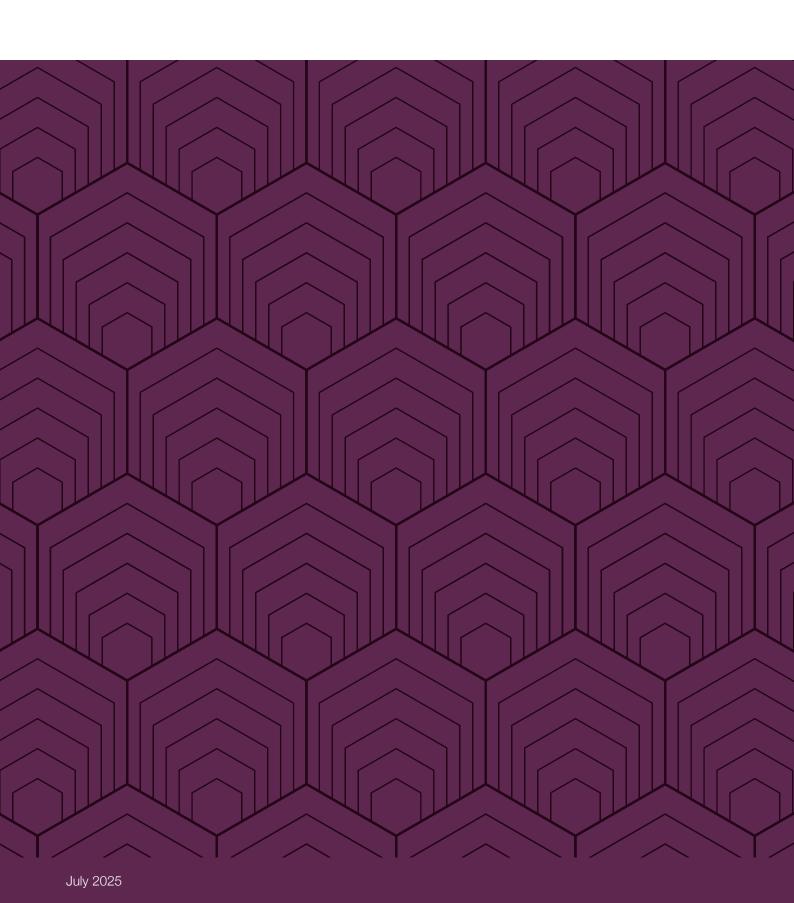
General Dental Council

Dental nurses working patterns inferential analysis

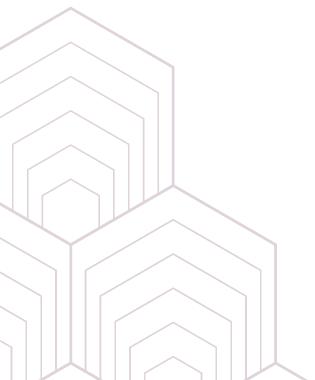


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Glossary of terms

| Term | Meaning |
|--------------------------------|--|
| Active in the UK dental sector | Whether someone is: • Currently working in the dental sector • Seeking work in the dental sector |
| Clinical / non-clinical | Whether someone is working in a role that is: Clinical (fully or at least 75%) Mix of clinical and non-clinical Non-clinical (fully or at least 75%) Other |
| Employment status | Whether someone works: • Employed • Self-employed / locum / agency • Business owner / part owner • In training • On parental leave • On sick leave • Working unpaid / pro-bono • Not applicable • Prefer not to say |
| Healthcare sector | Sector worked in: NHS (fully or at least 75% of time) Mix of NHS and private Private (fully or at least 75% of time) Other |



| Term | Meaning |
|---------------------|--|
| Non-response bias | Is a bias that can happen when there is a significant difference between those who respond and those who don't respond to a survey |
| Weekly hours worked | Hours worked per week by range |
| Work setting | Sector worked in: General dental practice Specialist dental practice Community dental services Dental hospital Other hospital settings Laboratory Oral public health Armed forces In education / training as a student In education / training as a member of staff Researcher / academic Other Not applicable Prefer not to say |

Acknowledgements

The GDC is grateful to all the dental professionals who responded to the working patterns questions. We would also like to thank the professional bodies, trade organisations, employers and other government stakeholders who supported the development of questions and encouraged dental professionals to complete this data.

Any further questions or suggestions related to the publication of working patterns data can be submitted via email at research@gdc-uk.org.

Executive summary

- Since November 2023, working patterns questions have been available on the GDC's online portal, eGDC, alongside the annual renewal process. Responses from dental care professionals were requested for the first time as part of their 2024 annual renewal (June August). Following the publication of the working patterns dental care professionals summary tables in October 2024¹, this report presents the results from further analysis of responses from dental nurses. Only statistically significant findings are reported.
- Of the 62,364 dental nurses who completed annual renewal in July 2024, 36,368 (58%) responded to the working patterns questions.
- Nearly all (99%) dental nurses who completed the working patterns data were working in the dental sector. Those looking for work had been on the register for slightly less time than those in employment.
- Dental nurses working in clinical roles had been on the register for a shorter length of time than those in non-clinical roles.
- Nearly two-thirds (65%) of dental nurses who were up to 30 years of age said that they were working between more than 30 hours and up to 40 hours per week. There were no other significant differences by EDI characteristics.
- Most (87%) dental nurses worked in one setting, with that setting usually being a general dental practice.
- The median² time since primary qualification for dental nurses working in general dental practice was 9.1 years compared to 11.7 years for those working in all other settings³.
- Dental nurses working in non-clinical roles were less likely to be delivering a mix of NHS and private care (30%) compared to all dental nurses (37%).

- 1. Working patterns data
- 2. The median is the mid-point of the dataset.
- 3. This is an aggregated group, because of small base numbers, which includes:
 Armed Forces', 'community dental service', 'dental hospital', 'education / training as a student', 'laboratory', 'non-clinical (e.g. local authority)', 'not applicable', 'oral public health', 'other', 'prefer not to say', 'researcher / academic', 'specialist dental practice'.

1 Introduction

The General Dental Council (GDC) has undertaken further analyses of our working patterns data, bringing it together with equality, diversity and inclusion (EDI), registration and Fitness to Practise (FtP) data to derive greater insight and value from our working patterns responses. This report provides further analysis of dental nurses' responses to the working pattern responses questions.

Of the 62,364 dental nurses who completed annual renewal in July 2024, 36,368 (58%) responded to the working patterns questions. This analysis includes:

- Employment status
- Where dental nurses work (location and setting)
- Healthcare sector dental nurses deliver care in (NHS v private)
- Weekly hours worked by dental nurses
- Whether dental nurses work in clinical or non-clinical roles
- Variations by equality, diversity and inclusion characteristics
- Correlations between working patterns questions and incidence of FtP cases (at the aggregate level)

1.1 Methodology

Working patterns data is being collected using questions made available on the GDC's online portal (eGDC). This was done to maximise response rates, and data completeness, and was arrived at in dialogue with professional organisations, registrants and governmental stakeholders. We launched the data capture process by encouraging dental professionals to provide their data when they completed their annual renewal, beginning with dentists in 2023, and then dental care professionals in 2024. Completion of the working patterns questions is voluntary.

Analyses reported here are derived from dental nurses' responses received up to 10 August 2024. Responses received after this date will be included in future outputs. Only dental nurses who reported that they were either 'working in the dental sector' or 'looking for work in the dental sector' in the United Kingdom (UK) are included in these analyses.

For the analysis of responses, we tested if a difference in results was statistically significant at a 95% confidence level and only results that are statistically significant are reported.

The appendices contain further details on data collection and question design (4.1 Question design and format), on data cleaning (4.2 Data cleaning), on the statistical linear models used to test hypotheses models, p values and effect sizes⁴ (4.3 Statistical analysis models), comparisons of the respondent numbers with the GDC's registration data across EDI characteristics and selected registration fields (4.4 Non-response bias), and notations for the statistically significant differences (4.5 Statistical notation).

^{4.} The effect size measures the strength of a relationship between two or more variables (i.e. what proportion of the difference in the data is explained by this relationship).

2 Results

2.1 Active in the UK dental sector

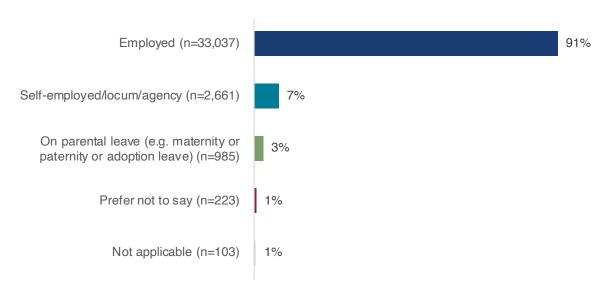
Of the 36,368 responses included in this analysis, 99% of dental nurses were working in the dental sector and the remaining 1% were looking for work in the dental sector.

More than two-fifths (45%) of those currently working in the dental sector had been on the register for 12 years or more, compared with less than a third (31%) for those currently looking for work in the dental sector^a.

2.2 Employment status

Dental nurses were asked about their employment status within the dental sector (Figure 1). They could select multiple responses for this question. Most (97%) of the respondents selected only one employment status.

Figure 1 - Most common employment status⁵



Most (91%) dental nurses were employed, with the next largest employment status being self-employed (7%).

^{5. &#}x27;Business owner / part owner', 'on sick leave', 'in training', 'working unpaid' were omitted from the chart as they were less than 1% each.

2.3 Primary field of practice

Dental nurses were asked about their primary field of practice⁶. Most (92%) dental nurses reported their primary field of practice as being 'dental nurse'. Some dental nurses with dual registrations reported working as dental hygienists (3%), dental therapists (2%) and orthodontic therapists (2%).

2.4 Clinical / non-clinical work

Work in clinical or non-clinical roles varied by the length time since primary qualification⁷ (Table 1)^b. On average, dental nurses working in clinical roles had obtained their primary qualification more recently compared with dental nurses working in either a role that was a mix of clinical / non-clinical or a fully non-clinical role.

Table 1 - Median time since primary qualification obtained by clinical or non-clinical role

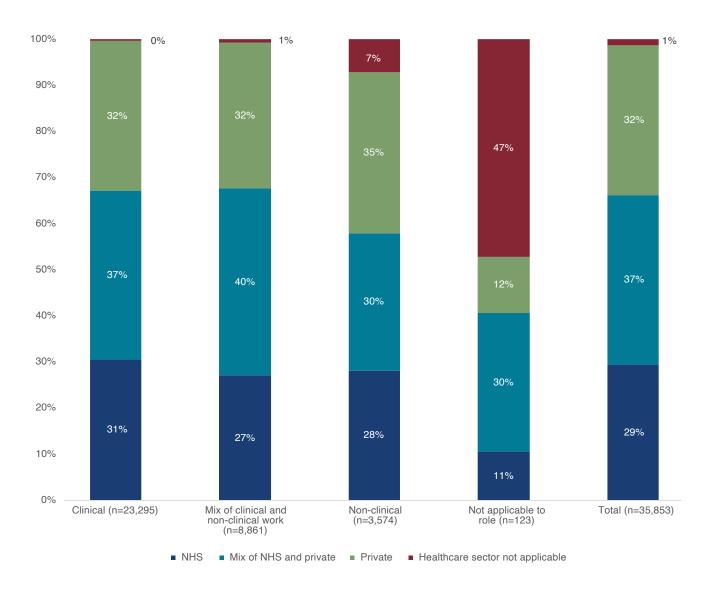
| Type of role | Median time since primary qualification (years) |
|--|---|
| Clinical (n=23,387) | 8.7 |
| Mix of clinical and non-clinical (n=8,896) | 11.6 |
| Non-clinical (n=3,593) | 11.6 |
| Other (n=490) | 9.3 |
| Total (n=36,366) | 10.2 |

^{6.} A dental professional may be registered under multiple titles with the GDC, but the working patterns question specifically asks for their primary field of practice.

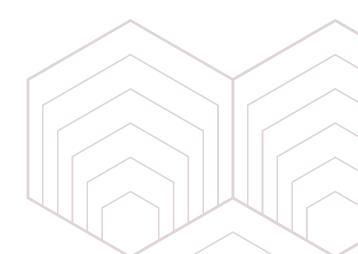
^{7.} As dental nurses have only been regulated since 2008, the entire duration that a dental nurse has been performing this role may not be fully reflected in the GDC data. Additionally, due to limitations with the dataset used for this analysis, registrations of 12 years and over were grouped together.

Work in clinical and non-clinical roles also differed by healthcare sector (Figure 2)°, with a smaller proportion of dental nurses in non-clinical roles delivering a mix of NHS and private care (30%) compared with the overall proportion of dental nurses delivering a mix of NHS and private care (37%).

Figure 2 - Clinical or non-clinical role by healthcare sector



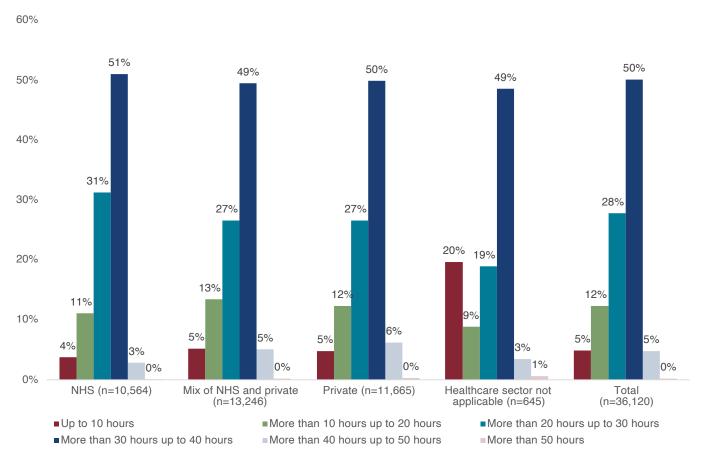
Additionally, more than a third (35%) of dental nurses working in non-clinical roles were working in the private healthcare sector, compared with under a third (32%) for the total proportion of dental nurses.



2.5 Weekly hours worked by dental nurses

Hours worked⁸ varied by the healthcare sector in which dental nurses typically delivered care (Figure 3).

Figure 3 – Hours worked by healthcare sector



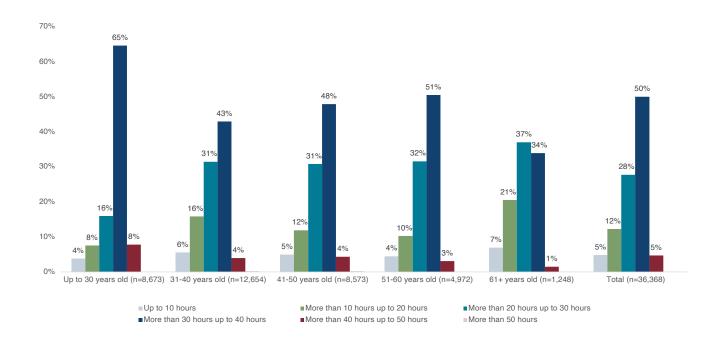
Nearly a third (31%) of dental nurses working in the NHS were working 'more than 20 hours and up to 30 hours'. This proportion was higher than those working in other healthcare sectors (Mix of NHS and private = 27%, Private = 27%, Healthcare sector not applicable = 19%) and the total (28%).

^{8.} For this question response options were hour ranges.

^{9.} In this figure, 'healthcare sector not applicable' represents the responses of 'not applicable' to the question on which type of dental care (e.g. NHS, private, mix of NHS and private) they most commonly provide.

Nearly two-thirds (65%) of dental nurses who were up to 30 years of age reported working 'more than 30 hours and up to 40 hours'. This is the highest proportion amongst all age group. Only 51% of 51-60-year-olds reported working 'more than 30 hours and up to 40 hours', and only 34% of over-60-year-olds (Figure 4).

Figure 4 - Hours worked by age group



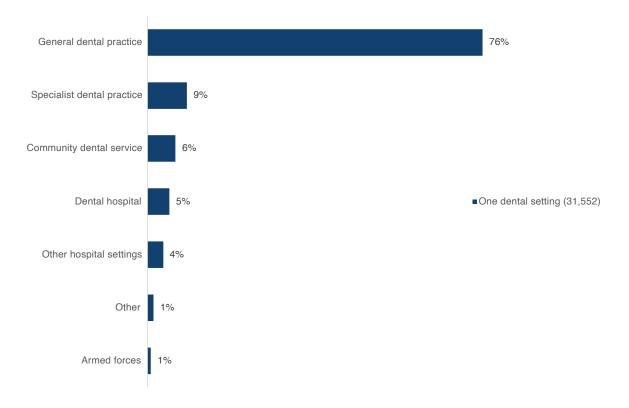
Additionally, among dental nurses who were up to 30 years of age, a smaller proportion were working 'more than 20 hours and up to 30 hours' (16%) compared to the total for dental nurses (28%).



2.6 Work setting

Most (87%) dental nurses who responded only worked in one setting. Of these, over three-quarters (76%) indicated that they worked in general dental practice (Figure 5).

Figure 5 – Work setting for dental nurses with only one reported setting¹⁰



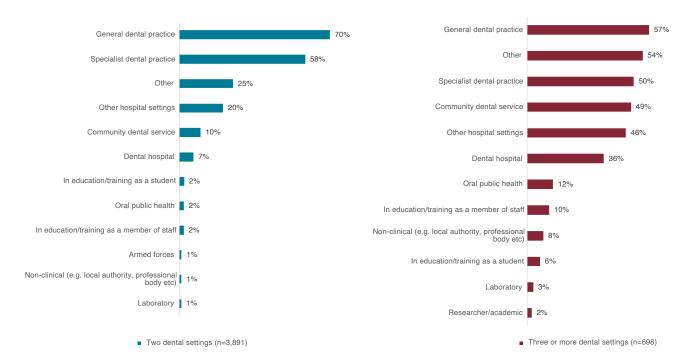
Median length of time since primary qualification for dental nurses working in the general dental practice was 9.1 years compared to 11.7 years for those working in other settings¹¹.

^{10.} Respondents who did not select a setting or who selected more than one were not included in this figure.

^{11.} As dental nurses have only been regulated since 2008, the entire duration that a dental nurse has been performing this role may not be fully reflected in the GDC data. Additionally, due to limitations with the dataset used for this analysis, registrations of 12 years and over were grouped together.

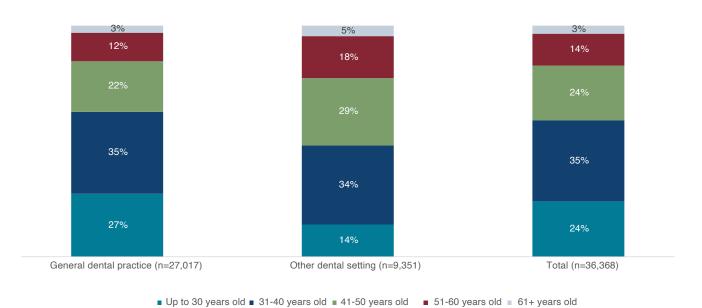
Dental nurses working in more than one setting were less likely to work in general dental practice than nurses working in only one dental setting^e (Figure 6).

Figure 6 - Work setting for dental nurses with more than one reported setting



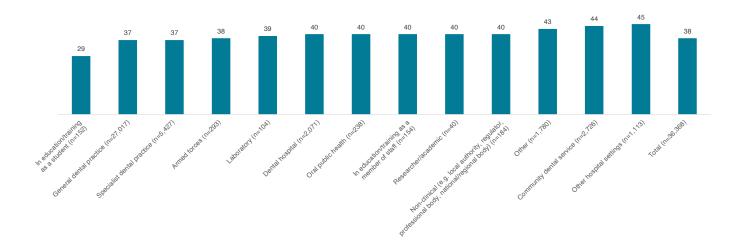
Dental nurses who were up to 30 years of age were more likely to be working in general dental practice (27%) compared to working in other settings (14%)^f (Figure 7).

Figure 7 - Age group of dental nurses working in general dental practice



Despite a higher proportion of dental nurses aged up to 30 years old, when compared to other dental settings, the median age for a dental nurse working in general dental practice was 37 (Figure 8).

Figure 8 - Median ages of dental nurses by dental setting



2.7 Number of workplaces and number of countries of work

Most (99%) dental nurses were working in only one UK country. In terms of number of workplaces, more than four-fifths (82%) of dental nurses had one workplace, 11% had two workplaces and 6% had three or more workplaces. There were no significant differences by EDI characteristics or registrant characteristics in relation to the distribution of dental nurses between the different numbers of workplaces.

2.8 Fitness to Practise

The GDC does not use working patterns data in FtP case decision making. We matched our working patterns data to our FtP and EDI data to undertake pseudonymised¹² analysis to explore possible links to working pattern responses. We found no correlations between involvement in an FtP concern¹³, working patterns responses or any respondent characteristics (such as EDI characteristics, time on the register or route of qualification)¹⁴.

^{12.} The person responding was given a dummy ID so that they could not be identified.

^{13.} Which was defined as a dental nurse being involved in a case that had at least progressed beyond the triage stage within the previous two years.

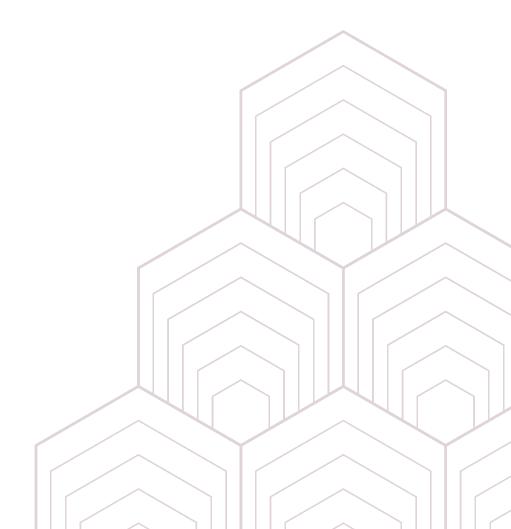
^{14.} Fewer than one percent of dental nurses who responded had an FtP case closed within the past two years.

3 Conclusions

Most dental nurses were employees, working in clinical roles and in general dental practice settings. They typically worked in one workplace and in one UK country. The proportion of dental nurses reporting that they were looking for work, was below the current national unemployment rate.

General dental practices had a greater proportion of younger dental nurses (i.e. 16–30-year-olds) compared to other work settings. Additionally, the proportion of dental nurses in non-clinical roles delivering a mix of NHS and private care was much lower than the overall proportion of dental nurses who were delivering a mix of NHS and private care.

There were no correlations between any working patterns questions and involvement in an FtP concern.



4 Technical appendix

4.1 Question design and format

GDC researchers looked at existing information on working patterns data including sources from the NHS, the Office for National Statistics (ONS), the Government Statistical Service (GSS) and the Institute for Social and Economic Research. This was combined with questions previously developed from GDC primary research.

The questions were designed to minimise the burden on respondents and to capture factual data about working patterns. They were fixed response questions and took on average five minutes or less to complete. They were voluntary and every question had a 'prefer not to say' option to ensure that respondents had the possibility of avoiding answering any question which they might find to be sensitive in nature.

The working patterns questions were piloted with an external group of dental professionals.

4.2 Data cleaning

Any values that were left blank or entered in an invalid format (e.g. for text entry) were coded to unknown during the data cleaning process.

4.3 Statistical analysis

This analysis uses null hypothesis frequentist linear models to test for correlations in the data. The nine working patterns questions were combined with an additional 22 GDC registration fields and five fitness to practise fields. The large number of analyses has meant that only those with statistical significance (p < 0.05) and at least a small effect size have been highlighted as 'significant' (the model performance is included in 4.5 Statistical notation).

4.4 Non-response bias

Tables 2 to 6 show category comparisons between dental nurses who completed the working patterns questions and the numbers of dental nurses on GDC's register.

The main difference between the dental nurse register EDI characteristics and working patterns sample were:

Ethnicity: Dental nurses who identified their ethnic group as 'White' accounted for 83% of working patterns dental nurse respondents, compared to 79% of registered dental nurses (Table 3).

Marital status: Dental nurses who identified their marital status as 'Married' represented 41% of the working patterns dental nurse respondents, compared to 38% of registered dental nurses (Table 4).

Table 2 – Sex from working patterns compared with register data

| | Dental nurse working patterns respondents (10/8/2024) (n=36,368) | Dental nurse register data (10/8/2024) (n=62,456) |
|-------------------|--|---|
| Female | 98% | 97% |
| Male | 2% | 2% |
| Prefer not to say | <1% | 1% |
| Total | 100% | 100% |

Table 3 – Ethnicity from working patterns compared with register data

| | Dental nurse working patterns respondents (10/8/2024) (n=36,368) | Dental nurse register data (10/8/2024) (n=62,456) |
|---|--|---|
| Asian or Asian British | 7% | 9% |
| Black, Black British, Caribbean or African | 2% | 2% |
| Mixed or multiple ethnic groups | 2% | 2% |
| Other ethnic group | 2% | 2% |
| White | 83% | 79% |
| Unknown | 2% | 3% |
| Prefer not to say | 3% | 3% |
| Total | 101%* | 100% |

^{*}due to rounding



Table 4 - Marital status from working patterns compared with register data

| | Dental nurse working patterns respondents (10/8/2024) (n=36,368) | Dental nurse register data (10/8/2024) (n=62,456) |
|--|--|---|
| Divorced | 6% | 5% |
| Formerly in a civil partnership which is now legally dissolved | <1% | 0% |
| In a registered civil partnership | 1% | 1% |
| Married | 41% | 38% |
| Never married and never registered in a civil partnership | 37% | 37% |
| Separated, but still legally in a civil partnership | <1% | 0% |
| Separated, but still legally married | 2% | 1% |
| Surviving partner from a registered civil partnership | <1% | 0% |
| Widowed | 1% | 1% |
| Unknown | 4% | 7% |
| Prefer not to say | 9% | 10% |
| Total | 101%* | 100% |

^{*}due to rounding

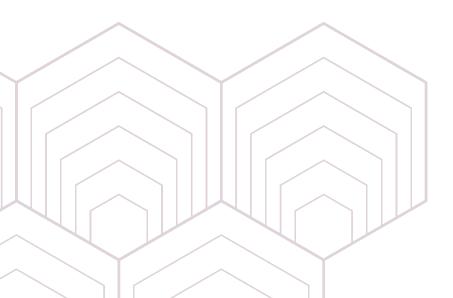


Table 5 – Sexual orientation from working patterns compared with register data

| | Dental nurse working patterns respondents (10/8/2024) (n=36,368) | Dental nurse register data (10/8/2024) (n=62,456) |
|--------------------------|--|---|
| Bisexual | 1% | 1% |
| Gay/Lesbian | 1% | 1% |
| Other sexual orientation | <1% | 0% |
| Straight/heterosexual | 90% | 88% |
| Unknown | 2% | 3% |
| Prefer not to say | 6% | 7% |
| Total | 101%* | 100% |

^{*}due to rounding

Table 6 – Age from working patterns compared with register data

| | Dental nurse working patterns respondents (10/8/2024) (n=36,368) | Dental nurse register data (10/8/2024) (n=62,456) |
|-------|--|---|
| 16-21 | 2% | 3% |
| 22-30 | 22% | 25% |
| 31-40 | 35% | 34% |
| 41-50 | 24% | 22% |
| 51-60 | 14% | 13% |
| 61-65 | 3% | 3% |
| 65+ | 1% | 1% |
| Total | 101%* | 100% |

^{*}due to rounding

4.5 Statistical notation

- a Kruskal Wallis H test = 29.110 (n=36,366), df = 1, p = 0.01, eta² = 0.02 (small effect size)
- ^b Kruskal Wallis H test = 1404.8 (n=36,366), df = 3, p = 0.01, eta² = 0.05 (small effect size)
- $^{\circ}$ Pearson Chi-Square X² = 3109.2 (n=35,853), df = 9, p = 0.01, Cramer's V = 0.17 (strong effect size)
- ^d Pearson Chi-Square $X^2 = 215.3$ (n=36,666), df = 18, p = 0.01, Cramer's V = 0.14 (medium effect size)
- $^{\circ}$ Pearson Chi-Square $X^2 = 643.6$ (n=35,465), df = 3, p = 0.01, Cramer's V = 0.13 (medium effect size)
- ^f Pearson Chi-Square $X^2 = 884.6$ (n=36,120), df = 4, p = 0.01, Cramer's V = 0.15 (medium effect size)



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