscript, coordinated, and supervised data collection, and reviewed and revised the manuscript. Dr. Ashley A. Foster collected the data. Dr. Matthew H. Wilkinson carried out the initial quantitative data analysis, and reviewed and revised the manuscript. Dr. Joyce Li and Mr. Michael Ely performed the qualitative data analysis. Drs. Joyce Li, Marianne Gausche-Hill, Craig Newgard, and Mr. Michael Ely interpreted the data and critically reviewed and revised the manuscript. All authors have approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

PRIOR PRESENTATION

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CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest relevant to this article to disclose.

ORCID

Ashley A. Foster MD  <https://orcid.org/0000-0002-3059-6218>

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SUPPORTING INFORMATION

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

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AUTHOR BIOGRAPHY



Ashley Foster, MD, is an assistant professor of Emergency Medicine at University of California San Francisco. She is also a pediatric emergency medicine physician at UCSF Benioff Children's Hospital in San Francisco, California.