Supervised remote LapPass® training via Zoom:

initial report on feasibility and trainee satisfaction

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Introduction

- We started weekly face-to-face group teaching sessions on ALSGBI's LapPass® tasks
- However we experienced a number of disadvantages to this approach:
  - With no protected teaching time, trainees often too busy to attend or called away during sessions
  - Trainees unable to attend if on nights, zero days or annual leave
  - Difficult to find suitable place for training, especially during covid
  - Space limited so a maximum of two box trainers could be set up at any one time
  - Inconvenient to do personal practice between teaching sessions
- In an effort to improve access to training, we started doing the sessions via the cloud-based video conferencing platform, Zoom
- We would like to present our findings on the feasibility and trainee satisfaction of laparoscopic simulation training via Zoom

Aim

The aim of the study was to explore the feasibility of surgical skill training via Zoom, and to assess trainee and trainer satisfaction.

Method

- Seven surgical trainees (CST and IMF) provided with training boxes, webcams and LapPass® kits
- Trainees took part in four-week training programme including weekly live training sessions supervised by experienced trainer using free-of-charge version of Zoom
- We assessed the feasibility of supervising and providing feedback to trainees via Zoom
- Trainee satisfaction assessed using nine-question survey with five-point Likert scale

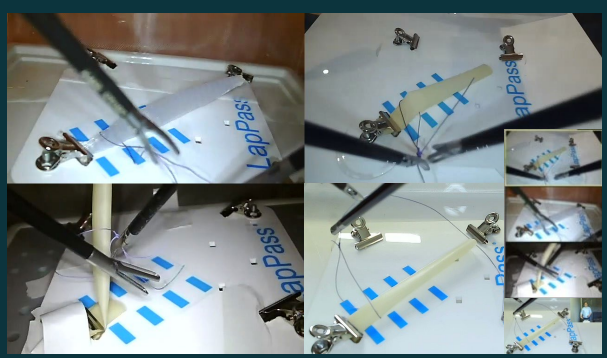

Fig 1. Trainer's view of four trainees performing LapPass® task 2

Results

Feasibility

- Laparoscopic box trainers produced easily, cheaply and reproducibly (1)
- Box trainers easy for participants to set up at home (1)
- Good inside box views achieved reliably for each participant
- Trainer able to view performance of multiple trainees at same time (fig 1)

Trainee satisfaction

- 100% (7) response rate to survey
- Responses to nine quality indicator statements shown below:

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
The setting up of the training box and Zoom connection is straightforward.	0	0	0	1	6
Training at home gives me more flexibility and opportunity than the planned teaching sessions.	0	0	1	1	5
I am able to perform the training task in similar manner in Zoom session and classical teaching session with respect to LapPass tasks	0	1	0	2	4
Zoom connection during training session does not impede my performance.	0	1	0	1	5
I can ask the trainer questions during Zoom session as easily as during classical training.	0	0	0	1	6
I received personal feedback during each session while performing the task.	0	0	0	0	7
I am satisfied with the feedback received during Zoom session and it helped me improve on task performance.	0	0	0	2	5
Zoom sessions compensate very well for lost face-to-face training for LapPass tasks.	0	0	0	3	4
I recommend that supervised Zoom sessions become regular as providing training benefit.	0	0	1	2	4

Trainer experience

The following benefits of Zoom training were reported by the trainer:

- Enhanced quality of personalised supervision and feedback
- Able to view multiple trainees' performance at once on a single screen
- Required to articulate feedback verbally
- Superior physical comfort
- Ability to review recordings to monitor trainee progress

Conclusion

We demonstrated the feasibility and the benefit of using modern internet technology in delivery of supervised surgical training in a setting embraced with enthusiasm by core surgical trainees.

Key statements

- Remote training and telementoring using integrated laparoscopic theatre technology has been available for almost two decades in surgery but not embraced on a large scale (2)
- The covid crisis has focused delivery of teaching and training through internet-based technologies (3) which will undoubtedly shape the future of medical training

References

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