



Editorial

Adolescent Medicine and Pediatric Residency Training: The Value of Collaboration and Shared Educational Resources



Recognizing the importance of a pediatric workforce skilled in the care of adolescents, the American Council on Graduate Medical Education introduced a requirement for a block adolescent medicine rotation during pediatric residency training over 20 years ago [1]. Implementation of this requirement has been widely variable across pediatric training programs in terms of curricular content, clinical opportunities for resident rotators, and availability of skilled adolescent medicine teaching faculty [2]. Little has been reported about funding for subspecialty education of residents, but adolescent medicine divisions are often small and stretched thin, with clinician educators facing increasing clinical productivity expectations and receiving little recognition for teaching and educational activities. Resources and funding for research in medical resident education are likewise scarce, and a broad assessment of adolescent medicine education provided during pediatrics residency has not been performed since 2010. This lack of assessment is notable, given that practicing pediatricians report lack of skills and confidence in obtaining histories and managing confidential care, including sexual behavior–associated illness, such as risks for sexually transmitted infections and pregnancy [3], and mental health concerns [4]. National epidemiologic trends bring the importance of these skills to bear, with largely preventable problems—unintentional injury (41%), suicide (19%), and homicide (14%)—accounting for the top three causes of death in youth aged 10–24 years and approximately three fourths of total deaths in this age group [5]. In addition, youth aged 15–24 years bear the brunt of half of new sexually transmitted infections in the U.S. each year, despite making up only one quarter of the sexually active population; and despite improvements, the U.S. still has one of the highest adolescent pregnancy and birth rates among its economic peer nations [6]. In response to the acknowledged gaps in adolescent health education and training among pediatric residencies, and the importance of helping to close them, the Society of Adolescent Health and Medicine published a free, online curriculum in 2017 [7] (<https://www.adolescenthealth.org/Training-and-CME/Adolescent-Medicine-Resident-Curriculum.aspx>).

With their report published in this issue, Edelson et al. are the first to describe a local implementation/adaptation and

evaluation of the SAHM Adolescent Medicine Resident Curriculum [8]. They provide an important illustration and real-world example of the feasibility and utility of such a curriculum, and their work opens the door to further research and collaboration around building an evidence-based, andragogical approach for adolescent medicine education for pediatric residents. In their approach, the researchers demonstrate an application of adult learning theory [9] through their use of what they describe as a formative self-assessment at the start of the rotation related to core competencies identified for the rotation. They used a blended approach of clinical work assignments at their general adolescent clinic and a number of more specialized clinic sites, with both asynchronous/self-study activities and in-person didactic and interactive learning sessions. Although as the authors acknowledge, the number of residents they were able to perform both pre- and post-rotation assessments on was small, they show significant improvements in residents' self-assessed abilities across numerous learning objectives, as well as high scores on weekly knowledge quizzes that the researchers devised. Moreover, they generously share their detailed adaptation of the SAHM curriculum with the reader, including links to a variety of useful adolescent medicine education resources.

The COVID-19 pandemic and its new and potentially overwhelming consequences to medical education have created even greater pressure on graduate medicine educators to innovate, given our previous reliance on an apprenticeship model [10]. This model has historically relied on immersion in relevant clinical work with real, live patients, and a time-based framework. We have assumed, in other words, that if learners spend enough time with us, they will eventually be exposed to enough patients with pathology to obtain the critical knowledge and skills needed to practice independently. This model, however, was already challenged, prepandemic, in the domain of adolescent medicine training for residents, as numbers of patients seen at subspecialty adolescent medicine practices over a 4-week block was often small, and varied greatly across programs [2]. Now, with the new reality of pandemic health care, the inability to facilitate interaction with large numbers of patients has made virtual or remote, and asynchronous learning, even more salient.

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However, as Nicklas et al. describe in their sobering report titled, “If You Build It, Will They Come? A Hard Lesson for Enthusiastic Medical Educators Developing a New Curriculum,” creation of a methodologically sound curriculum that even integrates resident participation in its formation does not guarantee engagement of learners [11]. Their thoughtfully developed and carefully implemented primary care pediatrics curriculum, planned by faculty in conjunction with a resident steering committee, using Knowles’s Adult Learning Theory [9] as a framework, had disappointing results. Only 50% of their 87 pediatric residents, all of whom were offered their curriculum, accessed it at all; those that did only viewed a small fraction of the topics and on average completed only 8% of their knowledge quizzes. They concluded that given the many pressures and competing time demands faced by pediatric residents, extrinsic motivators such as faculty assessments of resident performance linked to the new curricular activities would be needed to improve engagement.

Nonetheless, Edelson et al.’s work is heartening and a boon to adolescent medicine educators, who may be indeed in need of resources and increased support, especially during this time of pandemic and reduced patient contact [8]. As we work toward creating shared educational resources, setting more standardized benchmarks for pediatric graduate medical education, and moving toward competency and outcome-based education, their report provides an important building block for adolescent medicine training and, ultimately, for improving the care of youth by future pediatricians, both during and postpandemic.

Claudia Borzutzky, M.D.
 Division of Adolescent and Young Adult Medicine
 Children’s Hospital Los Angeles/Keck School of Medicine of USC
 Los Angeles, California

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