Trainee-Directed Educational Pursuits and Advocacy During the COVID-19 Pandemic

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Despite its devastating effects on adult populations globally, the impact of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on children has been comparatively mild.[1] Whereas adult hospitals have been confronted with bed and ventilator shortages in the face of large upticks in patient volume, many pediatric institutions have remained largely immune to these stressors given the small percentage of children positive for coronavirus disease 2019 (COVID-19) warranting hospitalization.[2,3] As pediatric trainees who once braced for the possibility of a rapid onslaught in cases warranting our direct care on the frontlines, we personally feel an overwhelming sense of relief that our pediatric patients are predominantly spared from the effects of the virus. Notwithstanding, widespread social distancing practices, stay-at-home restrictions, and school closures have transformed the current landscape of pediatric practice and have consequently impacted our patients and families as well as our residency training. Inherent in this shift has been a reduction in opportunities for hands-on learning for trainees as well as modifications to structured teaching. Pediatric residents have nonetheless rallied around these changes to the traditional residency curriculum and developed innovative ways to connect with and advocate for our patients while simultaneously promoting the advancement of medical education.

Across clinical settings, trainees are engaging less in person because of decreased emergency department visits, lower inpatient censuses, fewer outpatient appointments, and reduced clinical staffing models. Although we have witnessed few hospitalized children with COVID-19 infections, we have also seen a drop off in presentations for other more common pediatric illnesses. This is likely due to the impact of societal distancing in reducing transmission rates of communicable diseases and the presumed hesitancy of parents to bring children in for evaluation amid a pandemic. A smaller number of patients under resident care correlates with decreased diagnostic diversity, shortened time frames devoted to bedside rounding, and consolidated provider teams, all contributing to a less dynamic educational environment. Moreover, altered staffing needs have left a pool of residents from our program at home in reserve. As members of this corps on standby, we have covered various clinical shifts when needed. In doing so, we have come to recognize that isolated clinical encounters cannot replace the continuity, rigor, and camaraderie that characterize

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Drs Rabinowitz and Sundheim jointly conceptualized the article, cowrote the final manuscript for submission, and approved the final manuscript as submitted.

DOI: https://doi.org/10.1542/peds.2020-1564

Accepted for publication Jun 12, 2020

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

To cite: Rabinowitz DG and Sundheim KM. Trainee-Directed Educational Pursuits and Advocacy During the COVID-19 Pandemic. *Pediatrics.* 2020;146(3):e20201564

dedicated time on service or in clinic. Importantly, our own experiences do not represent those of all pediatric practitioners, as the pandemic has obligated numerous pediatricians across the country, our own colleagues and superiors among them, to transition their skills and resources toward the care of hospitalized adults with COVID-19.[4]

Postponement of nonessential clinic appointments and the rise of telehealth have similarly shifted resident-directed engagement with patients. Attending-resident precepting in a typically high-volume clinic context was not easily replicated virtually at the outset. Instead, computer-based visits conducted by a group of attending physicians tackled the intricacies of the routine pediatric visit from afar and provided a safety net for children with more urgent concerns. While attending physicians took the lead, residents lost opportunities to conduct visits independently and to build ongoing relationships with patients and families. All these necessary clinical changes have occurred in parallel with our continued pledge to provide the highest-quality care for our patients and families in the community, many of whom are facing significant emotional and financial hardships during this unprecedented time.

Because residency training is inherently clinical, educational innovations during the pandemic have naturally been patient centered. Although attending physicians initially took on virtual visits alone, now pediatric trainees are gradually being integrated into virtual interfaces to partake in clinic appointments, conduct inpatient consults, participate in bedside rounds, review discharge teaching, and follow-up with patients and families in a posthospitalization context. Beyond direct patient encounters, trainees have been able to assist colleagues from home by prerounding, conducting chart review, and note templating virtually. These clinical workarounds have enabled trainees to provide excellent patient care and continue learning while adhering to social distancing guidelines and minimizing unnecessary exposures.

As child advocates, trainees have of necessity developed new ways to connect with patients and families to ensure their general well-being from afar. Residents in our program have organized live online question-and-answer forums related to COVID-19, published pamphlets on anticipatory guidance and screen time, and called families to encourage in-office visits to combat the declines that we have seen in vaccine rates in our own clinics and across the nation.[5] We have also collaborated with local youth mentorship groups and provided opportunities for conversation between trainees and community youth virtually. Other members of our residency program have presented on COVID-19 disparities at hospital-wide grand rounds, used social media to highlight data trends, and collaborated with other pediatric residency programs to discuss solutions for COVID-19–related health inequities. The voice of the pediatric trainee as advocate has taken center stage, amplifying an already essential aspect of our role as pediatricians in the community.

In addition to changes to clinical training and to the ways in which we interact with and support our patients, formal resident education has also transformed, with traditional in-person didactics now delivered online. This has necessitated new ways of promoting participation such as through use of "chat" and "hand raise" functions on virtual conference platforms. Some trainees have recruited attending physicians and fellows to participate in daily on-screen "chalk talks," an opportunity for didactic learning and candid conversation now guaranteed every afternoon. Others have created an electronically accessible compendium of medical resources encapsulating key system-specific instructional videos and literature. Virtual education has also inspired engagement with pediatric residents from other institutions through COVID-19 basic science and advocacy journal clubs. Although opportunities to develop skills as in-person medical educators and supervisors have been more difficult, with medical students pulled from clinical rotations, many have led online teaching sessions, provided feedback via e-mail on various aspects of documentation relevant to patient care, and offered virtual mentorship for medical students. Overall, these new forms of learning and teaching have all further integrated technology as an educational tool.

As this pandemic continues, we must consider its effects not only on our patients and families, through introducing numerous emotional and psychosocial stressors and altering access to and engagement with physicians, but also on our pediatric training. This is particularly true given the anticipated implications of this time period on vulnerable and at-risk children, who will be critically reliant on future well-trained pediatricians to protect their health and welfare moving forward.[6,7] We are optimistic that despite the redirection of clinical and structured learning, numerous bright spots have emerged that may favorably impact resident education and enhance pediatric care. Trainee-directed educational pursuits and advocacy have highlighted the myriad possibilities that exist for our growth as physicians and for our educational advancement both during and after the pandemic. These endeavors have also cemented the role of the trainee as integral to creatively structuring the educational framework moving forward. Consequently, and despite

much remaining uncertainty as to the full impact of SARS-CoV-2, we are hopeful that while continuing to provide robust and compassionate care that families deserve, we can also facilitate positive advancements in our medical education.

ABBREVIATIONS

COVID-19: coronavirus disease 2019

SARS-CoV-2: severe acute respiratory syndrome coronavirus 2

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Pediatrics 2020;146;
DOI: 10.1542/peds.2020-1564 originally published online June 17, 2020;

PEDIATRICS®
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