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Trauma-Informed Verbal De-escalation Curriculum for Emergency Medicine Residents

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quality of patient care, medical billing, and legal protection for healthcare providers. The education and training surrounding charting and documentation in emergency medicine residency have often been relegated to on-the-job learning, without formal didactic instruction. This deficiency leads to inefficiencies, inconsistencies, and even potential legal vulnerabilities. In response, an innovative curriculum was developed and implemented.

Educational Objectives: The objective of this curriculum is to empower emergency medicine residents with a comprehensive understanding of documentation's critical role in patient care, billing, and legal protection. Through this curriculum, residents gained proficiency in navigating evolving coding guidelines, maximizing relative value units, and implementing best practices to efficiently and accurately document.

Curricular Design: A needs assessment was performed, which showed only 40% of our residents felt they had sufficient training on documentation. Hence, a documentation curriculum was developed which blended didactic lectures with simulated patient encounters. Residents were provided with 6 50-minute lectures, which focused on the requirements for billing, efficiency, and best practices. Residents participated in a simulation case before and after the course, which involved critical care and a medical error. They were required to write a note documenting this case. These notes were evaluated, and feedback was given.

Impact/Effectiveness: A post-intervention survey showed 90% of our residents felt they had sufficient training on documentation. Following completion of the course residents were given another SIM and only 5% of charts were downcoded from a level 5. This curriculum can easily be adopted by other institutions. It was well received by our residents, and it improved their charting competence and confidence.

8 Expanding FOAMed to Voice Activated Artificial Intelligence: Mental Practice of Emergency Medicine Procedures via Alexa

Megan High, Ryan Tabor, Tim Henderson, Ryan McKillip

Background: EM physicians are responsible for performing a variety of life and organ-saving interventions. However, given the infrequency of some high acuity, low occurrence (HALO) procedures, opportunities to hone these skills can be rare. Mental practice (MP), the visualization of a set of actions, has consistently demonstrated a positive impact on performance of medical procedures, but it lacks feedback. Voice activated artificial intelligence (VAAI) (e.g. Alexa, Siri) offers an accessible format for interactive MP.

Objectives: Create an open access VAAI resource to facilitate MP of HALO procedures.

Design: Three experienced EM physicians identified nine HALO procedures via consensus: lateral canthotomy,

transvenous pacing, cricothyrotomy, needle cricothyrotomy, pericardiocentesis, resuscitative hysterotomy, thoracotomy, newborn delivery, and cranial burr hole. An Amazon Alexa application was created which guides a user through MP of each procedure. Alexa was selected for its voice interaction features and ability to run on both mobile phones or smart devices. Users select a procedure and then are prompted to visualize the necessary supplies, then the procedure itself and finally potential complications. After each prompt, Alexa allows time for visualization before reading back a script of the appropriate supplies and steps (Figure).

Impact: Since August 2022, use of the application has grown organically, with 16 activations and 65 sessions on mobile (4/65), smart speaker (28/65), or television platforms (26/65). Application performance has been high, with 100% (65/65) appropriate endpoint responses, indicating it has functioned without error. As users grow, a study of its effect on procedure performance is needed. VAAI is an underutilized medium for medical education tools. This project represents a novel format for free open access medical education (FOAMed), and demonstrates an innovative method for enhancing physician proficiency.
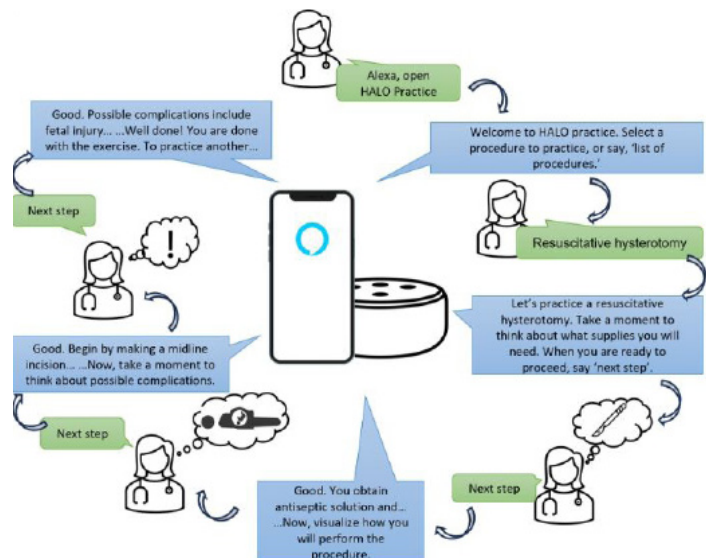

Figure. Example mental practice session. After each prompt, Alexa allows time for visualization before reading back a script of the appropriate supplies and steps.

9 Trauma-Informed Verbal De-escalation Curriculum for Emergency Medicine Residents

Samara Albazzaz, Jeremiah Ojha, Kelly MacKenzie, Jessica Parsons, Erica Harris

Introduction: Use of violent restraints for agitation in the ED contributes to patient morbidity through physical and psychological harm. The process of restraining is also time

and resource consuming. Verbal de-escalation can take 5-10 minutes, is non coercive, and is effective in decreasing patient agitation. Literature exists on best practices of de-escalation, but there is no published formalized training in verbal de-escalation for EM residents.

Educational Objectives: We aimed to create an effective, efficient, trauma-informed curriculum in verbal de-escalation for EM residents.

Curricular Design: We performed a literature review to identify best practices in verbal de-escalation in the ED setting. We assembled a multidisciplinary team to consult on design of our initiative, consisting of an education design specialist, a social worker, and EM faculty and residents. Our curriculum consisted of one 30-minute didactic lecture on verbal de-escalation tools, and one month later, a 30-minute simulation session. The scenario involved a medical resuscitation combined with de-escalation of an agitated parent. A facilitated debrief of the simulation focused on the de-escalation component, further reinforcing the learning points from the didactic lecture.

Impact/Effectiveness: Resident physicians are often the front line in initial attempts at de-escalation however rarely receive formal training on evidence-based techniques in verbal de-escalation. In a post-survey nine months after the curriculum, 95% of surveyed residents reported using the de-escalation tools from the curriculum in the ED, with 68% successfully de-escalating an agitated patient within the last three months. Our curriculum represents a framework for formal training in verbal de-escalation in GME. Our next steps will be a retrospective chart review to evaluate if this training has resulted in reduced restraint use in the ED. We also aim to adapt our curriculum to intern orientation.

10 An Innovative Approach to Addressing Racism, Implicit Bias, and Microaggression (RIM) amongst Physician Trainees

Larissa Fomum-Mugri

Background: Racism, implicit bias, and microaggressions (RIM) occur in healthcare settings on a regular basis and disproportionately affect minority physicians (1,2). Data shows that experienced RIM can lead to increased occurrences of physician burnout, depression, and anxiety (2,3,4). Despite the significant impact of RIM on minority physicians, there is little standardized education within graduate medical education (GME) curricula that addresses RIM amongst physician trainees. The education that currently exists generally lacks interactive and engaging means to address issues of RIM. More formalized and interactive education on RIM will equip physician trainees with the knowledge and tools necessary to mitigate instances of RIM, and has potential to improve interpersonal relationships and

resident wellness (5). This project proposes an innovative approach to addressing RIM amongst physician trainees that utilizes simulation and restorative justice practices.

Educational objectives: 1. Utilize didactic teaching and simulation to increase learner understanding and recognition of RIM in clinical practice. 2. Participate in dialogue about RIM-based experiences. 3. Engage in facilitated discourse through restorative justice practices to safely address acts of RIM. Content for the didactic teaching was organized into a powerpoint presentation for emergency medicine and pediatric residents at the University of Chicago. It included concept definitions and content on RIM. Following the presentation, residents were introduced to a simulated encounter of an act of implicit bias. They, then, were introduced to the Triangle Framework to engage in discussion regarding identifying and intervening on witnessed RIM (6). This experience was followed by a restorative justice community circle. Residents completed pre and post surveys with preliminary data reporting increased openness with sharing experiences, increased connectedness among peers, and interest in similar educational sessions.

Research Abstracts

1 Home vs Away Rotation Differences in the Standardized Letters of Evaluation (SLOE) 2.0

Aman Pandey, Cullen Hegarty, Sharon Bord, Kasia Gore, Thomas Beardsley, Sara Krzyzaniak, Sandra Monteiro, Al'ai Alvarez, Teresa Davis, Melissa Parsons, Michael Gottlieb, Alexandra Mannix

Background: The Standardized Letter of Evaluation (SLOE) is important for emergency medicine (EM) resident selection. Prior studies showed biases between some different groups of applicants in the original SLOE. The SLOE was revised recently to create the SLOE 2.0. It's unknown if similar biases exist in home vs away SLOE 2.0s.

Objective: The objective was to look at scoring differences in the SLOE 2.0 for home vs away rotations.

Methods: This was a multi-institution, retrospective, cross-section study looking at SLOE 2.0s from 4-week EM rotations during the 2022-2023 cycle from US medical school applicants that applied to one of the 5 programs in our study. Our exclusions were: duplicates, not written by a faculty group of other qualified person, letter writer wrote <5 SLOEs last year, incomplete data, or subspeciality or OSLOEs. Part A, Part C1, and Part C3 of the SLOE 2.0 were converted to 3-point, 4-point, and 5-point quantitative scales, respectively. We derived SLOE 2.0s' mean scores for Part A, Part B, Part C1, and Part C3 to assess the differences between home vs away SLOEs. We compared the means using a t-test. After Bonferroni correction, $p=0.0036$ was used for statistical significance.