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Guided Mentorship: Enhancing Pediatric Resident's Skills in Cardiopulmonary Resuscitation

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Guided Mentorship: Enhancing Pediatric Resident's Skills in Cardiopulmonary Resuscitation

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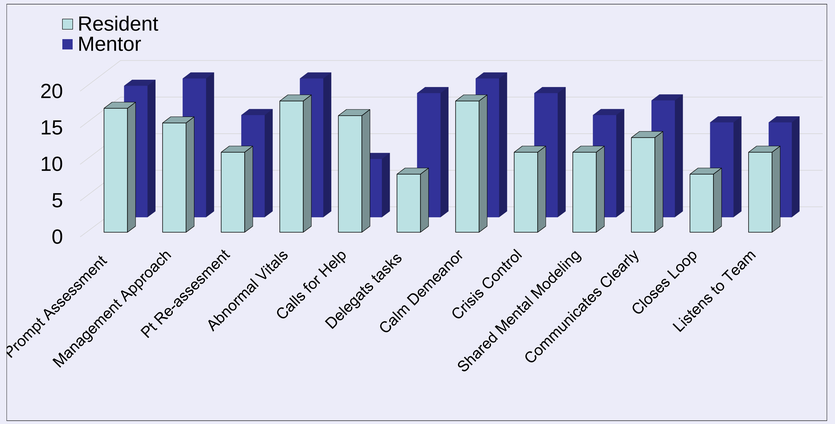
Context

- Literature supports multiple aspects of simulation-based training[1-5] to impart technical skills and behavioral skills
- Effects of different pedagogies have not been investigated in simulation
- Pediatric residents have minimal exposure to pediatric cardiopulmonary resuscitation (CPR) due to restrictions in work hours and increasing quality and safety initiatives[6]
- Code LITE (Low-tech, Internal, Training Experience) is a simulation environment for our residents utilizing a guided mentorship approach, known as cognitive apprenticeship
  - Residents completed pre and post rotation surveys and participating residents were observed during their simulation experience
  - Just-in-time, in-situ simulation program
  - 10 minute specific scenario with 10 minute debriefing session
  - Interprofessional team: nurses, respiratory therapists, pharmacists, attending physicians and pediatric residents

Observation/Evaluation

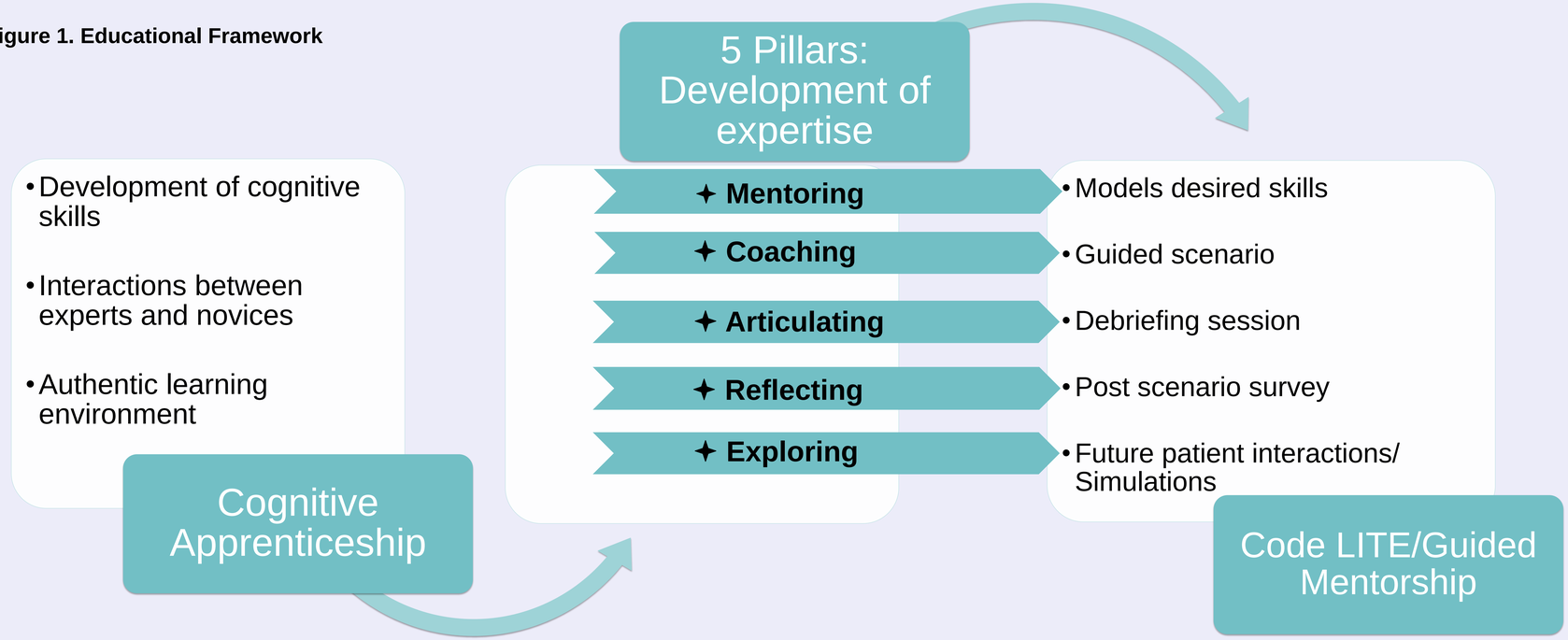
- Pre- PICU Survey Completion: 44/55
- Post-PICU Survey: 26/38 (14 exposed; 12 unexposed)
- Code LITE in-situ simulation session: 24/29 completed
- Over half, 57.1 % strongly agreed to prefer guided mentorship during simulation
- Observational data n=20
  - Compared to residents, mentors are more likely to display behaviors in the desired domains: Task delegation, crisis control, shared mental modeling, clear communication, closed loop communication and listening to team input
  - 90% of mentors encourage resident participation
  - 80% of mentors actively teach during scenario
  - 70% of mentors utilize shared mental modeling

Graph1. Desired Behaviors



Description

Figure 1. Educational Framework



Discussion

- Preliminary data demonstrates that it is feasible to conduct Code LITE with guided mentorship within in a large academic PICU
- Residents are exposed to behaviors in desired domains through mentor interaction
- Guided mentorship approach is well-aligned with the framework of cognitive apprenticeship within an in-situ simulation environment
- Facilitates residents' learning behaviors/skills necessary to lead a pediatric CPR scenario
- A majority of residents endorse positive learning experience, and would recommend the experience to their peers

References

1. Biese KJ, et al. Using screen-based simulation to improve performance during pediatric resuscitation. Academic emergency medicine : official journal of the Society for Academic Emergency Medicine. 2009;16 Suppl 2:S71-5.
2. Nadel FM,et al. Teaching resuscitation to pediatric residents: the effects of an intervention. Archives of pediatrics & adolescent medicine. 2000;154(10):1049-54.
3. Van Schaik SM,et al;. Pediatric resident confidence in resuscitation skills relates to mock code experience. Clinical pediatrics. 2008;47(8):777-83.
4. Hunt EA, et al. Pediatric resident resuscitation skills improve after "rapid cycle deliberate practice" training. Resuscitation. 2014;85(7):945-51.
5. Stone K, et al. Increasing pediatric resident simulated resuscitation performance: a standardized simulation-based curriculum. Resuscitation. 2014;85(8):1099-105.
6. Mickelsen S, et al. Reduced resident "code blue" experience in the era of quality improvement: new challenges in physician training. Academic medicine : journal of the Association of American Medical Colleges. 2011;86(6):726-30.
7. Dennen VP, Burner KJ. The cognitive apprenticeship model in educational practice. Handbook of research on educational communications and technology. 2008;3:425-39.

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