

The Perceived Influence of COVID-19 on Core Surgical Training in the United Kingdom

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Abstract

Introduction: Surgical training has been affected by COVID-19 from the early stages of the pandemic. Here, we aim to carry out a detailed investigation of its perceived impact on core surgical trainees and their surgical career progression in the United Kingdom.

Methods: An online survey was piloted and subsequently devised using Google Forms. The survey was distributed to core surgical trainees across the United Kingdom; it considered demographics, impact on commonly assessed portfolio domains, academia and personal wellbeing.

Results: 75 trainees responded, 35 were in the first year and 40 in the second year of their surgical training programme. There was a median number of 10 days (Interquartile range 0 - 30) of redeployment and 2 days (Interquartile range 0 - 14) of sick leave due to confirmed / suspected COVID-19. A drop was observed in respondents' global perception of their portfolio quality and 42 respondents (56%) felt that operative experience was the most impacted portfolio domain. The least impacted domains according to a calculated summary statistic were the ability to deliver teaching and work on leadership / management qualities. 15 respondents (20%) had planned to complete an additional qualification and were prevented from doing so owing to the pandemic. Several courses (Median 2; Interquartile range 1 - 3) and conferences (Median 2; Interquartile range 1 - 2) were cancelled. All 75 respondents had been exposed to virtual teaching as a result of the pandemic. 63 respondents (84%) felt more stressed as a result of the pandemic and 44 respondents (59%) indicated that they have lost confidence as a surgeon due to the pandemic.

Conclusion: Amongst the respondents, a marked negative impact was observed in several domains affecting both surgical training and career progression. Allocated theatre time was the most adversely affected domain. In order to maintain optimal patient care, these factors need to be addressed in surgical training schemes as the pandemic continues.

Keywords: COVID-19; Coronavirus; Core surgical training; Surgical career progression; Surgical portfolio; Mental wellbeing

Introduction

In the United Kingdom, junior doctors wishing to pursue a surgical career often enter this pathway via core surgical training (CST) or run-through specialty training [1]. Full-time participation in the CST program routinely takes two years to complete following which candidates can apply for specialty training level 3 (ST3). After successfully securing a ST3 post, the trainee undergoes further training in their chosen specialty until its completion provided they have met all of the mandatory requirements.

CST is a particularly taxing period as trainees have several objectives to undertake prior to its completion. For instance, candidates are required to complete the intercollegiate Membership examination of the Royal Colleges of Surgeons (MRCS) in addition to developing their operative skills. They must also optimise their portfolio in several other domains in preparation for ST3 applications. These include involvement in education, management and leadership which can become determining features when choosing a candidate for higher specialty training [2,3].

Surgical training has been affected by COVID-19 from the early stages of the pandemic. Firstly, many surgical trainees were re-deployed from their allocated specialty to medical wards, intensive care units (ICU) and COVID-19 wards to assist in service provision [4-8]. Re-deployment was executed in line with guidance published by the Royal Colleges of Surgeons [9]; importantly, Payne et al. showed that redeployment of surgical trainees to ICU had a negative impact on their mental health despite some benefits such as increased confidence in performing central venous cannulation [5]. Secondly, operative capacities were drastically limited to allow for the additional bed spaces required for COVID-19 admissions; Carenzo et al. demonstrate an example of how they made use of the operating department in their hospital including the use of operating theatres, recovery areas and cardiothoracic ICU for space planning in light of the COVID-19 outbreak [10]. Thirdly, numerous elective surgical cases were cancelled and non-operative interventions encouraged to both reduce the risk of COVID-19 transmission, and to also account for the increased risk of morbidity and mortality observed in patients with peri-operative COVID-19 infection [11]. In accordance with these, Khan et al. demonstrated that CST doctors felt they had fewer opportunities to operate as the lead surgeon as well as an overall negative impact of COVID-19 on CST in the west of Scotland [6].

Moreover, a significant proportion of junior trainees have experienced severe distress during the COVID-19 pandemic [4,12,13]. Considering the importance of achieving the discussed portfolio objectives whilst maintaining psychological wellbeing, we conducted a national study to investigate the perceived effects of the COVID-19 pandemic on core surgical trainees and their career progression in the United Kingdom.

Methods

CST doctors were invited to participate in this survey. The questions were designed after discussions with CST doctors and the supervising consultant at Derriford Hospital, Plymouth, United Kingdom. Google Forms was then used to produce a user-friendly survey. The survey considered demographics, impact on commonly assessed portfolio domains, academia and personal wellbeing.

Some of the questions required a mandatory response, whilst others were optional. Editing responses before and after submission was enabled for the respondents. The answers to the survey questions were received using three formats: drop-down choices, Likert scales [14] and open-text boxes. The survey questions and their format are enclosed in Appendix 1. Data are presented as median and interquartile ranges (IQR) as appropriate. All percentages are rounded to the nearest integer.

The survey was distributed by contacting all deaneries across the United Kingdom via e-mail as well as further distribution of the survey via social media platforms. Additionally, the Royal College of Physicians and Surgeons of Glasgow kindly distributed the survey via their Twitter account. The survey was open for 3 months after which the survey link was de-activated and data analysis conducted.

No personally identifiable information was requested. The responses were kept anonymised and the data was stored in a password-protected electronic format. Considering this, the hospital's ethical advisory team deemed that ethical approval was not required for this study. The purpose of the study was explained at the beginning of the survey and a consent declaration provided to obtain the participant's permission for inclusion of their answers in the present study.

Results

Demographics

The breakdown of respondent deaneries is displayed in Table 1. Out of the 75 respondents, 35 were in the first year and 40 in the second year of their surgical training programme. 73 were full-time trainees and 2 were less than full-time trainees. The intended career paths of the respondents are displayed in Table 2.

Table 1: Breakdown of respondent deaneries.

| Deanery | Number of respondents |
|-------------------------------|-----------------------|
| East Midlands | 1 (1%) |
| East of England | 3 (4%) |
| Kent, Surrey and Sussex | 1 (1%) |
| London - North Central & East | 2 (3%) |
| London - North West | 6 (8%) |
| London - South | 0 (0%) |
| North East | 8 (11%) |
| Northern Ireland | 6 (8%) |
| North West | 2 (3%) |
| Peninsula | 10 (13%) |
| Severn | 12 (16%) |
| Scotland | 6 (8%) |
| Thames Valley | 0 (0%) |
| Wales | 2 (3%) |
| Wessex | 8 (11%) |
| West Midlands | 1 (1%) |
| Yorkshire and Humber | 7 (9%) |

Redeployment and absence

53 respondents (71%) were redeployed. The median number of redeployment days was 10 days (IQR 0 - 30). Further, there was a median of 2 days (IQR 0 - 14) of sick leave due to suspected / confirmed COVID-19.

Portfolio self-rating

Participants were asked how they would have globally rated their expected portfolio progression on a scale of 1-10 prior to and after the commencement of the pandemic. This was done to provide a quantitative assessment of the impact of COVID-19 by the trainee. There was an average drop of 1.1 points in respondents' global perception of their portfolio quality due to COVID-19 compared with what they had expected to happen prior to the pandemic.

Impact on commonly assessed portfolio domains

42 respondents (56%) felt that operative experience was the most adversely impacted domain due to the pandemic. A graphical representation of the remaining domains selected as the most impacted is displayed in Figure 1.

Table 2: Intended career path of the respondents.

| Specialty | Number of respondents |
|--------------------------------|-----------------------|
| Cardiothoracic Surgery | 2 |
| General Surgery | 19 |
| Neurosurgery | 3 |
| Oral and Maxillofacial Surgery | 1 |
| Otolaryngology | 7 |
| Paediatric Surgery | 5 |
| Plastic Surgery | 13 |
| Trauma and Orthopaedic Surgery | 15 |
| Urology | 6 |
| Vascular surgery | 4 |

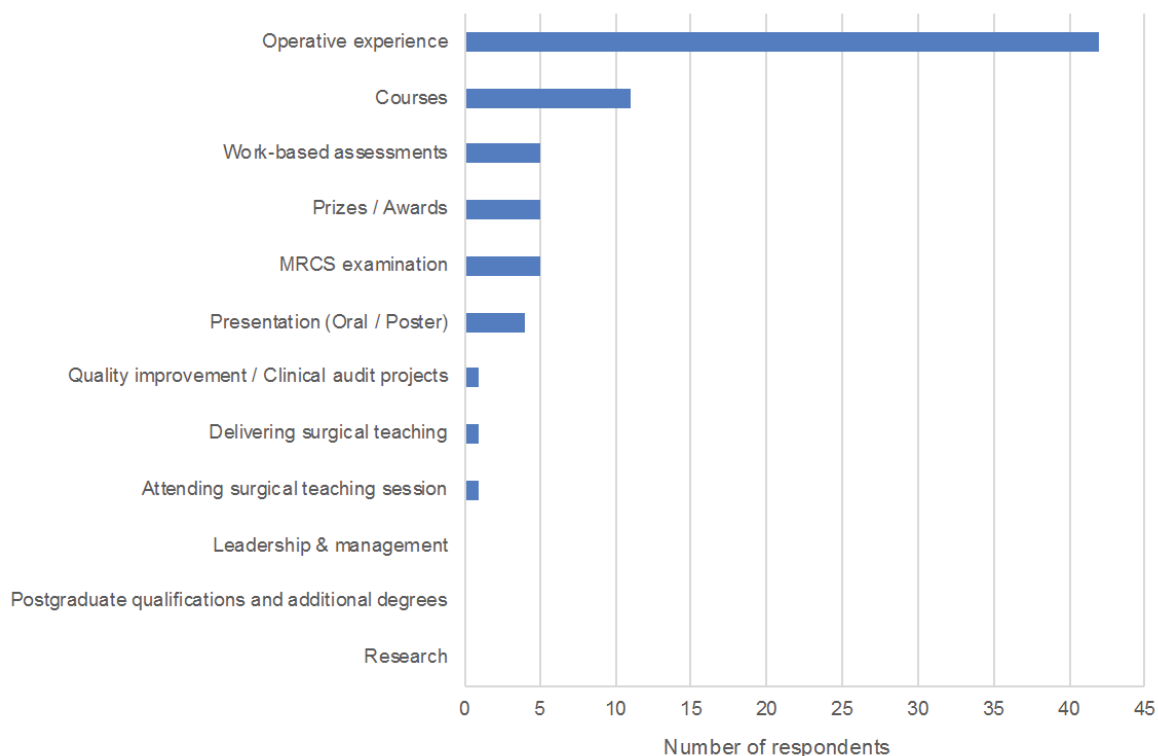


Figure 1: Number of respondents choosing the indicated portfolio domain as the most adversely affected.

Table 3: Impact of COVID-19 on various domains. N.B. The summary statistic ranges from 1 (Significantly negative) through 3 (No impact) to 5 (Significantly positive).

| Domain investigated | Number of respondents selecting the specified impact of COVID-19 on the indicated domain | | | | | Summary statistic |
|---|--|-----------------|-----------|-----------------|------------------------|-------------------|
| | Significantly negative | Weakly negative | No impact | Weakly positive | Significantly positive | |
| Overall expected progression of your portfolio | 21 | 36 | 12 | 4 | 2 | 2.1 |
| Research | 7 | 31 | 20 | 14 | 3 | 2.7 |
| Quality improvement / audit projects | 7 | 27 | 30 | 10 | 1 | 2.6 |
| Oral / Poster presentation | 30 | 31 | 7 | 5 | 2 | 1.9 |
| Winning a prize / award | 33 | 20 | 20 | 1 | 1 | 1.9 |
| Allocated theatre time | 51 | 18 | 3 | 1 | 2 | 1.5 |
| Accessing theatres to increase operative numbers | 37 | 33 | 2 | 1 | 2 | 1.6 |
| Perform a procedure as the lead surgeon | 52 | 15 | 6 | 0 | 2 | 1.5 |
| First assist in an operation | 29 | 32 | 12 | 1 | 1 | 1.8 |
| Second assist in an operation | 18 | 24 | 31 | 1 | 1 | 2.2 |
| Ability to work on leadership / management qualities | 6 | 28 | 21 | 18 | 2 | 2.8 |
| Ability to deliver surgical teaching | 10 | 25 | 18 | 15 | 7 | 2.8 |
| Ability to attend surgical teaching session | 13 | 26 | 15 | 12 | 9 | 2.7 |
| Complete work-based assessments | 13 | 33 | 25 | 3 | 1 | 2.3 |
| Ability to prepare for the MRCS exam | 10 | 17 | 37 | 11 | 0 | 2.7 |
| Desire to continue surgical training | 8 | 32 | 30 | 5 | 0 | 2.4 |
| Ability to practice for specialty training interviews | 9 | 15 | 40 | 11 | 0 | 2.7 |
| Professional productivity and motivation | 30 | 29 | 9 | 5 | 2 | 1.9 |

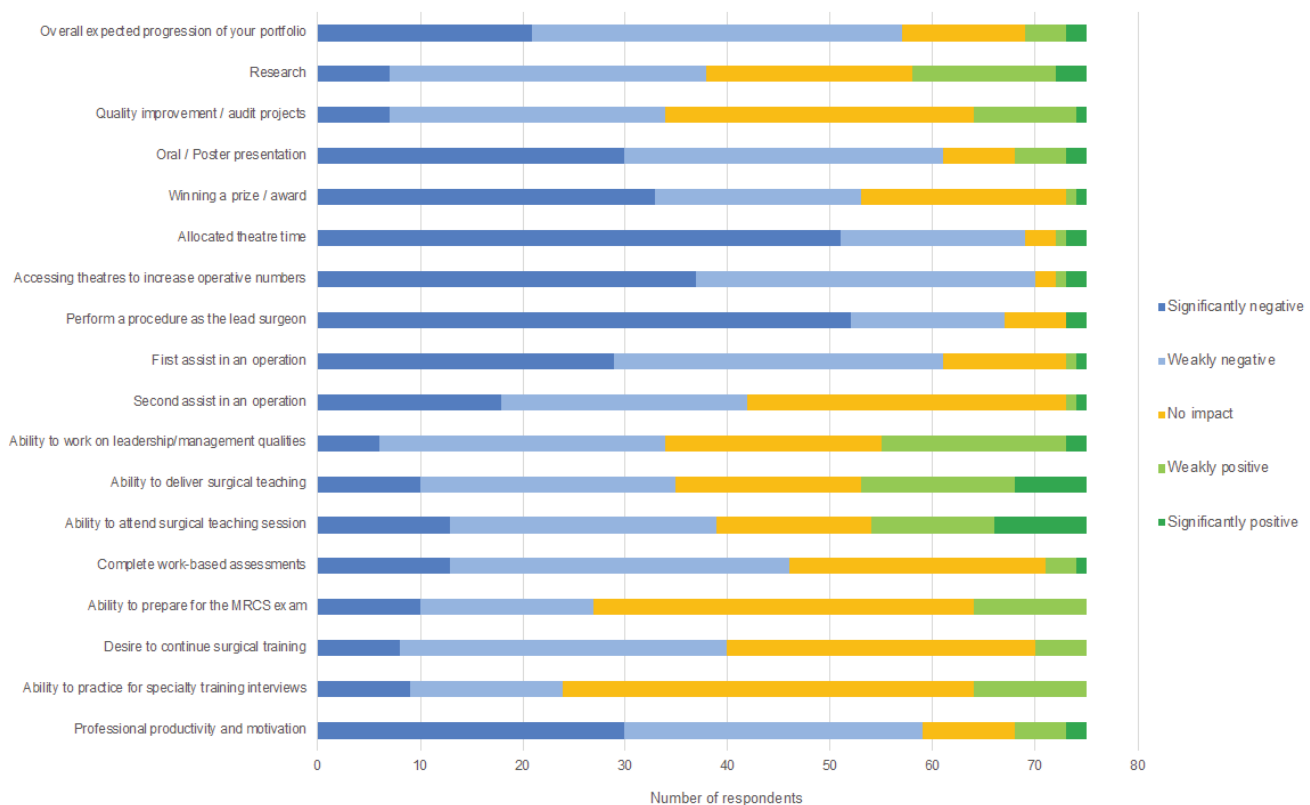


Figure 2: Stacked bar graph displaying Likert responses.

The impact on individual domains was further assessed using a Likert scale; the findings of these are tabulated in Table 3. Additionally, a summary statistic was obtained by assigning the following numerical values to each of the Likert responses to identify the most and the least impacted domains: 1 for significantly negative, 2 for weakly negative, 3 for no impact, 4 for weakly positive and 5 for significantly positive. The summary statistic represents the mean score, which was rounded to one decimal point.

Figure 2 displays a stacked bar graph of the Likert responses presenting the negatively impacted domains in blue and the positively impacted domains in green. The most negatively impacted domains were allocated theatre time, operating as the lead surgeon and accessing theatres to increase operative numbers.

Figure 3 displays a graph of the calculated summary statistics; the longest bars are the least impacted domains and the shortest bars are the most negatively impacted domains. This summary statistic implies

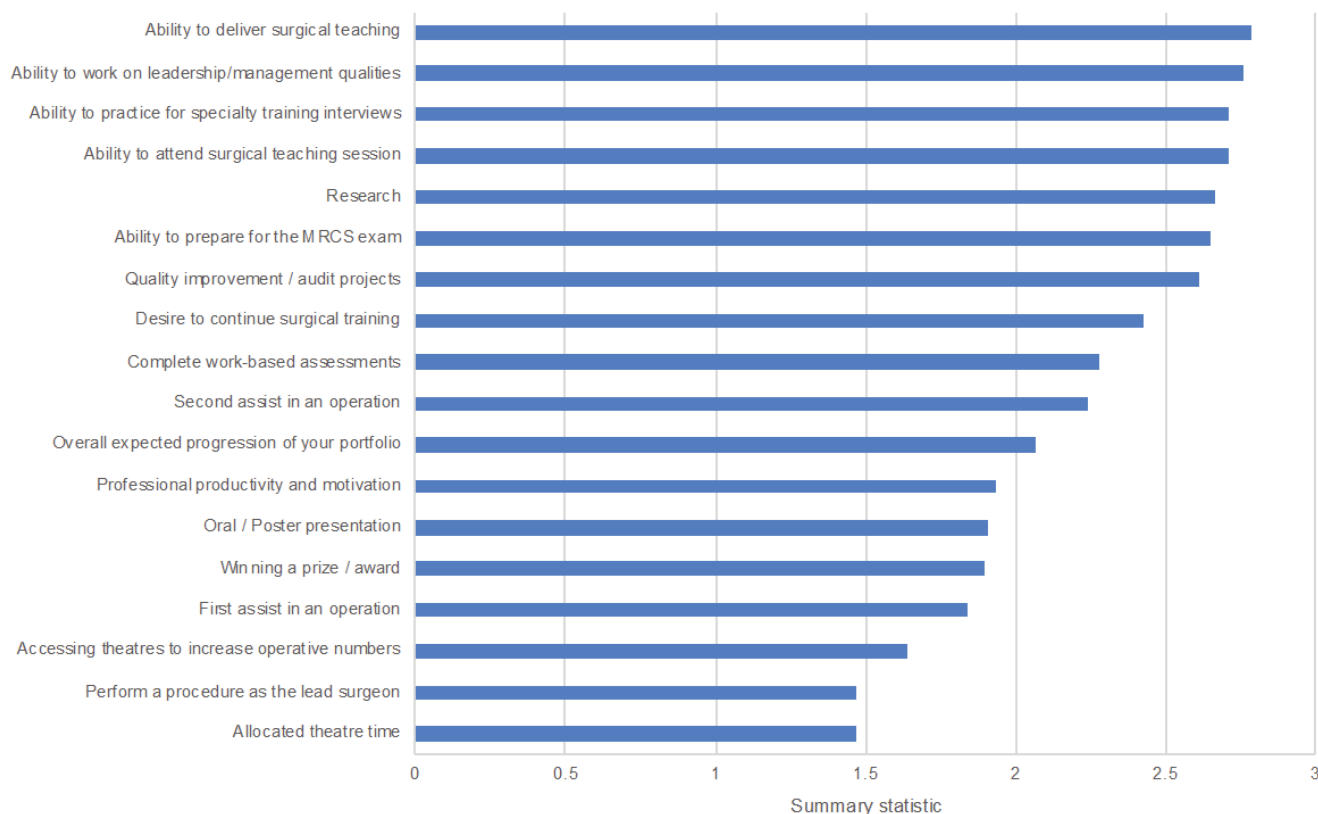


Figure 3: Summary statistic of the impact of COVID-19 on various domains. N.B. Shorter bars imply a stronger negative effect.

that there were no domains with a net positive impact. However, the least impacted domains were the ability to deliver surgical teaching, work on leadership / management qualities, attend surgical teaching and practice for specialty training interviews.

Impact on academia

15 respondents (20%) had planned to complete an additional qualification and were prevented from doing so owing to the pandemic. The intended additional qualifications which were not completed included postgraduate qualifications (Postgraduate certificate/Diploma/Degree) in clinical education, management and leadership, surgical innovation, and sciences. On the other hand, 9 respondents (12%) were not prevented from completing an additional qualification by the pandemic. Several courses (Median 2; IQR 1 - 3) and conferences (Median 2; IQR 1 - 2) were cancelled.

A free-text box was used to assess the barriers imposed by the pandemic on teaching; teaching session cancellation, difficulty in concentrating during virtual training and focus on service provision via redeployment were recurrent themes. Specific highlights of other negative comments include:

- “Rota collapse, redeployment, focus on clinical delivery and not teaching”.
- “All in person teaching cancelled, some sessions arranged to be delivered over zoom. No access to anatomy labs”.
- “Very difficult to focus on the teaching when it’s online, as most people set their mic/camera to off and just do their day to day work”.
- “Less chance to meet seniors and had to rely on WhatsApp to ask questions related to my MRCS exam. I felt that overall, I had no time in theatre and as a result I wasn’t able to focus on my revision. I wasn’t able to practice my anatomy knowledge with a senior”.
- “Change in departmental meeting format means formal teaching is now non-existent. More ward time meant less time with the consultants teaching”.

Despite a majority of negative responses, the following positive comments were raised about accessing teaching:

- “More accessible when I couldn’t leave work as I could now log in on zoom”.
- “I prefer virtual teaching because it is much easier to access”.
- “There was actually more [teaching]”.

All 75 respondents had been exposed to virtual teaching as a result of the pandemic. 73 respondents (97%) had used Microsoft Teams, 65 (87%) had used Zoom and 10 (13%) had used Google Meet to receive virtual teaching. When asked which teaching platform is the most beneficial for their learning, 53 respondents (71%) showed a preference for face-to-face teaching, 4 (5%) showed a preference for virtual teaching and 18 (24%) found no difference between the two.

Further comments regarding the impact of COVID-19 on academia included:

- “Conferences were either rescheduled or cancelled which meant that I couldn’t present any projects to be able to win a prize”.
- “...Conferences were mostly cancelled and it was some time before they started virtual conferences”.
- “I did not want to do the PGCert as there was no option to do an in-person course, only online courses”.

Career progression

The MRCS examination is composed of two components: part A which is a multiple choice question exam and part B which is an objective structured clinical exam. 8 respondents (11%) were planning to sit part A, 18 (24%) had completed part A, 12 (16%) were planning to sit part B and 37 (49%) had completed both parts. Of the 43 respondents who had their MRCS exam postponed, 29 (67%) felt that they performed less well as a result of the postponement.

In view of the COVID-19 pandemic, additional Annual Review of Competence Progression (ARCP) outcomes were introduced as follows:

- Outcome 10.1 - Progress is satisfactory but the acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is not at a critical progression point in their programme and can progress to the next stage of their training.
- Outcome 10.2 - Progress is satisfactory but the acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is at a critical progression point in their programme and additional training time is required.

8 respondents (11%) achieved an ARCP outcome 10.1 and 3 (4%) achieved an outcome 10.2. 47 respondents (63%) indicated that there was a reduction in the number of training posts in their chosen specialty. One of the respondents provided a comment concerning run-through recruitment as below:

“[Number of] ST1 posts significantly reduced and the shortlisting cut off significantly increased”.

From the 29 survey respondents who had applied for ST3, 18 (62%) were unsuccessful in their application. Out of the 18 unsuccessful ST3 applicants who were then asked whether they felt that the pandemic played a significant detrimental role, 16 (89%) said yes and 1 (6%) said maybe.

Personal impact and further respondent comments

63 respondents (84%) felt more stressed as a result of the pandemic and 44 respondents (59%) indicated that they have lost confidence as a surgeon due to the pandemic. Further comments included:

“Impact of COVID on operative experience is deeply concerning. As a run-through I will be expected to progress to ST3 in a year, yet I am still not competent in most of the basic [Specialty name removed to maintain anonymity] operations. Opportunities are given to ST3 trainees [in preference to more junior trainees] due to lack of operative experience for trainees at all stages”.

“I feel generally demoralised because of the impact that the pandemic restrictions have had on my life outside work. The restrictions have stolen these coping mechanisms away from me by preventing me from seeing friends and family”.

“Main source of stress comes from the lack of clarity from the heads regarding what adjustments would be made to cater for redeployment and lack of operative experience. E.g. reducing required logbook numbers”.

“...There has been a lack of surgical experience because registrars have lost skills, so they are needing to do operations or part of operations that are usually for core training levels, meaning we lose opportunities. There has been a lot of virtual teaching but mainly in the evenings, that we would need to attend in our own time, usually we would get study leave if it was run in the day...”

Discussion

During the pandemic, operating capacities were reduced, elective operations were cancelled, and trainees were redeployed. Opportunities to present projects, win academic prizes and continue personal professional development were also put at risk by the cancellation of courses and conferences. We conducted this national study to investigate the perceived effects of the COVID-19 pandemic on CST.

Redeployment and sick leave due to suspected / confirmed COVID-19 resulted in considerable time away from training. Further, the reported negative impact on allocated theatre time, accessing theatres, performing a procedure as the lead surgeon and first assisting in an operation will have had an adverse influence on operative development.

A high proportion of the respondents reported that they felt stressed and had lost confidence as a surgeon due to the pandemic. These pressures are likely to be potentiated by the achievements required within CST to enable progression to ST3. Additionally, the respondents indicated that there was a negative impact on their professional productivity and motivation resulting from COVID-19. Educational and clinical supervisors should be aware of the additional pressures on the mental wellbeing of the trainees, highlighted by this study. Trainees who experience such difficulties should be encouraged to discuss this with their supervisors or seek help from the hospital support services. Although, Khan et. al found that approximately one-third of surgical trainees were unsure of the type of mental health support available to them from their hospital [6]. We also observed that there was a reported negative impact on the trainees’ desire to continue surgical training; this is concerning for the long-term outlook of surgical trainee retainment.

Whilst a negative impact was observed in all of the investigated domains of the present study, this was seen to a lesser extent when considering the ability to deliver or attend surgical teaching. Indeed, as displayed in Table 3, 22 respondents (29%) reported a positive impact on the ability to deliver surgical teaching and 21 (28%) reported a positive impact on the ability to attend surgical teaching. This is likely to be due to the rapid movement of clinical education onto virtual platforms which have been proven to be effective, though at the cost of student engagement [15]. Consequently, the virtual delivery of clinical education (For example, through web-based surgical skills teaching) is advancing at unprecedented rates since the pandemic began [16-18].

Limitations of this study arise from three sources. Firstly, the sample size is rather small in comparison to the total number of current CSTs nationally; this can be addressed by incorporation of the proposed questions into future national training surveys. Secondly, survey studies such as this are more likely to entice trainees who have concerns that they wish to voice as opposed to trainees who are content with the status of their training. Finally, survey studies are at risk of recall bias. Nevertheless, we feel that our study conveys important messages relating to many trainees’ perception of their surgical progression and mental wellbeing during the pandemic.

Conclusion

Surgical training is a hands-on apprenticeship in which there is no substitute for operating experience, time spent talking to and examining patients. This cannot be easily replaced by virtual means. Our study highlights the wide breadth of the adverse effects perceived by core surgical trainees due to the COVID-19 pandemic.

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Appendix 1

*Required

1. Which deanery are you based in? *

Mark only one oval.

- East of England
- East Midlands
- Kent, Surrey and Sussex
- London - North Central & East
- London - North West
- London - South
- North East
- Northern Ireland
- North West
- Peninsula
- Severn
- Scotland Thames
- Valley Wales
- Wessex
- West Midlands
- Yorkshire and Humber
- Other

2. What is your training grade? *

Mark only one oval.

- CST1/ST1
- CST/ST2
- LAT1
- LAT2

3. Are you working full time or less than full time? *

Mark only one oval.

- Full time
- Less than full time

4. Have you been redeployed during the pandemic? *

Mark only one oval.

Yes

No

5. If so, how many days were you redeployed for?

6. How many days of sick leave did you have due to either suspected or confirmed COVID-19?

7. Prior to the pandemic, what was your expected portfolio rating on a scale of 1- 10? *

Mark only one oval.

| | | | | | | | | | | | |
|------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Poor | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Excellent |

8. Following the start of the pandemic, how would you now rate your portfolio on a scale of 1-10? *

Mark only one oval.

| | | | | | | | | | | | |
|------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Poor | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Excellent |

9. Which portfolio section do you feel is the most adversely impacted section by the pandemic? *

Mark only one oval.

- Attending surgical teaching session
- Courses
- Delivering surgical teaching
- Leadership & management
- MRCS examination
- Operative experience
- Postgraduate qualifications and additional degrees
- Presentation (Oral / Poster)
- Prizes / Awards
- Quality improvement / Clinical audit projects
- Research
- Work-based assessments

10. How would you rate the impact of COVID-19 on the following domains*

Mark only one oval.

| | Significantly negative | Weakly negative | No impact | Weakly positive | Significantly positive |
|---|------------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Overall expected progression of your portfolio | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Research | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| QI / audit projects | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Oral / Poster presentation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Winning a prize / award | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Allocated theatric time | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Accessing theaters to increase operative numbers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Perform a procedure as the lead surgeon | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| First assist in an operation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Second assist in an operation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Second assist in an operation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to work on leadership/management qualities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to deliver surgical teaching | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to attend surgical teaching session | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Complete work--based assessments | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to prepare for the MRCS exam | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Desire to continue surgical training | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to practice for specialty training Interviews | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Professional productivity and motivation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

11. If you had planned to complete an additional qualification (Including a PGCert/Diploma) or postgraduate degree, did the pandemic prevent you from completing this? *

Mark only one oval.

- Yes
 No
 No further qualifications planned

12. If so, which additional qualification were you planning on completing?

13. How many courses did you book which were cancelled?

14. How many conferences did you book which were cancelled?

15. What is your MRCS examination status? *

Mark only one oval.

- Planning to sit part A
 Planning to sit part B
 Passed part A only
 Passed both parts A and B

16. If your MRCS exam was postponed, did you feel that you performed less well as a result of the postponement? *

Mark only one oval.

- Yes
 No
 Not applicable

17. What were the barriers imposed by the pandemic on accessing teaching?

18. Have you been exposed to virtual teaching as a result of the pandemic? *

Mark only one oval.

- Yes
 No

19. Which platform have you been exposed to for virtual teaching?

Tick all that apply.

- Microsoft Teams
 Zoom
 Google Meet
 Other

20. In your experience, which teaching platform is the most beneficial for learning? *

Mark only one oval.

- Face-to-face teaching
 Virtual teaching
 No difference

21. Have you felt more stressed as a result of the pandemic? *

Mark only one oval.

- Yes
 No

22. Have you lost confidence as a surgeon due to the pandemic? *

Mark only one oval.

- Yes
 No

23. Which surgical specialty are you hoping to specialise in? *

Mark only one oval.

- Academic surgery Cardiothoracic
- Surgery
- General Surgery
- Neurosurgery
- Oral and Maxillofacial Surgery
- Otolaryngology (ENT)
- Paediatric Surgery
- Plastic Surgery
- Trauma and Orthopaedic Surgery
- Urology
- Vascular surgery
- Other

24. Did you apply for a ST3 training post this year? *

Mark only one oval.

- Yes
- No

25. Were you successful in your application? *

Mark only one oval.

- Yes
- No
- Did not apply this year

26. If unsuccessful, do you feel that the pandemic played a significant detrimental role?

Mark only one oval.

- Yes
- No
- Maybe

27. Werethetotalnumberoftrainingpostsinyourchosenspecialtyreducedfrom prior to the pandemic? *

Mark only one oval.

- Yes
 No

28. What was your most recent ARCP outcome? *

Mark only one oval.

- Outcome 1 - Satisfactory progress - Achieving progress and competences at the expected rate
- Outcome 2 - Development of specific competences required - additional training time not required
- Outcome 3 - Inadequate progress by the trainee – additional training time required Outcome 4 - Released from training programme - with or without specified competences
- Outcome 5 - Neutral outcome / holding response - Incomplete evidence presented – additional training time may be required
- Outcome 6 - Recommendation for completion of training - gained all required competences
- Outcome 7.1 (LAT) - Satisfactory progress in or completion of the post
- Outcome 7.2 (LAT) - Development of specific competences required – additional training time not required
- Outcome 7.3 (LAT) - Inadequate progress by the trainee
- Outcome 7.4 (LAT) - Neutral outcome / holding response - panel cannot issue an outcome because evidence is incomplete
- Outcome 8 - Out of programme for clinical experience, research or a career break (OOPR/OOPE/OOPC)
- Outcome 10.1 (COVID) - Progress is satisfactory but the acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is not at a critical progression point in their programme and can progress to the next stage of their training
- Outcome 10.2 (COVID) - Progress is satisfactory but the acquisition of competences/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is at a critical progression point in their programme and additional training time is required

29. Any other comments that you would like to add?
