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**Code LITE: Developing Pediatric Residents’ Resuscitation Knowledge and Skills Using a Guided Mentoring Approach**

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Background
Simulation-based learning is a popular training method in healthcare education. Literature supports multiple aspects of simulation-based training for technical skills and behavioral skills, however the effects of different pedagogies have not been investigated in this educational method(1).

Objective
- Examine the effects of guided mentorship during simulation on pediatric residents’ learning experience.

Methods
- **Study Design:** Descriptive case study with mixed-method approach, and pre/post interventional design
- **Participants:** All residents rotating through the Pediatric Intensive Care Unit (PICU); post graduate level 1-4; pediatric residents, emergency medicine resident and medical-pediatric residents
- **Assessment Measures:** Three tools were used: 1) written pre/post-rotation knowledge exam, 2) self-efficacy confidence score, and 3) learning preferences
- **Intervention:** Code LITE(Low-tech Internal Training Experience) with guided mentorship: just-in-time, interprofessional, in-situ simulation environment that utilizes cognitive apprenticeship. The content expert/mentor (pediatric critical care faculty or fellow) in the team leader role guides the resident through the case scenario (2)
- **Data Collection:** Each simulation is observed with focus on the dynamic between the resident and the mentor
- **Data Analysis:** Fisher’s Exact test was used to evaluate differences in proportions

Results
- A total of 24 participants out of 31 completed the pre-survey.
- Out of 15, 11 participants completed the Code LITE in-situ simulation.
- Out of 17, 14 participants completed the post-survey (8 exposed; 6 unexposed) (Table 1)
- A modest increase in knowledge acquisition was observed (Figure 1).
- Nearly 90% of exposed residents agreed they prefer having a simulated code event within the PICU.
- Only 62.5% strongly agreed to prefer guided mentorship during simulation.
- Exposed residents reported higher levels of confidence to delegate tasks during code event (37.5% vs. 0% for unexposed; p=.371), providing closed loop communication (62.5% vs. 16.7%; p=.121).
- Observational data: Compared to residents, mentors are more likely to take active role on patient reassessment, delegation of tasks, active decision-making, maintenance of control of a crisis situation, and clear/concise communication.

![Figure 1. Knowledge acquisition](image1)

![Table 1: Post-survey learning preferences](image2)

Figure 2. Confidence level scores pre/post survey

Conclusion
The preliminary results suggests that the guided mentorship approach is feasible within our PICU. This educational model is well-aligned with the framework of cognitive apprenticeship and can aid residents’ learning behaviors necessary to lead a pediatric cardiopulmonary arrest scenario.

References