Escaping boredom and finding engagement – Escape rooms in Medical education

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Rationale

Originally, **escape rooms** arose in social gaming, where teams of approximately ten individuals work collaboratively to solve a puzzle, find clues and ultimately complete a series of tasks culminating in the achievement of a specific goal. They are often set in fictional arenas adding to the realism of the game.

If teams get stuck, sometimes hints can be provided so long as everyone is adhering to the rules.

A team 'wins' when they ultimately solve the puzzle and can 'escape' from the space/room/building. In medical education, this paradigm has been used predominantly to achieve one of three goals: teambuilding, research or content delivery and application of medical knowledge.

Project Objectives

1) Evaluate the effectiveness of non-traditional teaching models such as escape rooms as a way to deliver contextualized, application-based knowledge.
2) Apply medical knowledge in a patient scenario to solve clinical problems and effectively address symptom management and treatment.

Picture this → a group of six to eight people wants to experience this Escape Room. The beginning scenario gives them a clue to find **nine puzzle pieces hidden throughout the room**.

Intro scenario → A 57-year-old male with a history of HTN, DM II and COPD is admitted for a COPD exacerbation. Good luck in **PIECING** together information in this room.

Find the pieces → the group will see a medication calculation word problem written on the puzzle. Solving → Code

Code opens the **green lock** on the code cart. Once the group opens the code cart, they will look through the drawers one-by-one to uncover important items.

The group **will plug the USB** drive into the computer and see a list of hospital policies and procedures, and a password-protected file. They will need to solve a problem to get the **next code.**

Code will unlock the the makeup bag. They will identify a label with half-missing information on the insulin pen and they will find the other half on the patient's wristband. They will decode the symbols using the decoder card and determine the next code,

Code →Unlock the blue lock on the tackle box. Inside the tackle box, the group will find four pictures of **pressure ulcers.** Once they are in the correct order, the group determines the correct stage of each pressure ulcer leading them to their **next code**.

Code → opens the lock on the backpack. The group will find two yellow fall-risk socks, fall-risk wristband and a gait belt. They will notice that each item has a letter on it. When they unscramble the letters → **Code to unlock a new file on the USB.**

Code → opens a lock box. The group will assess their patient's central line dressing to determine the last dressing change. Code opens the red lock located on the tackle box. Inside the tackle box, they find clue card No. 6 and a hasp with six locks on it.

The group will use the clue cards found throughout the room to identify the clues to open the six locks. Once they find all the locks, they will open the hasp and find the message, **"Congratulations! You ESCAPED."**

Potential impact

Prior studies demonstrate that escape room gaming has positive impacts on content retention, performance and satisfaction.
By using provided material to independently explore content before class, students incorporate critical thinking activities by applying foundational knowledge in this novel modality.
This project focuses on integrating a single escape room as a capstone activity–for our second-year learners to provide a holistic learning experience that integrates human factors, clinical and basic science knowledge along with team building essentials.

Elements of an Escape Room

Purposeful	Cohesive delivery set in a **clinical scenario**
Immersive	•The experience should be **immersive** for the learner
Gadgetry	•Technology should be **integrated** where assistive
Puzzles	•Puzzles should be varied in **difficulty and type**
Clues	•Clues should be **complex** and **interconnected.**
Teamwork	•**Team dynamics** should be supported

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