

Multi-institutional simulation team dynamics – simulation approaches

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Simulation teaching bridges the theory-practice gap and allows students to learn safely in an authentic environment.^[1,2] Promoting multi-institutional academic collaboration and producing competent graduates are important industry requirements. The Department of Emergency Medical Care (EMC) at a South African University conducts an annual high-fidelity rescue simulation scenario at the Gariep Dam, South Africa. EMC students from national and international academic institutions participated in a 10-day rescue exercise designed to assist students in bridging the theory-practice gap through high-fidelity rescue simulation scenarios, improving interpersonal skills, and developing sound team dynamic values. Other agencies, including the South African Police Service, Search and Rescue South Africa (SARZA), and the South African AirForce, participated in the rescue exercise alongside students and academic staff.

Why was this idea necessary?

Academic staff identified differences in the teaching of simulations across the participating institutions. Interestingly, the author observed variations in simulation teaching and learning approaches between the different institutions. Variations were noted in areas such as curriculum, simulation teaching approaches, prompting of simulation progression, scope of practice, focus of learning, and the conducting of briefings and debriefings. The importance of meaningful learning processes became evident. Streamlining learning processes and providing similar experiences for all students, regardless of differences in curriculum or scope of practice, required a novel approach.

What was tried?

To align academic approaches to teaching, collaborative scenario designs were developed for each scenario. Students from the different institutions were divided into teams of six to eight members. Consultative role allocations within these teams were made to allow for individual students' strengths to contribute to the overall team performance during scenarios. The role allocations were specific to the students' training and curriculum. To promote a sense of belonging and improve teamwork, students were introduced to their teams two weeks before the exercise began.

What were the lessons we learnt?

Students unfamiliar with each other were expected to operate as a cohesive team during high-fidelity rescue exercises; in some instances, this may

have caused heightened stress and tension in a team. To help students navigate these circumstances, in-depth debriefing and discussions were conducted after each scenario, focusing on team dynamics and interpersonal skills. Scenario leads from different academic institutions helped identify differences and similarities in the teaching and learning approaches used at the different institutions. A debriefing with all the academic staff, held one month after the exercise, assisted in identifying areas of concern and improvement to raise the quality of the exercise for the following year. As rescue environments become increasingly complex, interprofessional collaboration transitioned from an educational ideal to a clinical necessity. This annual exercise systematically promotes multi-institutional integration, facilitating the development of shared mental models essential for safe patient management. Ineffective teamwork remains a leading cause of preventable errors in emergency settings; therefore, joint training serves as a vital intervention to standardise approaches and enhance resilience. By leveraging the 'power of many' through aligned expertise, this collaborative framework ensures successful mission execution and improved healthcare delivery.

Declaration. The nature of this short communication is a retrospective view by the author on his involvement in the rescue simulation exercise. No formal research was conducted, and no personal information was collected from participants or institutions. No identifying information relating to any individual is included in this short communication. This communication was not subjected to any ethical review process.

Disclosure on the use of artificial intelligence (AI). Artificial Intelligence assistance (built-in MS Word spell checker and Grammarly) was used in writing this communication to improve and revise grammar and spelling.

Authors' contributions. Sole author.

Acknowledgements. None.

Conflict of interest. None.

Funding. None.

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