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Early Warning Signs: Incorporating Objective Structured Clinical Examinations into EM Orientation

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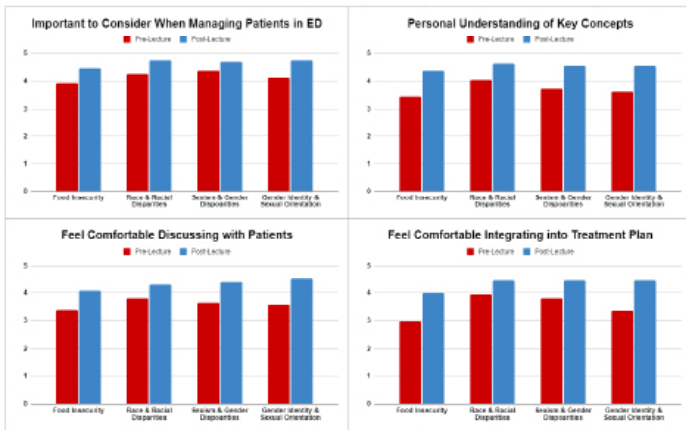


Figure. Impact of social determinants of health curriculum on resident education.

49 Filling Knowledge Gaps Through Gamification: A Community Academic Program’s Approach To Teaching Basic Splinting

Lorie Piccoli, Joel Atwood

Introduction/ Background: Splinting is an essential skill for emergency medicine (EM) physicians. We identified a knowledge gap among surveyed EM residents from four regional EM programs in Pennsylvania. Despite 81.5% reporting formal splinting training as residents, most had placed 3 or fewer ulnar gutter, sugar tong, and thumb spica splints. To enhance clinical proficiency and resident confidence in splinting, we taught essential splinting skills at a combined regional conference attended by multiple EM residency programs.

Educational Objectives: 1) Host small group splinting conferences for hands-on learning. 2) Challenge residents to apply appropriate splints for clinical fracture scenarios. 3) Offer real-time grading and feedback on splint quality and appropriateness. 4) Evaluate training effectiveness and knowledge retention through a post-splinting survey.

Curricular Design: This 20-minute curriculum accommodated a diverse group of learners and was repeated eight times. Groups were presented with a simulated arm fracture case and tasked to diagnose the injury, gather necessary splinting materials, and apply splints to live team members. Splints were graded on: 1-Appropriate immobilization of the affected joint, 2-Proper joint positioning, 3-Aesthetic quality of the splint, 4-Comfort and prevention of skin breakdown, and 5-Timeliness. Teams competed for the title of “Best Splinters”.

Impact/Effectiveness: This hands-on, small group teaching approach with real-time feedback empowered

learners to acquire vital splinting skills. We provided residents with a tangible understanding of how to correctly apply a splint. Real-time feedback allowed them to rectify mistakes and refine their skills. A comparison of pre- and post-training survey results via Mann-Whitney U testing confirmed improvement in median comfort scores from 2 to 3 (on a 1-4 Likert scale) for all three types of forearm splints ($p=0.004, 0.020, 0.001$).

50 Early Warning Signs: Incorporating Objective Structured Clinical Examinations into EM Orientation

Matthew Mullins, Matthew Stull

Introduction/Background: The continuum of medical education is often fractured without a learner hand-off. Residency programs must rapidly assess trainee preparation to appropriately balance supervision and autonomy. EM interns spend considerable time on off-service rotations, challenging programmatic assessment. Underperforming learners may not be identified until late in the year, placing a resident well behind their peers. An early identification system for EM core competency-based performance may help programs implement coaching sooner. Utilizing Objective Structured Clinical Examinations (OSCEs) reflecting competencies during EM Orientation can provide this valuable information.

Educational Objectives: First, we sought to assess the feasibility of implementing a level-appropriate OSCE applying the core competency framework for EM interns. In addition, we sought to validate a standardized assessment tool for learners on common EM procedures. Lastly, we aimed to implement OSCEs that informed our Clinical Competency Committee (CCC).

Curricular Design: Utilizing Kern’s model, we identified our need for an assessment tool early in intern year. We aimed to create an early warning system to identify areas for improvement, optimizing the time for targeted coaching. OSCEs were chosen as a validated tool to assess performance. We mapped the core competencies to common aspects of EM cases and procedures (i.e., utilizing the PERC rule earned points for systems-based practice and placement of ultrasound-guided IVs for patient care). Residents were scored for each competency in three cases by a trained-faculty member.

Impact/Effectiveness: Implementation of an early assessment program can aid in early detection of residents who may need additional support and will assist in the longitudinal development of residents. Our next steps include better connecting performance on OSCEs with progression through EM milestones based on CCC’s impressions.