Assessment of a Novel Pediatric Resident Simulation Curriculum

Kyle Schoppel  
*University of Massachusetts Medical School*

Christopher Lops  
*University of Massachusetts Medical School*

Nicholas Cormier  
*University of Massachusetts Medical School*

Alanna Hickey  
*University of Massachusetts Medical School*

Suzanne Sprague  
*University of Massachusetts Medical School*

*See next page for additional authors*

Follow this and additional works at: [https://escholarship.umassmed.edu/cts_retreat](https://escholarship.umassmed.edu/cts_retreat)  
Part of the Medical Education Commons, Pediatrics Commons, and the Translational Medical Research Commons

Schoppel, Kyle; Lops, Christopher; Cormier, Nicholas; Hickey, Alanna; Sprague, Suzanne; Sell, Peter J.; Wynne, Kathryn; Weaver, Anne; and Valentine, Stacey L., "Assessment of a Novel Pediatric Resident Simulation Curriculum" (2017). *UMass Center for Clinical and Translational Science Research Retreat*. 70.  
[https://escholarship.umassmed.edu/cts_retreat/2017/posters/70](https://escholarship.umassmed.edu/cts_retreat/2017/posters/70)

Creative Commons License  
This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License. This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
Presenter Information
Kyle Schoppel, Christopher Lops, Nicholas Cormier, Alanna Hickey, Suzanne Sprague, Peter J. Sell, Kathryn Wynne, Anne Weaver, and Stacey L. Valentine

This poster abstract is available at eScholarship@UMMS: https://escholarship.umassmed.edu/cts_retreat/2017/posters/70
ASSESSMENT OF A NOVEL PEDIATRIC RESIDENT SIMULATION CURRICULUM

Kyle Schoppel MD¹, Christopher Lops MD², Nicholas Cormier³, Alanna Hickey³, Suzanne Sprague MD¹, Peter Sell DO⁴, Kathryn Wynne MD⁵, Anne Weaver, BSN RN CCRN⁶, Stacey Valentine MD, MPH⁴

¹Department of Pediatrics (Chief-Resident), ²Departments of Medicine and Pediatrics (Chief-Resident), ³University of Massachusetts Medical School, ⁴Division of Pediatric Critical Care, ⁵Division of Pediatric Hospital Medicine, ⁶Department of Nursing, University of Massachusetts Medical School and UMass Memorial Medical Center

Aim: To assess the efficacy of a newly implemented resident simulation curriculum at a medium sized pediatric residency program.

Background: Many pediatric residency programs incorporate high-fidelity simulation into their curriculum, but there is limited data discussing the utility/educational impacts of a longitudinal/standardized/multimodal simulation curriculum. Several studies of simulation-based training have employed “self-efficacy” as a barometer for trainee education and performance. The level of a person’s self-efficacy can influence their behavior and may be a pivotal factor in performance. We have implemented a newly devised standardized, multimodal resident simulation curriculum and used resident self-efficacy to assess its effectiveness.

Methods: Participants were UMass Pediatric and Med/Peds residents. Implementation of our curriculum occurred at the start of the 2016-2017 academic year. Surveys were administered to all residents prior to curriculum implementation and at 6 months post-implementation. They assessed resident self-efficacy with regards to specific technical/procedural skills (i.e. running a code, performing intubation, etc.) and resident confidence in their ability to identify/manage specific pediatric disease presentations (i.e. respiratory failure, tachyarrhythmia, etc.). Data was pooled and averaged for each resident class separately. We predetermined a 10% change in self-efficacy to be a clinically significant difference.

Results: 36 of 40 residents completed the initial survey and 31 completed the 6-month follow-up. PGY1 residents reported improved self-efficacy for 4 PALS-related skills and 8 pediatric case presentations. Similarly, PGY2 residents reported improved self-efficacy for 3 PALS-related skills and 6 pediatric case presentations. Conversely, PGY3/4 residents reported no significant change in self-efficacy for any survey question.

Conclusions: These results suggest that our newly implemented longitudinal, standardized, multidisciplinary, multi-modal simulation curriculum has significantly improved resident self-efficacy related to core Pediatric Advanced Life-Support (PALS) skills/topics, with the greatest impact affecting our PGY1 class. Further study and curriculum development will attempt to address this issue.

Contact:
Kyle Schoppel
UMass Memorial Medical Center
Kyle.Schoppel@umassmemorial.org