

ICOSSET 2022

Parallel Session 5:

Video Nasty or Video Nice? Psychological Safety and OR Black Box

Course Conveners: Nathan Stephens, Emma Stapleton, Veronique Spiteri, Kellie Bateman, Andrew Diver, Chris Caddy

Summary

Mentorship is increasingly recognised as an essential component of surgical education and training. The Royal College of Surgeons of England advocates mentoring at all stages of surgeons' careers and acknowledges mentoring as a separate entity to training, remedial or supervisory relationships.¹

The General Medical Council recommends that all staff who are new to a role or organisation must have access to mentoring as good medical practice.²

Research suggests that mentoring relationships can enhance confidence in doctors, reduce stress, and positively influence career progression as well as professional and personal development and well-being.³⁻⁶

In this exciting, dynamic, and experiential session, participants will be introduced to the concept of mentoring via active participation and discussion of themes. They will also explore new perspectives including reverse mentoring, which will bring value to their roles as trainees, trainers, mentees, mentors.

Intended Learning Outcomes

By the end of this session, participants will have:

- Enhanced their understanding of coaching and mentoring in surgery through active exploration of their existing beliefs, perceptions, and experiences.
- Experimented with active listening techniques.
- Explored new perspectives including reverse mentoring, mentorship training, and the benefits of mentoring for mentors as well as mentees.
- Been introduced to a framework for mentoring conversations.
- Identified ways to embed coaching and mentoring techniques into their everyday practice.
- Shared perspectives and feedback via the Vevox app.

What went well

This breakout session summarised what we have done and plan to do, and how we'll get there.

Most importantly it got people talking about mentorship.

The turnout was excellent, beyond expectations. Tables discussed a range of issues in large groups and one to one and reflected thoughts and feelings back to the session chairs and the whole room.

There was a wide range of attendees, from medical students to the President of RCSEng. Delegates spoke of their preconceptions about mentoring, their mentorship ideas and goals, and mentors who have guided them.

Overall, there is a strong and enthusiastic appetite for progress and I am grateful to be part of it. I look forward to the next step on the college mentorship journey.

Future directions

The future looks bright for mentoring in RCSEd. Further training courses will develop a pool of mentors available for a matching scheme to help mentees at all levels through their surgical journey. Lessons will continue to be learned from our anaesthetic colleagues who have blazed the trail on this.

Presenters: Steven Yule, Shireen McKenzie, Emma Howie, Eilidh Gunn, Stephen Wigmore, Richard Skipworth, Teodor Grantcharov

Intended Learning Outcome:

By the end of this session, we planned for participants to be able to:

1. Describe key features of psychological safety and why it is important for safe surgery.
2. List several contextual conditions for successful adoption of new technology.
3. Identify strategies to overcome resistance to change and advance surgical safety.

What went well:

The aim of the session was to explore the connections between psychological safety and OR Black Box. The format was a panel discussion with chair and involved audience participation. The panel represented a diverse range of perspectives on safety from trainee, consultant and non-clinical perspectives. Rather than didactic sessions and slide presentations, we used technology to engage participants with the polling app 'Mentimeter'. We started with a brief description of **psychological safety - the belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes**. The session was structured around three key questions, and we spent about 20 minutes on each.

1. What does a psychologically safe environment look like?
2. What would you change about surgery in 2022?
3. How can technology make surgery better?

Discussions:

The audience generated insightful 'crowdsourced' views on psychological safety (fig 1), change in surgery (fig 2) and technology in surgery (fig 3) for the panel to react to:



Fig 1. Safety

It was clear from audience reaction to this that a varied experience of psychological safety was held by the group and we dug into audience and panellists' perspectives in lively discussion.

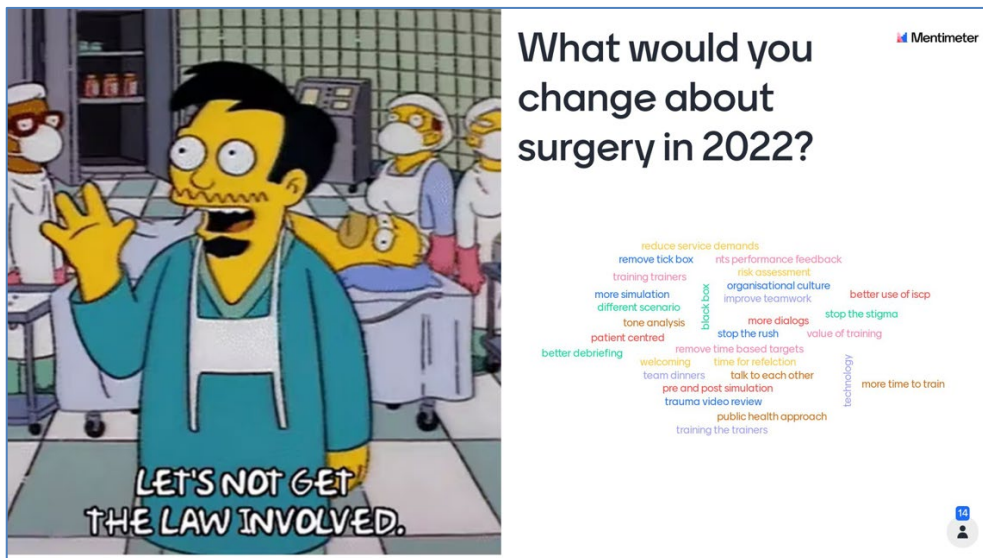


Fig. 2 Change

In addition, we watched video from the simulated operating room and how AI is used to protect identity of individuals. This developed into a lively discussion of regarding how people feel about being video recorded. Participants shared their own perspectives on psychological safety and interesting analogies from business and sports in terms of data for performance management and training were brought to the group. Towards the end we had an 'ask us anything session' with the panelists which continued after the session finished.

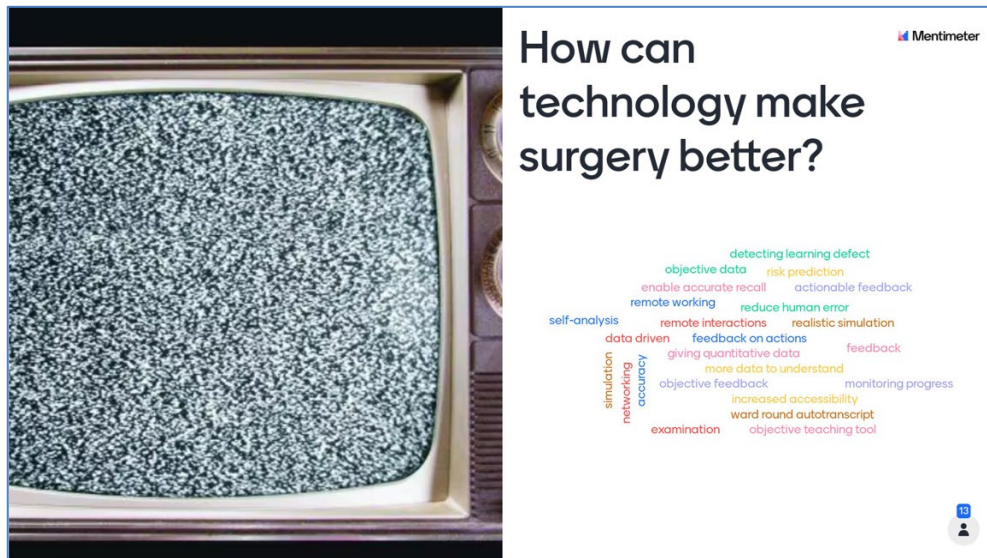


Fig 3.

Technology

Learning:

Our diverse panel dug into some of the barriers and challenges of technological revolution in surgery, and share how video, sabermetrics, coaching, and human factors can enhance surgical performance and patient safety for all. Panellists shared the importance of teams getting together out of the operating room (e.g. for fish and chips Fridays) and the importance of mutual respect. Senior people in the organization have a responsibility to build the culture and support structures to enable it. Participants were encouraged to share one thing they would do differently as a result of this session the next time they are in the operating theatre.

Take home learning:

- A psychologically safe environment is one of the hallmarks of high-quality teams, and a culture of candour and learning is essential for innovation, continual improvement, and patient safety
- Change in surgery is about how people are valued, trained and developed every day: Postoperative review, training feedback, and data guided improvement are desired
- The patient is the most important member of the surgical team
- Video has been used in surgery for years for performance and education, now there are opportunities for personalized and team feedback and debriefing as technology has advanced
- Technological advancements, video and simulation are implemented in high, middle and low economic contexts – but are mainly driven by academic institutions.
- To be better we need social structures that allow us to discuss performance and share expertise. Technology is not the goal, but it can be useful to help improvement processes.

Future orientation and possible implementation:

The OR Black Box is a highly innovative technological and analytical platform that allows continuous collection of multiple streams of data (audio-visual, physiologic, environmental, device-related) from the operating theatre. Through a combination of machine learning algorithms and human annotators, the technology provides insights related to safety threats, efficiency, culture, human factors and non-technical skills of the operative team. Democratizing performance feedback and insights using technology can enhance psychological safety in operating room teams by developing trust, growth mindset, and an appreciation of a learning culture.

Contact

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