

Is simulation efficient to improve anesthetists' performance and patient outcome?

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Dear Editor,

We read with great interest the recent review by Murray¹ titled "Current trends in simulation training in anaesthesia". Although agreeing about Author's main statement "Simulation training programs have been shown to increase the skill of anesthesiologists", we would raise discussion about two aspects included in the paper.

The author states that "direct evidence that simulation directly improves patient care continues to be difficult to establish".

Simulation based medical education (SBME) has been demonstrated to actually improve patient care and outcome.

In a prospective study, Hunt *et al.*² showed improvement in emergency room team performance after a simulation-based educational programme.

In a retrospective multicenter cohort observational study of 19,460 infants, Draycott *et al.*³ showed a significant decreasing of newborns with 5-minute Apgar scores of 6 or less and of hypoxic-ischemic encephalopathy after completion of training by simulation.

In a retrospective case-control study of cardiac arrest team responses Wayne *et al.*⁴ were able to show that SBME significantly improved the quality of care provided by residents during actual ACLS events.

Although these studies contain some design limitations, their results are stimulating and offer evidences that improvement in patient outcomes through SBME is realistic and affordable.

This idea has been very recently confirmed by a large quantitative meta-analysis by McGaghie *et al.*⁵ showing that SBME is superior to traditional clinical medical education in achieving specific clinical skill acquisition goals.

The second point of possible discussion concerns the classification of skills in psychomotor, clinical judgment and teamwork/communication skills.

Medical teachers should be aware of two main types of skills: technical (psychomotor) and non technical;⁶ the latest includes significant skills that deserve specific mention like decision making, flexibility, assertiveness, mutual respect, identifying priorities, situational awareness, fixation errors management. All these skills can be effectively thought and practiced by simulation.

References

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