Experiences of dental core trainees and specialist registrars before and after redeployment during the COVID-19 pandemic at the Eastman Dental Hospital
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Introduction
On 11 March 2020, the World Health Organisation declared the coronavirus disease 2019 (COVID-19) outbreak to be a pandemic.1 COVID-19 is a potentially deadly severe acute respiratory disease that develops from contracting a severe acute respiratory syndrome coronavirus 2 pathogen (SARS-CoV-2).2 The United Kingdom (UK) declared a lockdown exactly 15 days after its third confirmed death of COVID-19 on 23 March 2020.3 As a result, a series of population restrictions and preventative measures were implemented, which included a ban on all non-essential travel with limited exceptions and social distancing, along with a greater emphasis on the importance of hand hygiene.

Hospitals were advised to cancel all elective treatment to cope with the rising numbers of patients affected by the virus, with existing staff being asked to engage in redeployment to support the provision of critical medical care. In line with this guidance, the Eastman Dental Hospital (EDH), University College London Hospitals NHS Foundation Trust, suspended all elective dental procedures with immediate effect. All staff, including dental trainees, were given the opportunity of redeployment within the Trust. These unexpected events led to a degree of uncertainty and anxiety across all groups largely due to the unforeseen challenges ahead.

The EDH is the only sole postgraduate dental teaching hospital in the UK. The dental trainees at the EDH are all qualified dentists who are either completing their dental core training or speciality training. Dental core training is a training opportunity for newly qualified dental postgraduates to enhance their development following the end of their dental foundation training (first year post-qualification). This training programme will expose the trainees to a variety of dental

Key points
- Dental core trainees and specialist registrars fulfilled various competencies within their training while participating in redeployment, both clinical and non-clinical, while also benefiting from accessing skills beyond their normal scope of practice.
- Presents the need to develop structured guidance for dental core trainees and specialist registrars to easily access and help prepare them for future unforeseen events.
- Confirms the need for appropriate support mechanisms to help manage physical, social and psychological wellbeing in trainees during challenging times.

Abstract
Introduction The coronavirus disease 2019 (COVID-19) pandemic resulted in an unprecedented shut down of all elective dental services, with normal training activity being suspended. This questionnaire-based survey reports on the experiences of a cohort of dental trainees who participated in redeployment during the pandemic.

Materials and methods The questionnaires were distributed via Survey Monkey to 47 trainees, before and eight weeks after redeployment.

Results A total of 29 trainees completed the questionnaire before redeployment and 32 completed it eight weeks after redeployment finished. The majority of trainees, before the redeployment, reported that inadequate information was given about the redeployment and a minority reported that they were struggling to cope with the pandemic. The post-redeployment questionnaire showed that all trainees felt that they had been well supported, with structured induction and help being given by the hosting service. They also stated that they had learnt skills beyond what they would have obtained as part of their training, with 86% of trainees saying that they would be happy to be redeployed again.

Conclusion This survey shows that despite the initial anxiety expressed by the dental trainees at the outset, they had an overwhelmingly positive experience, enhancing their personal development and overall training experience. The survey highlights the need to ensure that appropriate and timely information and guidance is available for trainees, to help support their general and mental wellbeing when unprecedented events occur.

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specialities, with the aim of better positioning the trainees to either apply to specialist training, return to general practice or other possible career options. Specialist registrars are qualified dentists within a recognised speciality training pathway in their chosen discipline; for example, orthodontics or restorative dentistry. Completion of speciality training will allow the dentists to apply for entry onto the specialist lists in their respective fields.

The Junior Staff Committee (JSC), representative of all dental core trainees (DCTs) and specialist registrars (StRs), conducted a survey of the trainees to ascertain their feelings about being redeployed. The level of anxiety among trainees was high at this time, but after their initial reservations, they did engage in redeployment to support services across the Trust. As the effects of the pandemic started slowing down, trainees and staff who were redeployed were returning to their normal service, which was being established to run under a new norm. The JSC conducted a repeat questionnaire two months later to gauge changes in trainee feelings and experience of redeployment.

This aims of this paper are to ascertain the experiences of dental trainees before and after redeployment, to identify areas for improvement at a local and national level to aid dental trainees during redeployment, and to identify the impact of redeployment on dental training.

Materials and methods

A total of 47 trainees consisting of 11 DCTs and 36 StRs were identified to take part within the surveys. The first questionnaire was devised and discussed among the JSC before being finalised (Appendix 1). An invitation to take part in an anonymous survey via Survey Monkey was circulated to all dental trainees on 24 March 2020. Due to the rapidly changing situation, the questionnaire closed 48 hours later. The second questionnaire (Appendix 2) was devised and discussed among the JSC before being finalised (Appendix 1). An invitation to take part in an anonymous survey via Survey Monkey was circulated to all dental trainees on 24 March 2020. Due to the rapidly changing situation, the questionnaire closed 48 hours later. The second questionnaire (Appendix 2) was designed to primarily assess the trainee experience of their redeployment and whether it had affected their training. It was distributed almost two months after (to allow a period of self-reflection) the trainees had been redeployed in a similar way to the first one on 8 May 2020; however, it was kept open for five days to capture more trainees. Trainees were asked to complete all the questions in both questionnaires.

Results

Of the total of 47 trainees, 29 trainees (62%) responded to the pre-redeployment questionnaire, with an almost 100% completion rate, and 32 (68%) trainees responded to the post-redeployment questionnaire, with a 94% completion rate.

Questionnaire 1

In total, 17/29 trainees stated they were happy to be redeployed to other parts of the Trust, while 18/29 were happy to receive further training/information before redeployment. Three out of 29 stated that they would not be willing to be redeployed at the moment, 4/29 were self-isolating, 4/29 were already redeployed within EDH and 1/29 was on leave. Twenty out of 29 stated that they had not been given adequate information for them to make the decision about redeployment, including those that were not willing to be redeployed at that time. In addition, 20/29 confirmed that they would be happy to support the emergency dental services, with 24/29 confirming that they would be happy to support onsite face-to-face activity and remote telephone triaging. Seventeen out of 29 stated that a consultant should be leading the triaging of the services and 21/29 respondents preferred onsite consultant supervision in the emergency dental service, with 8/29 stating they preferred consultants to be within 30 minutes’ distance from the clinic. Ten out of 29 stated that they were not coping with the pandemic and 10/29 stated that they did not feel supported by the local team. Additional comments provided in the free-text box included flexibility to work from home in line with government guidance, concerns about the availability of personal protective equipment (PPE), effective communication and details of redeployment, as well as the impact of the pandemic on training progress (Fig. 1).

Questionnaire 2

Twenty-one out of 32 of all trainees were redeployed. The majority (13/32) were redeployed to the maternity ward, 9/32 to the emergency dental services, 4/32 to oral and maxillofacial surgery, and 2/32 to staff testing. On average, the trainees rated their anxiety as 5/10 about their redeployment. Seven out of 32 had face-to-face induction, with 11/32 having had their induction at least one week before starting and 5/32 having had the induction on the first day. Furthermore, 9/32 and 12/32 stated that the induction gave them confidence and clarity, respectively, and 11/32 stated that it helped alleviate their anxiety. The majority of the trainees stated that their experience of the redeployment was positive (scored on average 7/10), highlighting the supportive and friendly nature of the staff in their new redeployed roles. The trainees reported that the experience had been rewarding on a personal level and professionally had exposed them to a different but positive experience, which they felt enhanced their learning development as the unprecedented situation had exposed them to an environment they would not normally have been exposed to. The poor experiences of the redeployment related to the trainees stating that there was an issue of overstaffing in the redeployed areas, and the constant and
rapid changing of the rotas caused some angst, with concerns being raised in relation to the commute to work during this time (Figures 2, 3, 4 and 5).

Discussion

This was a questionnaire-based survey, with the key limitations being related to the timing of when it was undertaken, with the degree of uncertainty among trainees triggered by the unknown events of the virus and the situation being largely out of anyone's control. Nevertheless, the data present some useful information about the trainees' experience in relation to redeployment and how trainees could be supported differently in future unprecedented events.

The response rate for both the questionnaires was just over 60%, which has been shown to be acceptable.4 The difference in the total number responding to the before and after redeployment questionnaires may be due to trainees either being away or isolating. Both questionnaires were designed with multiple questions per page to improve the item response rates, as per published evidence.5,6,7,8 Despite this, in the second survey, some of the questions were not answered by the trainees (94% completion) in comparison to almost all the questions being answered fully in the first survey. There could be multiple reasons for this, which include question skipping dependent on the visual interface, lack of use of branching questions and not making questions mandatory for completion.4

The findings of the first questionnaire confirmed that 3/29 trainees were not happy to be redeployed and 17/29 trainees said they were happy to redeploy but felt anxious as they were not given much information about their redeployment. The issue of anxiety among trainees relating to COVID-19 is well reported.10 This vulnerability becomes greater when trainees are on the frontline seeing patients, considering such questions as ‘am I safe?’ and ‘am I doing the right thing for the patient?’ which drives the stress they feel.11 While this was not directly tested in the initial questionnaire, this may explain why 3/29 trainees did not want to be redeployed to...
direct patient contact. For those not wishing to be redeployed, their anxieties may have been compounded by their awareness of the risk of transmission of COVID-19 to their families and others. This level of anxiety is also reflected in the need for direct consultant supervision expressed by 21/29 trainees. Shanafelt et al. identified that a lack of access to up-to-date information, risk of transmission of COVID-19 and lack of PPE are some of the sources of anxiety among healthcare workers.

The 10/29 trainees in our survey who reported that they were struggling to cope were directed to the appropriate groups for support and help. The mental toll on trainees is multifactorial. This finding was consistent with those reported in the qualitative study of medical students undertaken by Rambaldinini et al. during the SARS outbreak in 2003 – across the 17 medical students that were surveyed, it was found that their mental wellbeing was negatively affected by issues relating to personal safety, risk of infection and transmission. Addressing issues of safeguarding provisions, training and employment concerns before redeployment of trainees would enable the recognition and management of mental wellbeing in healthcare professionals.

Ten out of 29 trainees reported that they did not feel adequately supported by their local department or the Trust. This lack of reported support is most likely due to the relevant staff and teams being heavily engaged in establishing systems and protocols aimed at managing the consequences of the pandemic and supporting affected patients. This, alongside the rapid day-to-day changes, meant that the supervisors who normally would have provided the support to trainees were not available to do so. While the Trust had structured support mechanisms in place, the extent of these in the early days remained unclear due to the unexpected dynamic situation that needed emergent attention. The British Medical Journal published trainee guidance and gave information about redeployment and support networks that were available. The presence of an independent body such as the JSC, at EDH, was invaluable in supporting trainees and directing them to the appropriate services.

The post-redeployment survey showed that despite the initial reservations expressed by the trainees, those who participated in the redeployment reported that their experience was a very positive one. Redeployment had the effect of enhancing their own personal skills in communication in challenging times, as well as building resilience in dealing with unexpected and unforeseen situations. The redeployed trainees found the induction into the redeployment service was beneficial, and helped to improve clarity and confidence in trainees along with managing anxiety. The trainees reported feeling well supported during their redeployment, evidenced by the finding that 86% of redeployed trainees (18/21) said they would redeploy again if necessary. Some of the concerns raised related to overstaffing which, given the circumstance, was inevitable due to the lack of any data on the volume of cases that would be coming in, thus resulting in overestimation of the staffing levels. While some primary units were trying to conform to the national guidance in relation to social distancing, this is exceptionally challenging in a hospital environment, as has been reported. The trainees highlighted the support and understanding they had received from medical colleagues and welcomed the opportunity to understand emergency medicine and managing critically unwell patients. The rewarding personal and professional growth highlighted by many trainees within the post-redeployment survey will be beneficial to their future careers, as well as the development of a new sense of mutual respect for the roles of medics and dentists in patient welfare.

The survey also highlights the challenges faced by the dental trainees during this unprecedented time, with the rapidly changing level of information coming through on a daily basis alongside the uncertainty of what would happen to their training as many would have been expected to have their Annual Review of Competency Progression. In response to this, the Joint Committee on Surgical Training released a document containing details on how training will be reviewed during the period of redeployment along with highlighting the need of keeping trainees updated. Despite this, there was still a gap highlighted by trainees in the extent and level of information they received. While there are many reasons for this, with the rapidly changing situation being one, developing a structured guide for dental trainees in hospital settings similar to the one produced by the British Medical Association for Junior Doctors would be helpful. NHS England’s document for dentists in redeployment roles helped; however, this was aimed mainly at primary care. It is equally important to bear in mind, irrespective of the unforeseen hurdles and expectations on clinicians, that trainers have a duty of care towards supporting trainees and recognising the need to have structured processes in place in times of uncertainty. This is a key step towards supporting the general health and mental wellbeing of healthcare professionals.

The findings of this survey demonstrated how, despite their anxieties and concerns, the majority of dental trainees stepped up and ventured into unknown areas and came back with positive experiences that enriched their training. While it may be perceived that the COVID-19 pandemic has negatively affected trainees’ progression due to the lack of access to the structured training they were accustomed to, it is crucial to remember that the pandemic has given the opportunity for trainees to build up skills such as resilience, communication and dealing with challenges, which perhaps they may not have been otherwise exposed to. Our survey also highlights the impact of peer group collaboration and integration in supporting those with less confidence. We have gone through many pandemics in years gone by (bird flu, swine flu, SARS) and have come away stronger and richer. The trainees, despite the loss of traditional training and routine, structure and educational opportunities, have been enriched with experiences that they otherwise would not have achieved and many have demonstrated resilience. COVID-19, while having many negative impacts, has led us to challenge our norm and seek alternative ways of doing things, including supporting and delivering training for our trainees.

**Conclusion**

This survey highlighted the commitment of the majority of dental trainees during a period of uncertainty. The dental trainees engaged positively in undertaking roles beyond their normal scope and felt enriched by their experience, despite their initial anxieties, thus fulfilling different competencies within their training. The redeployment opportunity gave them the option of accessing skills beyond the normal scope of their practice. Nevertheless, there is a recognised need to develop structured guidance for dental trainees to help prepare them for unforeseen events they may face in the future alongside appropriate support mechanisms. This will help alleviate some of the anxieties trainees have experienced during these challenging times.

**Ethics declarations**

Ethical approval was deemed unnecessary due to this study being considered a service evaluation. The authors declare no conflicts of interest.
Appendix 1 Questionnaire sent before redeployment

Redeployment

Q1 Are you willing to be redeployed to other areas of the Trust (assuming all roles offered will be within your scope of competence)?
1) Yes
2) No – please expand your answer

Q2 If you answered ‘yes’ to Q1, are you happy to receive further training in your new role?
1) Yes
2) No

Q3 Has the information provided about redeployment been sufficient for you to make a decision?
1) Yes
2) No – please expand on what information you would like

Emergency dental clinic

Q4 An emergency dental clinic is being set up in the Trust; are you happy to assist in this clinic?
1) Yes
2) No – please expand your answer

Q5 A two-tier on-call rota is being set up (tier 1 – onsite clinical activity at the hospital, tier 2 – triaging of patients in a non-clinical environment). If possible, would you prefer the tier 2 staff to be able to triage remotely?
1) Yes
2) No

Q6 Who do you feel should be leading the triaging of patients?
1) Consultants
2) Senior registrars
3) Registrars

Q7 How would you prefer supervision on the emergency clinic?
1) Onsite
2) Offsite – within 30 minutes from the hospital
3) Offsite – via telephone only

Q8 Do you feel all clinicians, regardless of seniority or academic trainees, should assist on the emergency dental clinic?
1) Yes
2) No

Social and psychological wellbeing

Q9 As a result of the ongoing pandemic, are you struggling to cope?
1) Yes
2) No

Q10 Do you feel supported by your local department teams or NHS Trust?
1) Yes
2) No

Q11 Please provide any further concerns, thoughts or comments in the box below:
Appendix 2 Questionnaire sent after return to normal duties
Post-redeployment survey

About you
Q1 Are you: Dental core trainee  Specialist registrar  Other
Q2 Have you been redeployed?
  1. Yes (continue below)
  2. No (go to Q10)
Q3 Which department/speciality have you been redeployed to?
  1. Emergency dental clinic
  2. Staff testing
  3. Oral and maxillofacial surgery
  4. Intensive treatment unit
  5. Maternity
  6. Nightingale Hospital
  7. Other
Q4 On a scale of 1–10, how apprehensive/confident were you in taking on this new role? (1 = extremely nervous, 10 = extremely confident)
  1——2——3——4——5——6——7——8——9——10

About your induction
Q5 What type of induction/training did you receive before being redeployed?
  1. Face-to-face
  2. Group-based
  3. One-to-one
  4. None
Q6 When did you receive this induction/training?
  1. At least one week before
  2. At least one day before
  3. On the day
Q7 How did the induction/training help you?
  1. Gave me clarity
  2. Gave me confidence
  3. Enabled me to ask questions
  4. Helped alleviate my anxiety
  5. Other
Q8 On a scale of 1–10, did the induction/training you received meet the needs of what you were expected to do? (1 = unsatisfactory, 10 = excellent)
  1——2——3——4——5——6——7——8——9——10
Q9 Provide any other information on the induction/training you received below:

About your redeployment
Q10 Describe your experience of the redeployment on a scale of 1–10 (1 = discouraging, 10 = extremely rewarding)
  1——2——3——4——5——6——7——8——9——10
Q11 Please comment on your experience and why you felt this way:

Q12 What were your two most positive learning experiences?

Q13 What were your two most negative experiences?

Q14 Would you do this again?
  1. Yes
  2. No
Q15 What key messages would you want to transmit to your colleagues about redeployment?