Internal and Emergency Medicine (2025) 20:941–943
https://doi.org/10.1007/s11739-025-03872-z

CE-RESEARCH LETTER TO THE EDITOR

The escape room: will we be able to build a team?

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Received: 15 November 2024 / Accepted: 11 January 2025 / Published online: 28 January 2025

Dear Editor,

In recent years, the concept of edutainment, as a combination of education and entertainment, has been discussed and evidence of its effectiveness has been found: it involves using entertainment methods to teach educational content in a fun and engaging way [1]. As the Italian Medical School's actual graduation programs do not include training in non-technical skills, an edutainment activity aimed at teamwork training was organized. The purpose was to blend skill-building with fun, verify the possibility of offering a dynamic approach to team building, foster a positive workplace culture where students feel motivated and connected, and enhance learning and collaboration.

The growing complexity of the medical profession and the frequent need to work in a team require finding space for structured training on teamwork skills. Several experiences have been reported, but they involved mostly students in the final part of their training. Beginning in an early phase of the program could motivate students and foster their desire to experience what the medical profession consists of. Involving young students implies the need to develop non-technical skills without any reference to medical world and technical competencies.

Escape rooms are the ideal way to apply this methodology. They are described by Nicholson as "live-action team-based games, where players discover clues, solve puzzles, and accomplish tasks in one or more rooms, to accomplish a specific goal, usually escaping from the room, in a limited amount of time" [2].

Each themed room features a unique scenario where teams must solve puzzles and analyze clues to "escape." This peer-group learning opportunity enhances problem-solving, teamwork and quick thinking, while allowing you to learn by doing. The immersive nature of escape rooms promotes active learning, which increases team collaboration and communication and provides the possibility to experience and observe different leadership styles.

We designed an original escape room for second-year medical students of the degree course. Our aims were: (1) Identify teamwork skills relevant in the healthcare context through an enjoyable activity; (2) Offer students the opportunity to test their teamwork skills and receive constructive feedback on them, in a safe and non-judgmental environment; (3) Identify effective strategies and main difficulties in teamwork.

The gaming activities were preceded by a 15-min interactive talk, during which students were asked to identify the most relevant teamwork abilities. All their proposals were considered and annotated on a dashboard, but we always mentioned the following ones:

- Workload distribution: we underlined the need to divide tasks to be done to enhance the possibilities of the team and guarantee efficient performance.
- Team leader designation: a team needs a leader who remains hands-off, coordinates other members, and maintains a global vision. The role can be exchanged based on the ongoing needs of the team.
- Assertive followership: Members of the team are not executors, but make all their knowledge, ideas, and perplexities available to the team, for constructive interaction.
- Empathy: all members should pay attention to the needs of other teammates and be available to help when needed.
- Correct communication: direct, concise communication, relying on the closed loop modality.
- Attitude to recognize limits and ask for help.

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At the end of the discussion, the team was invited to enter the “Escape Room” and was told that they would be evaluated not only for having found the key to escape but, above all, for their teamwork performance.

They had to resolve 8 activities, including puzzles, quizzes, crossed words, finding objects based on instructions, and logic games. For all completed activities, they found or were given a word or a short sentence: (1) Talk little, listen more; (2) Empathy; (3) Ask for help; (4) Mutual respect; (5) Work hard; (6) Organize roles and tasks; (7) Raise concerns; (8) Know your limits.

To exit the room, participants had to put the previous sentences in the correct order since the key was the acronym TEAMWORK.

At the end of the activity, we carried out a debriefing based on the Plus-Delta-Solutions approach, focused on teamwork performance. Finally, all the students received a test tube with one of the phrases about teamwork as a gadget.

There were 396 s-year students in total, and 294 participated in the activity. They were recruited voluntarily and divided into 20 teams. The whole team completed all tasks and 70% found the key to exit. They recognized that they were able to help and support each other and, to a lesser extent, communicate clearly and concisely, but no team designated a leader or divided the workload explicitly, despite discussion prior to the meeting. We did not consider the possibility of not being promoted, but we encouraged an active participation to the debriefing and we usually obtained it.

Millennial students are less prone than before to spend hours reading books but appreciate engaging and practical activities. On the other side, the increasing complexity of the medical profession requires more than the acquisition of adequate knowledge, namely the mastery of several procedures and the ability to manage critical situations, working in a team. To acquire these attitudes and competencies, new teaching methods are needed to encourage student motivation and to cope with the new reality of the medical world [3].

Gamification is a teaching method that has seen growing interest in the educational community in recent years. It is one of the methods included under the umbrella of Edutainment” and it is defined as “the use of game elements in non-recreational situations” such as the classroom [3]. Gamified activities allow for the enjoyment of learning as well as experiential learning, which can increase motivation and influence student behavior.

Educational escape rooms bring students together and require them to collaborate, resulting excellent activities for improving cooperative and collaborative behaviors. The time pressure inherent to these experiences mimics what happens in the clinical arena.

This kind of teaching modality appears especially useful for training in non-technical skills.

It promotes creative thinking, communication, teamwork and leadership. Effective teamwork in intensive care has been shown to be associated with better outcomes for patients, but in reality, training in this area is left to the goodwill of trainers without specific and shared requirements.

Learning to work in a team requires targeted experiences and adequate time to acquire correct behaviors and translate them into daily practice. Initiating training at the beginning of the graduate program could increase awareness of its relevance as well as the ability to contribute to effective team performance in the clinical scenario [4].

Effective leadership and correct communication are the pillars of successful teamwork performance, and this was highlighted during the opening talk on the characteristics of teamwork. No team, however, designated a leader, while it often happened that someone with a "natural" inclination began to coordinate the activity, without explicitly declaring it. The reason participants reported was that they did not feel entitled to take on this role as they did not know the other group members well. The clear designation of a team leader cannot be considered a usual behavior among the teams that take care of patients, partly for the same reasons reported by the students, partly due to a misconception of the leader as "boss", a role not necessarily accepted by the team. Even clear communication is not the standard of care among teams working in healthcare. We hypothesize that early training during the degree course can promote the acquisition of a correct conception of teamwork skills and facilitate their application in daily practice, overcoming existing prejudices [5].

We are aware that a single 1-h activity can only raise the awareness about the relevance of good teamwork abilities and represent an opportunity to test how effectively you can utilize teamwork skills. Further activities need to be created and realized to fill this gap in the curriculum of medical students.

In summary, the escape room team-building activity was highly appreciated by students and allowed them to participate in an engaging, fun, non-clinical, low-risk activity that trained their teamwork abilities. The final debriefing provided information on actions performed during the game, with constructive feedback on effective behaviors and areas for improvement, which could be applied in training and the clinical environment. The next step could be the focus on a single aspect of teamwork performance, which could be leadership and fellowship, and, before the activity, highlight the characteristics of a good leader. Stating that the team will be evaluated on these elements and allowing a specific time for leader designation could help teams have real experience of good leadership to keep in mind and apply when necessary.

Data availability Not applicable.

Declarations

Conflict of interest None of the authors has conflicts of interest to declare.

Human and animal rights These studies do not require the Ethical Committee approval, as they do not involve patients.

Informed consent The study does not include numerical data, therefore participants' consent is not required.

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