Analysis of fitness to practise case data for the General Dental Council

Summary Report

Daniel Zahra, Martin Roberts, Marie Bryce, Tim O'Brien, Julian Archer

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Contents

Executive Summary

The General Dental Council (GDC), as the dental regulator, holds a register of dentists and dental care professionals who are allowed to practise in the UK. Like other regulators the GDC is able to act if a practitioner's fitness to practise is brought into question through a complaint or referral made to their fitness to practise (FtP) procedures. These investigations generate a considerable amount of data providing information about the subject of a complaint, the characteristics of both the complainant/informant and the registrant involved, as well as the progress and outcome of each case. These extensive data provide an opportunity to learn about trends within FtP referrals, providing an evidence base for the development of further initiatives in dental regulation and education.

This report presents the findings from statistical analyses of the GDC's FtP data, including in comparison to the characteristics of the whole registrant base. The analyses reported here build upon prior unpublished exploratory work undertaken by the Collaboration for Medical Education Research and Assessment (CAMERA), Plymouth University Peninsula Schools of Medicine and Dentistry (PU PSMD) for the GDC in 2015. That earlier work focused on reviewing the extent and quality of registration and fitness to practise data held by the GDC, and establishing both the scope and limitations of using these datasets for research. Through that work, we confirmed that the extensive data held by the GDC would support a range of statistical analyses allowing a better understanding of trends within FtP referrals, such as the characteristics of registrants being referred to FtP and the types of practice or behaviour being referred. However, some limitations in the GDC's data were identified, typically relating to the organisation or structure of the data, making some analyses unfeasible, or where the extent of missing data in some fields, such as ethnic group, may impact upon the strength of findings.

Building upon the understanding of these datasets established during that exploratory phase, this report sets out findings from analyses answering a series of 23 questions[1] set out by the GDC in order to enhance their understanding of trends with FtP referrals and in the progress of cases through the FtP process. Those questions centred around four key themes, listed below, against which our findings are mapped:

- A. What are the characteristics of registrants who have allegations made against them?
- B. What is the nature of informants and what sort of allegations do they make?
- C. Are the characteristics of registrants related to the types of allegations that are made against them?
- D. Are the characteristics of registrants and the type of allegations made against them related to the progress and outcomes of FtP cases?

The data sample

The analyses reported here used a sample drawing on four linked datasets extracted from the GDC's database in relation to a sample of FtP case data. The four datasets were: 1) FtP case information including information on the registrant; 2) related 'Considerations' data detailing the allegation(s) being made; 3) 'Decisions' data, detailing the decisions made at each of the case processing stages; and 4) Registrant data giving information on <u>all</u> dentists and dental care professionals registered with the GDC.

Data quality

Overall data quality was good and the arising results can be considered reliable. Data on the FtP cases and their progress through the system was complete and accurate for all but a very small number of cases. The Considerations data mainly covered cases that went beyond Triage as those closed at that stage do not normally have Considerations attached. Some cases that reached the Practice Committee stage (around 2% of the total) did not have Considerations attached for historical reasons.

There was some information relating to registrants, and informants in FtP cases, missing. For this reason, there were some registrant characteristics, such as disability and sexual orientation, and informant characteristics, such as age and sex, which were not included in the analyses. The only two characteristics with a substantial proportion of missing data that were included were registrant ethnicity (missing for 31%

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[1] See Tables 1 to 4 below for a full list of these questions

of registrants) and route to registration (missing for 25% of registrants). The absence of this data is not arbitrary but is related to known issues such as grandparenting and current reluctance to share Equality and Diversity data.

Classification of allegations (considerations) made in a case

Themes B, C and D involve analyses of the allegations – termed considerations – made in a case. The GDC records considerations using a three level hierarchy of groups, subgroups and particulars mapped to the standards for registrants set out in *Standards for the Dental Team.*[2] For this analysis, we have reorganised the large number of consideration categories into a more manageable set of 29 types of consideration. Of these, the GDC identified 18 as being of particular interest in relation to the research questions.[3]

Key Findings

Theme A: What are the characteristics of registrants who have allegations made against them?

There is no specific group of registrants more likely to have been in an FtP case closed at any stage overall, or at any stage in particular.[4] However, analyses showed some patterns. After controlling for all other factors:

- Male registrants were more likely than female registrants to have been involved in FtP cases,
- Older registrants were more likely to have been involved in FtP cases than those aged 30 or younger.
- Asian registrants were less likely than White registrants to have been involved in FtP cases closed at Triage, the initial stage of the FtP process, but more likely to have been involved in cases closed at the later stages.
- Registrants who had followed a dental route to registration (dentists with UK and EEA dental degrees) were generally more likely to have been involved in FtP cases closed at any stage compared to those following dental care professional (DCP) or Overseas Registration Exam (ORE) routes.
- The longer registrants had been on the register, the more likely they were to have been involved in an FtP case closed at any stage of the process, with the important exception of cases closed at Practice Committee, the most serious stage of the FtP process, where those with more time on the register were less likely to have been involved.
- For both dentists and dental care professionals, the most likely point to become involved in an FtP case was within the first ten years of registration.

The findings above were derived from statistical analyses that controlled simultaneously for the effects of all registrant characteristics. These results were supported by simpler graphical comparisons,[5] which contrasted the proportion of each subgroup involved in FtP cases with the GDC's registrant base. When each characteristic was considered independently, male registrants, older registrants, those from Asian and 'other' ethnic groups, those who qualified outside the UK, and those with 'dentist' as their primary qualification were all over-represented in the FtP data.

Theme B: What is the nature of informants and what sort of allegations do they make?

Where the informant type and the considerations were known:

- Patients and service users were over half of the informants. This group of informants tended to be younger (less than 50 years old).
- Within these, over half of the cases were concerned with *Professional knowledge and skills - Failure to provide good quality care,* and *Communicating effectively* and *Patient interests* were also substantial areas of concern for this group.

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[2] General Dental Council. Standards for the Dental Team. London, 2013.
[3] See Tables 5 and 6 below for details of the consideration categories
[4] Cases may be closed at any of the four stages of the FtP process: Triage, Assessment, Investigating Committee or Practice Committee (see Figure 1)
[5] See Figures 2 to 6

- For registrants who self-referred to the GDC, the main issues raised related to *Personal Behaviour*, particularly in relation to issues potentially affecting public confidence in the profession.

Theme C: Are the characteristics of registrants related to the types of allegations that are made against them?

- The occurrence of considerations in certain subgroups was significantly related to the sex of the registrant.[6]
  - In comparison to cases involving female registrants, cases involving male registrants were significantly less likely to involve considerations in the *Personal behaviour - Public confidence in profession* and *Probity - Caution / charge / conviction* subgroups.
  - However, male registrants were significantly more likely to be involved in FtP cases with considerations in the *Communicating effectively, Maintain and protect patients' information, Obtain valid consent, Patient interests* and *Professional knowledge and skills - Failure to provide good quality care* subgroups.

- The incidence of some consideration subgroups was significantly related to registrant age.

  - For example, considerations in the *Obtain valid consent* and *Patient interests* subgroups were more common among cases against older registrants, while considerations in the *Personal behaviour - Public confidence in profession* and *Probity - Caution / charge / conviction* subgroups were seen more often in cases against younger registrants.

- There were also consideration subgroups that were significantly related to the time a registrant had been on the register. The relationship between time since registration and the incidence of consideration subgroups was analysed separately for dentists and dental care professionals due to the differing historical patterns of registration.
  - For dentists, two consideration subgroups showed a statistically significant association between the incidence of that type of consideration and the registrants' time since registration - *Obtain valid consent* and *Personal behaviour - Protecting patients from risks*.
  - In both, incidence of these considerations was lowest for dentists within their first ten years since joining the register.
  - There were associations between the incidence of cases linked to six consideration subgroups and the length of time that DCPs had been registered with the GDC. However, there was no overall trend with some types of consideration being more common where DCPs had been registered for less than five years, and some more commonly involving more experienced DCPs.

Theme D: Are the types of allegation made in FtP cases related to the progress and outcomes of the case?

- FtP cases involving *Working with colleagues - Team working* and *Put patients interests first - Advertising* were least likely to go beyond the Assessment stage whilst those involving considerations in the *Probity - Caution / charge / conviction* and *Patient interests* subgroups were most likely to do so.
- Cases involving *Probity - Caution / charge / conviction* considerations were also most likely to reach the final Practice Committee stage of the GDC's FtP process, along with cases involving *Health* considerations.

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[6] Note that although statistically significant, these differences were small in real terms, amounting to no more than a 5.1 percentage point difference between the sexes for any type of consideration

Conclusions

The GDC hold an extensive database about registrants and informants in their FtP processes. Overall these data are of good quality and only lack in detail around equality and diversity data which by law cannot be mandated for. The dataset is made unnecessarily more complicated by hierarchical layers of 'considerations' afforded to each complaint that could be simplified.

Overall there are important differences in the characteristics of those registrants that are complained about in that male, older, Asian/Other, Dentists and those that hold a primary dental qualification from outside the UK are each over-represented to varying degrees in the FtP data compared to the registrant population. These findings are comparable to those identified by other UK healthcare regulators.

Introduction

The General Dental Council (GDC) regulates UK dental professionals in order to protect patients by ensuring that only those who are fit to practise are listed on the GDC's register. At the end of 2014, the GDC was responsible for the regulation of 106,313 registrants, of whom 41,038 were dentists.[7] One key element of the GDC's work is to safeguard the register through a Fitness to Practise (FtP) process which investigates complaints and referrals about dentists and dental care professionals (DCPs). The GDC's remit, and therefore its FtP process, covers all types of dental professional – dentists and DCPs – whether working in NHS or private practice. There are six main categories of DCP:

- *Dental Technician*
- *Clinical Dental Technician*
- *Dental Hygienist*
- *Dental Nurse*
- *Dental Therapist*
- *Orthodontic Therapist*

Patients, members of the public, or other registrants, amongst others, may report concerns about a registrant's practice or behaviour to the GDC. In cases where an investigation establishes that a registrant has fallen below the standards expected of them – as set out in *Standards for the Dental Team*[8] – the GDC may impose sanctions. Sanction options are: a practitioner being removed from the dental register, so that they may no longer practise; a period of suspension; the imposition of conditions restricting the registrant's work; or the issuance of a reprimand as a formal statement of the GDC's disapproval. The four stage FtP process is summarised in Figure 1.

Triage
- Decides whether the GDC is the correct organisation to address the complaint.
- Can refer complainants/informants to other bodies if appropriate.

Assessment
- Caseworkers consider whether the matter is one which warrants further investigation.
- Refers cases to the Investigating Committee if appropriate.

Investigating Committee
- Includes lay and registrant members.
- Decides whether cases should be referred to one of the Practice Panels.
- Can issue advice or warning letters to registrants.

Practice Committees
- Health Committee; Professional Conduct Committee; Professional Performance Committee.
- Can impose conditions on practice, or suspend or erase practitioners.
- Cases can be referred between committees.

Figure 1: The four stages of the Fitness to Practise (FtP) process[9]

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[7] General Dental Council. Annual Report and Accounts 2014, 2015.
[8] General Dental Council. Standards for the Dental Team. London, 2013.
[9] NOTE: as of 1 November 2016, the GDC introduced Case Examiners which have replaced the functions of the Investigating Committee, with the additional powers of being able to agree undertakings. The Case Examiner stage of FtP is not included in this analysis.

In line with the experience of other regulators in most sectors including healthcare over recent years the GDC has seen an increase in the volume of complaints and referrals it receives.[10,11] In 2014, the GDC received 3,099 new FtP complaints and referrals, an increase of 4% on the previous year.[1] These complaints direct to the GDC's FtP process represented only around a quarter of some 12,000 complaints related to dentists or dental care made to organisations across the healthcare complaints handling system, including NHS England, the Care Quality Commission, and the Dental Complaints Service.[12]

Understanding why such complaints are made – who makes them, about what issues, against which registrants – and whether there are any trends in complaint-making behaviour or particular aspects of dental practice which are more likely to result in complaints, or whether some groups of registrants are more likely to be subject to complaint, is an important element of the GDC's role in protecting patients. Such an understanding may provide opportunities for any regulator to move towards becoming a risk based organisation; proactively seeking to prevent rather than simply being able to respond to complaints and trends of poor practice. In order to support its aim to work to reduce the issues giving rise to complaints, the GDC's Corporate Strategy 2016-2019 contains a commitment to:

> '…build our knowledge of the nature and causes of complaints and the barriers which dental professionals face in meeting our standards. We will do this through analysing our own data and carrying out research which we will use to inform our standards and the training and education to dental professionals.'[13]

Using the extensive data generated by the GDC's FtP process about the complaints it receives, the informants who make them, and the registrants involved, this report seeks to address these important issues and in doing so, to provide the GDC with an evidence base from which to develop strategic policy in this core area of its regulatory activity.

Research questions and themes

Building on exploratory work conducted by the research team in 2015 to assess the quality of the data held and the feasibility of analyses, the GDC commissioned CAMERA to undertake an extensive statistical analysis of its data in order to answer a series of specific research questions targeting areas of particular interest.

This document summarises the results from a series of analyses conducted to answer a set of 23 specific research questions posed by the GDC. The questions cover four broad 'themes' or over-arching questions as tabulated below. The original question numbering has been retained for reference in the tables which show the specific questions within each theme. This summary document is accompanied by a more detailed report containing all the results from the analyses undertaken, again mapped to the four themes.

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[10] Gallagher CT, De Souza AI. A retrospective analysis of the GDC's performance against its newly-approved fitness to practise guidance. *British Dental Journal* 2015;219(5):E5. doi: 10.1038/sj.bdj.2015.674

[11] Archer J, Regan de Bere S, Bryce M, et al. Understanding the rise in fitness to practise complaints from members of the public. London: General Medical Council, 2014.

[12] General Dental Council. Annual Report and Accounts 2013.

[13] General Dental Council. The General Dental Council Corporate Strategy 2016-2019 (draft), 2015.

Theme A: What are the characteristics of registrants who have allegations made against them?

Table 1: Research Questions in Theme A

#	Question
13	Are male registrants overrepresented at all or any stages of the FtP process?
15	Are registrants in particular age brackets overrepresented at all or any stages of the FtP process?
8	Are BME registrants overrepresented at all or any individual stages of the FtP process?
23	Are there variations between the four countries or regions on whether you are more likely to appear in FtP?
10a	For cases by registration type, are there any particular routes to registration that are overrepresented at all or any stages of the FtP process?
10b	Are any countries of primary qualification overrepresented at all or any stages of the FtP process?
19	Are registrants with a particular primary qualification more likely to appear at FtP? At any particular stages?
17	Is there a link between length of time on register and FtP involvement? by Registration Type and Primary Qualification?
21	Are dental specialists less likely to go through FtP?

Theme B: What is the nature of informants and what sort of allegations do they make?

Table 2: Research Questions in Theme B

#	Question
7	Is there any associations in the type of complainant (informant) and where they refer from (e.g. complaint pathway)?
6	Do particular types of allegation (consideration) come from any particular sources (patient, other organisation, employer, whistleblower)?

Theme C: Are the characteristics of registrants related to the types of allegations that are made against them?

Table 3: Research Questions in Theme C

#	Question
14	Are there any particular allegations (considerations) that are associated with complaints about male registrants?
16	Is there a link between age and different types of allegation (consideration)?
9	Are there any particular considerations that are associated with complaints about BME registrants? At all or any particular stages of the process?
24	Is there a link between nation or region and different types of allegation (consideration)?
20	Is there a link between primary qualification and different types of allegation (consideration)?
12	Is there a link between length of time on register and different types of allegation (consideration)?
22	Are there certain allegations (considerations) more likely to be made about those on the specialist lists?

Theme D: Are the characteristics of registrants and the type of allegations made against them related to the progress and outcomes of FtP cases?

Table 4: Research Questions in Theme D

#	Question
1	How likely are each of the considerations types to get through: Triage, Assessment, Investigating Committee, Closure at Practice Committee?
2	Is there statistical significance in case prevalence and length of case and at each stage based on the considerations types of the allegations identified?
5	What is the relationship between type of allegation (consideration) and sanction imposed?
4	What is the relationship between type of allegation (consideration) and whether impairment is found?
11	Is there any significant association or correlation between closure type and consideration, for all resolved cases at each stage of the FtP process?

The data sample

Following the model of a previous set of analyses conducted for the GDC we agreed that a sample of FtP case data would be extracted from the organisation's database system to include four linked data sets:

1. FtP case information (N=8,855), including information on the registrant who was the subject of each case. This data set covered all cases that were either
   a. open on 1st September 2013, or
   b. received between 1st September 2013 and the date of data extraction
2. 'Considerations' data (N=16,461) relating to the above cases, detailing the subject matter of the allegation(s) being made against the registrants concerned
3. 'Decisions' data (N=26,648) relating to the above cases, detailing the decisions made at each of the case processing stages (as shown in Figure 1)
4. Registrant data (N=120,854), giving information on <u>all</u> dentists and dental care professionals registered with the GDC who were either
   a. On the register on 1st September 2013, or
   b. Joined the register between 1st September 2013 and the date of extraction.

Data quality

Data on the FtP cases and their progress through the system was complete and accurate for all but a very small number of cases where activity immediately prior to the date of download may not yet have been recorded. The Considerations data mainly covered cases that went beyond Triage as those closed at that stage do not normally have Considerations attached. Furthermore, some cases that reached the Practice Committee stage (around 2% of the total) did not have Considerations attached for historical reasons related to the prosecution function's transition to CRM. We were not aware of any data issues with the Decisions data.

Among the information relating to registrants and to the informants in FtP cases there were particular fields with non-negligible amounts of missing data. For this reason there were registrant characteristics such as disability and sexual orientation and informant characteristics such as age and sex, which we did not include in our analyses. The only two characteristics with a substantial proportion of missing data that we did include were registrant ethnicity (missing for 31% of registrants) and route to registration (missing for 25% of registrants). It was felt important to include these characteristics in the relevant analyses under Themes A and C, though clearly the results must be treated with some caution.

Classification of the allegations (considerations) made in a case

Themes B, C and D involve analyses of the types of allegation that are made in FtP cases. The subject matter of cases is classified by the GDC using a three-tier hierarchy of what are known as 'Considerations' in the case. At the highest level, this detailed subject matter is classified into 18 'Consideration Groups' (Table 5). Nine of these groups are aligned with the nine principles that currently define the standards of conduct, performance and ethics that govern dental professionals, as set out in 'Standards for the Dental Team' (2013). The remaining nine groups are those that were used prior to 2013.

Table 5: The 18 Consideration Groups

Consideration Group
Clear and effective complaints procedure [ξ]
Communicating effectively [ξ]
Cooperating with dental team members
DCS Service Issue
Health
Illegal Practice [φ]
Laws and regulations
Maintain and protect patients' information [ξ]
Obtain valid consent [ξ]
Patient interests
Personal behaviour [ξ]
Probity
Professional knowledge and skills [ξ]
Put patients' interests first [ξ]
Raising concerns [ξ]
Respect patients' dignity and choices
Scope of practice
Working with colleagues [ξ]

[ξ] *Aligned with the current principles in 'Standards for the Dental Team' (2013). The remaining are from the previous standards (no longer in use).*

[φ] No longer a factor in FtP cases. Included for historic reasons.

At the next level the subject matter of FtP cases is classified into one or more of the 57 'Consideration Subgroups'. At the final level, the case details are described by 'Consideration Particulars' of which there were 290 types in the data sample. The complexity of this classification system in relation to the number of FtP cases in the data set tends to make statistical analysis at the Subgroup or Particular level either difficult or impossible.

Following discussions with the GDC we created a new 'Consideration Subgroup' classification in the Considerations data to streamline the analysis and target desirable considerations, rather than analyse the entire set of 290 considerations. The new classification comprised 29 Consideration Subgroups and was based on the 18 Consideration Groups in the original data set but with five of these groups (*Personal behaviour, Probity, Professional knowledge and skills, Putting patients' interests first*, and *Working with colleagues*) being subdivided as shown in Table 6. Of the 29 final subgroups, 18 were identified by the GDC as being of particular interest in relation to the research questions that concerned Considerations. These were selected to be of interest by the GDC because they were the most frequently occurring in the data set or of particular policy interest.

Table 6: Consideration Subgroups used for analysis. Shading and italics show the five subdivided groups (Personal behaviour, Probity, Professional knowledge and skills, Putting patients' interests first, and Working with colleagues)

#	Consideration Subgroup	Frequency in Considerations data
1	Clear and effective complaints procedure *	330
2	Communicating effectively *	1,023
3	Cooperating with dental team members	28
4	DCS Service Issue	122
5	Health	55
6	Illegal Practice ϕ	12
7	Laws and regulations	85
8	Maintain and protect patients' information *	1,327
9	Obtain valid consent *	583
10	Patient interests *	1,123
11	*Personal behaviour - Protecting patients from risks *	422
12	*Personal behaviour - Public confidence in profession *	1,575
13	*Personal behaviour - Other*	333
14	*Probity - Caution / charge / conviction *	102
15	*Probity - Other*	121
16	*Professional knowledge and skills - Failure to provide good quality care *	5,193
17	*Professional knowledge and skills - Training and competence *	322
18	*Professional knowledge and skills - Other*	105
19	*Put patients' interests first - Advertising *	182
20	*Put patients' interests first - Behaviour and attitude *	1,187
21	*Put patients' interests first - Indemnity *	149
22	*Put patients' interests first - Laws and regulations *	749
23	*Put patients' interests first - Treatment *	562
24	*Put patients' interests first - Other*	59
25	Raising concerns	38
26	Respect patients' dignity and choices *	208
27	Scope of practice *	37
28	*Working with colleagues - Team working *	277
29	*Working with colleagues - Other*	152
	All	16,461

* Subgroups of particular interest

ϕ No longer a factor in FtP cases. Included for historic reasons.

Classification of the sanctions imposed on registrants

As a case progresses through the FtP process four types of 'sanction' may be imposed on the registrant concerned:

- Published warnings
- Conditions (restrictions on their professional practice)
- Suspension
- Erasure

In our data sample, sanctions had been imposed in 472 (6.4%) of the 7,397 closed FtP cases. A breakdown of the sanctions is summarised in Table 7. While the overall proportion of 6.4% is fairly low, it should be noted that sanctions may only be imposed at the Investigating Committee and Practice Committee stages where sanctions were imposed in 12.1% and 48.1% of the cases closed at these stages (respectively).

Table 7: Imposition of sanctions in (closed) FtP cases (N = 7,397)

Sanction	N cases	% of all cases
Published warning	162	2.2%
Conditions	152	2.1%
Suspension	154	2.1%
Erasure	88	1.2%
Any type of sanction(s) imposed	472	6.4%

Note on the interpretation of 'odds ratios' in the results

Some of the results in Themes A and D are accompanied by Odds Ratios (ORs), which provide a comparison between two different subgroups (the 'reference group' and the 'comparison group' of the chance of something happening). The first example of this appears under Theme A where we examine whether the chance of being subject to an FtP case differs between the sexes. We report that male registrants (the comparison group) were more likely than female registrants (the reference group) to be involved in an FtP case that closed at the Investigating Committee stage. An odds ratio of 1.68 is attached to this statement and indicates that the odds of being involved in such a case was 68% higher for males than for females. (Table 8)

An odds ratio is always a positive number and should be interpreted as follows:
- **Odds ratio greater than 1.00**: the event is more likely to occur among the comparison group
- **Odds ratio equal to 1.00**: the comparison group is no different to the reference group
- **Odds ratio less than 1.00**: the event is less likely to occur among the comparison group

Results

Theme A: What are the characteristics of registrants who have allegations made against them?

When considering the sex, age group, ethnicity, registration type, primary qualification, time on register, dental specialty status, and country of residence of registrants in relation to the likelihood of them being involved in a closed FtP case there is no single subgroup who were consistently more likely to have been involved in an FtP case closed at any stage overall, or any stage in particular. However, after controlling for all other characteristics, some general, statistically significant, patterns have begun to emerge, as detailed below.

Sex

Male registrants were more likely than Females to have been involved in FtP cases closed at any and all stages (ORs ranging from 1.68 for Investigating committee to 2.76 for Practice Committee: see Table 8).

Age

Older registrants were generally more likely to have been involved in FtP cases than those aged 30 or younger; furthermore, the middle age groups (31-60 years) typically showing higher overall likelihoods than the 60+ age group (See Table 8).

Ethnicity

Registrants with ethnicities recorded as Asian or Other appear overall more likely to have been involved in FtP cases closed at any and all stages than registrants recorded as White (ORs ranging from 1.05 to 1.40). However, the Asian group of registrants who have been involved in cases that have been closed were less likely to have been involved in cases closed at Triage than the White group of registrants (OR 0.90; excluded from the above range of ORs) (See Table 8).

Country of residence

Overall, after controlling for all other factors UK country has little effect on involvement in FtP in general. Relative to English registrants, Welsh and Northern Irish registrants did not differ in their odds of being involved in FtP cases closed at any stage, or at Triage, Assessment, or Investigating Committee (ORs close to 1.00). Wales and NI show slightly increased odds for cases closed at the Practice Committee stage relative to their English counterparts (OR of 1.04 and 1.63 respectively). Scottish registrants showed slightly greater though non-significant odds of being involved in FtP cases at any and all individual stages relative to English registrants (ORs ranging from 1.05 to 1.14). Non-UK registrants were however less likely to be involved in FtP cases which close at any, or any individual stage (ORs ≤ 0.74) (See Table 8).

Route to registration

Registrants following dental routes to registration appear more likely to have been involved in FtP cases closed at any stage overall and all stages in particular relative to those following dental care professional (DCP) or overseas registration exam (ORE) routes to registration (ORs for Dental Primary Qualifications ranging from 1.31 to 4.73, ORs for DCP and ORE Primary Qualifications ranging from <0.01 to 0.71) – though there are exceptions. DCP's following the 'Assessment' route to registration appear more likely to

have been involved in FtP cases closed at the Investigating Committee stage than Dental UK Application registrants (OR 2.50; excluded from the above range), and ORE registrants were more likely to have been involved in cases closed at Triage than Dental UK Application registrants (OR 1.54; excluded from the above range) (See Table 8).

Primary qualification type

Primary Qualification shows variable patterns of FtP case involvement. Clinical Dental Technicians generally had much higher odds of involvement in FtP cases (ORs less than 0.01 for Practice Committee, but ranging from 3.16 for Assessment to 10.09 for Triage; see Table 8). We note however that these results were likely skewed by their small numbers: only 389 registrants (0.3%) were Clinical Dental Technicians.

Time on register

The longer registrants had been on the register, the more likely they were to have been involved, at some point, in FtP cases closed at any stage, Triage, Assessment, and Investigating Committee (ORs of 1.03, 1.03, 1.02, and 1.05 respectively), but not those closed at the Practice Committee stage (OR 0.99) (See Table 8).

Examining the raw figures of FtP cases closed (at any stage, separately for Dentists and DCPs) relative to how long the registrant had been on the register at the time of the case being received, suggested that both Dentists and DCPs are most likely to be involved in FtP cases within their first ten years of registration.

Dental specialists

Registrants recorded as being Dental Specialists were less likely than non-Specialists to have been involved in FtP cases closed at any and all stages (ORs ranging from 0.22 for Practice Committee to 0.65 for Triage) (See Table 8).

Impact of registrant characteristics on the likelihood of FtP involvement

In order to assess how the odds of FtP case involvement for each registrant characteristic varied across stages, the odds ratios for each category (Factor-Level) and for cases closed at each stage have been compiled in Table 8. As described above, odds ratios of one suggest that the likelihood of both outcomes is the same in the comparison and reference groups, odds ratios of less than one suggest the outcome is less likely in the comparison group, and odds ratios of greater than one suggest the outcome is more likely in the comparison group. The odds ratios presented in Table 8 under 'Any' reflect variation in the likelihood of each group being involved in a closed case, regardless of the stage at which it was closed. Subsequent columns reflect the likelihood of each group being involved in a case closed at each specific stage. These patterns suggest that impact of each characteristic on the odds of involvement in a case remains fairly consistent across the four stages, though at some stages the pattern may reverse. For example, relative to under-30's, those over 60 years old are more likely to be involved in FtP cases closed at all stages (OR>1.00), except Investigating Committee where they are less likely (OR=0.65) to be involved in cases closed at that stage. This example is highlighted inTable 8 Table 8 along with other instances of pattern reversal.

Table 8: Compiled Odds Ratios for involvement in FtP cases by registrant characteristics and stage of closure. This table shows trends (see explanation in text), not statistical significance.

Factor	Level	Any	Triage	Assessment	Investigating Committee	Practice Committee
					Stage at Closure	
Sex	Female (Reference)					
	Male	1.75	1.79	1.65	1.68	2.76
Age	≤30 (Reference)					
	31-40	1.55	1.54	1.72	1.41	1.47
	41-50	1.54	1.99	1.55	1.33	2.37
	51-60	1.33	1.66	1.52	1.05	2.15
	>60	1.18	1.31	1.34	0.63	3.90
Ethnicity	White (Reference)					
	Asian	1.22	0.90	1.33	1.05	1.29
	Other	1.24	1.13	1.22	1.14	1.40
Registration Route	Dentist UK Application (Reference)					
	Dentist Assessment	1.76	1.72	1.73	1.97	3.25
	Dentist Restoration	1.55	1.75	1.57	1.31	4.73
	DCP UK Application	0.20	0.17	0.18	0.64	0.32
	DCP Assessment	0.41	0.19	0.58	2.50	0.00
	DCP Restoration	0.28	0.30	0.27	0.44	0.71
	Overseas Registration Examination	0.47	1.54	0.21	0.31	0.00
Primary Qualification	Dental (Reference)					
	Dental Technician	1.92	2.65	1.68	0.51	3.24
	Dental Hygienist	2.17	1.74	2.10	1.17	2.22
	Dental Nurse	0.84	1.03	0.69	0.27	1.77
	Dental Therapist	1.59	1.52	1.53	0.26	6.18
	Orthodontic Therapist	0.33	0.78	0.15	0.08	<0.01
	Clinical Dental Technician	6.06	10.09	6.14	4.32	<0.01
Time *	Time (Years)	1.03	1.03	1.02	1.05	0.99
Dental Specialist	No (Reference)					
	Yes	0.64	0.65	0.61	0.54	0.22
Country	England (Reference)					
	Scotland	1.05	1.05	1.05	1.08	1.14
	Wales	0.78	0.69	1.00	0.46	1.04
	Northern Ireland	0.81	0.46	0.78	0.92	1.63
	Non-UK	0.47	0.50	0.39	0.46	0.74

* Time since first registration. Included in the models primarily to control for differences between registrants in the length of time they have spent in practice.

Over-representation of registrant subgroups

With respect to whether registrants belonging to any particular subgroups are over- or under-represented in closed FtP cases overall, and at each stage of the process, the following graphs show the proportion of each subgroup involved in cases closed at each stage, compared to their proportion in the registrant population. For ease of reference, the first column represents the overall proportions of a registrant characteristic (e.g. sex) in the whole registrant population. The second column shows the cases closed at any stage of the process, with subsequent columns being at each individual stage, related to the subgroup of interest (e.g. sex). If the proportions are larger in the column being compared to the first population column, this represents groups being over-represented at the given stage. If the proportions are smaller in the column being compared to the first population column, this represents groups being under-represented at the given stage.

Although the analyses which follow approach the data in a different way to those previously outlined, namely considering each registrant characteristic independently as opposed to in conjunction, the same patterns emerge. They suggest that, relative to the registrant population, males, older registrant groups, Asian and 'Other' ethnic groups, those qualifying outside the UK, and those with Dentist as their primary qualification are over-represented to varying degrees relative to the other categories of Sex, Age Group, Ethnicity, Country of Qualification, and Primary Qualification. Country of Qualification has been included at this stage to explore further the differences identified above between UK countries and Non-UK countries.
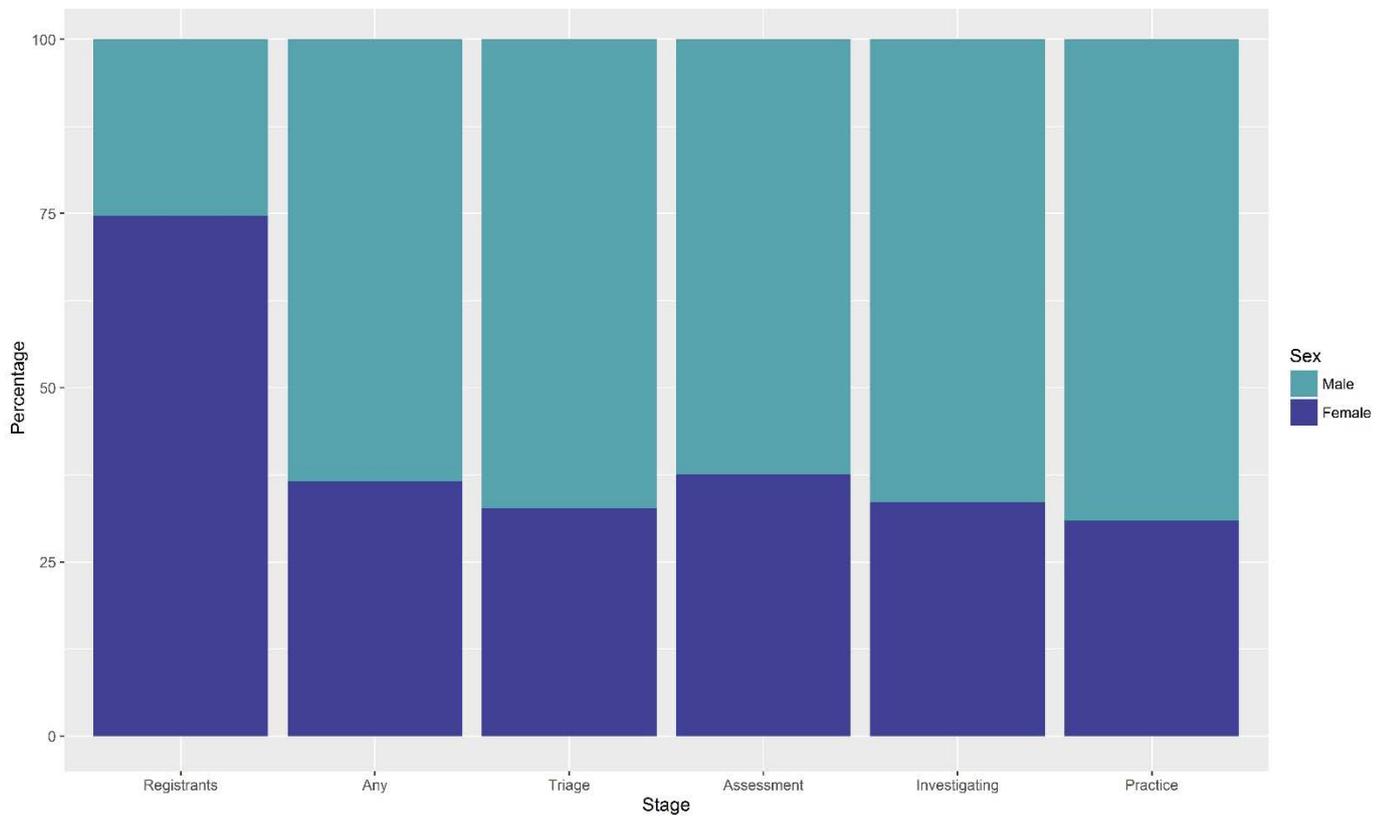
Figure 2: Distribution of sex for those involved in cases closed at each stage compared to the distribution of sex in the registrant population.
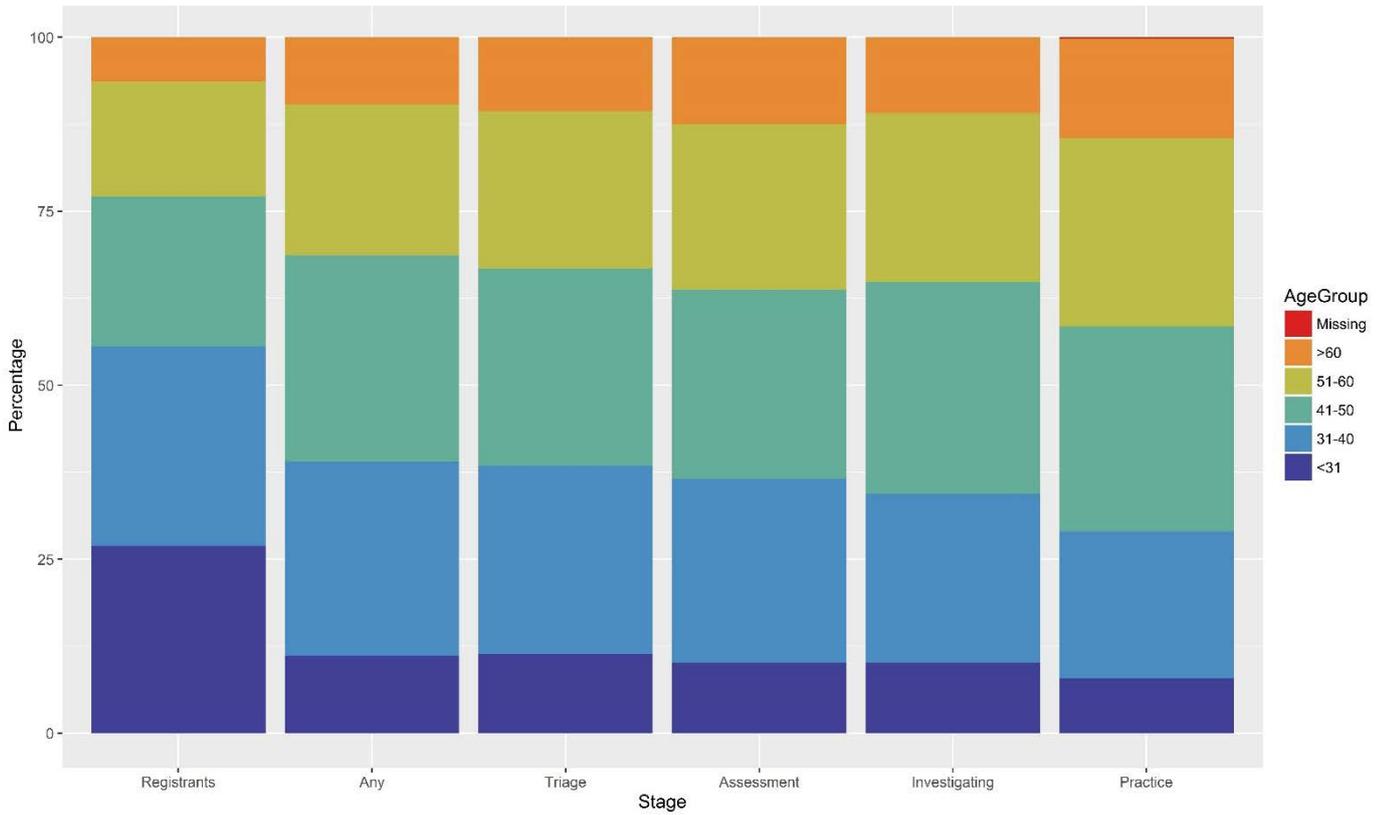
Figure 3: Distribution of age groups for those involved in cases closed at each stage compared to the distribution of age groups in the registrant population.
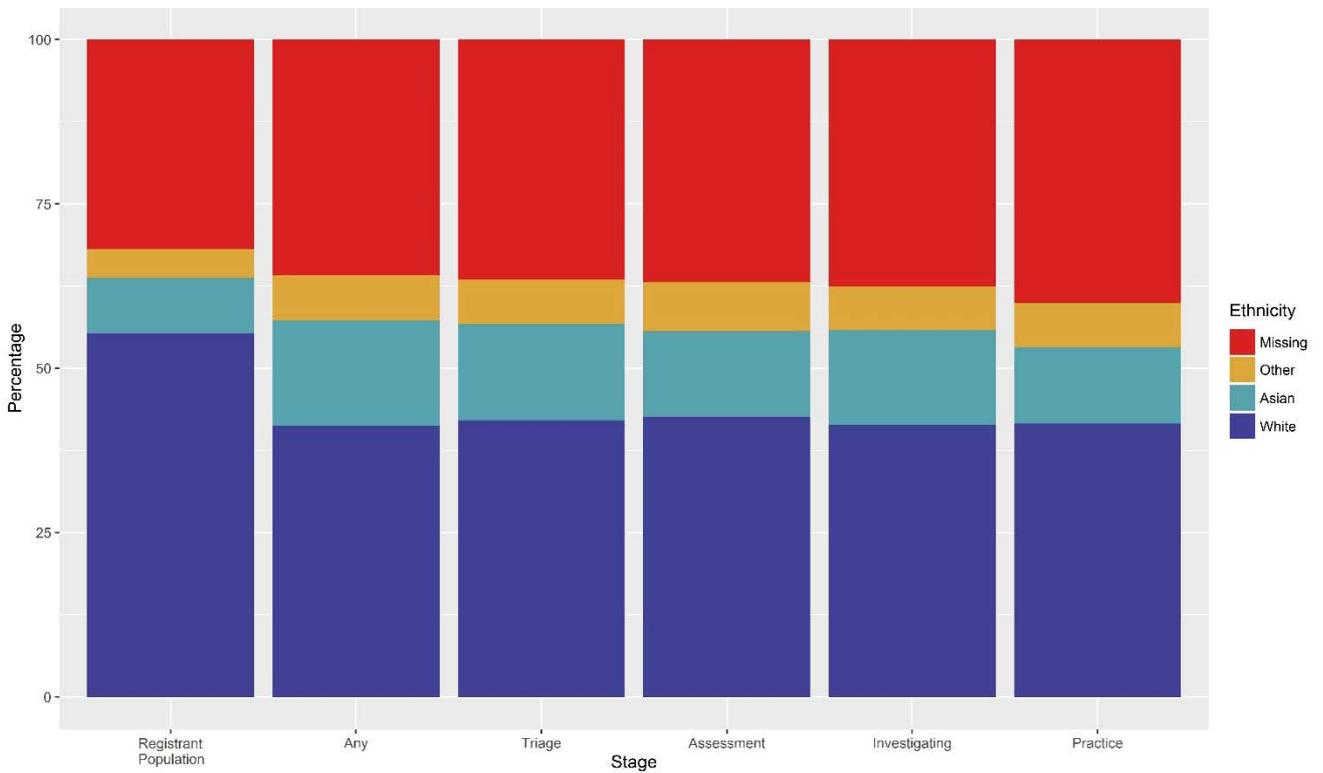
Figure 4: Distribution of ethnicities for those involved in cases closed at each stage compared to the distribution of ethnicities in the registrant population. Note the large amount of missing data. This may indicate that the other categories are not true reflections of the proportions at each stage.
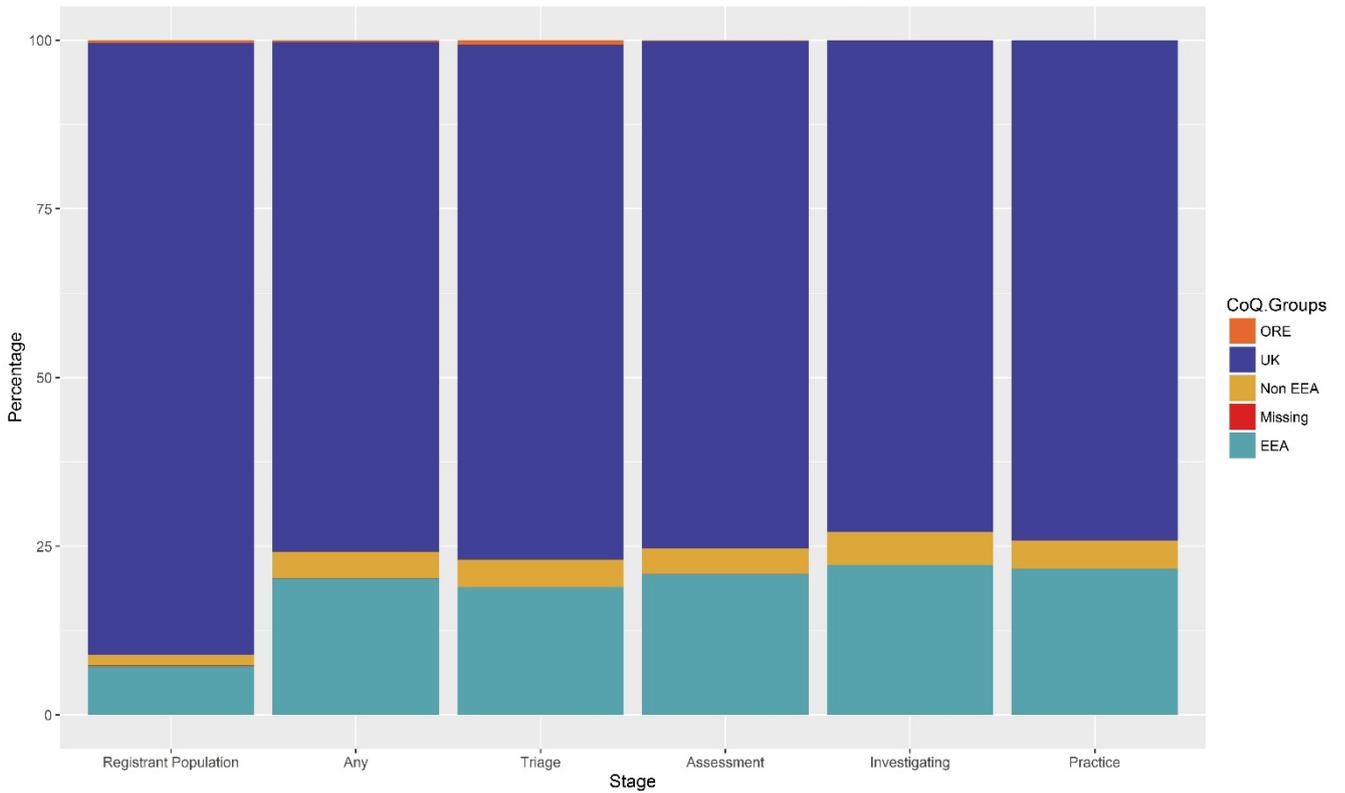
Figure 5: Distribution of country of qualification between those involved, and those not involved, in cases closed at each stage
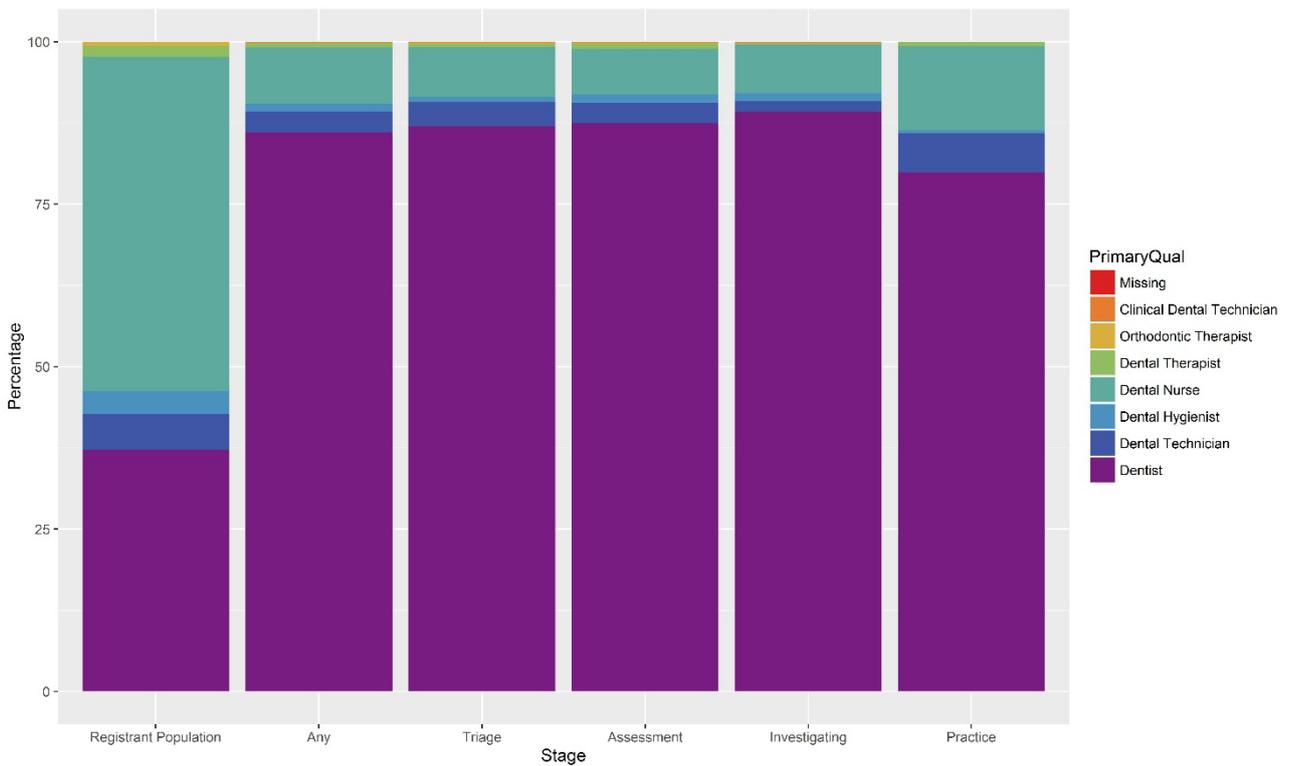
Figure 6: Distribution of Primary Qualifications for those involved in cases closed at each stage compared to the distribution of Primary Qualifications in the registrant population.

Theme B: What is the nature of informants and what sort of allegations do they make?

The 'informants' who make allegations against registrants were classified into eight types:

- Self-Referral (registrants themselves may inform the GDC of a problem)
- Other Registrant
- GDC[14]
- Other Regulatory Body
- NHS
- Non-NHS Employer
- Patient or Service User
- Anonymous

We investigated whether the distribution of informant types varied significantly by:

- Country of residence (for UK residents only)
- Age (where informant was a patient or registrant)
- Disability status

The distribution of informants with each characteristic varies across informant types. For example, registrant informants are largely 50 years old or younger (83.5%), fewer referrals were made by other registrants aged 50 or younger (59.3%). Referrals from patients tend to come from the older age groups, with only 42.7% of referrals coming from patients 50 years old or younger (see detailed report).

The majority of informants across all types comes from London and the South East, though other UK regions show more variability in informant types; Scotland for example has no anonymous informants or informants from non-GDC regulatory bodies, but a large proportion of NHS and self-referral informants.

The vast majority of informants across all types report no disability, with those who do report a disability primarily being self-referral, other-registrant, non-NHS employers or patient or service users.

Allegations made by different types of informant

We examined whether the distribution of allegation (Consideration) types varied between the different types of informant. Of the total 8,855 cases, there were 7,158 where the informant type was known and to which Considerations data were attached. Patients and service users were the source of over half of these cases while non-NHS employers were the source of the least number of referrals (Table 9).

Table 9 also shows, for cases originating from each type of informant, the percentage of cases in which the allegations related to particular Consideration Subgroups. For example, allegations in the *Communicating effectively* subgroup featured in 15.2% of the 4,563 cases referred by patients but in less than 10% of the cases raised by other types of informant. For brevity, Consideration subgroups featuring in less than 10% of the cases raised by any type of informant have been omitted from the table.

The patterns of Considerations in cases that were referred by patients, anonymous sources or the registrants themselves were markedly different from those for other informant types.

Patients

Over half (60.1%) of the cases initiated by patients were concerned with *Professional knowledge and skills - Failure to provide good quality care* and patients were the only informant group for whom *Communicating effectively* was a substantial area of concern (15.2% of cases). Compared to other informants however, patients were much less likely to raise cases involving any type of *Personal Behaviour* (Table 9).

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[14] The GDC may itself initiate an FtP investigation where new information has been received on an existing case, or where concerns are identified from media coverage, for example.

Self-referral by registrants

In contrast to this, self-referred by registrants' cases were primarily concerned with raising issues of *Personal Behaviour*, particularly those liable to affect public confidence in the profession (76.0% of cases), but few or none were concerned with either *Maintain and protect patients' information*, *Professional knowledge and skills – Failure to provide good quality care* or any category of *Put patient interests first* (Table 9).

Anonymous informants

The primary concerns raised in cases referred by anonymous informants were different again from those found in patient- or self-referred cases. This group seldom raised issues of *Communicating effectively*, *Maintain and protect patients' information* or *Patient interests* but were the only type of informant that initiated a substantial proportion of cases involving either *Professional knowledge and skills – Training and competence* (11.5% of cases) or *Put patients' interests first - Advertising* (14.1% of cases).

Table 9: Cases by Consideration Subgroup (percentage within Informant Type). Consideration Subgroups involved in less than 10% of cases from any informant type are omitted from the table.

		Informant Type [§]							
Consideration Subgroup	*N cases*	Self-referral	Other registrant	GDC	Other Regulatory Body	NHS	Non-NHS employer	Patient or Service User	Anon
		313	*545*	*593*	*250*	*525*	*142*	*4,563*	*227*
Communicating effectively *		0.3	5.5	2.4	3.6	2.9	7.0	**15.2**	1.8
Maintain and protect patients' information *		0.3	**15.4**	10.6	7.6	**20.8**	**21.8**	**17.3**	3.1
Personal behaviour - Protecting patients from risks *		**14.4**	**10.5**	**12.6**	7.2	**13.7**	**16.9**	1.1	7.9
Personal behaviour - Public confidence in profession *		**76.0**	**27.3**	**20.4**	**40.0**	**27.4**	**35.9**	6.7	**31.3**
Personal behaviour - Other		3.8	2.9	6.4	8.8	**10.1**	**10.6**	2.7	2.2
Professional knowledge and skills - Failure to provide good quality care *		-	**25.1**	**16.5**	**10.0**	**29.5**	**28.9**	**60.1**	**10.6**
Professional knowledge and skills - Training and competence *		1.3	7.3	8.4	2.8	5.3	4.2	3.0	**11.5**
Put patients' interests first - Advertising *		-	4.2	8.9	0.8	0.2	0.7	1.1	**14.1**
Put patients' interests first - Behaviour and attitude *		1.0	**15.4**	9.4	4.4	**15.6**	**15.5**	**15.6**	**15.9**
Put patients' interests first - Laws and regulations *		1.9	**16.0**	**10.5**	**25.2**	**14.5**	**14.1**	5.5	**16.3**
Working with colleagues - Team working *		0.6	**13.6**	8.6	2.4	2.7	4.2	1.2	9.3

* Subgroups of particular interest

[§] *Columns may total to more than 100% because cases can involve multiple considerations*

Theme C: Are the characteristics of registrants related to the types of allegations that are made against them?

We examined whether the types of allegation made in FtP cases were associated with the personal and professional characteristics of the registrant concerned. Seven particular registrant characteristics were investigated:

- Sex
- Age
- Ethnic group (White or BME (Black or Minority Ethnic))
- Country of registration (England, Northern Ireland, Scotland or Wales)
- Registration type (Dentist or DCP)
- Time on register (calculated as time since first registration on the date the case was opened)
- Dental specialism (presence on one or more of the specialist lists – relates to dentists only)

The types of allegation made were characterised by classification into the 29 Consideration Subgroups as previously described. Factors associated with the occurrence of Considerations in each Subgroup were examined independently because there was insufficient data to support multivariate regression methods with so many Consideration Subgroups. For 11 of these subgroups the incidence of cases involving those types of Consideration was unrelated to the above registrant characteristics.

Table 10: Consideration Subgroups whose appearance in FtP cases was unrelated to the registrant's sex, age, ethnicity, country of residence, registration type, time on register or dental specialism.

Consideration Subgroup
Cooperating with dental team members
DCS Service Issue
Health
Laws and regulations
Personal behaviour - Other
Professional knowledge and skills - Other
Put patients' interests first - Other
Raising concerns
Respect patients' dignity and choices *
Working with colleagues - Team working *
Working with colleagues - Other

* Subgroups of particular interest

The occurrence of considerations in the remaining 17 Consideration Subgroups was statistically significantly associated with at least one (and up to five) of the seven registrant characteristics. These relationships are summarised below for each characteristic.

Sex

The incidence of cases involving Considerations in seven of the subgroups differed between male and female registrants (Table 11). For example, cases involving allegations about *Communicating effectively* featured in 9.0% of cases against female registrants compared to 11.6% of those against males. Compared to cases involving a female registrant, those involving a male registrant were significantly:
- less likely to involve considerations in the *Personal behaviour - Public confidence in profession* and *Probity - Caution / charge / conviction* subgroups, but;
- more likely to involve considerations in the *Communicating effectively, Maintain and protect patients' information, Obtain valid consent, Patient interests* and *Professional knowledge and skills - Failure to provide good quality care* subgroups.

It should be noted that, although they were statistically significant, none of these differences were large in real terms, amounting to no more than a 5.1 percentage point difference between the sexes for any of the Consideration Subgroups. The largest difference was for cases involving considerations in the *Personal behaviour - Public confidence in profession* subgroup: these comprised 20.3% of the cases against females compared to 15.2% of the cases against males.

Table 11: Cases by Consideration Subgroup (percentage within registrant sex). Only subgroups whose incidence was significantly associated with registrant sex are shown in the table.

		Registrant Sex §		
		Female	Male	All
Consideration Subgroup	N cases	2,384	5,104	7,488
Communicating effectively *		9.0	11.6	10.8
Maintain and protect patients' information *		13.4	16.7	15.6
Obtain valid consent *		5.2	8.0	7.1
Patient interests *		8.2	12.4	11.0
Personal behaviour - Public confidence in profession *		20.3	15.2	16.8
Probity - Caution / charge / conviction *		2.3	0.7	1.2
Professional knowledge and skills - Failure to provide good quality care *		41.5	46.0	44.6

* Subgroups of particular interest
§ Columns may total to more than 100% because cases can involve multiple considerations

Age

Five Consideration Subgroups exhibited a statistically significant association between the incidence of that type of Consideration and the age of the registrant (Table 12).

- The incidence of considerations in the *Obtain valid consent* and *Patient interests* subgroups both increased with the age of the registrant.
- The incidence of considerations in the *Personal behaviour - Public confidence in profession* and *Probity - Caution / charge / conviction* subgroups both decreased with age. Overall, 16.8% of cases involved considerations in the *Personal behaviour - Public confidence in profession* subgroup but this proportion was far higher (29.2%) in cases concerning registrants less than 30 years of age.
- While generally low, the incidence of considerations in the *Probity - Other* subgroup reached a peak among registrants in the 41-50 age group.

Table 12: Cases by Consideration Subgroup (percentage within registrant age group). Only subgroups whose incidence was significantly associated with registrant age are shown in the table.

		Registrant Age					
		≤30	31-40	41-50	51-60	>60	All
Consideration Subgroup	N cases	695	1,846	2,284	1,786	873	7,484
Obtain valid consent *		4.3	5.4	6.8	9.1	9.6	7.1
Patient interests *		4.7	9.5	11.3	13.0	14.8	11.1
Personal behaviour - Public confidence in profession *		29.2	17.0	17.0	13.7	12.3	16.8
Probity - Caution / charge / conviction *		3.3	1.2	1.1	0.7	0.9	1.2
Probity - Other		0.9	1.0	2.4	1.3	1.5	1.5

* Subgroups of particular interest

Ethnicity

The pattern of incidence across the subgroups were generally similar for cases involving either white or BME registrants. However, there were some significant findings.

Compared to cases involving a white registrant, those involving a BME registrant were:

- significantly less likely to involve considerations in the *Professional knowledge and skills - Training and competence* subgroup (1.0% vs. 5.5% respectively)
- significantly more likely to involve considerations in the *Put patients' interests first - Behaviour and attitude* subgroup (17.7% vs. 11.6% respectively).

Table 13: Cases by Consideration Subgroup (percentage within registrant Ethnic Group). Only subgroups whose incidence was significantly associated with registrant ethnicity are shown in the table.

		Ethnic Group		
		BME	White	All
Consideration Subgroup	*N cases*	1,638	3,008	4,646
Professional knowledge and skills - Training and competence *		1.0	5.5	3.9
Put patients' interests first - Behaviour and attitude *		17.7	11.6	13.8

* Subgroups of particular interest

Country of registration

Patterns of incidence of considerations in the 29 subgroups were generally similar across the four nations. The country of the registrant was related to the occurrence of Considerations in two particular subgroups (Table 14).

- The incidence of considerations in the *Personal behaviour - Public confidence in profession* subgroup was lowest for registrants from England (16.2% of cases) and broadly similar across the other three nations (21.2% to 23.8%).
- The incidence of considerations in the *Put patients' interests first - Laws and regulations* subgroup was also lowest for registrants from England (7.8% of cases) but slightly higher in Wales (13.8%) than in Northern Ireland or Scotland.

Table 14: Cases by Consideration Subgroup (percentage within UK country). Only subgroups whose incidence was significantly associated with registrant country are shown in the table.

		Registrant Country				
		England	N. Ireland	Scotland	Wales	All
Consideration Subgroup	*N cases*	6,079	181	649	260	7,169
Personal behaviour - Public confidence in profession *		16.2	23.8	22.3	21.2	17.1
Put patients' interests first - Laws and regulations *		7.8	11.0	11.7	13.8	8.5

* Subgroups of particular interest

Registration type

There were numerous differences in the Considerations arising in cases against either dentists or DCPs: registration type was significantly associated with the occurrence of Considerations in 17 of the subgroups. Compared to cases involving dentists, those involving DCPs were significantly less likely to involve Considerations in eight of these subgroups and more likely to involve Considerations in the remaining nine, as shown in Table 15

Differences between the two types of registrant were greater than 10 percentage points for four of the Consideration Subgroups. Considerations in the *Maintain and protect patients' information* and *Professional knowledge and skills - Failure to provide good quality care* subgroups were more common in cases involving dentists by 12.1 and 40.4 percentage points respectively while those in the *Personal behaviour - Public confidence in profession* and *Professional knowledge and skills - Training and competence* subgroups were more common in cases involving DCPs by 23.2 and 21.1 percentage points respectively .

Table 15: Cases by Consideration Subgroup (percentage within registrant type). Only subgroups whose incidence was significantly associated with registration type are shown in the table. Differences of more than 10 percentage points are emboldened.

		Registrant Type		
		DCP	Dentist	All
Consideration Subgroup	*N cases*	989	6,494	7,483
Considerations more likely in cases against dentists				
Clear and effective complaints procedure *		1.7	4.6	4.2
Communicating effectively *		3.1	12.0	10.8
Maintain and protect patients' information *		**4.9**	**17.3**	**15.6**
Obtain valid consent *		0.3	8.1	7.1
Patient interests *		2.4	12.4	11.1
Professional knowledge and skills - Failure to provide good quality care*		**9.5**	**50.0**	**44.6**
*Put patients' interests first - Behaviour and attitude**		7.8	14.9	14.0
*Put patients' interests first - Treatment**		0.8	8.1	7.1
Considerations more likely in cases against DCPs				
Illegal Practice $^\phi$		0.7	0.1	0.2
*Personal behaviour - Protecting patients from risks**		9.2	4.4	5.1
Personal behaviour - Public confidence in profession*		**36.9**	**13.7**	**16.8**
*Probity - Caution / charge / conviction**		4.8	0.7	1.2
Probity - Other		3.4	1.2	1.5
Professional knowledge and skills - Training and competence*		**22.4**	**1.3**	**4.1**
*Put patients' interests first - Advertising**		5.4	1.8	2.3
*Put patients' interests first - Indemnity**		5.6	1.4	2.0
Scope of practice *		3.3	0.0	0.5

* Subgroups of particular interest
$^\phi$ No longer a factor in FtP cases. Included for historic reasons.

Time on register

Because of the different historical patterns of registration and the much lower number of FtP cases involving allegations about DCPs, this analysis was conducted separately for cases involving dentists and DCPs.

For dentists, patterns of incidence of considerations in the 29 subgroups were generally similar across the four time-since-registration groups. Just two Consideration Subgroups (*Obtain valid consent* and *Personal behaviour - Protecting patients from risks*) exhibited a statistically significant association between the incidence of that type of Consideration and the registrant's time since registration (Table 16). In both of these subgroups the incidence of that type of Consideration was lowest in cases where the registrant was within their first 10 years of registration.

Table 16: Cases against dentists by Consideration Subgroup (percentage within time-since-registration group). Only subgroups whose incidence was significantly associated with time-since-registration are shown in the table.

		Time since registration (years)				
		≤10	10-20	20-30	>30	All
Consideration Subgroup	*N cases*	2,303	1,792	1,216	1,183	6,494
Obtain valid consent *		6.0	8.1	9.0	11.6	8.1
*Personal behaviour - Protecting patients from risks**		2.9	5.4	4.9	5.6	4.4

* Subgroups of particular interest

For cases involving DCPs, patterns of incidence of considerations in the 29 subgroups were also generally similar across the four time-since-registration groups. Six Consideration Subgroups exhibited a statistically significant association between the incidence of that type of Consideration and the registrant's time since registration (Table 17). Considerations in three of these Consideration Subgroups (*Personal behaviour - Public confidence in profession, Probity - Caution / charge / conviction* and *Probity – Other*) were less common among DCPs registered for more than five years while considerations in the latter three subgroups (*Professional knowledge and skills - Failure to provide good quality care, Professional knowledge and skills - Training and competence* and *Put patients' interests first - Advertising*) were more common among these more experienced DCPs. Some of these differences are quite marked though it should be noted that they are based on a much smaller sample of cases than the parallel analysis for cases against dentists shown in Table 16 above.

Table 17: Cases against DCPs by Consideration Subgroup (percentage within time-since-registration group). Only subgroups whose incidence was significantly associated with time-since-registration are shown in the table.

		Time since registration (years)		
		≤5	>5	All
Consideration Subgroup	N cases	*339*	*650*	*989*
Personal behaviour - Public confidence in profession *		44.8	32.8	36.9
Probity - Caution / charge / conviction *		12.7	0.6	4.8
Probity - Other		7.1	1.5	3.4
Professional knowledge and skills - Failure to provide good quality care *		3.5	12.6	9.5
Professional knowledge and skills - Training and competence *		11.8	28.0	22.4
Put patients' interests first - Advertising *		1.8	7.2	5.4

* Subgroups of particular interest

Dental specialists

For cases involving dentists only one Consideration Subgroup exhibited a statistically significant association between that type of Consideration and presence on the specialist lists. 12.9% of 479 cases involving dental specialists included considerations in the *Obtain valid consent* subgroup compared to 7.8% of 6,015 cases concerning dentists not on the lists.

Theme D: Are the types of allegation made in FtP cases related to the progress and outcomes of the case?

In this part of the research we investigated how the type of allegations (Considerations) made in FtP cases were related to six specific measures of case progress and outcome:

- Stage at closure (Triage, Assessment, Investigating Committee or Practice Committee)
- Case length (Time taken to resolve the case)
- Imposition of sanctions against the registrant
- Impairment (a finding that the registrant's fitness to practise is impaired)
- Closure type at the Assessment stage (with or without full assessment)
- Closure type at the Investigating Committee or Practice Committee stages (with or without sanctions)

Stage at closure

Considerations data were attached to 4,787 (64.5%) of the 7,427 closed cases. Almost all cases closed at the Assessment and Investigating Committee stages had Considerations attached but the same was true of only three quarters of those closed at the Practice Committee stage[15] and a tiny proportion of those closed at Triage (Table 18). Because cases closed at Triage are generally closed without considerations being attached the research question could not be reliably answered in relation to these cases. Results relating to cases that reached the Practice Committee may not be fully representative of all such cases .

Table 18: Frequency of closed FtP cases with Considerations data attached, by stage at closure

Stage at closure	N cases	% cases with considerations attached
Triage	2,546	3.7%
Assessment	2,873	99.5%
Investigating Committee	1,322	99.8%
Practice Committee	686	75.4%
All	7,427	64.5%

Cases concerning *Working with colleagues - Team working* and *Put patients interests first - Advertising* were least likely to go beyond the Assessment stage while those concerning *Probity - Caution / charge / conviction* and *Patient interests* were most likely to do so. Most likely to reach the Practice Committee stage were cases concerned with *Probity - Caution / charge / conviction* and *Health* (Table 19).

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[15] Cases at Practice Committee might not have considerations attached due to the prosecution function's transition to CRM. Considerations now transition across to Practice Committee cases but this did not always happen in the early days of the prosecution function being on CRM.

Table 19: Percentage of cases closed at each stage by Consideration Subgroup. Only results for the 18 subgroups of particular interest are shown. Subgroups for which more than 10% of cases reached the Practice Committee stage are emboldened.

Consideration subgroup	N cases	Triage	Assessment	Investigating Committee	Practice Committee
				Percentage of cases closed by	
Clear and effective complaints procedure *	188	0.0	63.3	34.0	2.7
Communicating effectively *	404	0.2	53.0	40.3	6.4
Maintain and protect patients' information *	**585**	**0.0**	**33.5**	**56.4**	**10.1**
Obtain valid consent *	221	0.0	29.0	62.4	8.6
Patient interests *	**539**	**0.0**	**27.1**	**43.6**	**29.3**
***Personal behaviour - Protecting patients from risks ***	**149**	**0.0**	**65.8**	**18.1**	**16.1**
***Personal behaviour - Public confidence in profession ***	**639**	**0.9**	**55.4**	**27.9**	**15.8**
***Probity - Caution / charge / conviction ***	**60**	**1.7**	**18.3**	**30.0**	**50.0**
*Professional knowledge and skills - Failure to provide good quality care **	2,072	0.8	61.5	32.2	5.5
***Professional knowledge and skills - Training and competence ***	**165**	**0.6**	**67.9**	**18.2**	**13.3**
*Put patients' interests first - Advertising **	117	1.7	75.2	17.1	6.0
*Put patients' interests first - Behaviour and attitude **	582	1.7	70.3	20.4	7.6
***Put patients' interests first - Indemnity ***	**47**	**0.0**	**40.4**	**36.2**	**23.4**
*Put patients' interests first - Laws and regulations **	374	0.8	69.5	23.5	6.1
*Put patients' interests first - Treatment **	314	0.3	58.0	36.6	5.1
Respect patients' dignity and choices *	**111**	**0.0**	**31.5**	**33.3**	**35.1**
Scope of practice *	**21**	**0.0**	**38.1**	**23.8**	**38.1**
*Working with colleagues - Team working **	148	0.0	73.0	23.6	3.4
All cases with Considerations attached	4,787	*1.9*	*59.7*	*27.6*	*10.8*
All cases	7,427	*34.3*	*38.7*	*17.8*	*9.2*

* Subgroups of particular interest

Case length

Descriptive statistics (see detailed report) confirmed that the average time taken to resolve a case was related both to the stage at which it closed and to the type of Considerations involved. To determine the relative importance of these factors we used a linear regression model to predict the length of a case from (1) its stage at closure and (2) the Consideration Subgroups attached to it. The regression model (summarised in Table 20) explained 52% of the variation in case lengths. After controlling for the effect of stage at closure, 13 types of Consideration were associated with statistically significant variation in the time taken to resolve a case,

Two types of Consideration were associated with shorter case resolution times: *DCS Service Issues* and *Put patients' interests first - Advertising* reduced case times by 20% and 19% respectively. The remaining 11 types of significant Consideration increased case resolution times by between 9% (*Professional knowledge and skills - Failure to provide good quality care*) and 128% (*Laws and regulations*).

Table 20: Regression output. Effect of particular types of consideration on the time to resolve a case. Only statistically significant Consideration Subgroups are shown in the table.

Consideration Subgroup	% change in case length
Cooperating with dental team members	+62
DCS Service Issue	-20
Health	+40
Laws and regulations	+128
Patient interests *	+69
Personal behaviour - Other	+13
*Probity - Caution / charge / conviction ***	+33
Probity - Other	+52
*Professional knowledge and skills - Failure to provide good quality care ***	+9
*Put patients' interests first - Advertising ***	-19
*Put patients' interests first - Laws and regulations ***	+22
*Put patients' interests first - Treatment ***	+24
Respect patients' dignity and choices *	+24

* Subgroups of particular interest

Note of caution

The number of cases involving considerations in two of the subgroups (*Cooperating with dental team members* and *Health*) was very low. Consequently, the estimates for these subgroups shown in Table 20 should be interpreted with caution.

Imposition of sanctions

Sanctions were imposed on the registrant in 393 (8.2%) of the 4,787 cases that had both Consideration and Decision data attached. Of the four types of sanction that can be imposed on registrants, *Published warnings* were the most common (Table 21).

Table 21: Imposition of sanctions in closed cases with Considerations attached

Sanction	N cases	% of cases
IC published warning	160	3.3%
Conditions	107	2.2%
Suspension	123	2.6%
Erasure	72	1.5%
Any type of sanction(s) imposed	393	8.2%

We used a logistic regression model to investigate whether the imposition of sanctions (of any type) was related to the types of Consideration in a case. Results (Table 22) showed that 16 types of Consideration were associated with statistically significant variation in the imposition of sanctions. All of these Consideration Subgroups except two (*Professional knowledge and skills - Failure to provide good quality care* and *Put patients' interests first - Behaviour and attitude*) were associated with increased risk of the imposition of sanctions, as evidenced by odds ratios above 1.00. The odds of sanctions being imposed on the registrant were most increased for cases involving matters of *Probity - Caution / charge / conviction* (11.27 times the odds for cases not involving such matters).

Table 22: Odds ratios for imposition of sanctions in a case. Only Consideration Subgroups significantly associated with the imposition of sanctions are shown.

Consideration Subgroup	Odds Ratio
Cooperating with dental team members	4.68
Health	5.97
Obtain valid consent *	2.51
Patient interests *	1.47
Personal behaviour - Protecting patients from risks *	2.64
Personal behaviour - Public confidence in profession *	4.17
Personal behaviour - Other	2.44
Probity - Caution / charge / conviction *	11.27
Probity - Other	4.27
Professional knowledge and skills - Failure to provide good quality care *	0.41
Professional knowledge and skills - Training and competence *	2.01
Put patients' interests first - Advertising *	1.97
Put patients' interests first - Behaviour and attitude *	0.53
Put patients' interests first - Indemnity *	5.28
Respect patients' dignity and choices *	2.30
Scope of practice *	5.71

* Subgroups of particular interest

Note of caution

The number of cases involving considerations in two of the subgroups (*Cooperating with dental team members* and *Health*) was very low. Consequently, the estimates for these subgroups shown in Table 22 should be interpreted with caution.

Impairment

A finding of impairment occurred in 219 (4.6%) of the 4,787 cases that had both Consideration and Decision data attached. Among cases involving particular subgroups of Consideration this percentage ranged from 0 to 32.4%.

Results from a logistic regression model (Table 23) show that 13 of the Consideration Subgroups were significantly related to the likelihood of a case resulting in a finding of impairment. Except for *Professional knowledge and skills - Failure to provide good quality care* all of these Consideration Subgroups were associated with an increased risk of a finding of impairment (odds ratios greater than 1.00).

Table 23: Odds ratios for a finding of impairment in a case. Only Consideration Subgroups significantly associated with a finding of impairment are shown.

Consideration Subgroup	Odds Ratio
Cooperating with dental team members	11.68
Patient interests *	2.87
Personal behaviour - Public confidence in profession *	3.23
Personal behaviour - Other	4.63
Probity - Caution / charge / conviction *	11.01
Probity - Other	8.90
Professional knowledge and skills - Failure to provide good quality care *	0.64
Professional knowledge and skills - Training and competence *	3.64
Put patients' interests first - Indemnity *	4.55
Respect patients' dignity and choices *	2.31
Scope of practice *	8.35

* Subgroups of particular interest

Note of caution

The number of cases involving considerations in two of the subgroups (*Cooperating with dental team members* and *Scope of practice*) was very low. Consequently, the estimates for these subgroups shown in Table 23 should be interpreted with caution.

Closure type at each stage of the FtP process

We analysed the subset of cases that had both Consideration and Decision data attached and were closed at either the: (1) Assessment, (2) Investigating Committee, or (3) Practice Committee stages. Cases closed at the Triage stage were not analysed as cases closed at Triage rarely had Considerations attached.

- Cases closed at the Assessment stage were classified as either *Closed after full assessment* or *Closed after partial or no assessment*.
- Cases closed at the Investigating Committee and Practice Committee stages were classified as either *Closed with sanctions (including reprimands)* or *Closed without sanctions.*

For each stage we then used a logistic regression model to investigate whether the type of closure was related to the Consideration Subgroups involved in a case.

Cases closed at Assessment

After removing the 14 cases closed due to voluntary removal of the registrant from the Register 73.1% of the remaining 2,738 cases were *Closed after full assessment*. Six subgroups were excluded from statistical analysis because all cases involving Considerations in those subgroups were *Closed without sanctions.* These subgroups were *Health, Illegal Practice, Probity - Caution / charge / conviction, Probity – Other, Put patients' interests first – Other* and *Raising concerns*.

Results from a logistic regression model (Table 25) show that *Closure after full assessment* was significantly associated with 11 of the Consideration Subgroups. Among the subgroups of particular interest Considerations classified under either *Patient interests* or *Personal behaviour - Protecting patients from risks* were associated with the greatest likelihood of *Closure after full assessment.* Cases involving Considerations in the *Put patients' interests first - Behaviour and attitude* subgroup were less likely to require full assessment before being closed (odds ratios less than 1.00).

Table 24: Odds ratios for closure after full assessment. Only Consideration Subgroups significantly associated with closure after full assessment are shown.

Consideration Subgroup	Odds Ratio
DCS Service Issue	0.33
Laws and regulations	11.16
Maintain and protect patients' information *	2.09
Obtain valid consent *	2.17
Patient interests *	3.83
Personal behaviour - Protecting patients from risks *	2.61
Personal behaviour - Other	2.35
Put patients' interests first - Behaviour and attitude *	0.76
Put patients' interests first - Laws and regulations *	1.68
Put patients' interests first - Treatment *	1.75
Working with colleagues - Team working *	2.42

* Subgroups of particular interest

Note of caution

The number of cases involving considerations in the *DCS Service Issue* and *Laws and regulations* subgroups are very low. Consequently, the estimates for these subgroups shown in Table 24 should be interpreted with caution.

Cases closed at Investigating Committee

Of the 1,318 cases closed at Investigating Committee 160 (12.1%) were closed with sanctions *(including reprimands)*. Five subgroups were excluded from statistical analysis because all cases involving Considerations in those subgroups were *Closed without sanctions.* These subgroups were *Cooperating with dental team members, Illegal Practice, Probity – Other, Put patients' interests first – Other* and *Scope of practice*.

Results for the logistic regression model (Table 25) show that *Closure with sanctions* was significantly associated with seven of the Consideration Subgroups. Considerations in two of these subgroups (*Patient interests* and *Professional knowledge and skills - Failure to provide good quality care*) were associated with lower odds of *Closure with sanctions* (odds ratios less than 1.00) while Considerations in the remaining five (*Personal behaviour - Protecting patients from risks , Personal behaviour - Public confidence in profession, Probity - Caution / charge / conviction, Put patients' interests first - Advertising* and *Put patients' interests first - Indemnity*) were related to increased odds of *Closure with sanctions* (odds ratios greater than 1.00)*.

Table 25: Odds ratios for closure with sanctions. Only Consideration Subgroups significantly associated with closure with sanctions at Investigating Committee are shown.

Consideration Subgroup	Odds Ratio
Patient interests *	0.05
Personal behaviour - Protecting patients from risks *	4.85
Personal behaviour - Public confidence in profession *	7.48
Probity - Caution / charge / conviction *	12.27
Professional knowledge and skills - Failure to provide good quality care *	0.11
Put patients' interests first - Advertising *	8.17
Put patients' interests first - Indemnity *	5.13
* Subgroups of particular interest	

Cases closed at Practice Committee

Of the 360 cases closed at Practice Committee, 173 (48.1%) were closed with sanctions *(including reprimands)*. Two subgroups were excluded from statistical analysis because all cases involving Considerations in those subgroups were *Closed without sanctions.* These subgroups were *DCS Service Issue* and *Illegal Practice*.

Results for the logistic regression model (Table 26) showed that Considerations in just two subgroups were associated with statistically significant increases in the likelihood of *Closure with sanctions*. It must be noted however that the number of cases with Considerations in these subgroups was small (27 for each subgroup) so the results may not be robust.

Table 26: Odds ratios for closure with sanctions. Only Consideration Subgroups significantly associated with closure with sanctions at Practice Committee are shown.

Consideration Subgroup	Odds Ratio
Personal behaviour - Other	8.34
Probity - Other	3.00
* Subgroups of particular interest	

Conclusions

Overall there was no single subgroup of registrants more likely to have been involved in an FtP however after controlling for all other factors: males (more than females); older (than those under 30 years old); Asian (as opposed to White); dentists who followed a dental route to registration in the UK (as opposed to DCPs and overseas registration examination entrants); those on the register for longer; and for both dentists and DCPs those in the first ten years of registration; were all over-represented in the FtP data.

These findings were supported by simple graphical comparisons contrasting the proportion of each subgroup involved in FtP cases with the GDC's registrant base. When each characteristic was considered independently, male registrants, older registrants, those from Asian and 'other' ethnic groups, those who qualified outside the UK, and those with 'dentist' as their primary qualification were all over-represented in the FtP data. These findings are directly comparable with findings of other UK healthcare regulators; e.g. SOMEP 2016, GMC.[16]

Patients and service users were over half of the informants to the FtP process and they tended to be younger (less than 50 years old). Within these, over half of the cases were concerned with *Professional knowledge and skills - Failure to provide good quality care,* and *Communicating effectively* and *Patient interests* were also substantial areas of concern for this group. When a registrant made a referral to the GDC, the main issues raised related to *Personal Behaviour,* particularly in relation to issues potentially affecting public confidence in the profession.

Trends in the data also reveal relationships between registrant characteristics and considerations: for example, considerations in the *Obtain valid consent* and *Patient interests* subgroups were more common among cases against older registrants, while considerations in the *Personal behaviour - Public confidence in profession* and *Probity - Caution / charge / conviction* subgroups were seen more often in cases against younger registrants.

As might be expected, considerations involving the *Probity - Caution / charge / conviction* and *Patient interests* were most likely to go beyond the initial *Assessment* stage and reach the final Practice Committee stage of the GDC's FtP process, along with cases involving *Health* considerations.

Overall, the GDC hold an extensive database about registrants and informants. These data are of good quality and only lack in detail around equality and diversity data which by law cannot be mandated for [Equality Act 2010]. The dataset is however made unnecessarily complicated by hierarchical layers of 'considerations' afforded to each complaint that could be simplified.

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[16] General Medical Council. The state of medical education and practice in the UK report: 2016. http://www.gmc-uk.org/static/documents/content/SOMEP_2016_Full_Report_Lo_Res.pdf_68139324.pdf: General Medical Council, 2016 p. 12

Glossary

Term	Explanation
Categorical variable	A variable that describes something by allocating it to a given category, often described in words rather than numbers. Three examples in the FtP case data are: • *The sex of a registrant, which has two categories – male and female. Variables with just two categories are 'dichotomous'.* • *The region in which a registrant obtained their primary qualification, which we classified into three categories – UK. EEA and non-EE.* • *The current stage that a case has reached in the FtP process, which we classified into four categories – triage, assessment, investigating committee and practice committee.* Numeric variables are sometimes converted into categorical variables for convenience in analysing or interpreting. *In some of our analyses for example we grouped registrant age into 5 categories: 30 years and under, 31-40, 41-50, 51-60, 61 years and over.* See also 'Numeric variable' and 'Date variable'.
Correlation	Correlation is a way of describing the relationship or connection between two numeric variables. If both variables tend to increase together they are positively correlated but if one increases as the other decreases they are negatively correlated.
Date variable	A variable that gives the date on which something occurred. Two examples in the FtP case data are: • *The date on which a case was opened.* • *The date on which a registrant was first registered with the GDC.* A date variable is a particular type of numeric variable. See also 'Categorical variable' and 'Numeric variable'.
Descriptive statistics	Descriptive statistics are simple measures such as the mean, the median, the range, the standard deviation, etc. that summarise data in a meaningful way.
Frequency (table)	In statistical terms frequency is the number of times that a particular value of a variable appears in the data. For example, Table 6 shows the frequency with which each Consideration Subgroup appeared in the Consideration data set. Table 6 is an example of a 'frequency table'.
Logistic regression	A statistical method of investigating the relationship between a particular dichotomous variable (one which has only two possible outcomes) and a number of other independent variables. The relationship of each variable to the dichotomous outcome variable can be summarised by 'odds ratios'. The first example of the use of logistic regression in this report occurs under Theme A where we investigated whether a registrant being involved in an FtP case (a dichotomous yes/no outcome) was related to a number of other variables including their sex, ethnicity, age, etc. See also 'Odds' and 'Odds ratio'.
Mean	The usual measure of average of a set of numbers, found by adding them up and dividing by the number of numbers.
Numeric variable	A variable that describes something by counting or measuring and is a number rather than a word. Two examples in the FtP case data are: • *The age of a registrant.* • *The number of FtP cases involving a particular registrant.* See also 'Categorical variable' and 'Date variable'.

Term	Explanation
Odds	Odds are a way of describing the chance of something happening. The odds that an event occurs is defined as the probability that it occurs divided by the probability that it doesn't occur. *For example, the odds of rolling a six with a fair die is 1/6÷5/6 = 0.2 while the odds of tossing heads with a fair coin is 1/2÷1/2 = 1.* The higher the probability of something happening then the higher the odds but while probability is measured on a zero to one scale, odds can range from zero to infinity. The advantage of using odds rather than probability in statistical analysis is that they can be more easily estimated by regression methods. See also 'Logistic regression' and 'Odds ratio'.
Odds ratio	Some of the results in Themes A and D of this report are accompanied by Odds Ratios (ORs), which provide a comparison between two different subgroups (the 'reference group' and the 'comparison group') of the chance of something happening. The first example of this appeared under Theme A where we examined whether the chance of being subject to an FtP case differed between the sexes. We reported that male registrants (the comparison group) were more likely than female registrants (the reference group) to be involved in an FtP case that closed at the Investigating Committee stage. An odds ratio of 1.68 is attached to this statement and indicates that the odds of being involved in such a case was 68% higher for males than for females. (Table 8) An odds ratio is always a positive number and should be interpreted as follows: • Odds ratio greater than 1.00: the event is more likely to occur among the comparison group • Odds ratio equal to 1.00: the comparison group is no different to the reference group • Odds ratio less than 1.00: the event is less likely to occur among the comparison group
Standard deviation (SD)	A statistical measure of the extent to which the values of a numeric variable are closely bunched together (in which case they have a small SD) or spread out (large SD). Usually, most values of a variable will fall within 2 SDs of the mean.
Variable	In the present context, variables are the characteristics of a registrant or a Fitness to Practice case that are recorded in the GDC's database and which can be used to distinguish one registrant or one case from another. Examples include the date on which a case was opened, the stage at which a case was closed, the age, sex and ethnicity of the registrant who is the subject of an allegation, the UK region from which the allegation originated and so on. Variables can be classified into three types - see 'Categorical variable', 'Date variable' and 'Numeric variable'.