UC Irvine

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

Title

Standardization and Documentation of Critical Event Debriefing: A Framework for Resident Engagement in Inter-professional Quality Improvement

Permalink

https://escholarship.org/uc/item/8b26t6x1

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 21(4.1)

ISSN

1936-900X

Authors

Hitchner, Lily
Vohra, Stacy S.
Uller, Jeffrey

Publication Date

2020

Copyright Information

SIC was implemented at 11 EM residency programs. Subjects completed pre- and post-curriculum surveys assessing PP, CK, and curriculum feedback.

Impact: 151 pre-interns invited to participate. 115 and 63 pre-interns completed the pre- and post-curriculum survey respectively. Increases in PP were found for Milestones 5, 9, 10, and 12. (Table 2). While median reported preparedness was unchanged in some skills with a significant p-value, the Mann Whitney U test demonstrates a shift in the distribution of responses. There was no difference in mean exam scores after the curriculum, but there was an improvement in Milestone 10 CK.

Conclusions: SIC improved PP and some aspects of CK in pre-interns based on several topics in ACGME Milestones in EM, and allowed participant collaboration with co-interns despite geographic barriers. Limitations include variable participation and 45.2% lost-to-followup rate. Implementing the SIC may be beneficial for easing the transition to EM residency.

Table 1. Pre and Post Test Self-Reported Preparedness (1-5), Mann-Whitney U Summary Table.

Milestone Skill	Pre-Test Median	Post-Test Median	p-value	U
Recognizing Abnormal Vital Signs	4	5	0.3203	5790.5
Recognizing the Unstable Patient	4	4	0.7041	5548.5
Ability to form a Diagnostic Plan	4	4	0.6987	5244
Determining the Need for Diagnostic Studies	3	3	0.1954	5921.5
Ordering Appropriate Diagnostic Studies	3	3	0.9941	5401
Interpreting Results of Diagnostic Studies	3	3	0.6568	5580
Constructing a Differential Diagnosis	4	4	0.1598	4851.5
Recognizing Classes of Medications and Mechanisms of Action	3	3	0.2798	4944.5
Selecting Appropriate Medications	3	3	0.09773	6080
Recruiting Appropriate Clinical Resources	3	3	0.07565	6141.5
Making Admission or Discharge Decisions	3	3	0.1949	5939
Assigning Admitted Patients to Appropriate Level of Care	3	3	0.07112	6153
Describing Pertinent Anatomy for Specific Procedures	3	3	0.1363	6020.5
Describing Indications, Contraindications, Complications of ED Procedures	**3**	**3**	**0.002479**	**6661**
Describing Upper Airway Anatomy	**3**	**3**	**0.03268**	**6294.5**
Identifying Procedure Equipment and Technique	**2**	**3**	**0.001295**	**6745.5**
Identifying the Pharmacology of RSI Medications	**2**	**3**	**0.002792**	**6654.5**
Ability to Confirm Placement of ET Tube	**3**	**4**	**0.004147**	**6607.5**
Recognizing Indications for Ultrasound Imaging	4	4	0.2576	5864
Ability to Optimize Ultrasound Images	**2**	**3**	**0.01651**	**6418**
Interpretation of Ultrasound Images	3	3	0.3639	5783

Table 2. Pre and Post Test Self-Reported Preparedness (1-5), Mann-Whitney U Summary Table.

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40 Standardization and Documentation of Critical Event Debriefing: A Framework for Resident Engagement in Inter-professional Quality Improvement

Hitchner L, Sawtelle Vohra S, Uller J / UCSF Fresno

Learning Objective: To fulfill the ACGME requirement for resident engagement in inter-professional quality improvement while realizing the known benefits of formalized debriefing.
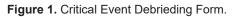
Abstract: Critical event debriefing facilitates inter-professional education, emotional processing, and quality improvement. Prior studies show that debriefings are underutilized and many departments do not have a formalized program despite recommendations by the American Heart Association. When implemented, debriefings are rarely documented and threats to patient safety are often lost to follow-up and remain unaddressed.

In the winter of 2017, we created a multidisciplinary critical event debriefing committee comprised of Emergency Medicine faculty, residents, nurses, and case managers.

Critical event debriefing forms were adapted from the Debriefing in Situ Conversation after Emergent Resuscitation Now tool described by Mullan et al after a detailed literature review of best practices.

During a critical event debriefing, the interdisciplinary team is prompted to identify what went well in the care of the patient, what could have gone better, whether there was a patient safety threat, and to propose solutions to improve care. Residents work with the ED operations committee to address the action items identified during debriefings.

The first critical event debriefing session was completed in March of 2018 and 38 forms have been completed to date. Debriefing sessions identified issues with equipment (23), communication (9), transitions of care (5), medications (2), procedural skills (2), systems (1), and medical knowledge (1) and created explicit action items with suggested solutions. Many of the third (5/10) and fourth (8/10) year residents have participated in a debriefing session and all residents have been included in discussions on proposed solutions. This project improves patient care, satisfies the ACGME requirement for resident engagement in inter-professional quality improvement, and is easily adaptable to other residency programs.

Figure 1. Critical Event Debrieding Form.

41 Teaching Outside the Box: A Health Humanities-Based Curriculum to Teach Social Determinants of Health

Balhara K, Irvin N, Regan L / Johns Hopkins University School of Medicine

Introduction: Understanding the impact of social determinants of health (SDoH) is important to EM resident development. Successful SDoH training should bridge classrooms and EDs by providing frameworks for translating knowledge to clinical application. The health humanities (HH) may serve as that bridge. While their impact on medical students' empathy and observation skills is widely established, there is limited evaluation of their impact in resident education and potential to promote critical thinking about SDoH.

Learning Objective: The objectives of this curriculum are to:
1) Encourage critical thinking about social determinants (SDoH) in EM
2) Foster meaningful engagement with patients, families, and communities
3) Promote self-reflection on clinical experience
4) Translate knowledge of SDoH into patient care

Design: Grounded in narrative medicine and visual thinking strategies, curriculum themes were identified by a consensus group of residents and faculty with HH, education, and social EM expertise, with input from nursing and patient councils. Feedback from 6 pilot sessions informed the format and duration of this 10-session, synchronous and asynchronous year-long curriculum. After an introductory museum-based session to encourage out-of-the-box discussion, subsequent sessions are themed by specific SDoH (addiction, health literacy, built environment, etc) and combine brief lectures with group discussions of thematically-relevant literature and art in both classroom and community settings.

Impact: This innovative approach encourages critical engagement with SDoH in the ED and surrounding community, creating a cognitive bridge between didactics and clinical practice. Over 80% of residents have rated sessions as "excellent". Residents' group discussion participation and evaluation responses demonstrate engagement, nuanced discussion, and critical thinking. We will compare pre- and post-surveys to assess impact on SDoH knowledge and SDoH use in clinical decision-making. Tips for effectiveness are in Table 1.

Table 1. Lessons learned for maximizing effectiveness of a health humanities-based SDH curriculum.

- Schedule in-conference activities earlier in the year to encourage attendance at subsequent asynchronous sessions

- Limit any pre-readings to a maximum of two to maximize nuanced discussion

- When possible, incorporate time for reading into sessions themselves to maximize engagement

- Incorporate multiple sources in each session (for instance, combine art, literature, non-fiction, podcasts)

- When possible, involve multidisciplinary stakeholders, such as peer recovery counselors, social workers, and patients, in both curriculum development and instruction

- Move the classroom beyond the walls of the hospital to surrounding communities via community field trips or visits to museums