

Seven years of SimWars: Reflecting on the educational value of competitive simulation training

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Dear Editor,

It has been extensively reported that medical graduates feel underprepared to commence clinical duties following qualification. Multiple surveys of Irish graduates have been carried out and have reported that as high as 91% feel unprepared for clinical practice.¹ This is mirrored in the UK where just 43% reported feeling prepared in clinical decision making prior to their first foundation year (FY1).²

Emerging evidence demonstrates that, when compared with traditional didactic learning, undergraduates who undertake simulation based medical education (SBME) achieve higher scores in OSCEs.³ Competition-based training utilising SBME has been shown to improve learner participation in postgraduates;⁴ however, the competitive element's effect on achieving learning outcomes is less well described, particularly at undergraduate level.

In 2017, a national student Emergency Medicine resuscitation competition titled 'SimWars' was established. All medical and nursing students in Ireland were welcome to participate. Its aim was to address the self-perceived unpreparedness of students in managing medical emergencies by encouraging participation in extracurricular training. While similar competitive simulation events have been held across Europe and the United States, to our knowledge, this was the first competition of its kind which was restricted to undergraduate students only. The competition has been held for seven consecutive years with the number of interested students growing substantially along with the enthusiasm of clinicians in coaching their teams. 40 students participated in the national competition in 2017 and this increased to 116 in 2023.

A survey of participants following the competition in 2021 demonstrated that 30% had never participated in SBME involving either high-fidelity manikins or standardised patients prior to SimWars, but 85% agreed that their participation in simulation training will improve their ability to care for real patients. This has been echoed in informal feedback from students and clinicians who feel the competition has created an opportunity for students to take a more active role in the delivery of undergraduate education in Emergency Medicine.

However, the same survey of SimWars participants revealed that 13% agreed or strongly agreed that its competitive nature had the potential to reduce the educational value of simulation training. Future work aims to examine the impact of the 'high stakes' assessment element of SimWars on students' self-assessed clinical confidence and psychological safety

Our intention when establishing SimWars was to improve student participation in SBME. This has been achieved, as evidenced by the year-on-year increase in participant numbers, with an estimated reach of over 500 students per year. Such is the demand, most medical schools now host their own local competitions in order to select their team members for the national competition. Our focus now turns to crafting design elements of the competition with specified learning outcomes at the forefront of the design process.

Declarations of Conflicts of Interest:

None declared.

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References:

1. Hannon FB. A national medical education needs' assessment of interns and the development of an intern education and training programme. *Medical Education*. 2000;34(4):275–84.
2. Morrow G, Johnson N, Burford B, Rothwell C, Spencer J, Peile E, et al. Preparedness for practice: The perceptions of medical graduates and clinical teams. *Medical Teacher*. 2012;34(2):123–35.
3. Ruesseler M, Weinlich M, Müller MP, Byhahn C, Marzi I, Walcher F. Simulation training improves ability to manage medical emergencies. *Emergency Medicine Journal* 2010;27(10):734-738.
4. Scales CD Jr, Moin T, Fink A, et al. A randomized, controlled trial of team-based competition to increase learner participation in quality-improvement education. *International Journal for Quality in Health Care*. 2016;28(2):227-232.