

The career intentions, work-life balance and retirement plans of dental undergraduates at the University of Bristol

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IN BRIEF

- Demonstrates the positive contributions that dental undergraduates can make to research.
- Provides contemporary undergraduate views on their intentions for their professional careers, work-life balance and retirement plans.
- Supports the view that the career intentions of dental undergraduates should be considered when planning the future UK dental workforce.

Aim To investigate the career intentions, work-life balance and retirement plans of dental undergraduates at the University of Bristol in 2015. **Method** Cross-sectional survey of 210 clinical undergraduates using an anonymous self-report questionnaire. **Results** The response rate was 79%. The majority (81.7%) were 'satisfied' or 'extremely satisfied' with their choice of career. The majority (78.7%) felt men and women are equally likely to succeed in dentistry, although 42.9% felt men had an advantage over women with regards to career success. The majority (81.6%) intend on working within general practice, 11.3% within hospital dental services and 2.1% within community dental services. The majority (70.5%) intend to specialise within dentistry. Only 1.8% of participants intend on providing only National Health Service (NHS) dental treatment whereas the 86.5% would provide both NHS and private dental treatment. Fifteen years after qualifying, 52.2% plan to work part-time, and 37.8% intend on retiring at the age of 60 or below. The majority (86.6%) felt that childcare should be shared equally between both parents. Female students intend to take more time out of their career to concentrate on childcare and felt that having a child would affect their career more than males. **Conclusion** The anticipated career plans, work-life balance and retirement plans of undergraduates change over time, and further research should be carried out to monitor future career intentions of dental students in order to help with dental workforce planning.

INTRODUCTION

Every year, dental students graduate from 16 UK universities, and since 2004, the number of graduates has increased by 36%.¹ In 2014, 1,311 UK graduates were added to the General Dental Council (GDC) register,² and these newly qualified dentists enter a profession undergoing changes relating to care systems, skill mix and funding.³ While an undergraduate student, individuals are exposed to various dental specialities and may gain insight of what it is like to be a dentist in the current society. This knowledge, along with a number of other factors, is likely to influence dental students' future career choices. In turn, these choices may have an impact on access to dentistry and whether or not the oral health needs of the population are met.⁴

Previous studies have found that students consider their work-life balance to be very important.^{4,5} In addition, a high income and a high standard of living were important

factors influencing the long-term careers of dental students studying at one UK university.⁴ In 2012, following the publication of the Browne Report⁶ on the future of Higher Education funding, undergraduate tuition fees in England and Wales were increased when the capping of fees was raised to £9,000 per annum. The effects of this on dental undergraduates' intended career plans are unknown.

Over recent years, there has been a change in workforce with the number of registered female dentists increasing. In 2014, 46% of dentists in the UK were female compared to only 27% in 1995.^{2,5} Female dentists are more likely to take longer career breaks and work fewer hours compared to males, especially while pregnant and while providing care for their children.⁷

It is also important to consider retirement as it contributes to the loss of workforce.⁸ Two thirds of GDPs previously surveyed in Scotland planned to retire early,⁹ and this was also the intention of previous undergraduates where 59% planned to retire before the age of 60.⁵ However, 35% of these students said they would still work part time after retiring.⁵

There is limited contemporary literature available concerning the career intentions, work-life balance and retirement plans of dental undergraduates within the UK. An updated

knowledge in this field is important, as this may ultimately contribute towards future UK workforce planning in order to ensure that the dental needs of the population are met.

AIMS AND OBJECTIVES

Aim

To investigate the career intentions, work-life balance and retirement plans of dental students at the University of Bristol.

Objectives

- To investigate whether dental students are content with their career choice
- To investigate the future career plans of dental students
- To investigate whether dental students intend to work within the NHS and/or private sector
- To investigate dental students' future work pattern plans
- To investigate retirement plans of dental students
- To investigate whether dental students anticipate that their future domestic life will have an impact on their career.

METHOD

Clinical dental undergraduates in years 2, 3 and 4 at the University of Bristol were

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asked to complete an anonymous, paper-based questionnaire comprising of 27 questions. This questionnaire was based on one used in a previous study,⁵ and so no piloting was carried out. Two weeks before distributing the questionnaire, an email was sent to all students informing them of the study, with a participant information sheet attached. Questionnaires were then distributed to 210 students at the end of timetabled lectures within each respective year group. Data was collected in the third term of the academic year 2014–15. SPSS 21 was used to carry out the statistical analysis of the results, and Chi-squared tests were performed where relevant. The significance level of $p < 0.05$ was used in all tests. Ethical approval for this study was obtained from the University of Bristol's Medicine and Dentistry Faculty Research Ethics Committee.

RESULTS

The number of questionnaires completed was 165, giving an overall response rate of 79%. Only 5 out of 27 questions were answered by all respondents, while 2 questions had a response rate of less than 90%. The remainder all had response rates over 90%.

Demographics

Only 30% of participants were male, while 70% were female, with 58% aged between 19 and 21 years, 35% aged 22–24 years and 7% were 25 years and over. Ethnicity was reported as 49% 'white' and 51% 'non-white'.

Background

Only 9% of students had a previous degree before studying dentistry. Types of schools attended were: 42% comprehensive, 31% grammar school and 28% 'private'. A minority (4%) of students had two parents/guardians who were dentists and 9% had one parent/guardian who was a dentist. Similarly, a minority (5%) had two parents/guardians who were medical practitioners and 11% had one parent/guardian who was a medical practitioner.

Career choice

Responses to overall levels of satisfaction with the choice of dentistry as their career are shown in Table 1. Over one third (41%) of 'white' participants were extremely satisfied with their career choice compared to 19% of the 'non-white' participants which is statistically significant ($p < 0.011$). Personal debt associated with a 5 year course, was a concern for 44% of respondents overall. Females (47%) appeared to be more concerned than males (36%) but this was not significant ($p < 0.190$). The majority (79%) felt men and women are equally likely to

succeed in dentistry, while 15% felt that men would succeed more and 6% felt that women would succeed more. Nearly one half (43%) felt that men had an advantage over women with regards to career success, whereas only 3% felt women did. Just over one half (54%) felt that neither gender had an advantage regarding career success. A higher proportion of females (47%) than males (34%) felt that men had more of an advantage, whereas 11% of males compared to no females felt that women had more of an advantage. There is strong statistical evidence of an association between gender and views on whether men have more of an advantage with regards to career success ($p < 0.001$).

Career plans

The majority (95%) replied they would apply for dental foundation training (DFT). The majority (82%) intend on working within general practice, 12% within hospital dental services, 2% within community dental services, 1% in the armed forces and 4% chose 'other'. For this question, 19 questionnaires showed more than one response, and 7% of respondents would like to work both within general practice and the hospital dental services. Following DFT, participants who intend on remaining within general practice were asked if they would remain as an associate or buy into a partnership; 22% would remain as an associate, whereas 72% intend on starting working as an associate before buying into a partnership. Only 7% would look for a partnership immediately. More females (25%) than males (13%) would remain as an associate, although this is not statistically significant ($p = 0.195$).

When asked if they were aware of all available career paths, the majority (61%) responded that they were not aware of all career options. A large proportion (71%) of participants intend to specialise within a

Table 1 Respondent levels of satisfaction with their choice of dentistry as a career

Level of satisfaction	% (n = 164)
Extremely satisfied	30
Satisfied	52
Neutral	15
Unsatisfied	3
Extremely unsatisfied	1

specific area of dentistry. The majority of both females (71%) and males (71%) would like to specialise. With regards to ethnicity, 76% of 'non-whites' would like to specialise compared to 65% of 'whites'; however, this is not significant ($p < 0.139$). Table 2 shows the responses overall, and by gender, when asked about the branch of dentistry in which they would like to specialise. As a number of participants (18%) chose more than one option, analysis of these responses showed that the majority of these participants would chose orthodontics (10%) in addition to another type of specialism.

NHS vs private practice

Only 2% of participants would wish to provide only NHS dental treatment, whereas the majority (87%) indicated that they would provide both NHS and private dental treatment. Just 12% would wish to provide dental treatment on a 'private' basis only.

Anticipated work pattern

Following foundation training, 93% intend to work full time and 7% part time. Five years after qualifying as dentists, 77% plan to work full time and 23% plan to work part time. However, after being qualified for 15 years, only 48% plan to work full time. Table 3 shows the differences in responses between males and females with regards to working full time

Table 2 Intended dental specialities participants chose overall, and by gender

Dental speciality	Total participant response% (n = 76)	Response of females% (n = 52)	Response of males% (n = 24)
Endodontics	4	2	9
Oral and maxillofacial surgery	11	6	21
Oral medicine	4	6	0
Oral surgery	12	10	17
Orthodontics	40	47	25
Paediatrics	11	12	9
Periodontics	3	2	5
Prosthodontics	2	2	0
Restorative	12	12	13
Special care dentistry	4	4	5

Table 3 The responses (by gender) relating to preferences for working patterns 5 and 15 years after qualification

Gender	5 years (n = 163)		15 years (n = 161)	
	Full-time (%)	Part-time (%)	Full-time (%)	Part-time (%)
Male	90	10	71	29
Female	73	27	39	62

Table 4 The age at which participants would like to retire overall, and by gender

Age	Overall (%) (n = 164)	Male (%) (n = 49)	Female (%) (n = 115)
Below 50	7	11	5
51-55	9	7	10
56-60	24	13	28
61- 65	19	27	16
Over 65	16	19	15
Unsure	28	27	28

and part time 5 and 15 years after qualifying. There is statistical evidence indicating an association between gender and work pattern 5 years after qualifying as 28% of females said they would like to work part-time compared to 11% of males ($p < 0.016$). Furthermore there is strong statistical evidence between gender and work pattern 15 years after qualifying as a higher percentage of females (62%) compared to males (29%) would like to work part time ($p < 0.001$).

Retirement

One quarter (27%) of students intend to leave full-time dentistry below the age of 50, 19% between the ages of 51 and 55, 21% between ages 56 and 60, 7% between 61 and 65, 7% chose over 65 years while 19% said they were unsure. Although there was no evidence of association between gender and anticipated age of leaving full-time dentistry, 30% of females compared to 18% of males would like to leave full-time dentistry below the age of 50 ($p < 0.582$). The age at which the participants would like to retire completely from dentistry is shown in Table 4.

Domestic life

Questions on domestic life were intended for those students who already have, or in the future, expect to have children. When participants were asked at what age they would like to start a family, over half (56%) indicated age 27–30, 6% chose 23–26, 32% chose 31–33, 5% chose over 34 and 1% had already started a family. The majority (87%) felt that childcare should be shared equally between both parents, 13% felt that childcare is the mother's responsibility and only 1% felt it was the father's responsibility. In

addition, the same proportion (13%) of males and females felt that childcare was the mother's responsibility. When asked how much time out of their career they would take to concentrate on childcare, 3% replied 'none', 24% replied 'the minimum time possible', 53% replied 'until children are at pre-school age', 10% replied 'until children are at secondary school', 5% replied 'until children are fully independent' and 6% selected 'other'. There is statistical evidence indicating an association between female gender and a greater time out of career to concentrate on childcare ($p < 0.002$).

Participants were then asked how much they thought that having a child would affect their career. Only a minority (3%) replied that it would 'not affect their career at all', 22% felt that it would 'affect it slightly', 40% replied 'moderately', 27% replied 'considerably' and 8% thought that it would affect their career 'dramatically'. Again, there is strong statistical evidence showing an association between female gender and how much having a child would affect an individual's career ($p < 0.001$).

DISCUSSION

This study reports on the career intentions, work-life balance and retirement plans of undergraduate dental students at the University of Bristol. It is encouraging that 82% of participants were either 'satisfied' or 'extremely satisfied' with their career choice, echoing results found previously (Stewart *et al.* 2007). The reasons why 4% of students were either 'unsatisfied' or 'extremely unsatisfied' at this stage of their career are unknown. Similarly, it is unknown why 'whites' were significantly ($p < 0.011$)

more likely to be 'extremely satisfied' than 'non-whites'. Both of these findings would benefit from further investigation.

Personal debt was only a concern for 43% of respondents. This was surprising as two out of the three year groups are paying £9,000/year in tuition fees. These results, however, support previous findings suggesting that the increase in tuition fees does not overly concern students.⁵ One explanation for this may be the fact that 98% of graduates expect to go on to employment or further study directly after graduation and would expect an average salary of £30k after 6 months.¹⁰ In addition, the socio-economic classes of the undergraduates' families are unknown, and it is possible that those applying for dentistry come from wealthier families who are aware of the potential levels of debts incurred while studying dentistry. The minority of students (2%) who intend to provide only NHS dental treatment supports previous findings,⁵ possibly due to the perceived lack of financial reward, and the need to repay any amassed student debt. It has been suggested previously⁴ that if the NHS took into account factors that dental students felt were important, such as increasing funding levels, spending more time with patients and using modern materials, they would be more likely to provide treatment on the NHS. While the majority intend on providing both NHS and private dental treatment, it is the *amount of time* they spend on providing NHS treatment, rather than simply the numbers, that will have an impact on access for patients and therefore this needs to be considered in the future planning of dental accessibility.¹

The intention of the majority of students to work in a general dental practice (GDP) is similar to previous findings,⁵ and furthermore, in 2012, 71% of dentists in Wales worked within GDP indicating that the majority of future dentists will continue to work within GDP.¹¹ Another study¹² found that none of the dentists undergoing DFT wanted to work in the community dental service (CDS). In this current study, only 2% intend on working within the CDS. A recent study¹³ carried out by the British Dental Association found high levels of stress among community dentists. Whether this is a contributory factor for the small number of respondents expressing an intention to work within community services is unknown. Subsequently, this may have a long-term impact on patients who find access to dental treatment difficult. Following DFT, the majority (72%) plan on starting as an associate before buying into a partnership. Only a minority (7%) would look for a partnership immediately, possibly due to existing levels of financial debt, and lack

of experience of business skills. This may reflect on previous findings that a large proportion of dental foundation trainers thought that new graduates have 'poor' or 'very poor' training in practice management skills.¹⁴ Remaining as an associate long term was more popular with females and this may reflect the responses given on family life.

The findings that 67% of respondents reported an intention to specialise is much greater than previous findings⁴ of just 25% of final year dental students wishing to specialise at King's College London. It is speculated that this high number may be considered to be more of the 'number who aspire' to specialise rather than the number of those that make it a reality. Considering that in 2014 just over 10% of dentists registered in the UK were on the GDC specialist registers,² the results of this study indicate that there may be a large future increase in the number of registered specialists. Orthodontics was the most popular choice of subject (40%), especially from females (47%), supporting previous findings.⁴ However, restorative dentistry is now a less popular choice compared to previous findings when it was found to be as popular as orthodontics.⁴ Previous studies have also found an increase in the number of female dentists specialising and significant gender differences within specialities.^{8,15}

Following DFT, the majority (93%) of respondents intend on working full-time, although this drops to 77% after 5 years and to 48% after 15 years. Furthermore, after 5 years and 15 years, the percentage of females who intend on working part time (62%) is more than double the percentage of males (29%). This is significant ($p < 0.001$) and supports previous findings.⁹ This is important to consider as the number of UK female dentists has increased, and this is reflected in this study, with 70% of respondents being female. Childcare is very influential on the future work patterns of female dentists.⁴ This current study shows that female students would take more time out of their careers to concentrate on childcare compared to males, and that females feel that having a child would have a 'moderate' or 'considerable' effect on their career. This may be related to the finding that more females intend on working part time compared to males. Future domestic life has more of an impact on the career patterns of female dentists, and this may help to explain why 43% of participants felt men had an advantage over women in having a successful career. Previously,⁵ 59% of students intended retiring below the age of 60, while in the current study, this was intended by 38%. This reduction in the numbers anticipating an early retirement may be due to the fact that the

age of receiving a state pension for most undergraduates will currently be 68 years, or that student debt is fresh in the minds of current undergraduates.

Overall, this study has met its aims and objectives, but it does have some limitations. Firstly, only general trends can be made when comparing this study's results with those of a similar 2007 study⁵ as although a similar methodology and questionnaire were used, different populations were studied. Each university will have its own course structure, thus students will have differing clinical and educational experiences between institutions. Additionally, dental undergraduates at a single UK university may not be representative of all UK undergraduates, and so it would be incorrect to assume that these results can be generalised. Final-year students were not included in this study as they were on study leave at the time, and yet their views may be most relevant due to their increased clinical experience and insight (compared to students in earlier years). Including their views would have increased the study reliability. Another limitation is that participants were not asked to indicate their year group to help maintain anonymity, and knowledge of year groups would have allowed analysis of any differences between these groups. For example, year 4 students may have been more aware than year 2 student of the career paths open to them due to their increased clinical exposure.

Furthermore, it must be remembered that UK graduates are not the only dentists being added to the GDC register. The 1,311 UK graduates added in 2014 only contributed 58% of new registrants, with 42% of new registrants having qualified overseas.² By the end of 2014, 28% of dentists on the GDC register were not UK qualified.²

Despite the limitations of this study, the methodology and usable response rate of 79% provides a contemporary benchmark from which further studies could be conducted. Carrying out further research of undergraduates at other UK dental schools, along with the significant number of overseas qualifying dentists, would provide more reliable data on the career intentions, work-life balance and retirement plans of those being added to the GDC register.

CONCLUSION

This study shows that the anticipated career plans, work-life balance and retirement plans of undergraduates are not rigid, changing over time depending upon current working practices within dentistry. The results have highlighted differences in intended work patterns between genders which may have an impact on access to dentistry as the number

of females within dentistry is increasing. The results of this study supports the views of the 2007 study⁵ that future generations of dentists may have a pattern of professional life that could have the effect of reducing their clinical commitment. Wider research should be carried out to investigate the career intentions of UK dental students, along with those qualifying overseas, and it may be appropriate to take these into account when planning the future UK dental workforce.

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