

Simulation-based medical education to improve intrinsic motivation in medical students

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Dear editor

I read with great interest the results of the study by Deane and Murphy¹ regarding learning strategies of medical students in a clinical rotation of obstetrics and gynecology.

Of particular interest was the finding that “obtaining a good examination result was the most significant reason why the attachment was important to students.”¹ The authors concluded that medical educators should consider strategies that foster more intrinsic drivers of student learning and more student-oriented learning resources and activities.

As a medical student in my penultimate year, I agree that intrinsic drivers can be more powerful motivators for learning, and these intrinsic drivers can help sustain students through a medical degree.

I propose that simulation-based training for medical students is a student-oriented activity that could be a method of increasing intrinsic drivers. Simulation-based medical education (SBME) involves learners in life-like experiences designed to imitate true clinical encounters. The benefits of simulation include enhanced opportunities for feedback, deliberate practice, measurement of outcomes, the ability to ensure uniform exposure to a variety of clinical presentations and provision of a controlled environment while mitigating the risks associated with learning in real patients.²

A meta-analysis by McGaghie et al³ found that SBME is superior to traditional clinical medical education in achieving specific clinical skill acquisition goals. Looking specifically at an obstetric and gynecology setting, a prospective study by Daniels et al⁴ found that simulation-trained teams had superior performance scores when tested in a labor and delivery drill. It is important to note, however, that these studies were in a postgraduate setting.

How could SBME improve intrinsic drivers of motivation?

In my recent obstetrics and gynecology placement, I participated in a simulation session with an actress and plastic models in which teams of students had to manage the delivery of a breach baby on an aeroplane, shoulder dystocia in a car park and an eclamptic fit in an elevator.

Reflecting on this session increased my intrinsic drive by motivating me to increase my clinical skills and knowledge so that I could be helpful if I ever found myself in any of these situations.

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Additionally, working with other students to deal with these situations also gave me an opportunity to practice important communication skills and teamwork. The session was enjoyed by all of the medical students in keeping with Birch et al,⁵ who found that SBME was enjoyed more than lecture-based teaching.

What are the problems with SBME?

SBME is expensive and requires more resources than traditional teaching methods. Certain equipment may be necessary, and an experienced teacher is needed to offer feedback to all participants.

The majority of research on the use of SBME has been in a postgraduate setting; however, research on its use in medical students is proving positive, and it is likely that benefits found in postgraduates can be generalized to all learners.

Conclusion

From my experiences, at the very least, SBME is an enjoyable and successful learning tool. Further research into its use

in undergraduate medical education is needed, specifically regarding its ability to improve intrinsic motivation.

Disclosure

The author reports no conflicts of interest in this communication.

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