

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Incorporating Rapid Cycle Deliberate Practice into Traditional Simulation-Based Medical Education

Permalink

<https://escholarship.org/uc/item/0575038p>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 20(4.1)

ISSN

1936-900X

Authors

Montrief, T
Medwid, K
Supino, M

Publication Date

2019

Copyright Information

Copyright 2019 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Schrepel C, Harter K, Streich H, Hillman E, Kellogg A, Nable J, Pelletier-Bui A / University of Washington, Seattle, Washington; University of Southern California, Los Angeles, California; University of Virginia, Charlottesville, Virginia; University of Missouri-Kansas City School of Medicine, Kansas City, Missouri; University of Massachusetts - Baystate Health, Springfield, Massachusetts; Georgetown University School of Medicine, Washington, District of Columbia; Cooper Medical School of Rowan University, Camden, New Jersey

Background: The couples match, which gives any two people the choice to match into residency by linking their rank lists, is a stressful process. There is little in the literature to guide students on an optimal application strategy. The Council of Emergency Medicine Residency Directors (CORD) Advising Students Committee in Emergency Medicine (ASC-EM) is a working group comprised of leaders in EM education. The committee created a consensus-based resource and surveyed educators regarding couples match applicants to provide prospective couples application guidance.

Educational Objectives: Our goals were to identify challenges specific for couples entering the match process, and to generate targeted advising recommendations specific for the EM couples match applicants.

Curricular Design: The CORD ASC-EM identified best practice guidelines for the EM couples match based on recommendations collected from EM residents, faculty, existing online advising resources and a survey of CORD members. A total of 104 educators responded to the survey. The majority (98%) stated that they advise EM-bound students and are part of program leadership. This working group compiled the key best practice recommendations supported by survey data. An experienced advisor is an important part of every application process as each partner entering the couples match process will have unique circumstances that may warrant adjustments to these recommendations.

Impact/Effectiveness: There are limited data to guide individuals engaging in the couples match. The CORD ASC-EM, comprised of leaders in EM advising, has developed consensus-based recommendations that have been supported by survey data and endorsed by CORD, CDEM (EM clerkship directors), and the Emergency Medicine Residency Association. These recommendations have been distributed to advisors and students via the CORD website, listservs, and *The Vocal CORD* blog. These recommendations were first posted on *The Vocal CORD* blog in March 2017 and have been viewed >800 times.

Timeline	Key Recommendations
Before you apply	Find an experienced adviser to help you plan. Have a conversation about personal and professional goals. Attend at least 1 away rotation; 2 SLOEs are recommended. An additional away rotation may benefit the EM couples-match applicant more than an equally-matched traditional applicant. Take Step 2 early.
The application	Decide where to apply by considering factors such as cities with multiple programs. For the "average" applicant matching with another "average" applicant in any other discipline (defined in the survey as high pass/honors grades, USMLE Step 1 ~230, 1-2 scholarly projects & no red flags): Aim to apply to 25-30 programs. •Survey: There is wide range of values recommended for the number of applications recommended for an "average" EM applicant to submit when matching with another "average" student in any discipline. Aim to attend at least 10-12 interviews.
The interview	Contact programs if only one partner has received an interview. •Survey: Most respondents (80.2% [73.4-88.0]) will attempt to coordinate interview dates for matching couples. Be open about your couples match status. •Survey: Most respondents will talk to the program director of other programs to which the candidate's partner has applied (76.2% [67.9 - 84.5]) and 43.6% (33.9-53.2) report moving a resident up or down on a rank list because they were matching with a resident in another program.
The Match list	Make lists individually before comparing them. Organize the list by cities. Consider using a spreadsheet and allow time to enter ranks (there can easily be over 500 combinations).

10 Incorporating Rapid Cycle Deliberate Practice into Traditional Simulation-Based Medical Education

Montrief T, Medwid K, Supino M / Jackson Memorial Health System, Miami, Florida

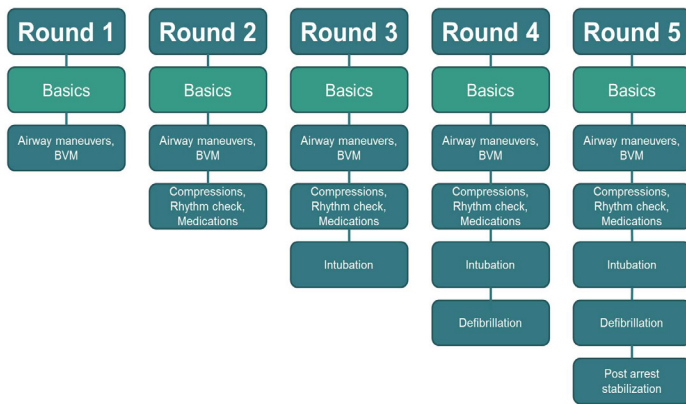
Background: Traditional simulation-based education (SBME) has been widely accepted and includes a structured post-simulation debriefing; however, little is known concerning learners' experience with alternative simulation modalities, including rapid cycle deliberate practice (RCDP). RCDP is a team-based simulation method consisting of progressively more challenging rounds with frequent starts and stops, emphasizing repetitive practice over reflective debriefing with real-time, direct coaching via microdebriefing. In contrast, SBME focuses on learning after the scenario is complete, using advocacy-inquiry debriefing and allowing less skill repetition.

Educational Objectives: Our primary objective was to identify the potential benefits of RCDP and its effect on learners' experience in a simulated patient care environment, as well as to evaluate learner feedback regarding RCDP vs SBME.

Curricular Design: A two-hour RCDP session provided simulation education to two teams of four emergency medicine residents. Each case highlighted skills associated with Pediatric Advanced Life Support using high-fidelity mannequins. Skills reviewed in the evaluation of the critically ill infant included obtaining a focused history, performing cardiopulmonary resuscitation, airway management including intubation, obtaining intraosseous access, and dysrhythmia management. Critical actions were identified within the scenario that led to hard stops if done incorrectly. Debriefing was then done via quick bursts of feedback to correct these critical actions within these pauses. The

teams would then swap and the scenario was started over again. This form of debriefing within the scenario via a start-and-stop method allowed for more repetitive practice with the goal of mastery learning. After the scenario the instructor summarized key educational objectives and solidified main teaching points, and participants provided feedback on RCDP vs SBME via anonymous questionnaires.

Impact/Effectiveness: We propose a novel way to incorporate RCDP into a residency curriculum as a supplement to SBME. Feedback has been very positive with almost all respondents believing RCDP is an effective adjunct to SBME. Furthermore, a majority of respondents to a residency-wide survey felt that RCDP provides timely feedback and creates skills through increased repetition.



Compared to traditional Simulation Based Education, Rapid Cycle Deliberate Practice (n=32):					
	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Improves retention of correct knowledge	0 (0%)	0 (0%)	2 (6%)	14 (44%)	16 (50%)
Provides more timely feedback	0 (0%)	0 (0%)	0 (0%)	10 (31%)	22 (69%)
Provides more individualized feedback	0 (0%)	1 (3%)	9 (28%)	9 (28%)	13 (41%)
Provides an opportunity to create new skills through repetition and practice	0 (0%)	0 (0%)	1 (3%)	9 (28%)	22 (69%)
Information is repeated more often	0 (0%)	0 (0%)	0 (0%)	7 (22%)	25 (78%)
Provides an opportunity to correct mistakes in real time	0 (0%)	0 (0%)	1 (3%)	9 (28%)	22 (69%)

11 Just in Time: A Faculty Development Primer to Help Prepare Core Faculty for Clinical Teaching Shifts

Karademos J, Rodriguez C, Siddiqui M, Naples R, Papanagnou D /Thomas Jefferson University, Philadelphia, Pennsylvania

Background: The clinical environment in the academic emergency department (ED) is challenged by the struggle of maintaining efficient patient throughput while supporting a

culture of teaching and learning. As a solution, several institutions have developed faculty teaching shifts dedicated to improving on-shift resident and student education. Training and comfort level among faculty, however, is remarkably heterogeneous. The authors propose the development and adoption of a just-in-time (JIT) learning module to assist faculty to prepare for teaching shifts.

Educational Objectives: Our goals were to develop a JIT training module on best teaching practices for faculty to review immediately before their teaching shifts in the ED, and to improve faculty comfort level with clinical teaching shifts by offering them a toolkit of best practices.

Curricular Design: After a needs analysis was conducted with core faculty through focus groups, the authors created a learning module using Articulate (RISE) e-learning software. The module was distributed to all teaching faculty, with the recommendation that it be completed before a teaching shift. The module also included resources for a more substantial understanding of educational principles such as workstation/ bedside teaching; feedback; morning report (ie, logistics, facilitation tips); downtime teaching; direct observation tips; and a compendium of acceptable open-access educational resources. Several quizzes were embedded in the module to evaluate faculty progress and track their completion. A survey was distributed to faculty to solicit feedback and reassess their comfort level with the newly-integrated teaching shift.

Impact/Effectiveness: The JIT module exposed faculty to several teaching techniques and resources, provided them with a framework for delivering effective feedback, and improved their comfort level with the teaching shift. Our innovation can easily be replicated for any level of training across most specialties to assist faculty in teaching and evaluating students in the clinical environment.

12 Notes vs Recall: Can Third-Year Medical Students Benefit from Obtaining and Presenting an HPI Without Using Notes?

MacConaghy L, Moore C, Welch K, Sarsfield M, Wojcik S / SUNY Upstate Medical University, Syracuse, New York

Background: Medical students often struggle while transitioning from the use of handwritten notes to obtain and present a patient history to the expectation of using recall during residency and ultimately independent practice.

Educational Objectives: We sought to educate medical students to improve patient interactions regarding flow, efficiency, and communication while still providing a complete and fluid patient presentation without using notes.

Curricular Design: Third-year emergency medicine clerkship students from June–November 2018 at SUNY Upstate Medical University were challenged to evaluate and