



Restarting cataract surgery after an extended period out of training: a perspective from the United Kingdom

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Introduction

A recent survey found that 100% of senior ophthalmology trainees in the UK felt confident in performing phacoemulsification surgery [1]. However, the global pandemic has reduced surgical exposure for an extended period, as not only with surgeon redeployment, but also suspension of elective surgeries.

Previous studies have examined the various effects of stress when performing or teaching cataract surgeries [2, 3]. Surgical simulation has been adopted to improve patient safety and surgical outcomes, with Eyesi[®] (VRMAGIC, Mannheim, Germany) simulator available in every deanery across the UK.

In this study, we explored whether the lack of surgical activity has impacted on the stress levels of trainees and whether simulation training or other activities were undertaken to maintain their surgical skills.

Material and methods

We surveyed UK ophthalmic trainees, via a self-administered anonymous online survey, focusing on the effect of prolonged surgical downtime on stress levels. Responses were collected over a 2-week period (30th June 2020 to 12th July 2020). Responses on stress levels are indicated on a Likert level of 0–10.

Results

A total of 55 UK ophthalmology trainees with varying surgical experiences responded to the survey (Fig. 1). Thirty-three (60%) respondents reported their last phacoemulsification surgery took place in March 2020.

Participants reported a relatively low stress score of 3.13 ± 2.17 relating to their last cataract surgery. This figure increased significantly to 5.24 ± 2.36 ($p < 0.0001$), when asked ‘if you were to resume operating today, how stressful would you feel now?’ Interestingly, there was little difference in the self-rated stress level between the junior trainees (year 1–2 Specialty Trainees; ST1–2) and senior trainees (ST3–7) prior to lockdown (3.36 ± 1.86 and 3.05 ± 2.28 respectively; $p = 0.655$, unpaired t test). When asked about the perceived stress on restarting operations, however, the junior trainees reported higher stress level than senior trainees (6.21 ± 2.04 and 4.90 ± 2.40 respectively; $p = 0.073$, unpaired t test) (Fig. 2).

Responding trainees generally concurred that simulation training on Eyesi[®] and wet lab could help them ease into performing cataract surgery again. Junior trainees felt significantly more strongly on the importance of simulation training (7.57 ± 1.95) than their senior counterparts (5.88 ± 2.95 ; $p = 0.05$, unpaired t test). However, one trainee did report a negative effect, as the experience of poor performance on the simulator made him/her more anxious whilst performing surgery on a patient. Our respondents demonstrated good levels of initiative in maintaining their surgical skills during the lockdown period: 26 of 55 (47%) have attended webinar/teaching and undertaken simulation on Eyesi[®] and 23 (42%) have utilised video resources. Only 8 (15%) respondents reported to have undertaken no activities.

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Fig. 1 Survey respondent characteristics. Respondents' training grade and respective phaco-surgery experience.

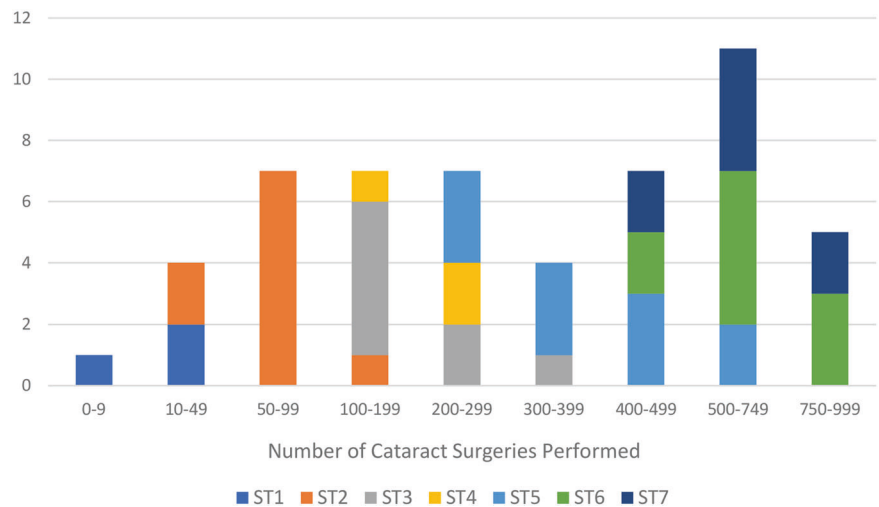
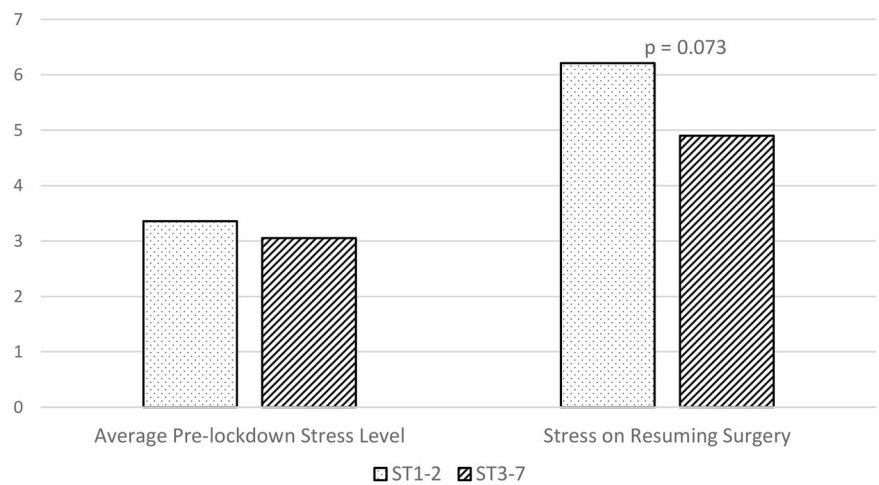


Fig. 2 Effect of lockdown on perceived surgical stress levels and simulation training. Using a rating scale from 0 to 10, junior and senior trainee responded to the following questions: 'thinking back to your last cataract operation list, how stressful did you feel then?' and 'If you were to resume operating today, how stressful would you feel now?'.
p = 0.073



Discussion

Simulation is now more important than ever in supplementing training and maintaining performance. We demonstrated that most trainees feel Eyesi® simulation, amongst other training techniques, has an instructive role after prolonged surgical inactivity.

We should be mindful of the impact of this period of inactivity as well as the deviation from normal practice has on our surgical performances. Trainers may also consider reducing surgical lists, restarting with the same juniors and equipment and careful case selection when returning to training.

Author contributions DKH, AKC, and SWT were responsible for the conception and design of study. DKH performed acquisition of data. DKH, AKC, and SWT performed analysis and interpretation of data. DKH, AKC, and SWT were responsible for the drafting, critical revision and final approval of the manuscript to be published.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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