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Figure.

49 Single, Daily Multiple-Choice-Question: A Microlearning Tool for a Core Emergency Medicine Clerkship

Moises Gallegos, MD, MPH; William Dixon, MD, MEd; Danielle Miller, MD

Learning Objectives: We sought to deliver interspersed, concise teaching points on core content while providing direction for additional reading. Using pre-scheduled learning sets messaged to students each morning, we also hoped to create a more cohesive and dedicated learning experience.

Abstract:

The breadth and depth of Emergency Medicine (EM) can be both attractive and daunting for medical students exposed to the specialty on clinical rotations. For clerkship directors and education faculty, it can be difficult to review a representative amount of content in the short duration of a clerkship. For students, it can be challenging to know where and what to read for end-of-clerkship exams. Furthermore, social-distancing policies during the COVID-19 pandemic limited in-person instruction, potentially contributing to perceptions of decreased formal teaching. Creative use of interspersed learning sets can provide direction for and supplement the clerkship curriculum.

EMED Daily was created as part of a required EM clerkship at Stanford. Each EMED Daily is a single, multiple-choice-question (MCQ) bundled with relevant medical and procedural knowledge, as well as testing strategy for core EM content. Online survey software is used to automate the delivery of the next EMED Daily each morning. Building on

concepts of “pushed” delivery from eLearning and digestible teaching moments from Microlearning, the EMED Daily allows students to engage in retrieval practice and review curated material while eating breakfast, brushing their teeth, or walking to shift. Learning sets reflect core topics from the Clerkship Directors in EM (CDEM) medical student curriculum and include links to free open access medical education (FOAMED) resources. MCQs are not graded individually, but a completion rate of 75% is required for credit towards a final grade.

The EMED Daily has been well received by students. In 6 months, the average completion rate was 96%, well above the required amount. Students commented that the EMED Daily sets “were simple and good for framing,” and “a great way to review a small amount of info every day.” Additionally, as COVID policies affected the type of patients students could see, question sets were adjusted to supplement learning as needed.

50 Snow White Escape Room: Gamification for Emergency Medicine Residents

Kevin Hon, DO; Anita Lui, DO; Marion-Vincent Mempin, MD, FACEP

Learning Objectives: Our goal was to gamify medical education for emergency medicine (EM) residents by creating an Escape room based off of various EM topics. We hypothesize that our novel learning session would improve resident engagement and knowledge retention over traditional, lecture-based conferences.

Abstract:

Introduction: Today’s emergency medicine (EM) residents are learning differently than their educators and benefit from more immersive education over lecture-based curricula. An Escape Room provides a unique opportunity to gamify learning for residents to collaborate, synthesize, and engage in a competitive environment in order to escape a locked room. This mini-curriculum provides stepwise instructions and tools needed to implement an escape room.

Curricular Design: Residents were assessed on their understanding of START triaging, toxicology, ventilators, venereal diseases, ultrasound, hyponatremia, and electrocardiograms. Residents were divided into four equal groups. There were seven locked puzzle boxes placed in the front of a classroom that sequentially led to the next puzzle. All groups attempted to “escape” their rooms simultaneously by sending a runner to unlock the corresponding box. Faculty members assisted with hints and assessed for the correct solutions. Learners were challenged with a series of Snow White themed puzzles. (Full description of the puzzles are available as an appendix for educators but have been purposefully omitted to prevent exposure to potential learners). Teams were timed, penalized for hints, and given

time bonuses for solving the final challenge. We collectively debriefed after the competition and assessed for retention of topics. The total cost of the material was \$60. Our conference is based on a small-group, flipped-classroom model, but the escape room could also replace the time slot of a traditional lecture.

Impact/Effectiveness: Implementation of the Escape Room was well received by participants as a way to cover multiple EM topics. Residents completed an anonymous Likert scale survey. 92% rated the activity successful in achieving its goals and 96% in being an effective activity to include in the future. We are excited to share this activity with any EM residency looking to add a twist to their conference day.

51 Stanford Emergency Medicine Residency COVID-19 Reflection Rounds: A Facilitated Intervention for Building Resiliency

Al'ai Alvarez, MD; Jeffrey Sakamoto, MD; Kimberly Moulton, MD; Akivah Northern, M Div; Bruce Feldstein, MD

Learning Objectives: To demonstrate the use of reflection rounds with frontline trainees to reflect and use meaning-making and narrative medicine to normalize challenges and celebrations and manage the COVID-19 pandemic stressors.

Abstract:

Background: Residency training has its own innate challenges that lead to feelings of isolation in medicine. The COVID-19 pandemic further exacerbated this sense of isolation. Fatigue, stress, anxiety, and frustrations all add to the spectrum of human emotions resident trainees experience. Navigating the balance between professional and personal responsibilities amidst a pandemic creates a unique need for connection, especially during physical distancing and shelter-in-place restrictions. The ability to reflect on one's inner life is critical to practicing medicine with integrity, authenticity, and coherence.

Design: Inspired by the Stanford School of Medicine Reflection Rounds, adapted from the GWish-Templeton Reflection Rounds© (GTRR), Stanford Emergency Medicine (EM) chief residents, residency leadership, and chaplain from the School of Medicine developed a virtual GTRR reflection rounds event using an online platform, Zoom. This novel intervention is the first of its kind for frontline physicians held on a virtual platform. The session was developed and led by a chaplain/physician (a former EM physician), a chaplain co-facilitator, and two EM faculty.

Impact: EM residents voluntarily attended residency-sponsored, chaplaincy-facilitated reflection rounds during the initial peak of the COVID-19 pandemic. This space offered an opportunity for EM residents to be vulnerable

about their inner life experience as frontline healthcare workers – their personal reactions, values, beliefs meaning, purpose, and connectedness.

52 The Online Art Museum: Facilitating the Integration of the Medical Humanities During Intern Orientation

Kamna Balhara, Nathan Irvin, MD, MSHPR; Logan Weygandt, MD, MPH

Learning Objectives: Participants were expected to:

- 1) Reflect on professional identity;
- 2) Gain introductions to each other and the city;
- 3) Practice close-looking and observation;
- 4) Examine one's own biases and assumptions

Abstract:

Introduction: The humanities have been deemed fundamental to medical education by the American Association of Medical Colleges and evidence suggests that they improve observation skills, empathy, and communication, and may impact transformational outcomes such as professional identity formation. Such critical competencies are especially important during the transition to intern year. In the COVID-19 era specifically, and tightly-packed intern orientation schedules in general, barriers exist to incorporating the humanities, especially at off-campus sites like museums. Since a virtual format may represent an innovative solution, we implemented an online art museum activity during intern orientation.

Educational Objectives: 1) Reflect on professional identity; 2) Gain introductions to each other and the city, 3) Practice close-looking and observation, 4) Examine one's own biases.

Curricular Design: We applied established museum-based pedagogy, including visual thinking strategies (VTS), which uses art to encourage multiple perspectives, critical thinking, and intellectual curiosity. Works from local museums and street art representative of diverse artists, time periods, and subjects were selected from publicly available online image galleries and collated into a presentation. Twelve interns completed a pre-session activity, then joined two emergency medicine (EM) faculty facilitators on Zoom and participated in a series of activities including paired introductions, triaging portraits as patients, and a VTS session. (Table 1) The activities involved reflection, observation, and individual and collaborative meaning-making using art.

Impact/Effectiveness: Participants (10) who completed the evaluation rated the activity as "excellent" and requested more sessions. Learner objectives were met. (Table 2) The online museum tour represents a low-cost, replicable approach to making humanities education accessible to EM trainees both within and across institutions.