Title: The Dental Core Training Experience: the views of trainees and their postgraduate training leads

Abstract

Introduction

Dental Core Training (DCT) is an optional, postgraduate programme of one-to-three years duration that dentists in the UK can pursue to further strengthen their skillset.

Aims

To understand career motivations and preferences of trainees pursuing DCT and their perceptions and experiences of the programme.

Methods

Data were gathered from: 176 DCT trainees across England through focus groups or individual paper-based responses to questions; and telephone interviews with 10 Associate Postgraduate Dental Deans or Training Programme Directors.

Results

Trainees were generally positive about their overall DCT experience. They developed confidence, self-reliance and skills in team-work and clinical aspects, gaining from exposure to conditions uncommon in general practice. Limitations and challenges varied by post and unit. The importance of broad, cross-specialty experience was recognised. Although run-through training would eliminate unwelcome annual relocation, it was deemed unsuitable for all trainees, particularly those intending a career in general practice.

Conclusion

DCT appears to be advantageous for those intending careers in general dental practice, those aiming for specialist practice, and those uncertain of their future career trajectory. Although trainees reported positive training experiences and significant gains, future considerations are suggested including maintaining flexibility to accommodate different motives for DCT and limiting across-unit variation.

Introduction

To qualify as a dentist and work within the NHS requires completion of a five-year dentistry degree (BDS/BChD) and a one-year Foundation Training programme (Vocational Training in Scotland). Dental Core Training (DCT) is an optional postgraduate programme that dentists in the UK can pursue in order to further develop their skillset across a variety of clinical settings.[1] Trainees can undertake up to three years of DCT. Some dentists will complete one year before typically pursuing general dental practice; others undertake a second or third year, often (although not exclusively) as a pathway to specialist practice. The focus of DCT varies across the three years. DCT1 is primarily designed to develop the 'skilled generalist' by enhancing clinical skills and understanding of specialist care and referrals. It provides experience working within multidisciplinary teams and treating patients with complex conditions. In DCT2, trainees develop more specialist skills and leadership and academic outputs. DCT3 aims to enhance these skills within specialist settings in order to prepare for specialty practice.[2]

To embark on a further year of training, DCT trainees (referred to herewith as trainees) must re-apply each year through national recruitment. Longlisted candidates are asked to preference the available posts.[3] Based on 2019 data, it was estimated that of the 880 trainees who completed Foundation Training, 383 pursued DCT. Approximately a third (n=116) leave after one year. The remainder (n=267) pursue DCT2. Around 200 leave after DCT2 and the rest (around 65) commence DCT3.

In the context of DCT being an optional programme of one to three years duration, the aim of this study was to understand career motivations and preferences of trainees pursuing different years of DCT in England and their perceptions and experiences of the programme. The findings can be used to inform how DCT might best be developed and strengthened in the future.

Materials and methods

This study was undertaken in two phases. Phase one involved audio-recorded focus groups, facilitated by a researcher (AB, SB, JC), with trainees in DCT years 1, 2 and 3 across the seven Health Education England (HEE) regions: North East; North West; Yorkshire and Humber; Midlands and East; Thames Valley; London, Kent, Surrey and Sussex; South West. Regional study days provided a logistically convenient opportunity to access groups of trainees. In some circumstances it was not feasible to run focus groups because of large numbers of participants and room configurations. On these occasions we used a paper-based activity. In this structured approach, participants were provided with four different coloured sheets of paper, and invited to write down their views in response to four key areas that also guided the focus groups: motivations for pursuing DCT training; post preferences; perceptions and experiences of DCT; thoughts on the future. Each area was introduced by the researcher (AB, SB or JC), in turn, and time given for participants to ask questions, talk to peers and write their individual responses. Potential participants, unable to attend the study day, were invited to undertake a telephone interview. Focus groups were chosen over surveys as the trainees were recognised as a heavily surveyed group and a qualitative approach permitted collection of richer, more in-depth data. To encourage honest responses, trainers were not present for focus groups.

Phase two involved telephone interviews with Associate Postgraduate Dental Deans (APDs) and Training Programme Directors (TPDs). Interview schedules were informed by Phase one findings.

All data were collected between March and June 2019, with information recorded and transcribed. All data collection activities were confidential and anonymised on transcription. The data were thematically analysed by social science researchers (AB and SB) following Braun and Clarke's method[4] with coding performed using NVivo software. Codes and themes were discussed and agreed between the researchers (AB and SB).

This study received ethics approval from the School of Social Sciences Research Ethics Committee, Cardiff University (SREC/3190). No names are given in this report and names of HEE regions are also anonymised.

Results

The sample

We collected data in Phase one, from trainees in ten focus groups, three telephone interviews and three paper-based and whole-group data collection activities. This yielded data from 176 trainees across all seven HEE regions, the majority (68.8%) were in DCT1. We undertook ten telephone interviews in Phase 2. These were carried out with at least one APD or TPD from each HEE region. See Table 1.

Table 1 – Total number of participants, by region

Region	Dental Core Trainees				Regional Leads
	DCT1*	DCT2	DCT3	Other**	APDs/TPDs
North East	6	2	0	0	1
North West	10	3	0	0	1
Yorkshire & Humber	26	12	2	0	2
Midlands & East	18	7	5	0	2
Thames Valley	21	0	0	0	1
London & KSS	36	16	0	4	2
South West	4	2	2	0	1
Total	121	42	9	4	10

*10 LDFT (trainees enrolled on the Longitudinal Dental Foundation Training programme) are included in the DCT1 column
** included four trainee participants but did not report their year.

We were sometimes unable to distinguish between the voices of DCT2s and DCT3s who participated in the same focus groups, so it was not always possible to assign DCT year to individual quotations.

Motivations for pursuing DCT

We identified three broad trainee groupings based on their primary motivation for pursuing DCT. The first group comprised individuals who knew they wanted to work in general dental practice but felt they would benefit from additional experience and training before doing so.

> "*I don't think that undergraduate training personally gave me enough experience in everything. I just want a bit more training before going out to practice*" (Trainee, DCT2/3, Region 5)

> "*I certainly think in year 1 the majority of dental core trainees, they've done dental foundation training and they feel that they just want to develop their skills before they go back into practice."* (APD, Region 2)

A second group wanted to pursue speciality training and recognised that DCT was an important step on this pathway.

> *"I want to specialise and recognise DCT is fundamental to achieve competencies required to apply for ST grades" (*Trainee, DCT2, Region 1*)*

> "*Some people will know already, virtually at undergrad level, that they want to do specialty training. So, it will be part of that pathway*" (APD2, Region 1)

The third group included individuals less certain about their career path who viewed DCT as an opportunity to explore different options that "*helps you decide what you want to do*".

> "*I just wanted to get more experience in different areas because I wasn't sure what I wanted to do."* (Trainee, DCT1, Region 4)

> "*A lot of them they're not quite sure what they want to do, so it also gives them a little bit of time where they're sort of exploring their options*." (APD, Region 3)

Group one and two therefore had a relatively clear career direction and made an "*active decision*" to pursue DCT. Those in group three seemed to enter DCT with a more uncertain career trajectory, but they expected the experience to either help them to identify preferences or rule out options. Clearly, those intent on a speciality career seek posts in DCT2 and 3. Those undecided, during DCT1, may or may not pursue further DCT posts. There was a consensus that DCT is "*useful for anybody*" and geared to "*multiple*" career paths.

Reasons for post preferences

Trainees most commonly reported geographical location as a key influencer when preferencing DCT posts. This was generally linked to family, relationship and domestic commitments. Some individuals reported that geography would override other factors, such as the quality of a post.

> *"I've settled in* [REGION X]. *This is where I'm from and I've bought a place here. So, I've kind of limited myself there."* (Trainee, DCT3, Region 6)

> "*Location probably overrides other factors. I would not relocate regardless of quality of DCT post – it's only ever a job*" (Trainee, unknown year, Region 7)

Other trainees preferenced posts based on anticipated exposure to specific experiences:

> "*Always interested in MFS [maxillofacial surgery] and wanted to experience MFS on call, improve extraction and minor oral surgery skills*" (Trainee, DCT, Region 7)

Some wanted posts in their "*weakest area to improve skills*"; for others, preferences were based on relevance to their career aims. However, complaints were made that not all post descriptions accurately reflected the opportunities available. This seemed highly variable across units.

> "*All the post specs are very, very similar, but actually the posts are really, really different."* (Trainee, DCT1, Region 7)

> *"I think some of the job descriptions… they say that you do this, this and this but then when you get there, the timetable and the rotas may not actually be what has been advertised in the job descriptions"* (Trainee, DCT2/3, Region 5)

Although some regional leads acknowledged that it "*may be in the hospital's best interest to gloss over a bit in order to get recruits in*", some felt that "*information for posts could be better*".

However, it was argued that other information sources were accessible, that points of contact for posts were provided and that trainees needed to be "*proactive*". Many trainees were indeed proactive and preferenced posts based on feedback from current trainees. Generally, word-of-mouth was judged to be informative and reliable:

> "*If you are interested in a post, I would want to find out who is either currently in that post or who has done it and I'd ask them*" (Trainee, DCT1, Region 6)

Trainees' Experiences of Dental Core Training

Trainees generally reflected on positive experiences of DCT; commonly, DCT helped to "*improve confidence*", "*widen knowledge*" and offered "*lots of experience*". Trainees' exposure to a hospital environment appeared to "*open their eyes*" and give them "*a different perspective*" of dentistry and the patient journey:

> "*They understand how the referral system works … if they've been on the other side in hospital then they have a greater understanding of what that involves."* (APD, Region 3)

Some trainees reflected on how the experience helped them to learn more about themselves. For those looking for a career in general dental practice, the benefit of DCT was commonly reported in terms of overall development, not just clinical skills but also "*softer skills*": how to "*cope with pressure*", "*manage time and prioritise*" and "*developing the ability to think on your feet*".

> "*For me the real benefit of doing dental core training for those who will go on to be generalists is in the softer skills… For me it is all about learning about yourself. Learning about yourself as a clinician, as a leader, as a decision maker. As a team member. … Learning about and developing skills in working under pressure. Working independently and actually all of that composite I think adds up to making people slightly more resilient*." (APD, Region 5)

Trainees who had been considering pursuing specialist training, prior to DCT, often reflected on how their experiences of DCT had "*strengthened*" their interest. Trainees also felt that the "*hands-on*" elements of DCT were hugely beneficial.

A benefit noted by both trainees and regional leads was exposure to conditions not typically encountered in general dental practice, such malignancies or genetic disorders. Such experiences challenged the trainees and helped to build their confidence.

> "*It's just doing the stuff that you don't do in practice. That's when you're really learning a lot and that's what I love about it*" (Trainee, DCT2, Region 6)

> "*They feel empowered and more capable of managing and dealing with the difficult and sometimes the rather obscure*." (APD, Region 1)

Particularly in oral and maxillofacial surgery posts, trainees managed complex, medically compromised patients. One APD described such experience as getting the trainee "*out of teeth and out of the mouth, onto the face and other parts of the body"* (APD1, Region 7). This, it was argued, helped the trainee to see the patients more holistically. On-call experience, was often complained about by trainees for being "*tough*", "*tiring*", "*stressful*" and not something they would want to pursue in the future:

> "*I get a little bit fed-up of doing on-calls. That's one thing I don't really want to do going into the future*" (Trainee, DCT, Region 4)

Nonetheless it was widely recognised as valuable:

> "*I don't think I've heard one person who overall at the end of the twelve months or six months has not learned an awful lot and has not developed, even though at the time they may hate it and think, 'you know what, this is the last thing in the world that I*

wanted to do', but I think,… you become a lot more competent and confident as a clinician." (Trainee, DCT2/3, Region 5)

Audits, quality improvement (QI) projects and academic research were recognised by trainees as opportunities that are less readily accessible in general dental practice. Exposure to these non-technical skills varied between units, but trainees also recognised that they needed to use their initiative in seeking such experience.

> *"We've all done audits and service evaluation projects. These have been most valuable. I think it's really difficult to perhaps get these in general practice."* (Trainee, DCT2, Region 6)

Team-working experiences, offered by DCT, was contrasted with the isolated general practice environment and viewed as a positive experience by both trainees and regional leads, who spoke about the value of being relied upon. Support from senior staff was commonly reported by trainees as one of the most valuable aspects of the training programme:

> "W*e're really lucky to have such easy access to such a wide range of specialists or seniors, whereas you're isolated in practice…In dental hospital you can just pop across the corridor and speak to an orthodontic professor or whoever*" (Trainee, DCT2/3, Region 5)

However, both trainees and regional leads reflected on variation between units and highlighted a need for greater standardisation across training programmes. Participants emphasised the critical role of the educational supervisor (ES), with a number reporting frequent difficulties getting an ES to sign-off assessments:

> "*I think each unit is run very differently and your supervisors and your consultants in charge work in different ways … and I think it just depends on who you have around you and that shapes the experience that you have."* (Trainee, DCT2/3, Region 5)

> "*We've always had good feedback because we all enjoy getting our hands dirty with the trainees and supporting and helping them. But it's not always the case in every hospital*." (TPD, Region 5)

Career intentions

Most trainees reported the desire for a career that includes variety, not exclusively working in one sector. Many anticipated a future that would include a mix of jobs, perhaps working part-time in general dental practice and part-time in a specialist unit. One unexpected finding, reported by many trainees, was the desire for the future mix to include an element of teaching:

> "*My training has been tailored towards a certain path, so I'd like to be a consultant in that field. I want to be training trainees and juniors and helping them achieve what they want to achieve…"* (Trainee, DCT2/3, Region 5)

> *"I'm quite interested in doing some oral surgery and possibly working in a teaching hospital with student*s." (Trainee, DCT1, Region 4)

Suggested developments for the organisation of DCT

Trainees discussed the value of six-month posts or split-posts rotations that would enable trainees to gain broad experience across different specialties, although this was recognised as suited to posts in some specialties more than others:

> *"Oral surgery I think six months is good. I think six months taster of paeds is good because I think you can finish a lot of your treatment plans in paeds because they're not as long, but for example, in something like restorative I don't think a six month post works at all…*" (Trainee, DCT2/3, Region 5)

There was interest, by both trainees and regional leads, in additional posts in specialties other than oral maxillofacial surgery:

> "*Need more non-max fax jobs across the board. I think that would be, in my opinion, the biggest improvement*." (Trainee, DCT2/3, Region 5)

> "*I think we could do with more posts in all different specialties. More, not just max fax but all surgery jobs*." (APD2, Region 7)

Trainees and regional leads discussed the suitability of a two-year run-through training programme. It appeared to be an option that some regional leads were actively developing. However, perceptions among the trainees seemed to vary in line with the three groups of motivational factors reported earlier. For example, those who knew exactly which career path they intended to pursue reflected on the structure of medicine programmes and saw the opportunity in a run-through programme:

> "*Like with medical degrees when you're getting into speciality training there you can do a run-through. So, if you know early on what you want to do, maybe get run-through into things to help*" (Trainee, DCT1, Region 7)

However, there was also a recognition that a run-through structure would not suit everyone and that it could be slightly restrictive, in particular for those who knew they just wanted to pursue DCT1 or those who were not entirely committed to a specialist career. One regional lead highlighted that DCT needs to be "*flexible*" in order to accommodate the different motivations among trainees and to allow them to change their mind.

Both parties also reported a desire to expand access to DCT3 posts, although the regional leads acknowledged there would be significant financial implications. Some trainees felt it would be preferable for DCT to be part-time, to accommodate more time in general dental practice (as is the case with existing longitudinal training programmes).

> "*Part-time would be attractive to those who enjoy/see themselves in practice long term"* (Trainee, DCT1, Region 1).

Similarly, regional leads reflected on how they perceived a need for more community-based posts in DCT programmes "*because the difference between practice and hospitals is massive*".

Discussion

This study yielded a rich understanding of the motivations and experiences of trainees pursuing DCT across England. The structured, paper-based, activity turned out to be a strength of the study, as it permitted greater reach of participants and confirmed the spread of the more in-depth perceptions voiced by trainees in the focus groups. Speaking to APDs and TPDs as well, permitted triangulation of perceptions but also provided context and additional clarification about the trainees' experiences. There were, however, limitations in the study. These include the small number of DCT3 we consulted and that we did not confirm our findings with participants.

Our results demonstrate the benefit of DCT to individuals looking to pursue either general dental practice or a specialty pathway, findings echoed by Coleman and Finn,[5] as well as those yet to decide on their future career intentions.[6] Trainees were generally positive about their overall DCT experience. Limitations and challenges that were voiced varied by post and unit which make generalisation difficult. Many trainees and regional leads felt it was important to gain experience across a variety of specialties, regardless of career intentions, with six-month and split posts being suggested as a positive way to address this. However, questions were raised about the minimum duration of such rotations in order to ensure appropriate, meaningful experience within specialties. While there was discussion of the feasibility of a run-through training programme,

which would eliminate the issue of annual relocation, it was clear that this would not be suitable for all trainees, particularly those intending to complete one year before entering general practice. It was also emphasised that a run-through programme would need to be suitably flexible to accommodate changes in intended career paths and to ensure that commitment to a specific path is not required too early.

Both trainees and regional leads indicated the importance of increasing exposure to community practice. This was reflected in comments suggesting the value of more community-based posts within the programme or the possibility of part-time posts so that some time could be spent in general dental practice alongside DCT. Such a structure would be more aligned with the longitudinal foundation training programme.

Publications focused on DCT are increasing in number and some valuable studies have explored DCT in comparison to other training pathways.[5,6] However, some of the research is relatively narrow in scope, focusing on specific components of DCT, such as clinical teaching[7] and role models,[8] or are reports of experience written by trainees.[9,10,11] While these are worthwhile, there is a need for larger scale and longitudinal studies designed to explore the impact of DCT over time.

Conclusion

On the basis of the extensive data we collected for this study, we are able to report with confidence the experience of trainees and offer insight into who benefits from DCT, why and how. By reporting the views of large numbers if trainees and complementing their perspectives with the opinions of their training programme leads, we are able to offer suggestions for the future development of DCT. We conclude that DCT appears to be advantageous both for those intending careers in general dental practice, those aiming for specialist practice as well as those uncertain of their future career trajectory. Although trainees reported positive training experiences, particularly in terms of experiences not encountered in practice, there appeared to be some areas for improvement. Our recommendations for the future development of DCT include:

- Recognition that geography is a key influencer when candidates preference posts and may override other factors.
- The need for DCT to be flexible enough to accommodate different motives and evolving career trajectories.
- An option for a run-through programme could benefit those trainees who have decided to pursue specialty training.
- Additional posts in non-OMFS specialties and in community settings would be welcome, as well as more DCT3 posts.
- Although trainees' experiences of DCT were generally positive, there was much variation across units. The is scope to standardise the quality of training across units.
- Most trainees would like a career that includes variety and there is an opportunity to capitalise on enthusiasm for teaching.

Declaration of interest

Co-author Andrew Dickenson, in his role at Health Education England, was linked to the commissioning of this study and therefore the study design. However, the data collection and analysis were undertaken by other authors, led by Alison Bullock.

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