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42 Choose Your Own Adventure (CYOA): A Medical Education Innovation for Virtual Interactive Teaching

Francesca Nichols, Sarika Sheth, Kristy Schwartz

Learning Objectives: Design an innovation feasibility project modeled after the Choose Your Own Adventure book series that involved an interactive curriculum to teach pediatric emergency medicine (PEM) topics in a virtual setting using gamification for group learning.

Introduction/Background: Gamification is gaining popularity in medical education and the pandemic necessitates novel virtual didactic methods. Virtual group learning with serious games fosters a sense of accomplishment, reinforces core knowledge, and builds teamwork via healthy competition.

Curricular Design: A novel, virtual interactive teaching tool, modeled after the popular Choose Your Own Adventure (CYOA) book series, was developed by PEM physicians. PEM topics with recent evidence-based updates were chosen: neonatal resuscitation, hematologic/oncologic emergencies, and pediatric trauma. For each topic, an hour-long CYOA module was designed on Google Forms. Various Pediatrics, Family Practice, and Emergency Medicine (EM) residents, PEM fellows, and EM and PEM attendings participated. Small groups were created via break out rooms mixing different training levels. The CYOA format began with a case vignette, then allowed teams to progress through medical management by choosing next steps in assessment and treatment of several patients. With each successful outcome, teams obtained a code of letters/numbers that, when unscrambled, yielded the answer to a final question. The winning team completed the adventure and submitted the final answer in the shortest time. Afterwards, each team summarized key learning points with the entire group, guided by the faculty facilitator(s).

Impact/Effectiveness: Anonymous pre- and post-session evaluations focused on learners' confidence in identifying and managing PEM emergencies, as well as performing pertinent procedures. The same five questions were presented before and after each CYOA activity using a five-point Likert scale. Neonatal resuscitation showed statistically significant improvement in confidence, as did performance of pediatric trauma procedures and identifying/managing tumor lysis syndrome. Qualitative feedback was positive. Areas for improvement included involving more trainees and developing other CYOA topics.

Figure 1. Average Likert Scales for comfort with neonatal resuscitation (majority resident evaluations).

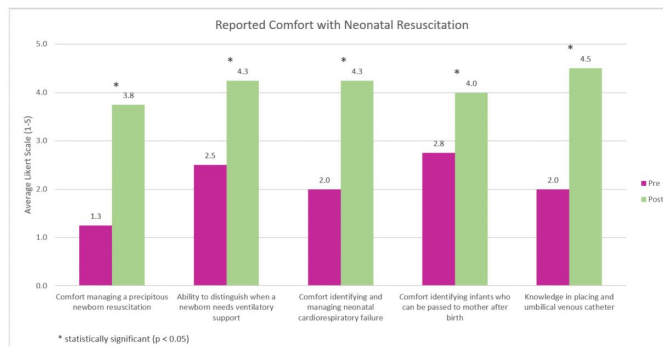
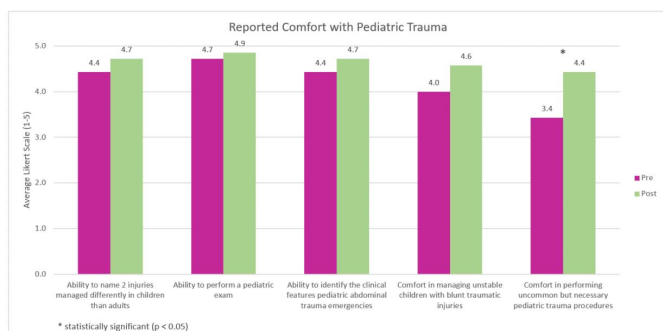


Figure 2. Average Likert Scales for comfort with pediatric trauma emergencies (majority fellow or attending evaluations).



43 Establishing Interest in the Development of a Novel Telehealth Curriculum for Emergency Medicine Resident Physicians

Nico Kahl, Ryan Korn, Frannie Rudolf, Brian Kwan, Christian Dameff, James Killeen

Learning Objectives: To assess EM resident enthusiasm for a telehealth curriculum and to develop a series of telehealth training modules for EM resident physicians.

Introduction/Background: According to the American College of Emergency Physicians (ACEP), emergency telehealth is a core domain of emergency medicine (EM) and is inclusive of remotely providing acute medical care. In 2016, the American Medical Association Council on Medical Education released a report advocating for the implementation of formalized telehealth training into graduate medical education accreditation requirements. There was rapid growth in telehealth during the COVID-19 pandemic: An industry analysis showed overall telehealth