Resuscitating your Undergraduate Simulation Curriculum!

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Objectives:
At the end of this 10 minute session learners will be able to:

1) discuss debriefing strategies to enhance undergraduate medical education.
2) learn how to use just in time simulation for enhancing your Simulation didactics.
3) learn to incorporate special topics to enhance pre-existing simulation cases.

1. Debriefing Strategies.

- Traditional debriefing approaches have often been tailored to the experiences or advanced medical learners. These approaches rely on a foundational set of medical knowledge, practices and experiences for facilitating a rich and meaningful debriefing.
- Undergraduate medical students, as novice learners often lack the foundational knowledge, experiences and practices necessary for traditional approaches.
- Newer strategies like Rapid Cycling Deliberate Practice and Blended debriefing (Promoting Excellence And Reflective Learning in Simulation **PEARLS**) have the potential to make your simulation curriculum more relevant for the novice level undergraduate learner by specifically providing directive feedback at the level of the learner.
- For a demonstration of these approaches please visit:

- Rapid Cycle Deliberate Practice : https://www.youtube.com/watch?v=yAhZ8HHtTaI

- PEARLS Blended Debriefing: https://debrief2learn.org/resources/promoting-excellence-and-reflective-learning-in-simulation-pearls-a-blended-approach-to-debriefing/

2. Just-in-Time Training (JiTT)

- JiTT refers to a form of training where very specific educational content is delivered to the learner when they need it. With easy availability of portable task trainers, JiTT can be utilized for common emergency procedures such as endotracheal intubation or central venous access, immediately before the procedure is performed in the clinical environment.

- Benefits for the learner: Review of procedural steps and jogging of memory with respect to anatomy, when needed and opportunity to ask questions prior to procedure performance.
- Benefits to the teacher: Assurance that learner can safely perform the procedure prior to actual procedure performance and an opportunity to provide constructive feedback on any concerning technical issues prior to the performance of the procedure.
- Benefit to Patient: improved chance of first attempt procedural success and therefore patient safety.

3. Spicing up your Simulation Cases : Getting more bang for your buck.

With recent release of AAMC's entrustable professional activities, there is increased focus on what constitutes "softer skills" such as communication, inter-professional teamwork and professionalism. Existing cases can be easily revamped to address some of these points as per the following pointers:

- Add layers of complexity to the case (more meat for your debriefing) by adding on special circumstances.
- Consider adding standardized patients or 'confederates'– increased fidelity
- Communication challenges
    - Difficult consultant
    - Conflict of patient ideals (e.g. wants to leave AMA)
    - Difficult family member
    - Poor health literacy (patient or family)
- Special topics (psychosocial, ethical)
    - Interpersonal violence (intimate partner violence, child abuse, elder abuse)
    - Cultural / ethical issues regarding patient's care
    - Sensitive issues requiring removal of partner/companion (e.g. STIs, pregnancy)
    - Gender identity and biological sex
    - Breaking bad news
    - End of life decisions
    - Non-english speaking patients – use of interpreter services
- Consider what aspects of your own clinical cases were challenging / eye opening and consider incorporating them
- Add a procedure into the case (e.g. IV, LP, intubation, chest tube) – can use concurrent task trainers within the case for enhancing fidelity.
- A wide variety of cases are downloadable from AAMC's MedEdPortal.

References

Cheng YT, Liu DR, Wang VJ. Teaching Splinting Techniques Using a Just-in-Time Training Instructional Video. *Pediatr Emerg Care*. 2017. doi:10.1097/PEC.0000000000000390.

Eppich W, Cheng A. Promoting Excellence and Reflective Learning in Simulation (PEARLS): development and rationale for a blended approach to health care simulation debriefing. Simul Healthc. 2015;10(2):106-115

Hunt EA, Duval-Arnould JM, Nelson-McMillan KL, et al. Pediatric resident resuscitation skills improve after "Rapid Cycle Deliberate Practice" training. *Resuscitation*. 2014;85(7):945-951. doi:10.1016/j.resuscitation.2014.02.025.Kamdar G, Kessler DO, Tilt L, et al.

Qualitative evaluation of just-in-time simulation-based learning: The learners' perspective. *Simul Healthc*. 2013. doi:10.1097/SIH.0b013e31827861e8

Taras J, Everett T. Rapid Cycle Deliberate Practice in Medical Education - a Systematic Review. Muacevic A, Adler JR, eds. Cureus. 2017;9(4):e1180.