

Innovation in Pediatric Surgical Education for General Surgery Residents: A Mobile Web Resource

Joshua D. Rouch, MD,* Justin P. Wagner, MD,* Andrew Scott, MD,* Veronica F. Sullins, MD,* David C. Chen, MD,† Daniel A. DeUgarte, MD,* Stephen B. Shew, MD,* Areti Tillou, MD,† James C.Y. Dunn, MD,† and Steven L. Lee, MD†

*Division of Pediatric Surgery, David Geffen School of Medicine at UCLA, Los Angeles, California; and †Department of Surgery, David Geffen School of Medicine at UCLA, Los Angeles, California

BACKGROUND/OBJECTIVES: General surgery residents lack a standardized educational experience in pediatric surgery. We hypothesized that the development of a mobile educational interface would provide general surgery residents broader access to pediatric surgical education materials.

METHODS: We created an educational mobile website for general surgery residents rotating on pediatric surgery, which included a curriculum, multimedia resources, the Operative Performance Rating Scale (OPRS), and Twitter functionality. Residents were instructed to consult the curriculum. Residents and faculty posted media using the Twitter hashtag, #UCLAPedSurg, and following each surgical procedure reviewed performance via the OPRS. Site visits, Twitter posts, and OPRS submissions were quantified from September 2013 to July 2014.

RESULTS: The pediatric surgery mobile website received 257 hits; 108 to the homepage, 107 to multimedia, 28 to the syllabus, and 19 to the OPRS. All eligible residents accessed the content. The Twitter hashtag, #UCLAPedSurg, was assigned to 20 posts; the overall audience reach was 85 individuals. Participants in the mobile OPRS included 11 general surgery residents and 4 pediatric surgery faculty.

CONCLUSION: Pediatric surgical education resources and operative performance evaluations are effectively administered to general surgery residents via a structured mobile platform. (*J Surg Ed* 72:1190-1194. © 2015 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: mobile technology, surgical education, social media, surgical milestones

COMPETENCIES: Interpersonal and Communication Skills, Practice-Based Learning and Improvement, System-Based Practice

INTRODUCTION

Pediatric surgical training among general surgery residents can vary significantly within and between institutions. The variable experience with pediatric cases, increasing number of pediatric surgery residency training programs and non-educational time commitments for pediatric surgery faculty generate disparity in general surgery resident experiences across the country.¹⁻³

New trends in surgical education include standardization of the educational program through the Surgical Council on Resident Education (SCORE) curriculum and a formalized system of operative performance evaluations.^{4,5} Recently, several studies demonstrated strategies to document resident performance according to the Accreditation Council for Graduate Medical Education (ACGME) Milestones project.⁶ Specifically, an optimized method was implemented to track resident performance based on the American Board of Surgery (ABS) recommended Operative Performance Rating Scale (OPRS) as developed by Southern Illinois.⁶ The OPRS assesses resident performance in multiple domains of operative skill, and has been validated as a reliable tool.⁷

To offer a standardized approach for the distribution of pediatric surgical educational content and to facilitate general surgery resident to pediatric surgery attending interaction and feedback, we developed a mobile web educational platform. Within this platform, we integrated a standardized curriculum, an operative performance

Correspondence: Inquiries to Joshua D. Rouch, MD, Department of Surgery, Division of Pediatric Surgery, David Geffen School of Medicine at UCLA, Box 709818, Los Angeles, CA 90095; fax: (310) 267-0369; E-mail: josh.rouch@gmail.com, jrouch@mednet.ucla.edu



FIGURE 1. Screen captures of mobile website navigation.

feedback system, access to social media and surgical educational resources. We hypothesized that this platform would systematically provide general surgery residents with access to pediatric surgical educational resources.

METHODS

Study Design

This study was performed in the Division of Pediatric Surgery and the Department of Surgery at the David Geffen School of Medicine at University of California, Los Angeles (UCLA) between September 2013 and July 2014. Pediatric surgery faculty, general surgery residents, and information technology engineers met to design a Health Insurance Portability and Accountability Act (HIPAA) compliant web interface. Faculty participants included 4 members in the Division of Pediatric Surgery, and trainee participants included 28 eligible general surgery residents.

Content Development

Faculty members in the Division of Pediatric Surgery at UCLA met to devise a syllabus for general surgery residents on the pediatric surgery service. This included the following sections which were based on the new ACGME Milestones project: goals and objectives, description of the rotation, assessment, expected procedural/operative skills, teaching

conference duties, and a sample weekly schedule.⁴ These objectives and assessment criteria were outlined specifically for each resident level on the pediatric surgery service, which in our program includes postgraduate year (PGY)-1, PGY-2, and PGY-4, or PGY-5 residents. The syllabus was published on this educational mobile website (Fig. 1) alongside links to the SCORE curriculum, electronic slide presentations, educational videos, Southern Illinois University's OPRS, and live Twitter feeds.^{7,8}

Implementation

As part of an educational incentive, residents who were compliant with SCORE curriculum reading assignments were issued a mobile tablet device. All residents who participated in this study were in possession of a mobile tablet during the study period. All pediatric surgery faculty and general surgery residents undergo comprehensive HIPAA compliance training as part of institutional protocol. This is a requirement before beginning as a workforce member at UCLA. At the beginning of the pediatric surgery rotation, residents were given instructions to review the syllabus and resources via the mobile website, review patient confidentiality practices on the UCLA website. The Twitter hashtag, #UCLAPedSurg was arbitrarily created for educational materials directly relevant to general surgery residents in our program. The hashtag functions as a Boolean keyword to include only Twitter content with this assigned

Download English Version:

<https://daneshyari.com/en/article/4297490>

Download Persian Version:

<https://daneshyari.com/article/4297490>

[Daneshyari.com](https://daneshyari.com)