Title: Rapid Cycle Deliberate Practice Simulation for Resident Education at a Community Hospital Site

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Background: Community hospitals offer opportunity for increased pediatric resident autonomy yet may require more direct use of resuscitation skills than more resource-rich settings. Rapid cycle deliberate practice (RCDP) simulation teaches critical skill mastery using feedback-replay loops and can be used for resident education.

Methods: We designed and conducted high fidelity RCDP simulation every 2 weeks on the community hospital ward. RCDP led by trained faculty and chief residents focused on Pediatric Advanced Life Support skills and activating clinical support for pediatric respiratory distress. Resident physicians on rotation at the community hospital (Bridgeport) and on duty nurses participated. We later asked all 35 resident participants to complete an anonymous web-based survey to assess non-simulated and simulated pediatric code experience. 2 open-ended questions assessed RCDP experience and its impact on the community hospital rotation. We performed descriptive statistics and qualitative thematic analysis by 2 reviewers to identify themes of residents’ experiences.

Results: 77% (n=27) of residents responded. 68% had participated in at least one nonsimulated pediatric code during residency; 43% in 1-2, 18% in 3-5, and 7% in >5. Yale New Haven (YNH) PICU was the most common location of code participation (47%, n=14), 17% (n=5) at the Bridgeport ED, 13% (n=4) at the YNH Pediatric ED, 7% (n=2) on a YNH ward, and 7% (n=2) on the Bridgeport ward. Only 1 resident had ever acted as team leader in a pediatric code. 4 major themes of resident experience were identified: practical community-hospital specific preparation, teamwork, improved confidence, and helpful formative feedback.

Conclusions: We established a community hospital-focused RCDP simulation program. Residents report the simulations provided relevant, practical preparation and improved confidence in the ability to deal with respiratory distress at the community hospital site.

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