



Self-Directed Task Training for Pediatric Resuscitation Skills Competency and Confidence: Prospective Observational Study



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Background

Pediatric residents rarely have the opportunity to utilize resuscitation skills in clinical practice to develop competency and confidence. While scenario-based simulation training provides resuscitation skills exposure, individual resident learning is difficult to assess. Further, barriers to attendance during clinical service time exists. Task training can provide individual performance-based skills assessment. We developed a pilot program of self-directed task trainer stations with study materials to include brief videos and validated task scoring tools as a practical and feasible way to increase task performance competency and confidence among pediatric residents.

Methods

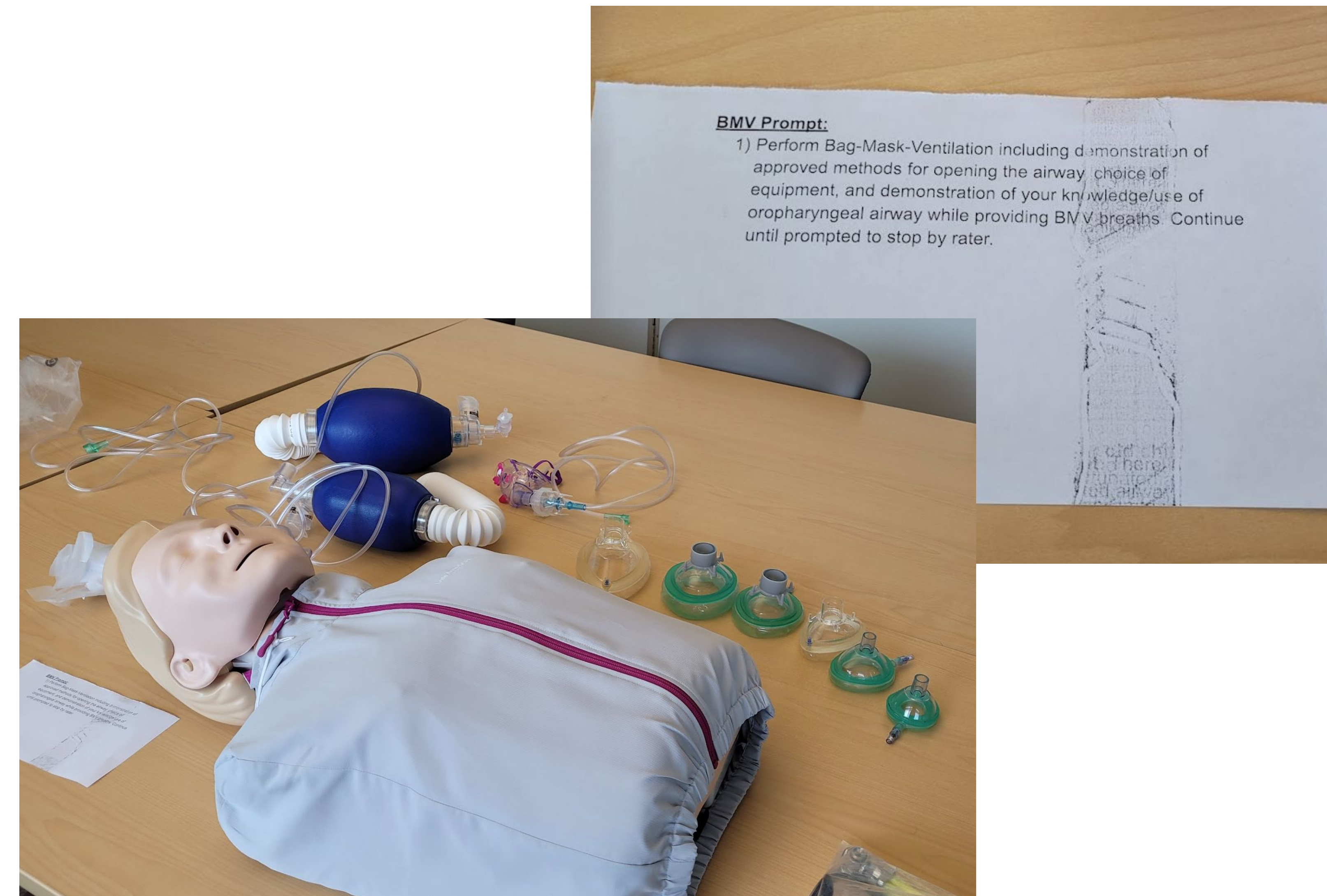
We conducted a prospective observational study from June to September 2021, at a university-affiliated hospital of 15 pediatric residents just prior to entering PGY2 year. Participants rotated through each of the skills stations at two timepoints 3 months apart: bag-mask-ventilation, motor and manual intraosseous access, neonatal oro-endotracheal intubation, and CPR. Each station provided a low-fidelity manikin, written prompt and a maximum of 5 minutes for task completion. We evaluated skill competency based on modified versions of the validated RESCAPE and OCAT tools (Faudeaux C et al, 2017; Rekman et al, 2016). Residents were encouraged to access the study materials of the scoring tools and videos demonstrating each skill for self-review between the two sessions.

Results

9 out of 15 learners participated in both timepoints of the study. Between testing timepoints, 8 of 11 residents reviewed the validated scoring tools; 7 of 11 practiced the simulated task training stations, and 7 of 11 watched the videos. Residents expressed high interest and level of commitment to skills training program for PGY1 and 2.

Objective

- 1) Primary objective is to improve resuscitation skill competency and confidence in pediatric residents.
- 2) Secondary objective is to assess interest in a skills training program.



Conclusion

Our pilot study provides a self-directed pediatric resident resuscitation skills curriculum with validated task completion scoring tools and assessment of level of competency. This low fidelity training program can provide accessible, practical, and goal-directed skills training even in the busy clinical training program for PL-2 residents.