

Health Professions Education Institute (HPEI)

Gaming in Medical Education: Implementation and Evaluation of an Escape Room Style Game During a Transition to Residency Course

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CURRICULAR INNOVATIONS

Problem/Needs Assessment:

The traditional model of education is being challenged as newer generations embrace hands-on social learning. Learners show increased visual learning abilities, making immersive and practical education approaches more effective. Educational games represent experiential learning approaches that incorporate different learning domains – cognitive, affective, and psychomotor. One educational game, escape rooms, have been utilized as they offer realistic simulation, hands-on learning, engagement and motivation. The Transition to Residency (TTR) course at Wake Forest School of Medicine (WFSOM) presents a unique opportunity to offer an innovative learning opportunity to students.

Program Objectives:

Evaluate student perceptions of the escape room challenge regarding the cognitive and affective learning domains including teamwork, communication, content, knowledge and skills application and retention, and value added to their TTR experience. To evaluate the utility of a medical game in knowledge application based on student feedback.

Description of Program:

We implemented an escape room-style game for 140 graduating medical students during their TTR course. This took place over 2 days with students in teams of 3-4 with 18 proctors. Three-and-a-half hours were allocated for the event of 6 escape rooms. After completion, time for each team to “escape” all rooms was summed to determine the champion. Immediately afterwards, a course evaluation and voluntary post-intervention questionnaire were collected. A follow-up survey was sent to students at 4-6 months following completion of the course.

Evaluation/Assessment:

136 students completed the innovation and course evaluation. Seventy students completed the voluntary questionnaire. Thirteen students completed the follow-up survey. Nineteen proctors completed a survey. Student and proctor feedback were positive. Questions assessed enjoyment, knowledge retention, knowledge application, authenticity, and teamwork. No statistical differences were found on student or proctor ratings to the comparable survey questions. Students were asked to provide key take-home points, with

56% of students' comments pertaining to cognitive domain and 52% to affective domain. Comments were further evaluated by content domain themes, with teamwork being the highest percentage. In follow-up, 96% of students "agreed" or "strongly agreed" that the escape room enhanced their preparation for internship.

Conclusions and Lessons Learned:

Medical education and clerkships often focus on the cognitive learning domain, but for success in residency, students must learn affective domains such as teamwork, communication, and trust. Our innovation was overwhelmingly positive and enjoyable for graduating students and proctors. Moreover, it was successful in evaluating the affective learning domain and preparing students for residency.