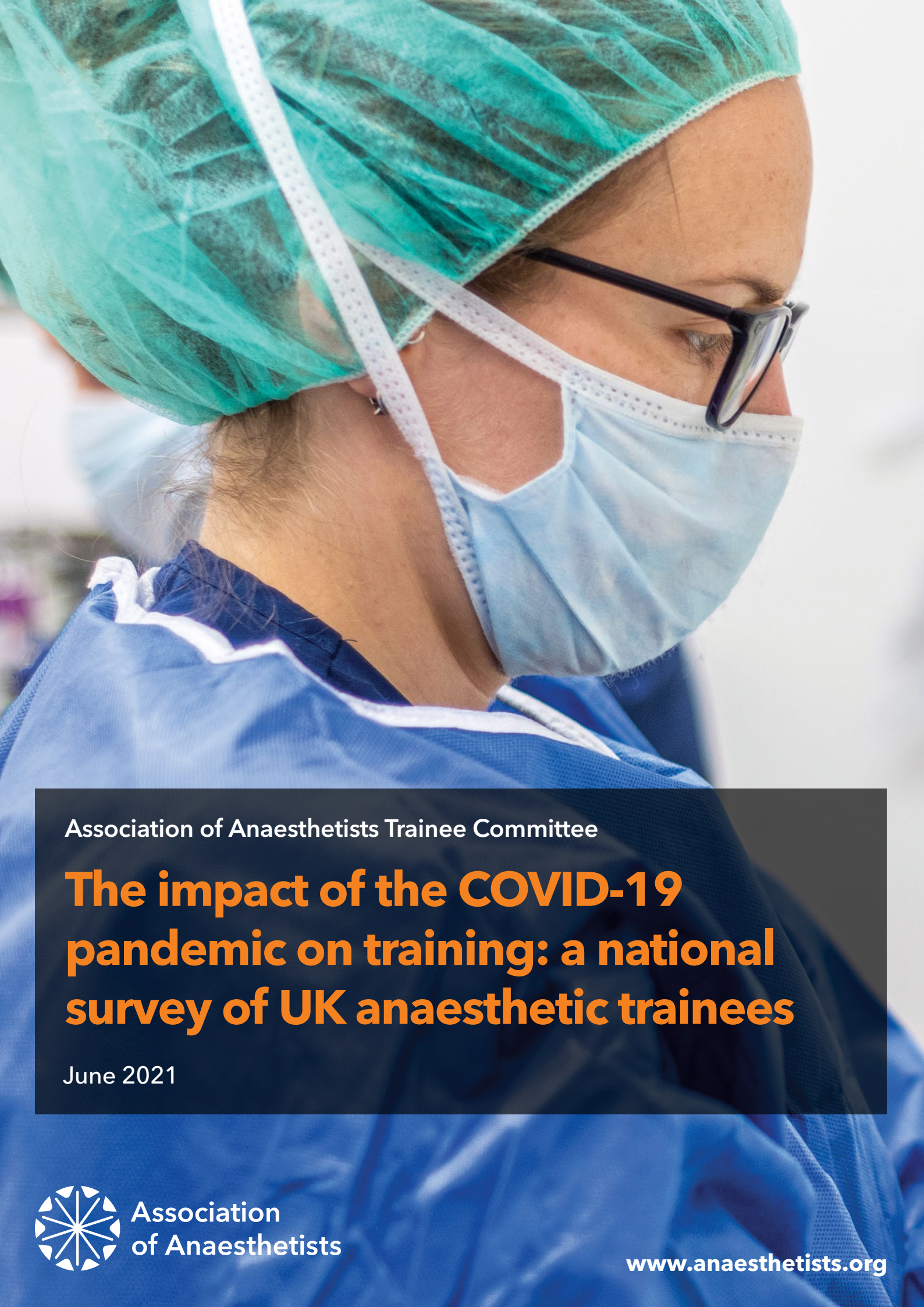

Association of Anaesthetists Trainee Committee

# The impact of the COVID-19 pandemic on training: a national survey of UK anaesthetic trainees

June 2021

Association of Anaesthetists

www.anaesthetists.org

Association of Anaesthetists Trainees

Association of Anaesthetists Trainee Committee

# The impact of the COVID-19 pandemic on training: a national survey of UK anaesthetic trainees

**S. Edwardson[1], R. McCrossan[2], T. Sheraton[3], N. Redfern[4]**

1. ST4 Anaesthesia and Intensive Care Medicine, South East Scotland School of Anaesthesia. Elected member, Association of Anaesthetists Trainee Committee
2. Locum Consultant Anaesthetist, Freeman Hospital, Newcastle-upon-Tyne. Chair, Association of Anaesthetists Trainee Committee
3. Consultant Anaesthetist, Aneurin Bevan University Health Board, Newport. Honorary Membership Secretary, Association of Anaesthetists
4. Consultant Anaesthetist, Royal Victoria Infirmary, Newcastle-upon-Tyne

**Acknowledgements**
Thank you to Drs Eireann Allen, Karen Stacey and Naomi Freeman for their contribution to data analysis.

# Contents

Click arrows below to view sections


| | |
|---|---|
| Executive Summary | 4 |
| Introduction | 6 |
| Recommendations | 8 |
| Results: Data collection | 9 |
| Results: Emerging themes | 10 |
| Feeling undervalued | 10 |
| Lack of control | 10 |
| Concerns about competence and confidence | 11 |
| Loss of broader educational opportunities | 11 |
| Lack of communication | 11 |
| Uncertainty, stress and anxiety | 11 |
| Hopelessness and the “lost tribe” | 12 |
| Positive outcomes | 13 |
| Trainees’ overall wellbeing | 14 |
| Support from the Association of Anaesthetists | 16 |
| Limitations | 17 |
| Discussion | 17 |
| References | 19 |
| Useful resources | 20 |




Back to contents

# Executive Summary

**For trainees, the impact of dealing with COVID-19 over the last year has been profound. They willingly made sacrifices to their training to support the UK's COVID-19 response. They worked long hours in new and challenging environments, with dying patients, and broke bad news to families, whilst being fearful of bringing the virus back to their own families. Specialist modules were postponed and opportunities to improve personal portfolios abandoned. At the same time, social distancing requirements and travel restrictions forced changes to exams and the recruitment process. Already tired and stressed, trainees continued to try and achieve their long-term career goals. This survey of anaesthetic trainees found considerable concerns around the delivery of training, changes to recruitment and to examination format and timetables.**

This report highlights issues reported by anaesthetic trainees about their experiences in 2020.

- Cancellation of Fellowship of the Royal College of Anaesthetists (FRCA) exams (June 2020)
- Introduction of online exams (August 2020), with reduced capacity and increased demand
- Changes to the selection process:
    - For August 2020 Specialty Training year 3 (ST3) entry was based **solely** on self-assessment portfolio scores (with no external validation). For February 2021 recruitment, a verified self-assessment process to select those who met the eligibility standard for interview and online interview was introduced.
    - In October 2020 the Royal College of Anaesthetists (RCoA) announced the Multi-Specialty Recruitment Assessment (**MSRA**) would replace portfolio assessment for Core Training (CT1) interview selection.
- As the first and largest group of trainees redeployed to ITU, many anaesthetic trainees did not complete specialist modules or complete their training, meaning fewer new training posts were available.
- Plans for a new 3-year core curriculum (decided before the pandemic) were implemented, with entrance to Specialty Training at ST4 only. No formal arrangements were made to offer 'top-up' posts to nearly 700 trainees who were unsuccessful in the Spring 2021 ST3 recruitment round.

These changes were introduced rapidly with very little notice. There were no individual communications and trainees had to obtain this information through various channels at a time of significant work pressure.



Back to contents

## *"Abandoned, let down, disheartened and frustrated"*

Despite willingly putting themselves on the frontline without complaint and making sacrifices to their training in response to the pandemic, trainees consider their efforts were met with shifting goalposts and curriculum changes. It left them feeling *"undervalued"* and that those in charge had *"no interest in our wellbeing, training, or future in anaesthetics"*.

Lack of control over their situation and ongoing uncertainty has caused a huge amount of distress. Trainees described feeling constantly under threat that they would be redeployed again and *"merrily exploited"*. This, in combination with exam and recruitment changes, made them feel demoralised and *"out of control"*. Senior trainees reported their junior colleagues displaying signs of burnout and disillusionment. World Health Organization-Five Wellbeing Index scores amongst our respondents indicate poor overall wellbeing, especially amongst the most junior trainees.

Trainee morale was low, and many said they felt disenfranchised and could not see the point in working so hard when they felt the future for them looked *"very bleak"*. Of those directly affected by the changes to exam timetables and format, 94% of respondents felt less positive about the future of their training – and that same feeling was felt by 98% of respondents applying for specialty training. Most trainees felt they had not been communicated with, or listened to, with regard to recent exam and recruitment changes.

## *"Significantly reduced training opportunities and case numbers"*

Trainees reported protracted periods of redeployment to intensive care units resulting in extensions to training periods and delays to certificate of completion of training (CCT) dates. Those that did not have extensions to training, were concerned that they felt less confident and competent, because of reduced case numbers and limited exposure to anaesthetic subspecialties.

## *The "lost tribe"*

Many respondents wrote about the risk of losing a large number of good-quality anaesthetic trainees. This cohort of trainees may be forced out of anaesthetic training altogether, due to the curriculum changes and lack of specialty training numbers. Trainees could not understand why this was being allowed to happen when there are significant workforce shortages in anaesthesia.

Trainees told us they wanted the Association of Anaesthetists to advocate for them, they wanted it to *"hold the Royal College to account"* and to lobby on behalf of the trainee body. They also wanted the Association to provide ongoing support with wellbeing and educational resources. The national recommendations from this report are intended to support closer collaboration between the Association of Anaesthetists Trainee Committee, the RCoA and Health Education bodies.

## *"I feel as if I am a number filling a slot rather than an individual for whom these decisions have consequences"*

The pandemic caused a unique set of circumstances, necessitating rapid change. It is important that training and education bodies are mindful of the full impact of changes they make and the way those changes are communicated. It is possible to institute change without detrimental effects on the workforce. The health and wellbeing of our junior colleagues is of fundamental importance, as anaesthetic trainees represent the future of our specialty. Our current trainees made immense personal sacrifices to deliver the frontline care needed by society during the pandemic. Without their contribution it would have been impossible to meet the unprecedented need for intensive care. It is important we demonstrate our respect by providing sufficient numbers of good quality training posts for them, negotiating with funders, trainers and governments where necessary, to achieve sufficient training places to meet future workforce requirements in an already understaffed discipline. Anaesthetic training is notoriously challenging, but we must make efforts to ensure it is not unnecessarily difficult.

# Introduction

The Association of Anaesthetists Trainee Committee prides itself on its work supporting the wellbeing of trainee anaesthetists. It has become increasingly aware of negative impacts many UK anaesthetic trainees have experienced over the last year during the pandemic. Anecdotes, posts on social media and coffee room conversations point toward a significant level of discontent amongst trainees, centring on redeployment, curriculum changes, recruitment alterations, and exam uncertainties. The purpose of this survey in November and December 2020 was to capture the impact of these changes on trainee anaesthetists during this difficult time. We understand that a number of the issues raised by trainees at the time of the survey are dynamic and are already being improved upon. Our aim in publishing this survey is to ensure trainee voices about their experiences over the last 12 months are heard in full and that future changes are designed to improve their experience in the specialty.

As a result of the first national lockdown in March 2020, FRCA examinations were cancelled. Face to face exams were deemed impossible and a remote exam format was rapidly developed. The first set of remotely invigilated written exams in August 2020 was plagued by connection issues and interruptions. However, since that time, these online exams have run without incident. Online examinations have limited places, and this, in combination with previous exam cancellations, and lack of availability of examiners (due to clinical commitments as part of the response), has led to a significant backlog of trainees awaiting a date where they are allowed to sit an exam. To allocate candidates to the limited places, there is a published priority list. Depending on a candidate's professional situation, they have either been admitted a place to be examined or been declined until the next round. Most candidates this year will therefore have had an extended and unspecified period of study as a result of these delays between exam sittings as most have had to miss at least one round of examinations to clear this backlog.

Recruitment during the pandemic was significantly altered as it was not possible to hold face to face interviews. ST3 interviews were initially cancelled with appointment being based solely on trainee self-assessed scoring of their own portfolios. After complaints that this procedure could potentially discriminate against women and minority ethnic groups, the next round of appointments was conducted using verified self-assessment and online interviews. For core training recruitment, the Multi-Specialty Recruitment Assessment (MSRA) was introduced with very little warning and self-assessment of portfolios did not feature as a means to be selected for interview. This meant many trainees whose long-term career aim was anaesthesia, and who had dedicated much time to producing a portfolio specific to anaesthesia, now felt their time had been wasted, as, if they did not score highly enough in MSRA, they would not be invited for interview. Many other specialties use MSRA for recruitment. Therefore, those applying for several specialties and potentially less committed to anaesthesia, might perform better as they had extra time to prepare and revise. In addition, there was increased competition, with fewer training jobs available as fewer trainees were completing training, because of extensions to training. Added to this, ST3 appointment will soon cease with the impending introduction of the new curriculum, and core training will be extended to 3 years. Intermediate training will commence at ST4 entry only. This means a cohort of trainees who are not appointed to the small number of ST3 posts this year may be forced out of anaesthetic training altogether and may not be able to gain the relevant competencies to be able to apply for ST4 entry in future years.

Anaesthesia and intensive care have played a critical role in the country's response to the pandemic, with anaesthetists in training on the front line. A considerable number of anaesthesia trainees were redeployed to intensive care over the last year [1]. We should be proud of their hard work and significant contribution. Much of our critical care response would not have been possible without them. This survey documents some of the short-term effects on our trainees, but longer-term effects will take time to become evident.

Prior to the pandemic there were already considerable concerns over the health and wellbeing of the NHS workforce. Specifically, amongst anaesthesia trainees, 85% were at high risk of burnout, 78% reported a detrimental impact to their health as a direct result of their employment and 61% of respondents felt their job negatively affected their mental health[2]. High stress levels are common, with 37% of trainees reporting a high level of perceived stress and 18% at high risk of depression[3]. A 2016 survey found 84% of trainee anaesthetists have felt too tired to drive home after a night shift and 57% have had an accident or near miss commuting to or from work[4]. Thus, the health and wellbeing of the trainee body was already a concern and it seems reasonable to assume the stresses and challenges of the last year will have served only to worsen the situation. This is reflected in the RCoA's April 2020 frontline survey, which found that 40% of all anaesthetists had felt mentally unwell and a third physically unwell directly as a result of the additional COVID-19 related stress [5].

The GMC document "Caring for Doctors, Caring For Patients" describes three core needs (A, B C) for doctors to ensure wellbeing and motivation at work[6]. These are **A**utonomy/Control (the need to have control over our work lives and to act consistently with our work and life values), **B**elonging (the need to be connected to, cared for, and caring of others around us in the workplace and to feel valued, respected and supported.) and **C**ompetence (the need to experience effectiveness and deliver valued outcomes, such as high-quality care). The Association of Anaesthetists Trainee Committee wants to ensure that trainees are listened to, supported appropriately and have access to the training that allows them to deliver valued outcomes through collaboration with the RCoA.

The pandemic has led to radical alterations to training, recruitment and exams. Multiple lessons can be learned from this unprecedented time which we hope will improve preparedness and training experiences should these events extend or repeat into the future. This work should serve as a springboard for future positive collaborative change between all those involved in training the consultant anaesthetic workforce of the future. Trainees should not be left feeling they are second class; they have made immense sacrifices and the rest of the specialty should demonstrate respect by treating them well.

# Recommendations

## For national educational and training bodies

- The number of anaesthetic training posts should be increased to:
    - retain doctors who have commenced anaesthesia training within the speciality
    - provide the workforce necessary for the NHS to deliver safe anaesthetic and critical care to the population.
- Consideration should be given for a formal review of the processes over the last year in relation to training, exams and recruitment of anaesthetists on the RCoA training scheme with plans to publish and act on findings.
- Trainees should be listened to carefully, and accommodations to recruitment, exams and Annual Review of Competency Progressions (ARCP) made that address their difficulties and are clearly based on their suggestions.
- There should be efficient and effective lines of communication between the Association of Anaesthetists Trainee Committee and the RCoA Education, Training and Examinations Board. To faciliatate this, we ask the RCoA to consider representation from the Association Trainee Committee on this Board.
- Trainees applying for ST3 posts who have had to work emergency surge rotas that made it impossible to complete QI/audit projects or to attend courses should not be disadvantaged compared with their peers. Opportunities to apply for ST3 posts should remain available for a sufficient number of years for this cohort of trainees to catch up. This could be achieved by running the new curriculum in parallel with the current curriculum with sufficient numbers of both ST3 and ST4 posts available to meet future healthcare needs.
- It is important that trainees who have worked through the 2020/21 pandemic feel as well prepared for independent practice as other trainees who gain a CCT. The decision to sign a trainee's module of training as complete should be a joint one that takes into account the trainee's confidence as well as competence. Provision should be made for trainees to repeat elements of training modules.
- Changes to training, recruitment and exams should be communicated in a timely manner to trainers and trainees via direct email to individuals. It is not sufficient to post on social media or update websites without direct contact with those directly affected.

## For departments/organisations

- We recommend appointing a Wellbeing Lead in each department to work closely with trainees.
- Highlight sources of support to all staff, especially trainees. There are many different levels of support available from peer mentoring to formal psychological support. Pay particular attention to those in high risk groups, for example, junior members of staff, those from ethnic minority backgrounds and people who were shielding.
- We recommend interested members of the department train in mentoring, REACT mental health conversations, and/or as mental health first aiders.
- We recommend working together as a department to make sure everyone can take their full allocation of annual leave or a mutually agreed alternative.
- Organise events such as Coffee and a Gas (as social distancing allows).

## For individuals

- We encourage individuals who have been negatively affected to seek support and encourage others to do the same. With a multitude of synergistic stressors, it can be difficult to look after your own psychological wellbeing. It is important to continue to "check in" on yourself and others in order to look after each other.
- We can all help to add to a culture of compassion and kindness at work in order to help identify and support colleagues in times of need.
- Be aware of your own and your colleague's levels of fatigue.

# Results: Data collection

A snapshot survey of anaesthetic trainees from across the UK was undertaken to ascertain the impact of changes to training, recruitment, and exams that occurred during the pandemic. The survey was open from 13 November to 11 December 2020 and distributed online via the communication networks of the Association of Anaesthetists.

Responders consented to publication of their anonymised quotes. The aim of the survey was to gauge trainee morale and identify specific issues in relation to trainee wellbeing in order to develop resources and strengthen advocacy by the Association of Anaesthetists Trainee Committee.

The RCoA census estimated there to be 4,311 current UK anaesthetic trainees. In 2020, there were 569 ACCS and Core Anaesthetic training posts available, and 353 Specialty Training posts. This survey had 358 responses, giving an overall 8.3% response rate. The low response rate makes quantitative analysis limited but the qualitative data from a large number of individuals tells the story of the experiences of anaesthetic trainees during the pandemic that we feel should be heard.

Data were coded and sorted into themes, and the codes were then re-read within the context of the themes. A combination of sudden changes to exam timelines and formats, to recruitment, to the curriculum, and redeployment were the main issues identified. Within these structural and logistical issues, several overarching themes emerged in the free text responses from trainees. Figures 1 and 2 detail the training grades of respondents and the proportion of responses from the different regions.

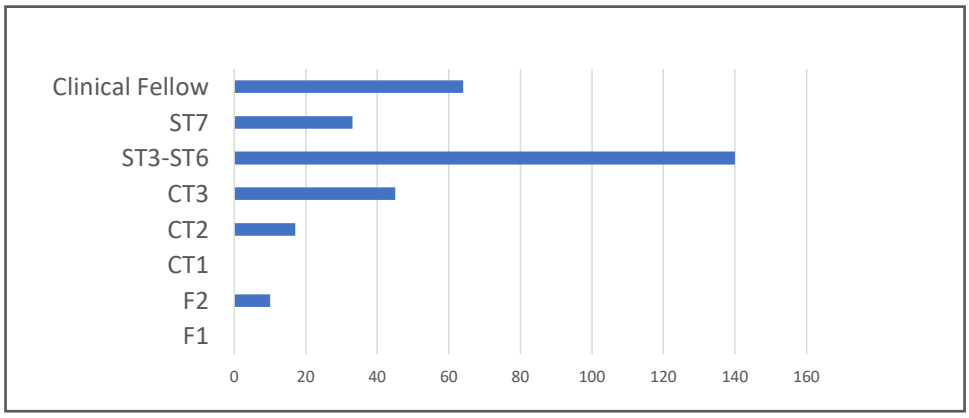


*Figure 1. Training grade of respondents (%)*

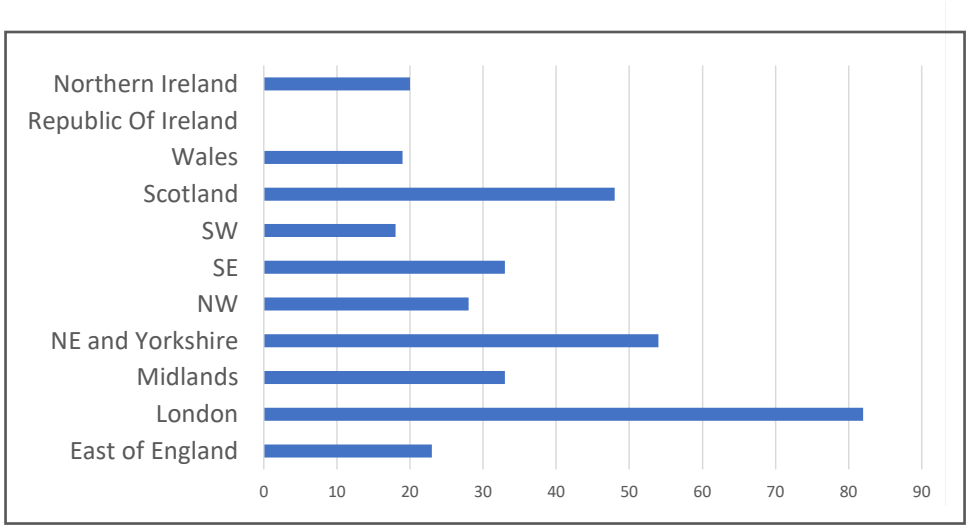


*Figure 2. Responses across UK and Ireland training regions (%)*



Back to contents

# Results: Emerging themes

### Feeling undervalued

Many respondents felt undervalued. Frequent *"last minute changes"* made trainees feel *"more as if I am a number filling a slot rather than an individual for whom these decisions have consequences"*. Trainees repeatedly described being redeployed and working many more hours than usual. They felt that despite willingly making sacrifices to their training and wellbeing in response to the pandemic, this sacrifice was met with shifting recruitment goal posts and curriculum changes, leaving them feeling extremely undervalued. They stated that those in charge displayed *"no interest in our wellbeing, training, or future in anaesthetics"*. One respondent captured the feelings of many: *"love my job but the exam fiasco, followed by this sudden change back to the old curriculum… has left me and my cohort feeling like we have been left by the wayside by the College"*.

### Lack of control

A total of 74% of respondents said they felt they had not been listened to, or appropriately informed about recent changes to professional exams and recruitment (Figs 3 and 4). Major decisions and changes were (sometimes necessarily) made and acted on very quickly. Many respondents felt the *"constant threat of being moved"* alongside exam and recruitment changes, was completely *"out of our control"* and that they had been *"merrily exploited"* for service provision with no plan made for training requirements. This was further affected by some local cases of *"mismanagement by training leads [which] has affected motivation and wellbeing"*.

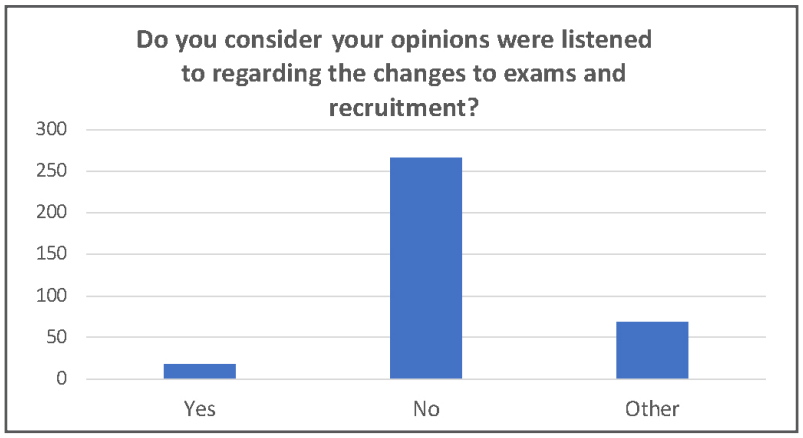


*Figure 3. Feelings of being listened to*

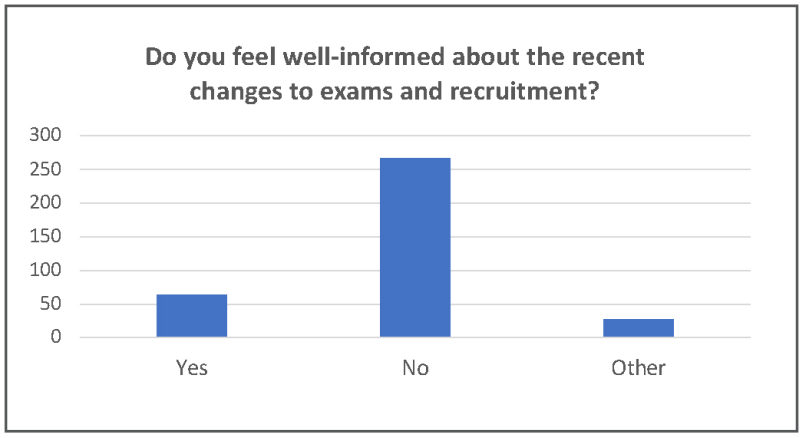


*Figure 4. Feelings of being well-informed*



Back to contents

**Concerns about competence and confidence**

In total, 23% of respondents expressed concern about fewer case numbers and less time spent in anaesthesia. Over half were anxious that they would not be as clinically competent or confident as they should be because they had had less clinical experience at CCT. They described pressure to be signed off as *"the minimally competent anaesthetist"* instead of this lost training being recognised and made up for by those in charge. Completing the curriculum felt *"no longer achievable"* and these significant changes meant *"training has been unrecognisable from the start"*. This led to trainees being *"more anxious in work"* as their *"confidence has taken a huge hit"*.

There were 58 comments describing likely delays to gaining training competencies, slower career progression, and potential delayed CCT. This was frequently combined with frustration because *"ICU won't count this time towards our training"*, because trainees had either already completed their necessary ICU components, or were not awarded competencies during their emergency rota redeployment. Some describe this *"excessive service provision"* as leading to a sense of not being able to *"practice at the level I should for my training"*. Notably, trainees who were shielding also described significant disruption. A small number outlined how the necessity to be non-clinical and then subsequent restrictions to clinical work meant loss of many sessions and clinical experience. Over half of ST3-ST6 respondents were concerned about reduced clinical exposure and variety and extensions to CCT dates, commenting on the continuing lack of clarity "*the effect of this on whether my training will be extended is still bafflingly unclear*".

**Loss of broader educational opportunities**

Educational courses and opportunities for quality improvement or research projects were scarce. Nearly 28% of responses describe significant periods where local teaching was entirely cancelled. Many respondents also described an increased pressure to complete specialty applications but a reduction in opportunity to carry out the extra projects needed to be competitive. Considerable frustration was expressed about this lack of opportunity in the face of *"constantly changing application deadlines"* at a particularly important time for career progression. Several respondents also describe the impact of cumulative fatigue from working a *"horrendous disaster rota",* resulting in significantly less time and energy to complete necessary components for ARCP.

**Lack of communication**

Trainees expressed significant negativity, anger and frustration towards educational bodies, including the RCoA, the Anaesthetic National Recruitment Office (ANRO), and Health Education England (HEE) with the main complaint being that there was *"poor communication of major changes"*. Problems related to channels of communication, timing, and accuracy and certainty of information given. Many *"only heard about the recruitment timeline changes through word of mouth"* initially, which meant that applicants *"lost 2 months where we could have gained extra points"*. Comments such as *"their decision-making seems entirely opaque"* with very emotive language used by some. Respondents felt *"very let down"*, *"disillusioned"*, and *"frustrated"* by the decisions made to continue a 2 year curriculum and significantly alter the recruitment process. Trainees stated that they felt the recruitment process was unfair, commenting that *"Recruitment should be based on suitability for speciality, not on MSRA."* Many trainees felt penalised and described themselves as *"disadvantaged"* and having their *"career plans ruined."* Specifically, Core Trainees responses described exam information as *"very little…rushed through at the last minute."* Overall, trainees felt their interests were not being represented and the changes made to exams and recruitment were *"tone deaf"* to trainees needs.

Many trainees described the significance of the distance this created between them and the College. One respondent described how *"one of the appealing parts of starting in anaesthesia was the way the College and schools looked after trainees"* and that they had *"expected better"* and that the College's actions had been *"to the detriment of the training experience"*.

**Uncertainty, stress and anxiety**

The uncertainty caused by changes to recruitment, exam timelines and reduction in specialty training numbers were commented on by over 100 Core Trainees and Clinical Fellow respondents, with over 50% of comments about this uncertainty causing them increased levels of anxiety.

The impacts of this were far reaching, demonstrated by comments such as *"it's difficult to plan normal life when the exam goal posts are constantly changing"*. One respondent told us that *"the cancellation and delay has had a huge impact on my preparation for the exam and on the quality of life of myself and my family"*. Over a third of responses cited uncertainty with regard to eligibility to take the exam and recruitment as a source of stress. The overall perceived reduction in specialty trainee vacancies throughout the UK was a particular concern to trainees, with many worried they would not get a specialty training post, *"all I want to do is become an ST3 in the job I love"*.

Many described a very intense period where they were forced to sit the Primary MCQ at short notice, in addition to applying for new ST3 recruitment, while working emergency rotas after redeployment to intensive care. This has *"increased [their] workload significantly"* and left them *"struggling to balance everything"*. One registrar commented that on helping with exam practice, they noticed the Primary FRCA candidates were *"clearly more anxious than they would be normally"* as a result of the uncertainty, and seemingly increased pressure to pass in such a short space of time.

A regular emerging theme throughout was the synergistic effect of multiple significant stressors placed on these junior trainees all at once. This cohort described themselves as feeling like *"guinea pigs"* who have endured *"nothing but stress"* since the beginning of their training. Many expressed significant surprise that all of these changes were made simultaneously, observing that they *"couldn't believe the College has made so many changes over this time"* and that they found it *"demoralising"* to work so hard while further difficulties to keep progressing in their career were imposed on them.

**Hopelessness, and the 'lost tribe'**

We asked about specifically about how trainees felt about the future. A total of 98.4% of the respondents who are applying for specialty applications (CT2, CT3, Clinical Fellow) this year, and therefore most directly affected by the recruitment changes, said they felt less positive about the future of their training (Fig 5). Overall 248 (69.3%) respondents felt less positive about the future of their training as a result of the changes to recruitment (Fig. 6).

Of those most affected by these changes, 93.7% felt less positive about the future of their training as a result (Fig. 7) and 217 (60.6%) respondents felt less positive about the future of their training as a result of changes to the FRCA exam (Fig. 8).


*Figure 5. Feelings regarding recruitment (Core Trainees and Clinical Fellows)*


*Figure 6. Feelings regarding recruitment (All respondents)*



Back to contents

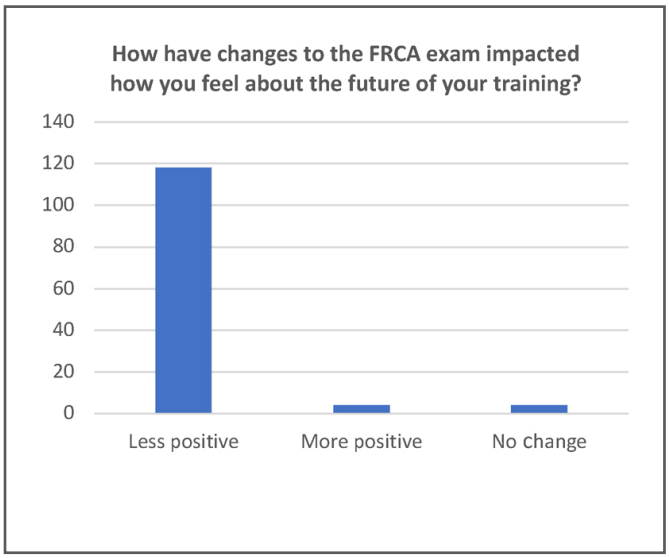


*Figure 7. Feelings regarding exam changes (Core Trainees and Clinical Fellows)*

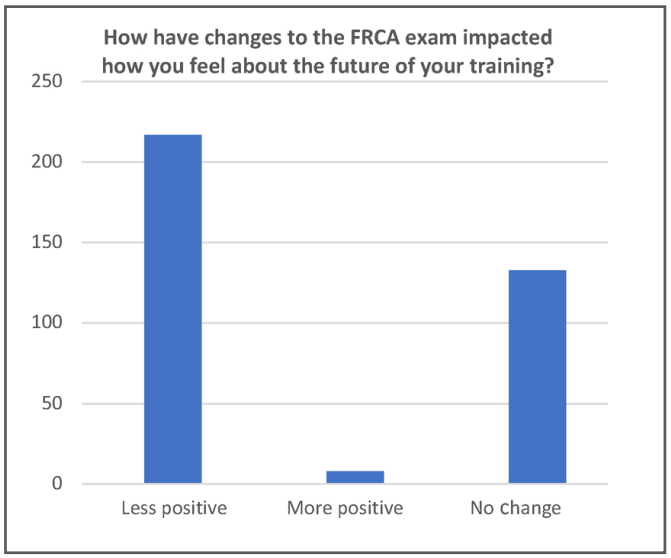


*Figure 8. Feelings regarding exam changes (All resondents)*

36.9% of respondents described feelings of hopelessness or negativity about their future in anaesthetics. Trainees described themselves as *"disenfranchised"* and *"detached"* from their training. Several told us they had considered *"throwing in the towel"* as they could no longer see the *"worth in all this hard work"*, they reported training now as *"tough"* and that *"morale is at an all-time low"* with the future looking *"very bleak"*. The vast majority of Core Trainee respondents cited the quick change to their curriculum from 3 years back to 2 years as a major source of stress. One commented that *"The plans to change core training to 3 years, then back to 2 years with minimal consultation or chance for trainee feedback was a massive nuisance and really dented morale"*.

Trainees reported feeling *"abandoned"* and *"let down, disheartened, and frustrated with the ambiguity of the developing situation"* after working *"unbelievably hard propping up ICU"*. Of note, a number of trainees cited the *"depressing"* situation being compounded by *"no support out there for people"* with regard to tangible issues such as job retention, annual leave, and curriculum changes

Many felt they could no longer see a potential career ahead of them, either because of exhaustion and burnout, or through lack of specialty training jobs in their immediate future. Some described their *"career plans in tatters due to badly considered and deployed changes"*. There were a large number of comments stating plans to switch to *"another specialty where the training role is respected"*, describing their current *"disillusionment"* and *"lack of any real positive change from the College"* as a reason to switch specialty. Some even considered the option of leaving UK anaesthetic training altogether to work abroad.

Although the exam and recruitment changes had no direct effect on senior trainees (given that they are now past this career stage), many described the distress of having to see their junior colleagues go through this, and a feeling of futility in how they could provide support. Many of these senior trainees described it as *"difficult to help"* with the situation facing their Core Trainee colleagues as it felt *"out of control"*. One ST6 wrote that they *"see junior colleagues dejected, anxious, and disillusioned"*. Another ST7 observed the *"huge workforce challenges and lack of anaesthetists"* but was confused as to why *"they are making it particularly difficult for post-Primary trainees to get a National Training Number (NTN)"*.

Notably, multiple respondents used the phrase *"lost tribe"* when discussing junior anaesthetists falling into the evolving recruitment gap. Respondents considered that the specialty will lose many dedicated and skilled trainee anaesthetists because of their negative experiences this year and the ever-increasing competition for ST3 posts. Trainees described themselves as *"upset and angry"* that this cohort may be set *"adrift"* from their peers with *"no career support"* to continue any training or get back into training at a later stage. To help avoid this, a common suggestion was for HEE and RCoA to provide validated top-up years, or single year training places to bridge the gap. Respondents felt this career *"safety net"* was vital to protect trainees who had worked incredibly hard through a particularly challenging time.

**Positive outcomes**

Notably, whilst the vast majority of information we received was negative, there was one positive highlighted by trainees; the delivery of online exams. Many responses described uncertainty prior to their actual experience of the online exam format, mostly due to the first run of the online Primary MCQ which suffered from IT issues. However, feedback from those who sat subsequent online exams was positive, *"IT worked well for me, and overall it went smoothly"*. A number of respondents were "*thankful*" and *"impressed by the College"* and the hard work that went into creating this format in such a short space of time.

# Trainees' overall wellbeing

Respondents completed the World Health Organization-Five Wellbeing Index (WHO-5)[8]. This is a short, self-reported, uni-dimensional scale measure of a person's current mental wellbeing. This score has been found to have adequate validity in screening for depression, and in measuring mental health outcomes in clinical trials. It is one of the most widely used questionnaires for assessing subjective psychological wellbeing[9].

The WHO-5 consists of five statements, which respondents rate according to the scale below (in relation to the past two weeks).

- All of the time = 5
- Most of the time = 4
- More than half of the time = 3
- Less than half of the time = 2
- Some of the time = 1
- At no time = 0

The total raw score, ranging from 0 to 25, is multiplied by 4 to give the final percentage score, with 0 representing the worst imaginable wellbeing and 100 representing the best imaginable wellbeing. A raw score of 13 or below indicates poor wellbeing and indication for further evaluation.

The average score for 358 respondents was 46%, resulting in a raw score of 11.5.

The average score for the cohort traditionally thought to be most affected by exam, recruitment, and curriculum changes (CT2, CT3, and Clinical Fellow) was much lower at 34%, resulting in an average raw score of 8.5.

Figures 9 and 10 show graphical displays of responses to this screening index. The bars display the percentage of respondents who selected each given answer, thus showing a general trend of the answers provided. Figure 10 shows a very stark shift towards the right (lower scoring answers) in the Core Trainee and Clinical Fellow subgroup.

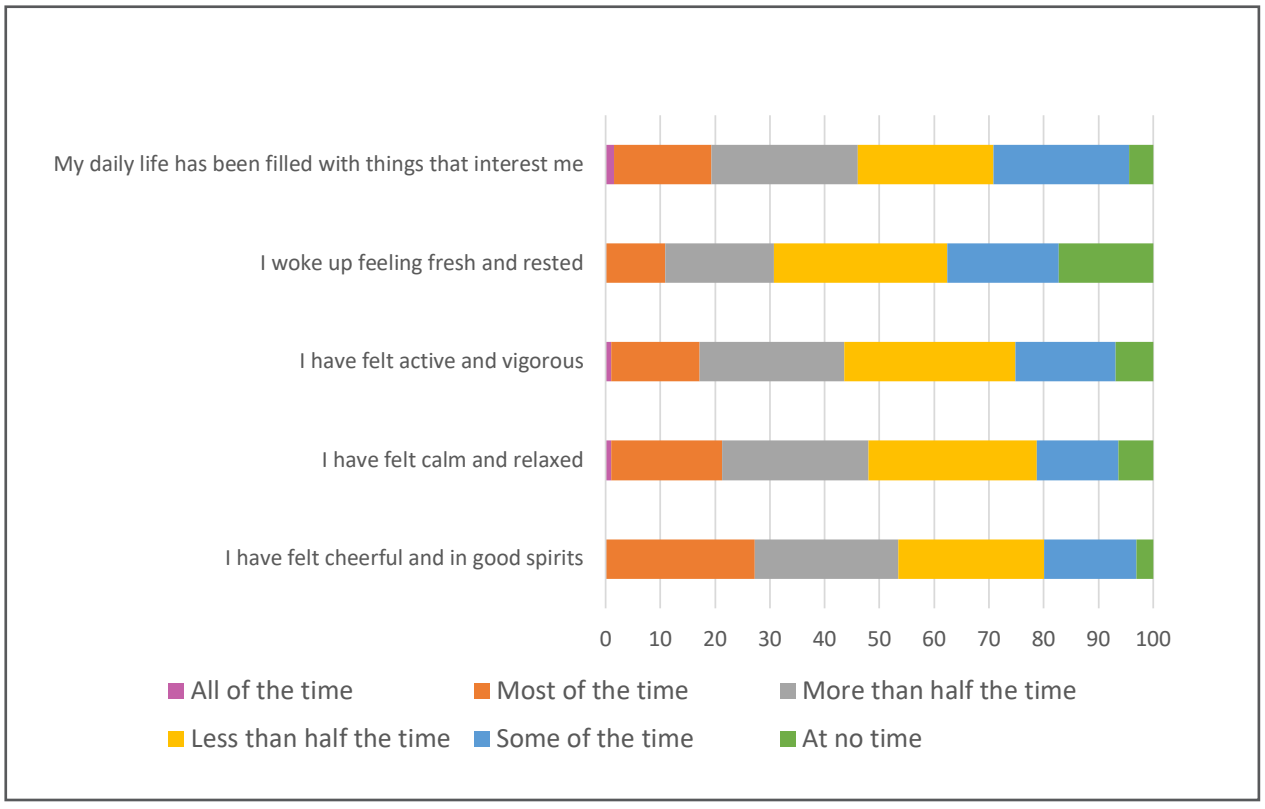


*Figure 9. WHO-5 Wellbeing Index: All respondents*



Back to contents

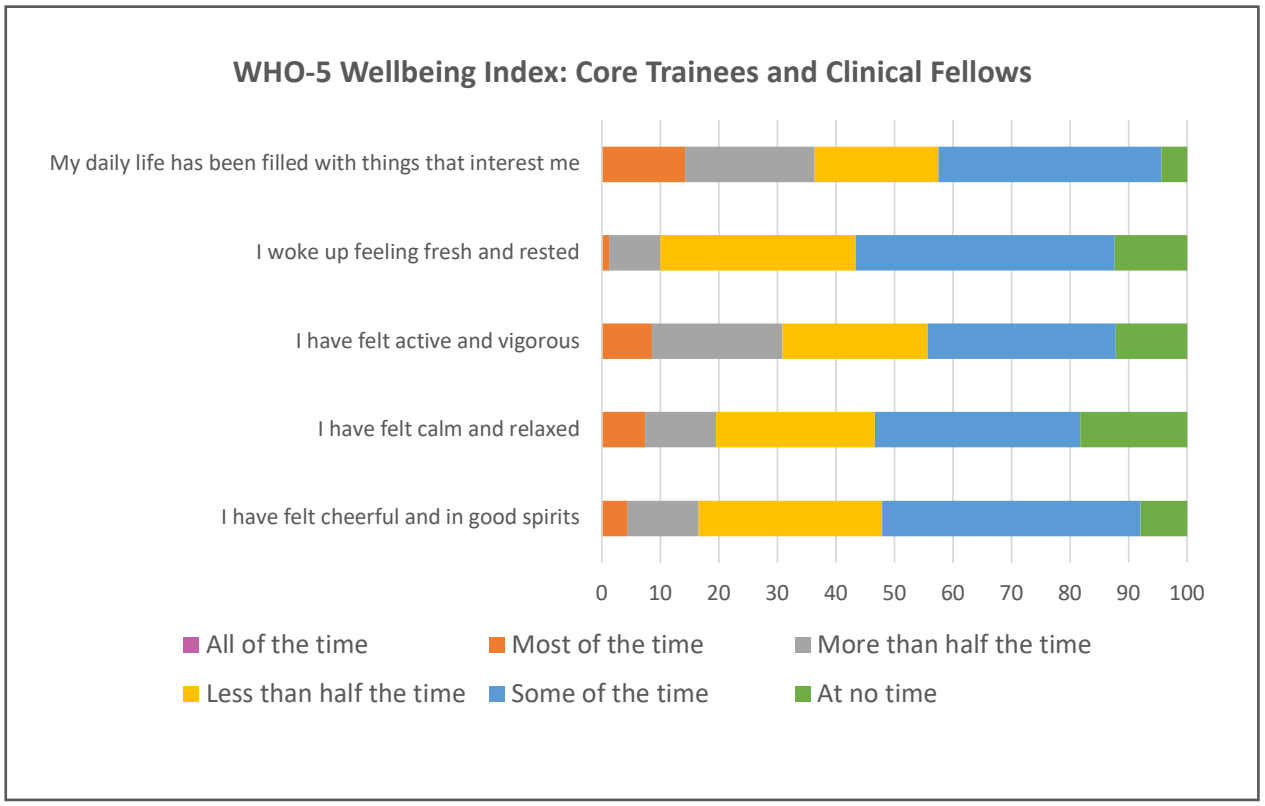


*Figure 10. Markers of Trainee Wellbeing: Core Trainees and Clinical Fellows*

Both the mean scores generated and this graphical representation are a cause for significant concern about trainee wellbeing during this time.

During an unprecedented time of healthcare need and social isolation, the majority of people everywhere suffered a decline in their overall wellbeing. However, even in this context, the discriminate scores here are surprisingly low. No matter the training stage or grade, trainees suffered a decline in their mental health. Other studies support this finding, with poor wellbeing being common amongst the trainee body during the pandemic[10]. In combination with our thematic analyses, the likely causes of this are in relation to emergency rotas, fatigue, uncertainty regarding necessary extensions to further training and for some, worries about recruitment and changes to the exams. This is further impacted by loss of personal support structures as a result of social distancing measures, which left many struggling to maintain work and home commitments. The enhanced risk of moral injury at work during this time may have also played a role.

It is vital to understand the significant vulnerability of our trainee colleagues in the relatively early stages of their training. Their markedly reduced wellbeing scores identify them as being particularly at risk. Our thematic analyses from this cohort again suggests that they have taken further hits with regard to sudden and seismic changes to recruitment and curriculum. We must continue to be mindful of this cohort in the future and provide targeted career support and training.

# Support from the Association of Anaesthetists

We asked trainees how they felt the Association of Anaesthetists could support them. The overarching theme was one of advocacy, with over 90 individual comments expressing this was what they wanted the Association of Anaesthetists to do.

The feelings of frustration and anger because people think their voices are not being heard are demonstrated by frequent use of the words *"lobby"*, *"pressure"* and *"campaign"* in respondents' pleas to us to act.

The Association's help with disseminating communication, its support and wellbeing services and continuing with its educational offerings throughout the pandemic were valued.

We asked which of the Association of Anaesthetists resources they had used throughout the last 12 months. Almost 50% [49.8%] of respondents told us they had not made use of the suggested resources. The most popular resource was *Fight Fatigue*, cited by 17.6% of trainees.

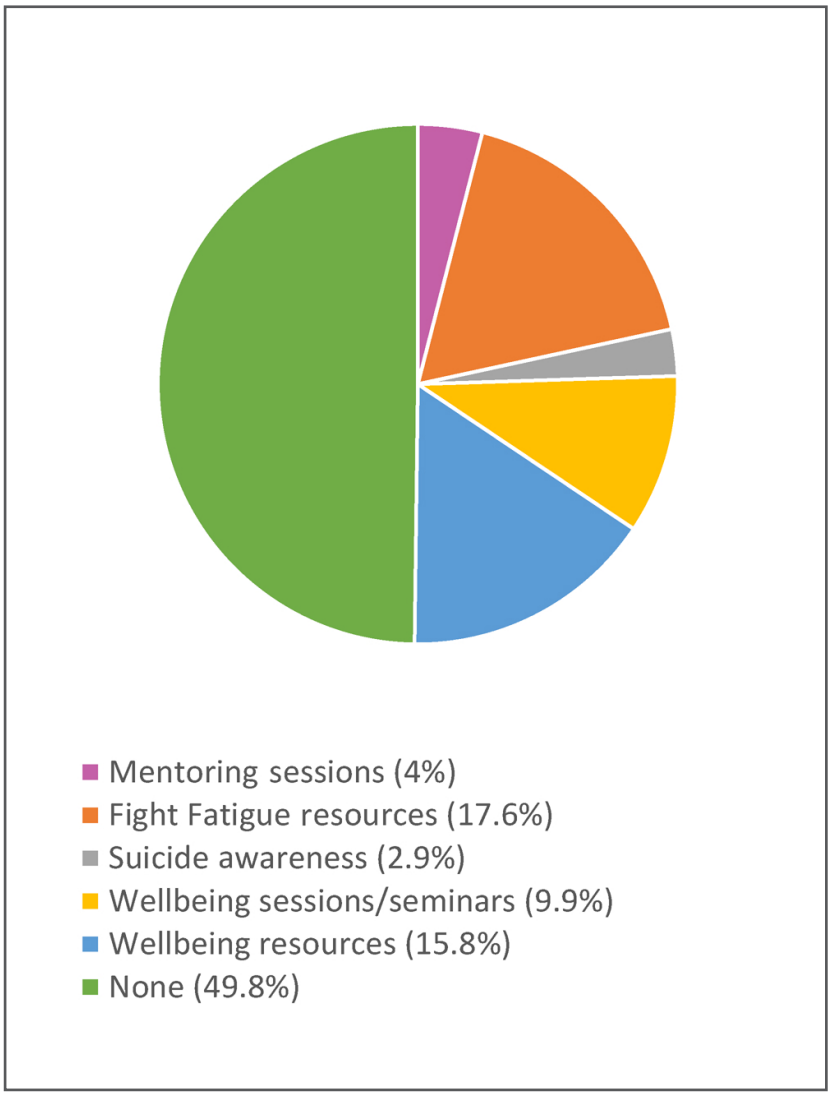


*Figure 11. Association of Anaesthetists resources utilised*



Back to contents

# Limitations

Our survey window was short and provided a small sample. In a dynamic year of regularly changing plans, it was felt this was the most realistic method to represent the views of our workforce as a second wave was beginning to mount. Some issues raised by our respondents may have evolved since (for better or worse). However, human psychology remains the same and the issues raised feed into the concepts of Autonomy, Belonging and Competence for anaesthetic trainees to ensure wellbeing and engagement with work. Our knowledge with regard to trainees looking to enter CT1 anaesthetics is lacking, with only 10 respondents from doctors at a stage prior to CT1 Anaesthetics. This group has traditionally been difficult to identify and engage with in the past, and we see this again here.

# Discussion

Our work highlights a number of concerns regarding the trainee experience over the last year which must be remedied. The results of this survey are bleak, the effect of combined changes to exams and recruitment during the pandemic have caused a huge dent to the morale of the trainee body in anaesthesia. Ninety-eight percent of the respondents who are applying for specialty applications (CT2, CT3, Clinical Fellow) and therefore most directly affected by the recruitment changes, said they felt less positive about the future of their training. This cohort has endured multiple stressful and major changes to their training in a very short space of time. They have been asked to accommodate changed exam and recruitment deadlines, whilst shouldering responsibility from emergency surge rotas and with reduced clinical teaching time in the early years of their chosen specialty. Senior trainees were affected too, left feeling helpless to support their junior colleagues through the emerging situation.

Our trainee workforce was already fatigued with significant risk of burnout prior to the challenges of the last 12 months. There is a large body of evidence that anaesthetic trainees are especially susceptible to work-related stress, burnout, and depression[3]. It is postulated that this may be due to the intensity of clinical workload, limited autonomy, and high degree of home disruption related to work[11]. Given changes to exams, recruitment and emergency surge rotas, trainees may have been forced to increase the time spent on non-clinical work in order to remain competitive in job applications, which may have reduced time available for activities such as exercise. Less than an hour of exercise per week and over 7.5 hours of non-clinical work were two of the independent risk factors identified by Looseley et al. as predictors for poor psychological outcome[3]. The structural systemic changes imposed on trainees in terms of exam and recruitment criteria can be compared to structural change within an organisation. Uncertainty during organisational change is a potent psychological stressor.

As well as the increased risk of burnout and the negative effects on the health of the trainees themselves, the increased stress caused is likely to have affected patient care. There is mounting evidence that workplace stress in healthcare negatively affects quality of patient care[13-15] and doctors with high levels of burnout are more at risk of making a medical error, compared with doctors with low levels of burnout[16].

It is therefore important that training and educational bodies are aware of the impact that the changes they make can have, not only on trainee health and wellbeing, but also on the health and wellbeing of the patients for whom they care.

Our results show training opportunities have been, and will continue to be, affected. These findings are echoed by the RCoAs' *'View from the Frontline'* survey showing 89% of trainees felt their training opportunities had been affected in recent months, with 76% of respondents losing out on clinical learning[17]. This has been the case in multiple procedural-based specialties. Indeed, an editorial in the *British Medical Journal* attests that *"the cancellation of elective surgical services has decimated training opportunities over the last 12 months"*, with trainee logbooks showing a 50% reduction in trainee-led operations between 2019 and 2020[18]. No objective study has yet been published with regard to anaesthetic logbooks, however, if a similar trend is identified, it raises serious questions about the preparedness of the future consultant anaesthetic workforce.

Ninety-five percent of trainees had changes made to their on-call rotas, 32% of which were done without any trainee agreement. At the time, 35% of trainees felt they had not been given sufficient time or information with regard to exams, recruitment, and career progression changes. Over 44% of anaesthetists felt mentally unwell as a direct

result of COVID-19 stress[17]. Our survey showed trainees felt many of the changes were an unnecessary addition to the combined stress of redeployment and living and working through a pandemic. Their limited autonomy has all but disappeared because of changes made to the structure of training. This led to a feeling of loss of control, disillusionment, hopelessness and desire to change specialty. This is of great concern and reflect a trainee cohort where morale is extremely low.

Autonomy, belonging and competence are the three key areas identified by the GMC to enhance doctors wellbeing and minimise their workplace stress[6]. Our results show that actions taken during the pandemic have created deficits in all three of these areas, with trainees reporting they felt powerless, wanted to change specialty and were insufficiently experienced. These results must be listened to and acted upon if we are to avoid collateral damage from potential loss of trainees from a combination of mental exhaustion and lack of attractiveness of the specialty. Resumption of 'normal' elective service with potentially increased pressure to manage long waiting lists will be a further challenge. The cumulative fatigue of the last year must be managed sensitively if this clinical workload and continuation of training is to pick up pace again.

The RCoA estimates that an extra 600-700 anaesthetic trainees will be required over the next seven years in order to meet future workforce demands[1]. However, this need has not been reflected in the numbers of ST3 vacancies advertised in this year's round of recruitment. Our work shows significant stress, concern, and frustration from our Core Trainee cohort about a smaller number of available training posts and huge increase in competition, at a time when there is an obvious clinical need for more trained anaesthetists.

In a specialty with a growing need for more well-trained and enthusiastic anaesthetists, the events of this year have caused significant difficulties with morale, mental health, clinical training, and recruitment. Many of these impacts were sudden and not predictable given how little we knew about the nature and duration of this pandemic at the beginning. We now have an opportunity to assess these costs, look after our trainees, and supplement their clinical training in order that we prepare them to be a future successful consultant workforce.

Our current trainees have made immense personal sacrifices to deliver the frontline care needed by society during the pandemic. Without their contribution it would have been impossible to meet the unprecedented need for intensive care. We should demonstrate our respect for their sacrifice by responding to their needs, providing sufficient good quality training posts to meet future workforce requirements, and making their passage through training as smooth as possible.

# References


1. Workforce burnout and resilience in the NHS and social care. Evidence submitted by the Royal College of Anaesthetists to the Health Select Committee. 2021. https://committees.parliament.uk/writtenevidence/13595/pdf/
2. Royal College of Anaesthetists. A report on the welfare, morale and experiences of anaesthetists in training: the need to listen. 2017. Welfare-Morale2017.pdf (rcoa.ac.uk) (accessed 21/03/2021).
3. Looseley A, Wainwright E, Cook TM, et al. Stress, burnout, depression and work satisfaction among UK anaesthetic trainees: a quantitative analysis of the satisfaction and wellbeing in anaesthetic training study. *Anaesthesia* 2019; **74:** 1231-1239.
4. McClelland L, Holland J, Lomas JP. A national survey of the effects of fatigue on trainees in anaesthesia in the UK. *Anaesthesia* 2017; **72:** 1069-1077.
5. Royal College of Anaesthetists. View from the frontline of Anaesthesia during COVID-19, April 2020 survey results. View from the frontline of anaesthesia during COVID-19, April 2020 survey results (accessed 05/04/2021).
6. General Medical Council. Caring for Doctors, Caring for Patients. 2019. https://www.gmc-uk.org/-/media/documents/caring-for-doctors-caring-for-patients_pdf-80706341.pdf) (accessed 05/04/2021).
7. Health Education England Specialty Training, 2020 Competition ratios, https://specialtytraining.hee.nhs.uk/Competition-Ratios (accessed 06/04/2021).
8. World Health Organization. Wellbeing measures in Primary Healthcare/The Depcare Project. 1998. WHO regional office for Europe, Copenhagen.
9. Topp CW Østergaard SD Søndergaard S, et al. The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics* 2015; **84:** 167-176].
10. Sneyd J, Mathoulin S, O'Sullivan E et al. Impact of the COVID-19 pandemic on anaesthesia trainees and their training. *British Journal of Anaesthesia* 2020; **125:** 450-455.
11. Larsson J, Rosenqvist U, Holmström I. Being a young and inexperienced trainee anaesthetist: a phenomenological study on tough working conditions. *Acta Anaesthesiologica Scandinavica* 2006; **50:** 653-658.
12. Bordia P, Hunt E, Paulsen N, et al. Uncertainty during organisational change: is it all about control? *European Journal of Work and Organisational Psychology* 2007; **13:** 345-365.
13. NHS Employers. Staff experience and patient outcomes: What do we know?. 2014. Available at Research-report-Staff-experience-and-patient-outcomes.pdf (nhsemployers.org) (accessed 05/04/2021)
14. The King's Fund. Employee engagement and NHS performance. 2012. Available at Employee engagement and NHS performance (kingsfund.org.uk) (accessed 05/04/2021).
15. NHS England. Links between NHS staff experience and patient satisfaction: analysis of surveys from 2014 and 2015. 2018. links-between-nhs-staff-experience-and-patient-satisfaction-1.pdf (england.nhs.uk) (accessed 05/04/2021).
16. West C, Tan A, Habermann T et al. Association of Resident Fatigue and Distress With Perceived Medical Errors. *JAMA* 2009; **302:** 1294-1300.
17. Royal College of Anaesthetists. View from the frontline of anaesthesia during Covid 19, July 2020 survey results. View from the frontline of anaesthesia during COVID-19, July 2020 survey results | The Royal College of Anaesthetists (rcoa.ac.uk) (accessed 05/04/2021).
18. Munro C, Burke J, Allum W et al. COVID 19 leaves surgical training in crisis. *BMJ* 2021; **372:** n659.

# Useful Resources

- Association of Anaesthetists, Demonstrating positive behaviours, Social Vitamin C infographic
- Association of Anaesthetists Wellbeing pages
- Stacey M, Russ E, McCann A Baker's Dozen of mental toughness. Your Stress management and resilience toolkit
- Association of Anaesthetists Fatigue Resources
- Association of Anaesthetists Mentoring Network
- NHS Practitioner Health Programme
- NHS Peoples: Our NHS People – Supporting our people: Helping you manage your own health and wellbeing whilst looking after others
- REACT mental health conversations training
- Association of Anaesthetists Coffee and a Gas
- Vital Signs in Anaesthesia



Back to contents

## Safer, for everyone

Every anaesthetist aims to keep their patients safe. We aim to safeguard every anaesthetist – by educating, supporting and inspiring them throughout their career.

**We represent** the life-changing, life-saving profession of anaesthesia – by supporting, informing and inspiring a worldwide community of over 10,000 members.

**Our work and members** span the globe, yet our voice is local and personal. We stay in close contact with our members, look after their day-to-day wellbeing, and act as their champion.

**Our world-class conferences**, journals and online resources educate and inform, and our respected guidelines continually improve standards of patient safety.

**We preserve and learn** from the history of anaesthesia. We use that to inform the present, and facilitate vital research and innovation into its future.

**As an independent organisation**, we speak up freely and openly for the interests of anaesthetists and their patients. We influence policy, raise public awareness and are at the forefront of safer anaesthesia across the world.

**Association of Anaesthetists**
21 Portland Place, London, W1B 1PY
020 76311650 | www.anaesthetists.org



Association of Anaesthetists