



# **Is there a Well-being Gap among UK Dentists?**

**Results from the 2014 Dentists' Well-being and Working Conditions surveys**

**February 2015**

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## **About the BDA**

The British Dental Association (BDA) is the professional association for dentists in the UK. It represents dentists working in general practice, in community and hospital settings, in academia and research, and in the armed forces, and includes dental students.

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## Summary

This report describes the results of two surveys carried out by the British Dental Association which sought to measure dentists' subjective or personal well-being and compare their levels of well-being with the UK adult population as a whole. These surveys were undertaken in June-July 2014 to support the BDA's evidence submission to the Review Body on Doctors' and Dentists' Remuneration (DDRB).<sup>1</sup> These included:

**First**, a survey of dentists working in community dental services to identify levels of stress and well-being, and assess the current state of those services. The survey was administered online to 1,643 community dentists who were members of the BDA. Of these, 554 responded, yielding a response rate of 34 per cent. Of these, 481 were confirmed to be working as community dentists.

**Second**, a national survey of BDA members who work as associates or practice owners in general dental practice settings. In June-July, 2014, 3,992 BDA members were surveyed, with 903 responding, a response rate of 23 per cent.

Four indicators of personal well-being were incorporated into both surveys - relating to life satisfaction, happiness, anxiety levels, and how worthwhile respondents view the activities they engage in. These were developed by Dolan *et al* (2011) and the Office for National Statistics (ONS) (2012a) to monitor levels of well-being in the UK population.

## Key findings

The main findings from our research relating to dentists' personal well-being are summarised here:

### Community dentists

- Almost half (47 per cent) of the community dentists surveyed in summer 2014 reported low levels of life satisfaction. A similar proportion (45 per cent) reported low levels of happiness and 55 per cent reported experiencing high levels of anxiety during the day prior to being surveyed.
- Between summer 2013 and summer 2014, there was a significant fall in average levels of personal well-being among community dentists on two of the four well-being indicators we used – in 2014, they were less likely to say they felt happy or that the things they do in life are worthwhile compared with the previous year.

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<sup>1</sup> DDRB is an independent body appointed to review evidence and make recommendations to Government in regards to the remuneration of doctors and dentists. The BDA presents written and oral evidence to the DDRB to help it keep up to date on recruitment, retention, motivation and changes in practice expenses in dentistry. Evidence is submitted on behalf of dentists in England, Scotland, Wales and Northern Ireland in general dental practice and community dental care service.

- Among community dentists in England and Wales, there are no significant differences in well-being levels across grades or bands.
- Community dentists working part-time perceived the things they do in life as more worthwhile compared with those working full-time. However, there are no significant differences between part-time and full-time workers on the other three well-being indicators (happiness, life satisfaction, and anxiety).
- Among community dentists, there is a significant relationship between levels of morale or job satisfaction and personal well-being; those dentists who reported feeling more satisfied with their work reported higher average levels of personal well-being on average.
- There is a strong relationship between levels of work-related stress and well-being levels; that is, dentists reporting high levels of work-related stress also reported low levels of well-being across all four well-being indicators.
- Three out of four community dentists said they are in “good” general health, with around one in twenty (5 per cent) reporting they are in “bad health”.
- Younger dentists (under 35 years old) rated their health most highly, with the likelihood of reporting being in good general health diminishing after the age of 35. However, the proportion who rated their health as ‘good’ does not follow a steady decline with age – for example, the oldest group of community dentists (55+) were more likely than those aged 34 to 54 to perceive their health positively.
- There is a strong relationship between work-related stress and perceptions of health among community dentists. Those who reported high levels of stress at work were significantly less likely to report being in “good health”.

## General dental practitioners

- As with community dentists, almost half of the GDPs (47 per cent) surveyed in June-July 2014 reported low levels of life satisfaction, with a similar proportion (44 per cent) reporting low levels of happiness. In addition, around six out of ten reported experiencing high levels of anxiety during the day prior to being surveyed.
- There was a significant reduction in levels of personal well-being between 2013 and 2014 among GDPs across all four indicators.
- There is no evidence of any significant differences between associates and practice owners in their average levels of personal well-being.
- However, the proportion of NHS or private care GDPs provide is significantly related to their personal well-being; dentists who do *mainly* NHS work reported lower levels of well-being than those doing *mainly* private work.

- Unlike community dentists, there is a strong association between hours of work and levels of well-being among associates; for example, associates who work part-time (30 hours or less) reported higher average levels of well-being than those working full-time across all four indicators.
- Like community dentists, there is a strong relationship between feelings of personal well-being and work-related stress. This association is more pronounced among GDPs than among community dentists.
- There is a strong association between levels of job morale and satisfaction and how GDPs rate their personal well-being more generally. This relationship is significant across all four well-being indicators.
- Four out of five GDPs perceived their general health as “good”, with almost 40 per cent saying they are in “very good” health”.
- As with community dentists, younger dentists (aged under 35) rated their health most highly, with the likelihood of saying that they are in “good health” gradually diminishing with age.
- Again, like community dentists, there is a significant relationship between levels of work-related stress among GDPs and how they perceive their health. Those who reported low levels of stress at work were more likely to report being in “good health”. However, this effect was less pronounced among GDPs than among community dentists.

### **Comparing dentists with the wider population: is there a well-being gap?**

- GDPs and community dentists reported very similar levels of well-being across all indicators, except that GDPs reported higher levels of anxiety compared with community dentists. This is consistent with another key finding from this research – that GDPs report higher levels of work-related stress compared with community dentists.
- Both GDPs and community dentists rated their well-being across all four measures at much lower levels than the UK population; put another way, there is a ‘well-being gap’ between the dental profession and the wider adult population.
- Dentists reported much higher levels of work-related stress compared with other workers in the UK (BDA, 2014; Kemp and Edwards, 2014; BDA, 2015) and this may help to explain the “well-being gap” between them.
- Dentists were as likely to perceive their general health as ‘good’ as the wider adult population.
- GDPs were slightly more likely to report being in “good” health compared with community dentists (81 per cent compared with 74 per cent).

- Among both dentists and the UK adult population, those aged under 35 were most likely to perceive themselves to be in “good health”. A similar proportion of community dentists and GPs under the age of 35 perceived themselves to be in “good health” compared with adults aged 25-34 in the wider UK population.

## Conclusions and implications for further research

The findings from our research are consistent with the view that exposure to high levels of stress-at work is likely to be an important factor driving dentists’ overall levels of personal well-being.

Dentists in the UK face challenging working conditions and are exposed to occupation-specific stressors which put them at risk of high levels of work-related stress (Kay and Lowe, 2008; Newton *et al*, 2008; Kemp and Edwards, 2014). Moreover, there is some evidence that high levels of stress at work can have repercussions for dentists’ mental well-being (for example, Cooper *et al*, 1987, 1988; Myers and Myers, 2004). Work-related stress may also have negative implications for the level of satisfaction dentists derive from their work (Humphris and Peacock, 1993; Denton, 2008).

Our research builds on the existing evidence, and shows that that high levels of work-related stress and low levels of job satisfaction are associated with lower levels of personal well-being among dentists. The occupation-specific pressures that dentists experience may help to explain why they report lower levels of life satisfaction and higher levels of anxiety compared with adults in the UK population.

The well-being challenge then for UK dentists is clear: to tackle those aspects of dentists’ work which are responsible for such high levels of stress and which also act to undermine dentists’ job satisfaction and work engagement. We need to learn more about these factors and how they vary across the different settings that dentists work in and the diverse roles that dentists perform.

Finally, these findings highlight the need for more research to understand how exposure to high levels of stress at work impacts upon dentists and the work they do – for example, what are the consequences of high job stress for dentists’ mental and physical well-being, or for the patient care they provide? The implications of the association between NHS commitment and well-being among GPs also merit further investigation; for example, are GPs who do more NHS work more likely to experience burnout?

Over the next 18 months, the BDA will be building on the research described above by investigating the relationship between working conditions, high job stress, and mental well-being among dentists. A key aim of this research will be to develop effective strategies for preventing high levels of work-related stress and reducing levels of burnout among dentists.

# 1 Introduction

This report is about levels of well-being among dentists in the UK. It summarises the findings from two large online surveys which were carried out by the BDA in summer 2014 where we asked dentists about their level of well-being and self-rated health.

Over recent years, there has been a growing interest in the concepts of well-being and happiness as the goals of public policy and government (for example, Stiglitz *et al*, 2009; Dolan and Peasgood, 2008; Layard, 2005; New Economics Foundation, 2004, 2011). Indicators of national well-being and happiness are seen as complimenting more established economic indicators of overall national progress and development (for example, HM Treasury, 2008; ONS, 2012a, 2014a). Moreover, the New Economics Foundation (2011) has argued that subjective measures of well-being can have a useful role in the policy process; for example, they can be used to assess the impact of new policies and evaluate policy outcomes.

In November 2010, ONS launched the Measuring National Well-being Programme with the aim of developing a better understanding of national well-being and developing a measure of how individuals perceive their own well-being (ONS, 2012a; 2013a; 2014a). As part of this programme, ONS (2013a) sought to develop a measure of subjective or personal well-being which would provide 'consistent estimates over time', 'meet policy needs', and that was aligned with measures of well-being used internationally. The background to these measures and how the UK Government have used them is summarised in Annex B to this report.

In 2013, the BDA incorporated these measures of personal well-being in surveys of its members. This set of indicators were also included in two surveys of dentists' working conditions, work-related stress and morale which took place in summer 2014 (approximately one year later) with the addition of a measure of self-rated general health.

This makes it possible to compare levels of personal well-being with the wider UK population and to estimate any year-on-year changes in dentists' self-reported levels of well-being.

Section 2 of this report gives a brief overview of these two surveys and describes their outcomes. It also summarises the main measures used to explore the personal well-being of dentists and their assessments of their own health. Section 3 summarises the findings from the first of these two surveys relating and focuses on the well-being of community dentists. Section 4 repeats this analysis of personal well-being for general dental practitioners (GDPs). Section 5 seeks to compare with the most recent estimates of dentists' personal well-being with estimates for the UK population as a whole. Section 6 examines how dentists assess their own levels of health, compared with results from the 2011 Census for England and Wales. The report ends with some concluding remarks and pointers for further research.



## 2 Methods

The evidence presented here draws on findings from two online surveys of dentists which were carried out to support the BDA's evidence submission to the Review Body on Doctors' and Dentists' Remuneration (DDRB) to support pay claims for dentists in the UK. As already alluded to, the first survey was of those dentists working in community dental services and the second survey was of those working in general dental practice.

### 2.1 Aims/objectives

The two surveys had overlapping objectives. They both sought to

- estimate levels of morale and identify any changes in morale over previous years
- estimate levels of self-reported well-being and work-related stress
- explain low levels of well-being and high levels of self-reported stress, and how they estimate levels of job satisfaction and identify the factors that explain low levels of job satisfaction
- relate to dentists' working conditions
- identify how stress affects patient care

The two surveys also had some independent objectives. For example, the survey of community dentists also sought to

- estimate how many community dentists are working at each grade and how many are on a specialist list
- map the range of providers that community dentists currently work for.

The survey of GDPs (associates and practice owners) also sort to

- identify the characteristics of GDPs' main practices
- explore GDPs' hours of work and estimate the proportion of GDPs who work on a part-time basis
- examine and explore changes in recruitment in the dental workforce including levels of underemployment.

### 2.2 The samples used in the two surveys

#### 2.2.1 Community Dentists

All BDA members who were recorded as being community dentists in June 2014 were selected from the BDA membership database, CARE. Only those with valid email addresses were included in the sample. Those members who had opted out of receiving BDA marketing material or participating in BDA surveys were excluded from the sample.

Among those invited to participate in the survey (N=1,708), 65 members responded to say that they were no longer working as community dentists or no longer worked in

community dental services. This meant that our effective sample size was N=1,643. Among those surveyed, we received 554 responses, representing a response rate of 33.7 per cent.

For the purpose of our survey we defined a community dentist as a dentist employed in a community dental service to provide specialist or community dental care. However, we found that there were some who did not meet this definition.

Among those who responded in the survey, 71 said they were not community dentists or were not employed to work in a community dental service. There were two cases where we were unable to confirm whether or not they worked as community dentists. This left us with a final sample 481 valid cases which were available for analysis.

### **2.2.2 General Dental Practitioners**

The survey population consisted of all GDPs working in the UK who were BDA members at the time of the survey and for whom the BDA had up-to-date contact information. We only included members who had given their permission to be contacted. The survey sample of 3,992 GDPs or 25 per cent of those meeting these criteria were selected from the BDA membership database for inclusion in the survey.

Data collection took place in summer 2014. Those included in the sample were sent an email explaining the purpose of the research, its rationale, and what their participation would entail. The email included a link to the survey.

Of those surveyed, we received responses from 903 members, which represented a response rate of approximately 23 per cent.

Among those who responded, 21 said they did not work in general dental practice. The remaining 882 cases confirmed that they worked in general dental practice and, of these:

- just over half were practice owners (53.0 per cent, N=461)
- just under half (46.4 per cent, N=404) identified themselves as associates
- there were a small number of cases (N=5) who said they were another type of dentist
- due to non-response, we were unable to identify the type of dentist in 12 cases

The analyses reported below focuses on all GDPs who confirmed that they were either associates or practice owners working in general practice settings (N=865 cases).

## **2.3 Measures of personal health and well-being used in the surveys**

An online mode of administration was used in both surveys because of its advantages in terms of cost and time. A schedule was developed consisting of questions on the following topics: role and employing organisation; morale and job satisfaction; levels of well-being and personal health; levels of work related stress; work strain; and working conditions.

Table A1 in Annex A summarises the areas of questioning across both surveys and maps the variables for which data were collected by each type of dentist (associates, practice owners, and community dentists).

A key aim of these surveys was to measure dentists' subjective or personal well-being and self-rated health and then to compare dentists with the UK adult population.

### **2.3.1 Four indicators of personal well-being**

Indicators of personal well-being were incorporated into the 2014 surveys of dentists' morale, job satisfaction and working conditions. Respondents were invited to assess their own levels of personal well-being using the set of four well-being measures developed by ONS (2011, 2012a). The four indicators are as set out here:

- “Overall, how satisfied are you with your life nowadays?” with responses recorded on a scale ranging between zero (“Not at all satisfied”) and ten (“Completely satisfied”).
- “Overall, how happy did you feel yesterday?” with responses recorded on a scale ranging between zero (“Not at all happy”) and ten (“Completely happy”).
- “Overall, how anxious did you feel yesterday?” with responses given on a scale ranging between zero (“Not at all anxious”) and ten (“Completely anxious”).
- “Overall, to what extent do you feel that the things you do in your life are worthwhile?” with responses on a scale between zero (“Not at all worthwhile”) and ten (“Completely worthwhile”).

Sources: Dolan *et al*, 2011:14; ONS, 2014a

The first well-being indicator relates to life satisfaction. Dolan *et al* refer to this as an “evaluation measure” of personal well-being (2011: 14). They recommended two “experience measures” which seek to gauge respondents' own assessments of their emotional experience. The first of these measures focuses on subjective feelings of “happiness”. The second seeks to gauge respondents' perceptions of their own levels of anxiety. The fourth measure used by ONS to indicate personal well-being seeks to gauge the degree to which an individual perceives the ‘worthwhileness’ of the activities they engage in.

ONS has applied these measures of personal well-being in their UK population surveys over the past three years, enabling them to track levels of personal well-being over time (ONS, 2012a; 2013b, c; 2014a).

A more detailed account of the rationale for these measures is given in Annex B, together with the most recent population well-being estimates available from ONS for 2014.

### **2.3.2 Self-rated health**

Self-rated health is commonly used in health surveys and epidemiological studies as a measure of perceived health status. For example, the 2011 Census for England and Wales included a measure of self-rated health (‘How is your health in general?’ ‘Very good’,

‘Good’, ‘Fair’, ‘Bad’, ‘Very bad?’) (ONS, 2013f).<sup>2</sup> This measure of perceived health status has also been used in several national surveys; for example, it is included in the General Lifestyle Survey, the UK Integrated Household Survey, and the Scottish Health Survey.<sup>3</sup>

Eriksson *et al* (2001) compared three different measures of self-rated health using a large sample of adults:

- “How would you rate your general health status?” Five categories - ‘Very good’ to ‘Poor’
- “How do you regard your health?” Seven categories: ‘Excellent’ to ‘Very poor’
- “How would you assess your general health status compared with that of others of your own age?” Five categories: ‘Much better’ to ‘Much worse’.

Eriksson *et al* found that differences between them were marginal and claimed that the three measures represented ‘parallel measures of subjective health’ (2001:326).

As Eriksson *et al* point out, perceptions of one’s own health are likely to include a number of biases and ONS (2013b) caution that such subjective assessments should not be confused with more objective measures of health or diagnostic measures. For example, there are likely to be individual and group differences in how the term ‘health’ is understood and interpreted; questions about health may be sensitive to social desirability bias; and how individuals’ assess their own health is likely to reflect their level of optimism about their health and life in general (Eriksson *et al*, 2001; ONS, 2013b).

However, there is some evidence that subjective assessments of health assist in predicting morbidity and mortality (Eriksson *et al*, 2001); for example, in a review of 27 population health studies using a measure of self-rated health, Idler and Benyamini (1997) found that, in almost all of these studies, self-rated health independently predicted mortality outcomes.

In the BDA’s 1996 and 2005 occupational health surveys, Kay and Scarrott (1997) and Kay and Lowe (2008) included measures of self-rated health and health behavior in national surveys of dentists. In the surveys reported here, we used the measure of self-rated health used in the 2011 Census for England and Wales and in other national surveys in the UK (see above), enabling us to compare dentists’ assessments of their own health with the wider adult population.

Following ONS’ approach to analysing the perceived general health (ONS, 2014b), in our own analyses we have combined ‘very good’ and ‘good’ responses to form a larger category: ‘good general health’. Similarly, the categories ‘fair’, ‘bad’ and ‘very bad’ perceived health are pooled to create the category: ‘not in good general health’.

The next four sections summarise the findings from the analyses of well-being and subjective health data from the surveys outlined in this section.

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<sup>2</sup> The 2011 Census schedule including this self-rated health question can be accessed from ONS’ website at: <http://www.ons.gov.uk/ons/guide-method/census/2011/how-our-census-works/how-we-took-the-2011-census/how-we-collected-the-information/questionnaires--delivery--completion-and-return/2011-census-questions/index.html>

<sup>3</sup> For more information on the Scottish Health Survey, see The Scottish Government (2014a) and for more information on the General Lifestyle Survey go to: <http://www.ons.gov.uk/ons/rel/ghs/general-lifestyle-survey/index.html>

### 3 Personal well-being among community dentists

This section describes how community dentists rated their personal well-being, and compares these ratings with our findings from surveys carried out in 2013.

#### 3.1 How community dentists rated their well-being in 2013-14

The average (mean) scores on each well-being measure are presented for community dentists in Table 3.1, together with the proportion within each of four bands.

**Table 3.1 Average scores across all four personal well-being indicators**

Well-being indicator (1)	Rating % in bands (2)					Average (mean)	Base N
	Very low (0-4)	Low (5-6)	Medium (7-8)	High (9-10)	Total %		
Life satisfaction	22.2	24.8	40.8	12.2	100.0	6.1	468
Life worthwhile	15.5	18.9	42.9	22.7	100.0	6.8	466
Happy yesterday	23.3	21.6	36.8	18.4	100.0	6.3	468
	Very high (6-10)	High (4-5)	Medium (2-3)	Low (0-1)			
Anxious yesterday	34.5	20.8	23.3	21.4	100.0	4.2	467

Base: community dentists

1 Community dentists were asked 'Overall, how satisfied are you with your life nowadays?', 'Overall, to what extent do you feel the things you do in your life are worthwhile?', 'Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?' where 0 is 'not at all' and 10 is 'completely'.

2 These are the bands used by ONS to present their findings for the UK population. ONS (2013a) sets out the reasoning underpinning the thresholds used.

Table 3.1 shows that almost half (47 per cent) of the community dentists surveyed in June-July 2014 reported low levels of life satisfaction, with a similar proportion (45 per cent) reporting low levels of happiness. In addition, 55 per cent reported experiencing high levels of anxiety during the day prior to being surveyed.

Table 3.2 and Figure 3.1 compare the average well-being scores across all four measures between 2013 and 2014 for community dentists. In 2014, the average ratings were:

- 6.1 points out of 10 for life satisfaction (down 0.2 points on the previous year)
- 6.8 out of 10 for feeling that what one does in life is worthwhile (down 0.4 points on the previous year)
- 6.3 out of 10 for happiness yesterday (down 0.4 points on the previous year)
- 4.2 out of 10 for anxiety yesterday (up 0.3 points on the previous year)

While these differences are small, they all point to a general diminishment in levels of well-being over the past year among community dentists across all four measures. That is, between summer 2013 and summer 2014, there was a significant diminishment in community dentists' personal well-being on two out of four of the well-being indicators

used. There was also a reduction in average life satisfaction scores and an increase in self-rated anxiety levels, but these year-on-year changes are not significant.

**Table 3.2 Changes in average personal well-being between 2013 and 2014 among community dentists**

Well-being factor (1)	Mean scores		Change
	2013	2014	
Life satisfaction	6.3	6.1	-0.2
Worthwhile	7.3	6.8	-0.4*
Happy yesterday	6.7	6.3	-0.4*
Anxious yesterday (2)	3.8	4.2	+0.3
Base N	484	468	

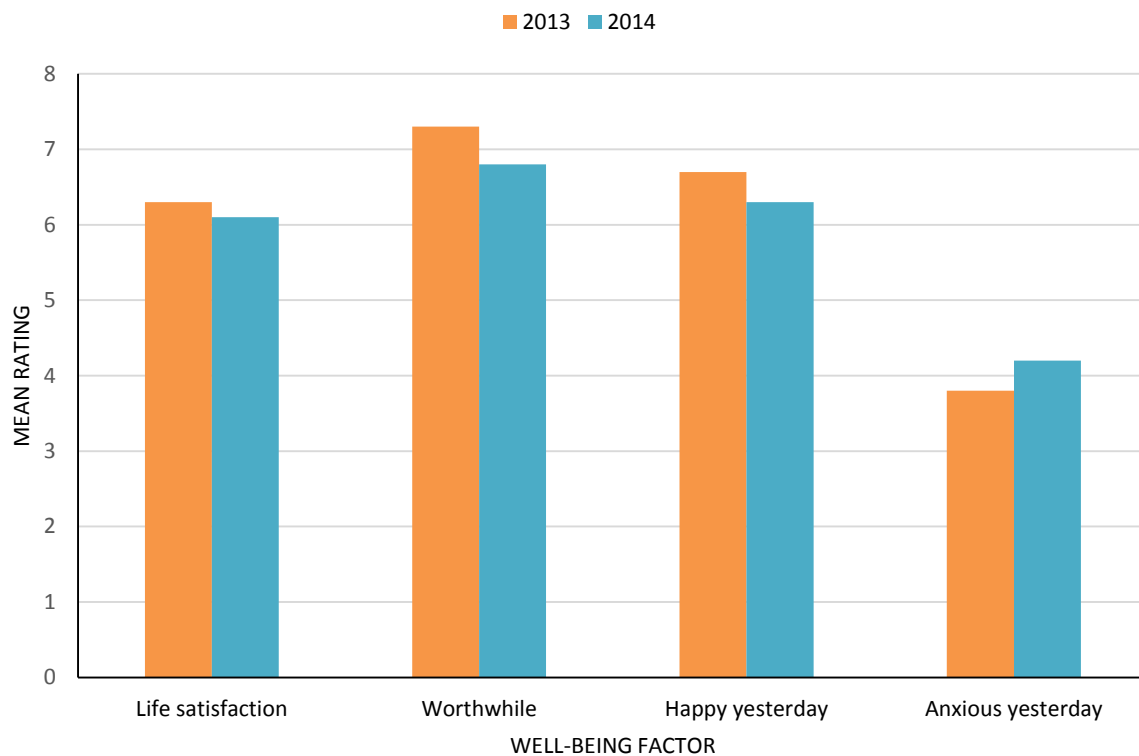
Base: all community dentists

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 A high score on the anxiety scale indicates a higher level of self-rated anxiety

\*Indicates significant from 2013 at the  $p < 0.05$  level; two-tailed z-test

**Figure 3.1 Changes in average personal well-being ratings between 2013 and 2014 among community dentists**



Base: all community dentists

### 3.2 Personal well-being, by job role

Table 3.3 explores how average well-being levels among community dentists vary by their grade or band in England and Wales only.

**Table 3.3 The relationship between community dentists' grade and personal well-being among community dentists in England and Wales**

Grade	Well-being factor (1)				Base N
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
Band A/Dental Officer	6.1	6.7	6.2	4.4	134
Band B/Senior Dental Officer	6.0	6.8	6.2	4.4	144
Clinical Manager/Specialist (C)	6.4	7.2	6.4	4.0	83
Significance*	NS	NS	NS	NS	

Base: community dentists in England and Wales

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* F-test for one-way ANOVA; NS denotes differences not significant

There are no significant differences by band among community dentists in England and Wales (Table 3.3). Band A and Band B dentists scored almost identically across all four measures. However, Clinical Managers and Specialists (Band C) recorded slightly higher levels of well-being across each measures, including lower levels of anxiety. However, these differences are not significant.

Table 3.4 shows how well-being scores for community dentists vary by the number of hours they usually work each week.

**Table 3.4 The relationship between personal well-being and usual hours of work, among community dentists**

Usual hours of work	Well-being factor (1)				Base N
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
Full-time - more than 30 hours	6.1	6.7	6.2	4.2	247
Part-time - 30 hours or less	6.3	7.1	6.6	4.0	214
Significance*	NS	p<0.05	NS	NS	

Base: all community dentists

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* Two-tailed z-test; NS denotes differences not significant

Table 3.4 shows that community dentists working part-time perceived the things they do in life as more worthwhile compared with those working full-time. However, there are no significant differences between part-time and full-time workers on the other three well-being indicators (happiness, life satisfaction, and anxiety).

### 3.3 Work-related stress and personal well-being

Dentists in the UK face challenging working conditions and are exposed to occupation-specific stressors which put them at risk of high levels of work-related stress (Kay and Lowe, 2008; Newton *et al*, 2008; BDA, 2014). Indeed, BDA research (BDA, forthcoming) has found that the prevalence of work-related stress among dentists is very high, and significantly higher than among workers in the wider population.

Among UK workers in general, work-related stress has been found to increase the risk of a range of common mental disorders such as depression and anxiety (Melchior *et al*, 2007; Stansfeld and Candy, 2006). Work-related stress is also associated with higher levels of absence due to sickness (HSE, 2009, cited in Kerr *et al*, 2009). For example, NHS Employers estimates that 30 per cent of sickness absence in the NHS is due to work-related stress.<sup>4</sup>

Among dentists, there is some evidence that high levels of stress at work can have repercussions for their emotional well-being and mental health (for example, Cooper *et al*, 1987, 1988; Myers and Myers, 2004).

The next part of our analysis therefore focuses on the relationship between the experience of high levels of stress at work and levels of personal well-being among dentists. Tables 3.5 and 3.6 and Figure 3.2 examine the relationship between how community dentists rate their personal well-being and the likelihood of reporting high levels of work-related stress. Specifically, Table 3.5 compares the distribution of well-being scores among those who reported high levels of work-related stress with those who reported only moderate levels. Table 3.6 and Figure 3.2 presents average well-being scores by level of work-related stress (high versus low).

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<sup>4</sup> NHS Employers. 2014. *Stress in the workplace*. Available at: <http://www.nhsemployers.org/your-workforce/retain-and-improve/staff-experience/health-work-and-wellbeing/keeping-staff-well/stress-in-the-workplace> [Accessed 26.02.15]



**Table 3.5 Community dentists' ratings of their personal well-being, by work-related stress**

Well-being factor (1)	Column percentages		Significance (3)
	High job stress (2)	Low job stress	
<b>Life satisfaction</b>			
Highest well-being (Rating of 9-10)	4.9	16.9	p<0.001
Medium (7-8)	26.9	49.6	
Low (5-6)	24.2	25.4	
Lowest well-being (Rating of 0-4)	44.0	8.1	
<b>Worthwhile</b>			
Highest well-being (Rating of 9-10)	13.1	29.2	p<0.001
Medium (7-8)	33.9	48.8	
Low (5-6)	21.9	16.7	
Lowest well-being (Rating of 0-4)	31.1	5.3	
<b>Happy yesterday</b>			
Highest well-being (Rating of 9-10)	9.3	24.4	p<0.001
Medium (7-8)	24.6	44.5	
Low (5-6)	21.3	21.6	
Lowest well-being (Rating of 0-4)	44.8	9.5	
<b>Anxious yesterday</b>			
Low anxiety (Rating of 0-1)	8.2	30.0	p<0.001
Medium (2-3)	20.3	25.1	
High (4-5)	19.8	21.2	
Very high anxiety (Rating of 6-10)	51.6	23.7	
<b>Total %</b>	100.0	100.0	
<b>Base N</b>	284	182	

Base: community dentists

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 "Very stressful" and "Extremely stressful" are used as the threshold for identifying those with "high work-related stress" (Houdmont *et al*, 2010) or 'high job stress' (HSE, 2012:15)

3. Result of chi-square test

**Table 3.6 Relationship between personal well-being and work stressfulness among community dentists**

High job stress (2)	Well-being factor (1)				Base N
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
No stress to moderately stressed	6.9*	7.5*	7.2*	3.4*	284
High job stress	4.9	5.9	5.0	5.4	182
Significance*	p<0.01	p<0.01	p<0.01	p<0.01	

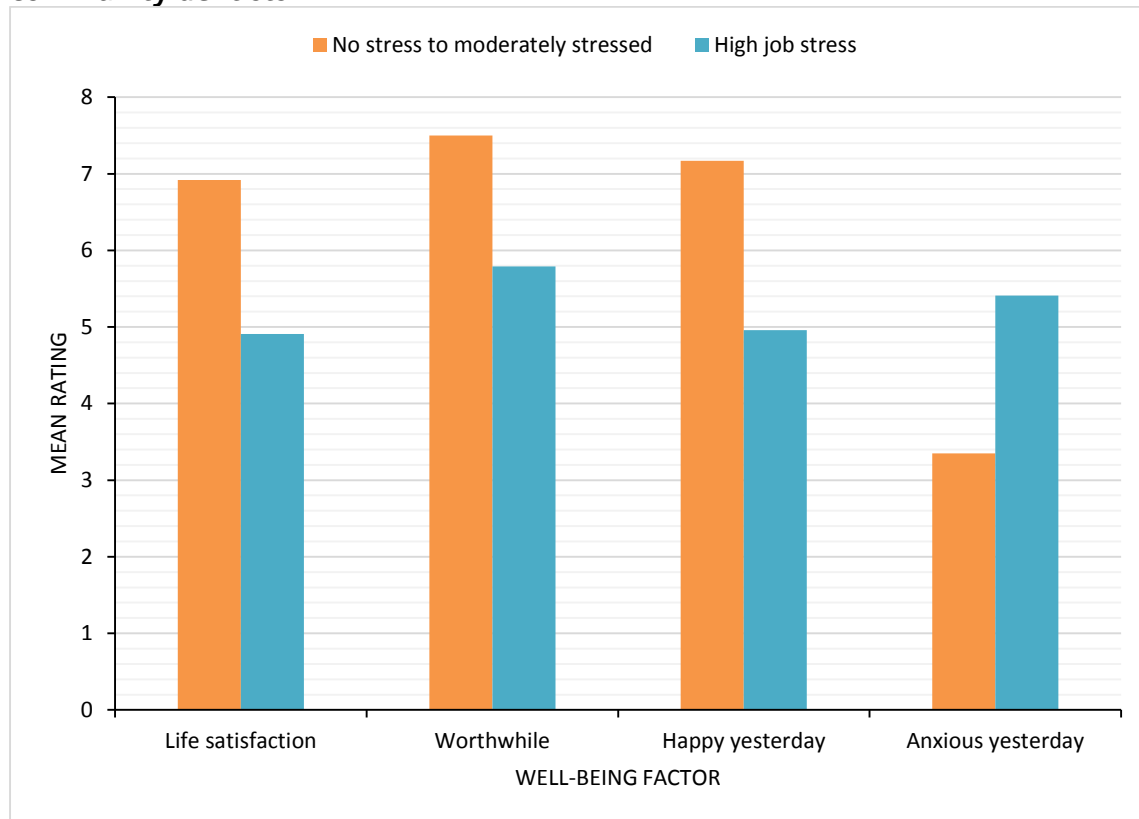
Base: community dentists

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 "Very stressful" and "Extremely stressful" are used as a threshold to identify those with "High job stress"

\*Result of one-tailed z-test

**Figure 3.2 Personal well-being ratings by level of work-related stress among community dentists**



Base: community dentists

Table 3.6 and Figure 3.2 show that average levels of well-being are significantly lower across all four dimensions among those who reported high levels of work-related stress, compared with those who reported lower levels of stress at work. That is, there is a strong association between high levels of stress at work and personal well-being. Those who reported high levels of work-related stress also reported very low levels of life satisfaction or happiness. Unsurprisingly, those who reported high levels of work-related stress were over twice as likely to report 'very high' levels of anxiety during the previous day by comparison with those who reported low levels of work-related stress.

### 3.4 Personal well-being by morale and job satisfaction

Table 3.7 explores the relationship between levels of personal well-being among community dentists and their levels of job satisfaction or morale at work.

**Table 3.7 The relationship between personal well-being, morale, and job satisfaction among community dentists**

		Well-being factor (1)				Base N
		Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
<b>Job satisfaction</b>	<b>Satisfied with job</b>	7.1	7.7	7.3	3.4	220
	<b>Neither low nor high</b>	5.5	6.3	5.9	4.1	30
	<b>Dissatisfied with job</b>	5.3	6.1	5.4	4.9	216
<b>Significance*</b>		p<0.001	p<0.001	p<0.001	p<0.001	
<b>Self-rated morale</b>	<b>High morale at work</b>	7.6	8.2	7.8	2.8	106
	<b>Neither low nor high job morale at work</b>	6.7	7.2	6.9	3.9	146
	<b>Low morale at work</b>	5.0	5.9	5.2	5.0	214
<b>Significance*</b>		p<0.001	p<0.001	p<0.001	p<0.001	

Base: community dentists

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\*Result of F test for One-way ANOVA

Table 3.7 illustrates the strong association between levels of morale or job satisfaction and personal well-being. That is, there is significant variation in the average well-being scores across levels of job satisfaction and morale. However, the direction of causality is unclear in this case; for example, where dentists are unhappy or dissatisfied with their life in general, this may have implications for how they feel about their work as well. On the other hand, it is likely that high levels of stress at work drives down morale and job satisfaction, which, in turn, may have implications for dentists' life satisfaction and happiness in and out of work.

## 4 Personal well-being among General Dental Practitioners

This section repeats the analysis reported in Section 3 for community dentists, but this time focusing on GDPs.

### 4.1 How GDPs rated their well-being in 2013-2014

The average (mean) scores on each well-being measure are presented for GDPs in Table 4.1 together with the proportion falling within each of four bands.

**Table 4.1 Average GDP scores across all four well-being indicators in 2014**

Well-being indicator (1)	Rating % in bands (2)					Average (mean)	Base N
	Very low (0-4)	Low (5-6)	Medium (7-8)	High (9-10)	Total %		
Life satisfaction	24.3	22.8	39.9	13.0	100.0	6.1	845
Life worthwhile	16.9	21.6	40.4	21.0	100.0	6.7	846
Happy yesterday	23.3	20.2	35.7	20.9	100.0	6.4	843
	Very high (6-10)	High (4-5)	Medium (2-3)	Low (0-1)			
Anxious yesterday	41.4	19.4	24.9	14.3	100.0	4.6	846

Base: GDPs

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 These are the bands used by ONS to present their findings for the UK population. The reasoning underpinning the thresholds used is set out in ONS (2013)

Table 4.1 shows that almost half (47 per cent) of GDPs surveyed in June-July 2014 reported low levels of life satisfaction, with a similar proportion (44 per cent) reporting low levels of happiness. In addition, six out of ten reported experiencing high levels of anxiety during the day prior to being surveyed.

Table 4.2 and Figure 4.1 compare the average well-being scores across all four measures between 2013 and 2014 for GDPs. In 2014, the average ratings were:

- 6.1 points out of 10 for life satisfaction (down 0.6 points on the previous year)
- 6.7 out of 10 for feeling that what one does in life is worthwhile (down 0.5 points on the previous year)
- 6.4 out of 10 for happiness yesterday (down 0.4 points on the previous year)
- 4.2 out of 10 for anxiety yesterday (up 0.4 points on the previous year)

The well-being scores across the two samples (2013 versus 2014) are significantly different – that is, there was a significant reduction in levels of personal well-being among GDPs between 2013 and 2014. Moreover, this drop in average well-being levels was steeper for GDPs than that recorded for community dentists (Section 3.1)

**Table 4.2 Changes in average personal well-being ratings between 2013 and 2014 among GDPs**

Well-being factor (1)	Mean scores		Change
	2013	2014	
Life satisfaction	6.7	6.1	-0.6*
Worthwhile	7.2	6.7	-0.5*
Happy yesterday	6.8	6.4	-0.4*
Anxious yesterday (2)	4.2	4.6	+0.4*
<b>Base N</b>	<b>1,311</b>	<b>846</b>	

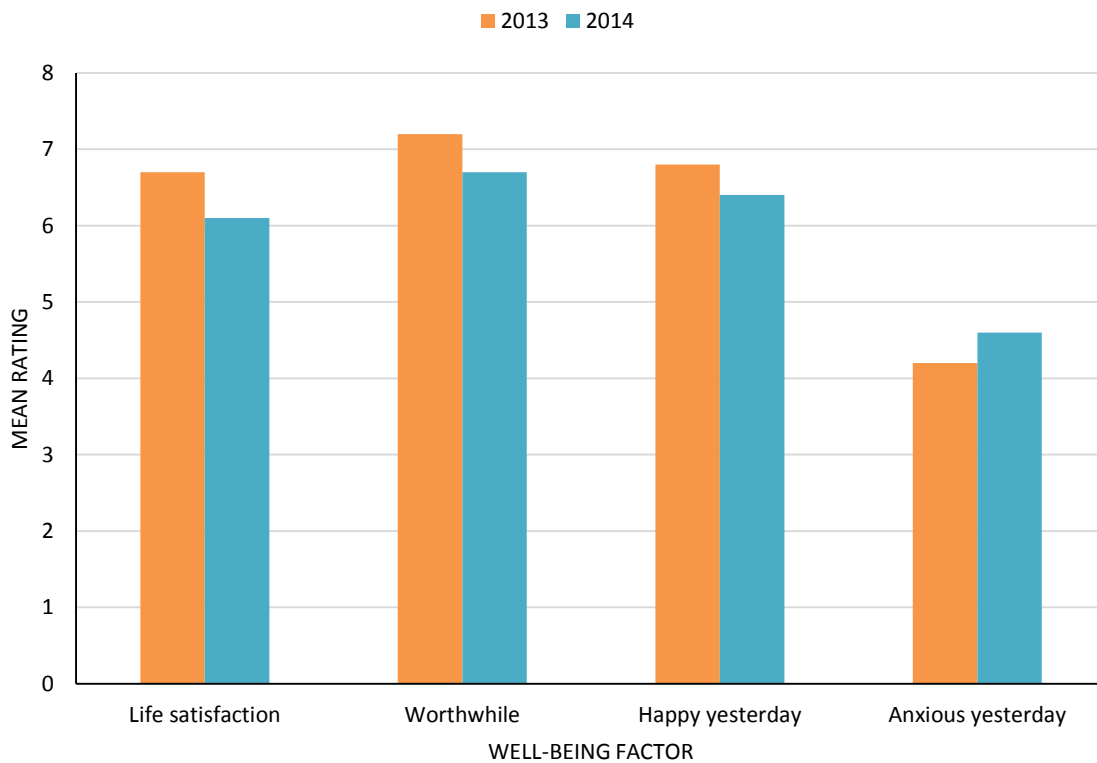
Base: GDPs

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 A high score on the anxiety scale indicates a higher level of self-rated anxiety

\*Result of two-tailed z-test; indicates significant from 2013 at  $p < 0.01$  level

**Figure 4.1 Changes in average personal well-being ratings between 2013 and 2014 among GDPs**



Base: All GDPs

## 4.2 General well-being by job role

Table 4.3 explores how average well-being levels vary by type of GDP and the approximate proportion of the total dental care that they provide which is NHS or private. It compares the average well-being scores for associates and practice owners, and how well-being scores vary by NHS commitment the amount of NHS care they provide.

As Table 4.3 shows, associates and practice owners reported very similar levels of well-being - that is, there are no significant differences between them on any of the four well-being factors (Table 4.3).

This analysis (Table 4.3) shows that the type of care provided by GDPs and, in particular, well-being levels differ significantly according to the proportion of NHS care provided. For example, Figure 4.2 shows clearly how average well-being scores diminish as the proportion of NHS provided by GDPs increases. This suggests, broadly speaking, that dentists who do *mainly* NHS work report lower levels of well-being than those doing *mainly* private work.

**Table 4.3 Variation in average well-being levels among GDPs according to job role and amount of NHS treatment they provide**

		Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	Base N
Type of dentist	Practice owners	6.1	6.8	6.4	4.6	448
	Associates	6.2	6.6	6.4	4.7	395
Significance*		NS	NS	NS	NS	
% NHS care provided	100% (exclusively NHS patients)	5.6	6.2	5.9	5.2	123
	75-99%	6.1	6.6	6.2	4.8	348
	25-74%	6.1	6.7	6.5	4.3	130
	1-24%	6.3	7.0	6.7	4.3	129
	0% (exclusively private)	6.5	7.2	6.7	4.3	110
Significance**		p<0.05	p<0.01	p<0.05	p<0.05	

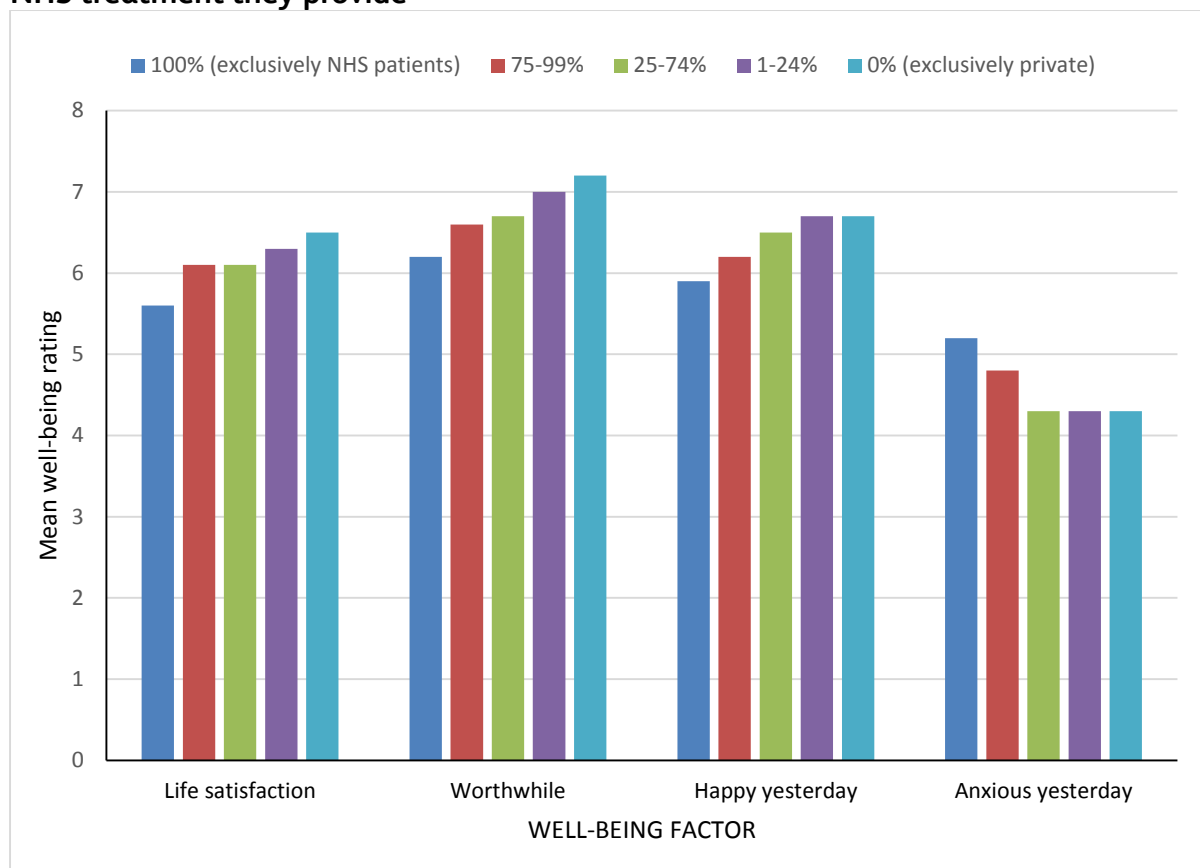
Base: all GDPs

1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* Result of two-tailed z-test; NS=Not significant

\*\* Result of F test for one-way ANOVA

**Figure 4.2 Variation in average well-being levels among GDPs according to amount of NHS treatment they provide**



Base: all GDPs

Table 4.4 explores how personal well-being levels vary by usual hours of work among associate dentists.<sup>5</sup>

**Table 4.4 Relationship between associates’ usual hours of weekly work and average well-being ratings**

Usual hours of work	Well-being factor (1)				Base N
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
Part-time - 30 hours or less	6.6	7.0	6.8	4.0	149
Full-time - more than 30 hours	6.0	6.4	6.2	5.1	233
	p<0.01	p<0.01	p<0.01	p<0.001	

Base: associates only

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* Result of two-tailed z-test

Among associates, there is a strong association between hours of work and levels of well-being; for example, associates who work part-time (30 hours or less) reported significantly higher average levels of well-being than those working full-time across all four indicators.

<sup>5</sup> We only collected hours of work data from associates because we were interested in estimating levels of underemployment among this group of dentists. We do not have hours of work data for practice owners.

These differences are most prominent in relation to the anxiety scores – on average, full-timers rated their levels of anxiety as significantly higher than part-timers.

### 4.3 GDPs’ personal well-being by work-related stress

Tables 4.5, 4.6 and Figure 4.2 examine the relationship between high levels of work-related stress and levels of personal well-being among GDPs; for example, Table 4.5 compares the distribution of well-being scores of those GDPs who reported high levels of job stress with those who reported low stress levels.

**Table 4.5 GDPs’ ratings of their personal well-being for each dimension of well-being, by high job stress**

Well-being factor (1)	High job stress (2)	Low job stress	Significance*
<b>Life satisfaction</b>			
Highest well-being (Rating of 9-10)	6.4	19.4	p<0.001
Medium (7-8)	29.8	49.9	
Low (5-6)	25.3	20.6	
Lowest well-being (Rating of 0-4)	38.4	10.2	
<b>Worthwhile</b>			
Highest well-being (Rating of 9-10)	13.1	28.8	p<0.001
Medium (7-8)	32.4	48.5	
Low (5-6)	25.5	18.0	
Lowest well-being (Rating of 0-4)	29.0	4.7	
<b>Happy yesterday</b>			
Highest well-being (Rating of 9-10)	12.4	29.1	p<0.001
Medium (7-8)	29.2	42.2	
Low (5-6)	20.6	19.9	
Lowest well-being (Rating of 0-4)	37.8	8.8	
<b>Anxious yesterday</b>			
Low anxiety (Rating of 0-1)	6.7	22.0	p<0.001
Medium (2-3)	18.6	31.2	
High (4-5)	18.1	20.8	
Very high anxiety (Rating of 6-10)	56.7	26.0	
Total %	100.0	100.0	
Base N	421	424	

Base: all GDPs

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2. “Very stressful” and “Extremely stressful” are used as a threshold to identify those with “High job stress”

\*Result of chi-square test



Table 4.6 and Figure 4.2 present the average well-being scores by the level of work-related stress (high versus low) for all GDPs.

**Table 4.6 Relationship between general well-being indicators with work stressfulness – GDPs**

High job stress (2)	Well-being factor (1)				Base N
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
No stress to moderately stressed	7.0	7.5	7.3	3.6	423
High job stress	5.2	5.9	5.5	5.7	419
Significance*	p<0.001	p<0.001	p<0.001	p<0.001	

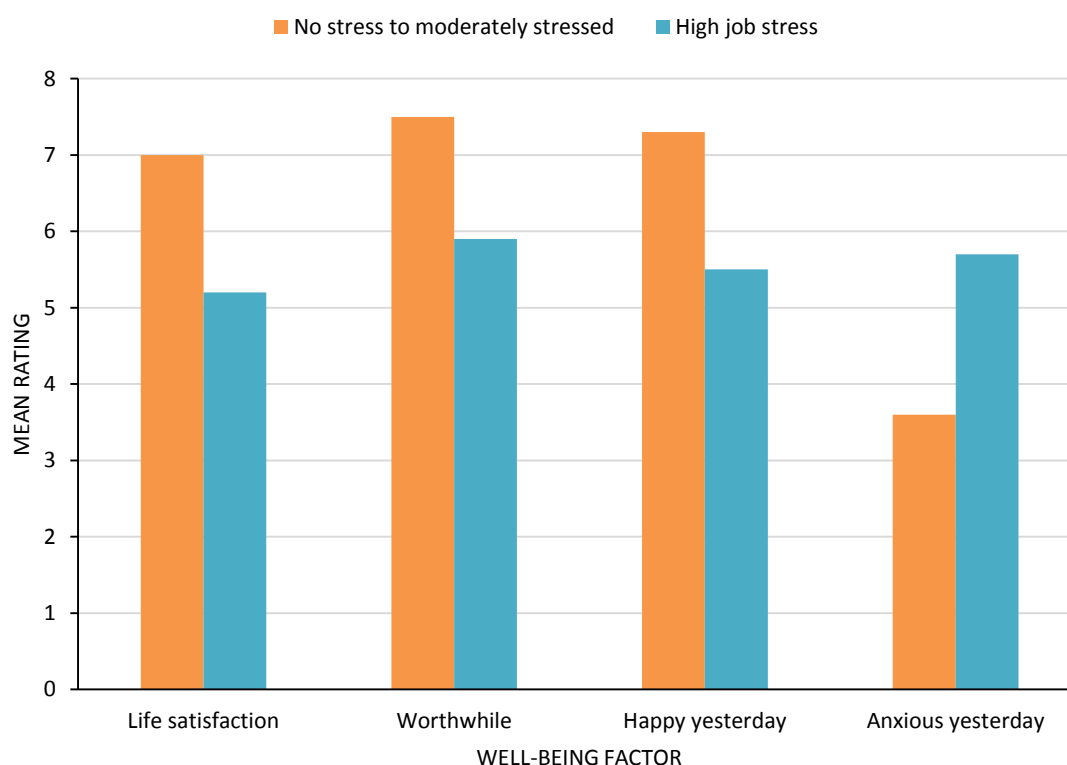
Base: all GDPs

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 “Very stressful” and “Extremely stressful” are used as a threshold to identify those with “High job stress”

\*Result of one-tailed z-test

**Figure 4.3 Personal well-being ratings among GDPs, by level of work-related stress.**



Base: all GDPs

Table 4.6 and Figure 4.3 shows that there is a strong relationship here between high job stress and low levels of personal well-being. Like community dentists, average levels of well-being are much lower across all four dimensions among those who reported high levels of work-related stress, compared with those who reported low levels. Whilst the overall pattern is very similar among GDPs and community dentists, the difference in average well-being levels across high stress and stress categories is more pronounced among GDPs.

Whilst there is evidence here of a strong link between stress at work and well-being in general, some caution needs to be exercised in interpreting these results; for example, there are many determinants of personal well-being aside from the quality of working life or exposure to high levels of stress at work.

On the other hand, action to prevent high levels of occupational stress among dentists is bound to pay dividends for their personal well-being in general.

#### 4.4 GDPs' personal well-being, by morale and job satisfaction

Table 4.7 explores the relationship between levels of personal well-being among dentists and job satisfaction or morale at work.

**Table 4.7 Relationship between morale and job satisfaction and personal well-being among GDPs**

		Well-being factor (1)				Base N
		Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
Job satisfaction	Satisfied with job	7.2	7.6	7.5	3.9	407
	Neither low nor high job sat	5.4	5.7	5.6	5.2	49
	Dissatisfied with job	5.0	5.8	5.3	5.3	383
Significance*		p<0.001	p<0.001	p<0.001	p<0.001	
Self-rated morale	High morale at work	7.5	8.0	7.8	3.3	273
	Neither low nor high job morale at work	6.4	6.9	6.7	4.6	243
	Low morale at work	4.7	5.5	5.0	5.7	325
Significance*		p<0.001	p<0.001	p<0.001	p<0.001	

Base: GDPs

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* Result of F test for one-way ANOVA

Table 4.7 replicates the findings for community dentists reported in Section 3, and shows a strong association between levels of job morale and satisfaction and how GDPs rate their personal well-being more generally. This relationship is significant across all four well-being indicators. As noted in Section 3, the direction of causality is unclear here though. For example, some GDPs dentists may be unhappy or dissatisfied with their life in general, and this may have implications for how they feel about their working life as well. In other cases, high levels of work-related stress may drive down dentists' morale and job satisfaction which, in turn, may have implications for their well-being.

## **5 Personal well-being levels of GPs, community dentists and the UK population**

This section compares the well-being ratings for GPs and community dentists with the latest figures available for the UK population.

Table 5.1 and Figure 5.1 compare the average life satisfaction ratings for community dentists, GPs, and the wider UK adult population using the most recent well-being available data from ONS (2014a).

The key message here is that community dentists and GPs reported very similar levels of life satisfaction and happiness on average. However, GPs reported higher anxiety levels on average compared with community dentists.

The third key message from these analyses is that all dentists (GPs and community dentists) rate their well-being across all four measures much less highly than the UK population. There is evidence of a 'well-being gap' between the dental profession and the wider adult population and this is starkly clear from Figure 5.1.

**Table 5.1 Average personal well-being ratings for GDPs, community dentists, and the UK population 2013-2014**

Well-being factor (1)	Mean scores		
	GDPs	Community dentists	UK adults aged over 16 (2)
Life satisfaction	6.1	6.1	7.5
Worthwhile	6.7	6.8	7.7
Happy yesterday	6.4	6.3	7.4
Anxious yesterday (3)*	4.6	4.2	2.9
<b>Base N</b>	<b>846</b>	<b>468</b>	<b>165,000</b>

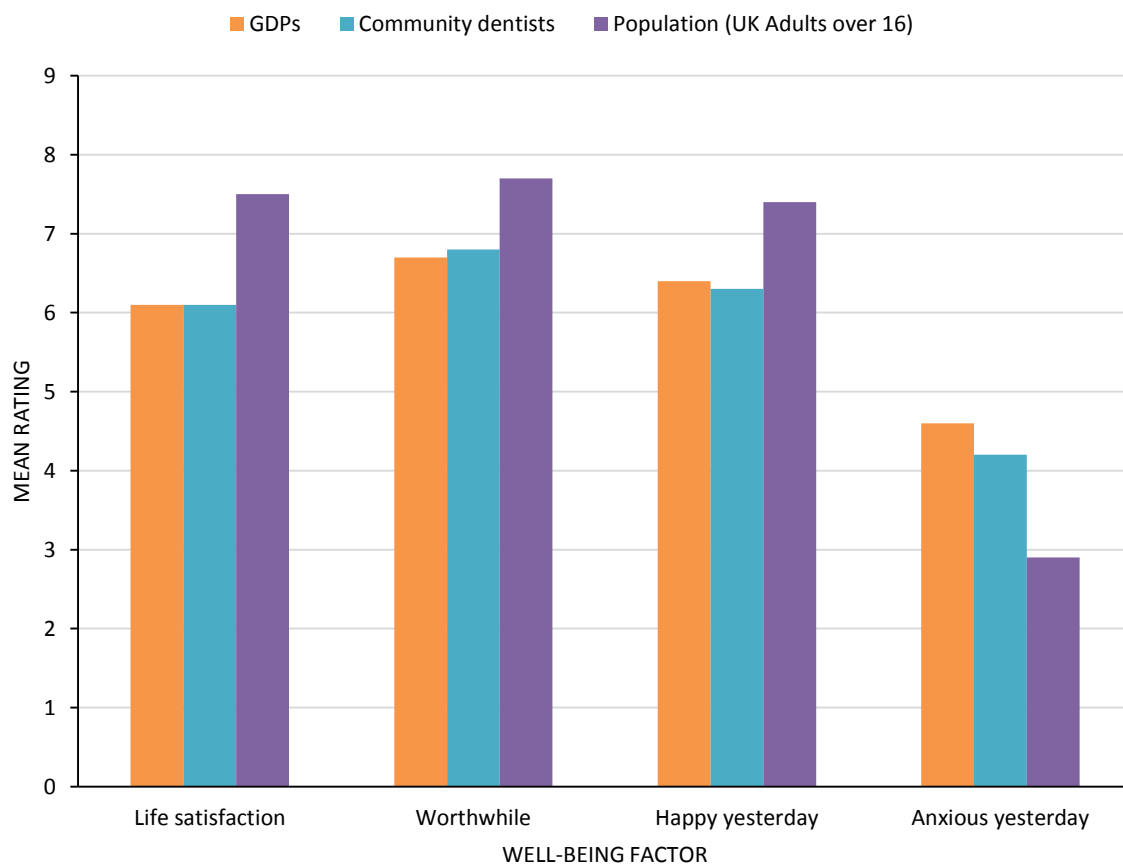
1 For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

2 Source: ONS 2014 Annual Population Survey (APS), Office for National Statistics data from April 2013 to March 2014. Adults aged over 16. The personal well-being estimates reported here are based on data from the APS with an approximate sample size of 165,000

3 A high score on the anxiety scale indicates a higher level of self-rated anxiety.

\*The mean scores for GDPs and community dentists are significantly different at  $p < 0.01$  level; two-way z-test.

**Figure 5.1 Personal well-being ratings for GDPs, community dentists, and the UK population in 2013-14**



## 6 Dentists' perceptions of their general health

This section compares how dentists perceive their own general health with estimates based on national surveys. This section also examines the relationship between dentists' perceptions of their personal well-being and how they assess their own health status.

### 6.1 Prevalence of 'good' perceived general health among dentists, compared with the UK population

In the BDA study of dentists' health and well-being which took place in 2005, 1,000 BDA members were asked how they perceive their general health. Among those who responded, 10 per cent reported that their health was "fair" or "poor", 23 per cent said it was "good" and 67 per cent reported it was "very good" or "excellent" (Kay and Lowe, 2008).

In our study, we used the measure of self-rated health that in the UK Census and in other UK Government surveys (See Section 3). The question and the response categories used are different to that used in the BDA's 2005 survey, and so the results from the earlier survey are not directly comparable with the findings reported here.

Table 6.1 compares the prevalence of 'good' general health among GPs and community dentists with figures drawn from the wider population.

**Table 6.1 Average ratings of personal health among GPs and community dentists, compared with population estimates**

Self-assessed health	Column percentages				
	GPs*	Community Dentists	2011 General Lifestyle Survey GB (2)	2011 Census (England and Wales) (3)	2013 Integrated Household Survey UK (4)
In good health	81	74	77	81	76
Not in good health	20	26	23	19	24
<b>Total</b>	100	100	100	100	100
<b>Base N</b>	865	468	13,100	26M	276,522

1 "In good health" refers to "Very good" and "Good" health combined. "Not in good health" refers to "Fair", "Bad", and "Very Bad" categories combined

2 GB adults aged 16 and over, General Lifestyle Survey (ONS, 2012c). Available at <http://www.ons.gov.uk/ons/rel/ghs/general-lifestyle-survey/2011/rpt-chapter-7.html>

3 2011 Census England and Wales, Office for National Statistics (2013)

4 UK adults 16 and over. *Integrated Household Survey*, January to December 2013 (ONS, 2014b)

\*may not add to 100% due to rounding errors

The prevalence of 'good' general health among both groups of dentists is close to that of the wider adult population (Table 6.1), with GPs slightly more likely to have reported being in 'good' health compared with community dentists.

Among community dentists, three out of four said they are in 'good' general health, with around one in twenty (5 per cent) reporting they are in 'bad health'.

Among GDPs, four out of five perceived their general health as ‘good’, with almost 40 per cent saying they are in ‘very good’ health.

Table 6.2 shows the distribution of health ratings among GDPs and community dentists by age-group.

**Table 6.2 Prevalence of “good health” among GDPs and community dentists, by age-group**

Age group	GDPs		Community dentists	
	% good health	Base N	% good health	Base N
Under 35	84	147	87	46
35-44 years	81	231	75	120
45-54 years	80	284	69	153
55 and over	78	181	77	145
All	81	843	75	464

Unsurprisingly, younger dentists (under 35 years old) rated their health most highly, with the likelihood of saying they are in ‘good health’ diminishing after the age of 35.

A similar proportion of community dentists and GDPs aged under 35 perceived themselves to be in ‘good health’ compared with adults aged 25-34 among the wider UK population (87%, 84% and 87% respectively).<sup>6</sup>

## 6.2 Self-rated health and well-being

Alongside the quality of working life and one’s levels of career satisfaction, a person’s level of health is a vital ingredient of their well-being (Dolan *et al*, 2008, cited in ONS 2013b); for example, poor levels of health and illness can potentially undermine happiness and life satisfaction.<sup>7</sup> Conversely, poor levels of well-being can have consequences for one’s physical health; for example, researchers in this area have argued that high levels of subjective well-being may potentially help to improve immune system performance and protect the body against stress (Howell *et al*, 2007).

Using data collected in 2012/13, ONS (2013b) found a strong link between self-rated health and levels of personal well-being, concluding that, “in general, the better people say their health is, the higher they rate their life satisfaction, worthwhile and happiness and the lower they rate their anxiety” (2013b:17).

Table 6.3 examines the relationship between self-rated health and personal well-being among community dentists and GDPs respectively, and clearly shows this relationship. Figure 6.1 illustrates this relationship graphically for community dentists.

Table 6.3 shows that those dentists who assessed their health as ‘good’ or ‘very good’ rated their well-being much more highly across all four well-being indicators we used. For

<sup>6</sup> Source: ONS (2014b, Table 4, p.14)

<sup>7</sup> For a useful summary of this complex interaction between health and well-being see Department of Health (2014)

example, those who rated their health as fair' or 'poor' health are more likely to have reported a high level of anxiety (compared with those who rated their health as 'good').

The Table below shows that, for the dentists who participated in our surveys, there are significant differences between average well-being scores among those who said they were in 'good health' compared with those who said their health was 'fair' or 'bad'. This is true of both community dentists and GDPs.

**Table 6.3 Average well-being ratings, by self-rated health (community dentists and GDPs)**

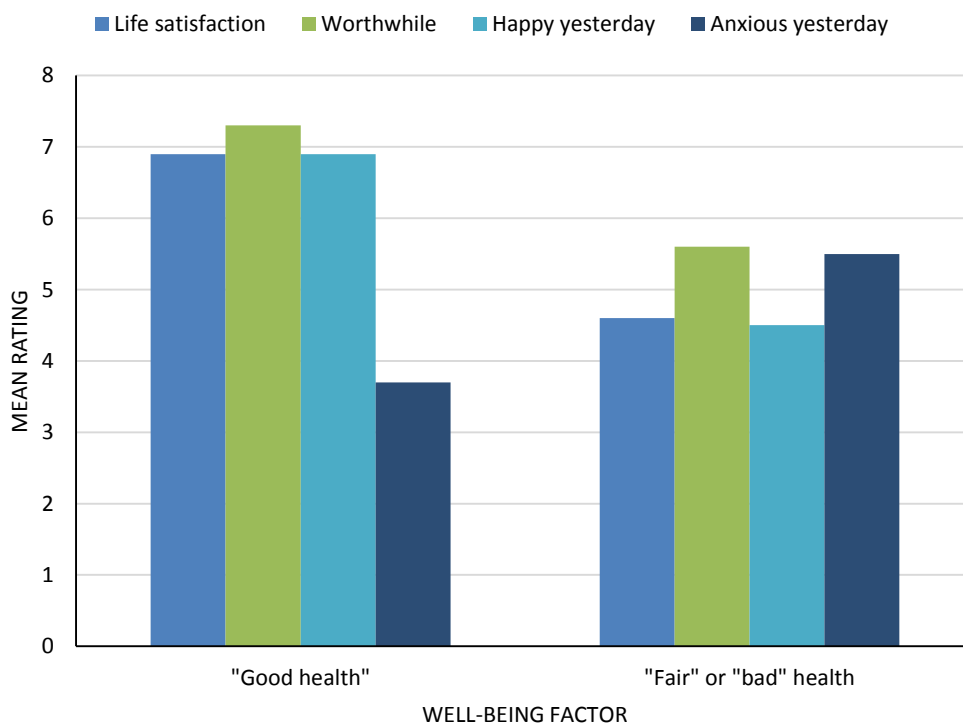
Type of dentist	Self-rated health	Well-being factor (1)				Base N
		Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday	
Community dentists	In good health	6.7	7.3	6.9	3.7	348
	Not in good health	4.6	5.6*	4.5	5.5	120
Significance*		p<0.001	p<0.001	p<0.001	p<0.001	
GDPs	In good health	6.6	7.1	6.8	4.3	680
	Not in good health	4.2	4.9	4.5	6.3	164
Significance*		p<0.001	p<0.001	p<0.001	p<0.001	

Base: all community dentists and GDPs

1. For an explanation of each of the well-being indicators used, see Section 2.3.1 and note to Table 3.1

\* Result of two-tailed z-test

**Figure 6.1 Average well-being score by self-rated health (community dentists only)**



A strong relationship between self-rated health and well-being is unsurprising. As ONS point out (2013: 18), the responses on both measures may reflect an individual's emotional and physical state at the time they are surveyed and may also reflect how optimistic they are about their life in general, including their health.

Research carried out by the BDA found that community dentists identify a number of sources of stress in their work such as: poor quality management, lack of support, high patient demand, challenging patients, unrealistic targets, time pressures, and a poor quality social environment (BDA, 2014).

High levels of chronic stress at work, in turn, may work to undermine levels of personal well-being, putting dentists' health at risk. For example, Table 6.4 shows a strong relationship between self-reported stress and general health among community dentists and GDPs.

**Table 6.4 Prevalence of 'good health' among community dentists, by level of work-related stress and age-group**

	Level of stress (1)	% in good health	Base N
GDPs	High job stress	72.9*	421
	Low job stress	88.2*	424
	All	80.6	845
Community dentists	High job stress (1)	57.1*	182
	Low job stress	85.2*	284
	All	74.2	466

Base: all community dentists and GDPs

1 "Very stressful" and "Extremely stressful" are used as a threshold to identify those with "High job stress"

\*Chi Square; significant at  $p < 0.01$

Table 6.4 shows that, for both community dentists and GDPs, the likelihood of assessing their health as 'good' significantly varies according to the level of stress they say they are exposed to at work; for example, dentists who reported *low* levels of work-related stress were much *more* likely to rate their health as 'good' or 'very good', compared with those who reported high levels of stress at work. As Table 6.4 shows, this link between job stress and perceived health was more pronounced among community dentists.



## 7 Concluding points and implications for further research

This report has examined the evidence on UK dentists' personal well-being and perceptions of their own health drawn from two recent national surveys of dentists which were carried out by the BDA in June-July 2014. It has examined levels of personal well-being among GPs and community dentists, and has explored the relationship between levels of stress and job satisfaction and well-being more generally. The report compares average levels of personal well-being among dentists with the most recent estimates available for the UK population as a whole. Finally, the report has examined how dentists' self-perceptions of their health, which we have compared with estimates for the wider adult population.

Dentists in the UK face challenging working conditions and are exposed to occupation-specific stressors which put them at risk of high levels of work-related stress (Kay and Lowe, 2008; Newton *et al*, 2008; BDA, 2014). Moreover, there is some evidence that high levels of stress at work can have repercussions for dentists' mental well-being (for example, Cooper *et al*, 1987, 1988; Myers and Myers, 2004). Work-related stress may also have negative implications for the level of satisfaction dentists derive from their work (Humphris and Peacock, 1993; Denton, 2008).

Our research builds on the existing evidence and shows that that high levels of work-related stress and low levels of job satisfaction are associated with lower levels of personal well-being among dentists. The occupation-specific pressures that dentists experience may help to explain why they report lower levels of life satisfaction and higher levels of anxiety compared with adults in the UK population.

The well-being challenge then for UK dentists is clear: to tackle those aspects of dentists' work which are responsible for such high levels of stress and which also act to undermine dentists' job satisfaction and work engagement. We need to learn more about these factors and how they vary across the different settings that dentists work in and the diverse roles that dentists perform. We also need to learn more about the most effective strategies for promoting dentists' emotional well-being at work and preventing high levels of work-related stress.

Finally, these findings highlight the need for more research to understand how exposure to high levels of stress at work impacts upon dentists and the work they do - for example, what are the consequences of high job stress for dentists' mental and physical well-being, or for the patient care they provide? The implications of the association between NHS commitment and well-being among GPs also merit further investigation; for example, are GPs who do more NHS work more likely to experience burnout?

## Annex A Measures used in the surveys

**Table A1 Measures used in the BDA's 2014 well-being and working conditions surveys**

Group surveyed	Variables/measures used			
Community dentists	Information about the respondent's service, provider type and grade  Services provided/patient care – NHS performance indicators. <ul style="list-style-type: none"> <li>Whether have had to cancel appointments, reduce or set standardized appointment times (over the past year)</li> <li>How waiting times have changed</li> <li>How perceptions of how well their service is meeting the needs of patients</li> </ul>	Psychosocial working conditions developed by the Health and Safety Executive has been built into this survey. Suitable for use with employees (HSE, 2012). <sup>8</sup>		Demographic information about the respondents: sex, age, marital status <sup>9</sup>  Number of hours worked; full-time/part-time status <sup>10</sup>  UK country in which main practice/NHS provider is located  Self-rated stress at work <sup>11</sup>  Impact of stress on patient care
Associates	Underemployment among associates and their previous experience of unemployment.		Type of role  Size of practice/number of dentists (main practice) – single-handed practitioner	Well-being (see below)  Personal health (see below)  Job strain/Self-rating of workload
Practice owners	Whether provides patient care		NHS/Private split in care provided (BDA measure) Sources of work stress (GDPs only in 2014)	Job satisfaction <sup>12</sup>  Self-rating of morale (BDA's own measure)

<sup>8</sup> Clarke, 2004; HSE, 2012

<sup>9</sup> Categories used in 2011 Census (ONS, 2013f) and the Scottish Health Survey (The Scottish Government, 2014a, b)

<sup>10</sup> For example, the OECD (for cross-national labour market stats) uses an hours threshold of 30 hours in main job as its threshold to define part-time status; for example, see <http://www.oecd-ilibrary.org/sites/factbook-2014-54-en/index.html?contentType=&itemId=%2Fcontent%2Fchapter%2Ffactbook-2014-54-en&mimeType=text%2Fhtml&containerItemId=%2Fcontent%2Fserial%2F18147364&accessItemIds> [Accessed 14.06.14]

<sup>11</sup> Adapted from: Smith *et al*, 2000; HSE, 2012

<sup>12</sup> Measure of job satisfaction used in 18th Wave of the UK Government's BHPS and the UK Household longitudinal study. Available at: [https://www.understandingsociety.ac.uk/documentation/mainstage/dataset-documentation/wave/1/datafile/a\\_indresp/variable/a\\_jbsat](https://www.understandingsociety.ac.uk/documentation/mainstage/dataset-documentation/wave/1/datafile/a_indresp/variable/a_jbsat)

## Annex B Background to the personal well-being measures used in this report

Dolan *et al* (2011) distinguish between three main ways to measure subjective well-being: First, evaluation measures for making global assessments of well-being; second, experience-based measures that focus on how one feels over short time periods; third, what they call ‘eudemonic’ measures which relate to one’s sense of purpose and how meaningful one feels one’s life is (Dolan *et al*, 2011:5).

They also identify three main *uses* for measures of subjective well-being in public-policy contexts: first, to monitor progress; second, to inform policy design; and, third, to appraise government policies. For population studies of well-being and government surveys, they recommend using a combination of these three measures to tap into different aspects of subjective well-being. For example, ONS claims that “subjective well-being measures provide policy makers with unique information, aside from other socio-economic indicators. They can be used to assess the impact of policy interventions and to design policies to improve and promote individuals’ subjective well-being” (2012:2).

For the purpose of monitoring the progress of government policies, Dolan *et al* (2011) recommended the following mix of questions:

- Evaluative measures such as life satisfaction questions (for example, “Overall, how satisfied are you with your life nowadays?”)
- Experience measures such as “Overall, how happy did you feel yesterday?” and “Overall, how anxious did you feel yesterday?”
- Eudemonic measures such as “Overall, to what extent do you feel that the things you do in your life are worthwhile?”

Source: Dolan *et al*, 2011:14

According to ONS (2013a), these four questions seek to reflect three different theoretical approaches to understanding personal well-being<sup>13</sup> which correspond with the three kinds of measures developed by Dolan *et al*:

First, in the ‘evaluative’ approach, personal well-being is about how people reflect on their life, and “make a cognitive assessment of how their life is going overall, or on certain aspects of their life” (ONS, 2013a).

Second, the ‘eudemonic’ approach seeks to gauge “people’s sense of meaning and purpose in life, connections with family and friends, a sense of control and whether they feel part of something bigger than themselves” (ONS, 2013a).

Finally, the ‘experience’ approach – “seeks to measure people’s positive and negative experiences (or affect) over a short timeframe to capture people’s Personal well-being on a day-to-day basis” (ONS, 2013a).

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<sup>13</sup> In more recent publications and reports from ONS relating to the well-being research programme, the term ‘subjective well-being’ has been replaced with ‘personal well-being’ which ONS distinguishes from more objective measures as being ‘grounded in individuals’ preferences and take account of what matters to people by allowing them to decide what is important when they respond to questions’ (ONS, 2013).

Dolan *et al* recommended using a scale between 0 and 10 with each of these measures, with 0 indicating the lowest and 10 the highest level of well-being (depending on the indicator).<sup>14</sup>

The indicators of personal well-being questions were then applied in ONS' Annual Population Survey (APS)<sup>15</sup> (APS) of the UK adult population between April and September 2011 (ONS, 2012a). These well-being indicators were then included in two more subsequent APS surveys enabling ONS to examine changes in levels of well-being in the population over a three year period 2011 to 2014 (ONS, 2013b, 2014). ONS has published these average ratings of well-being, with the most recent estimates available for 2013-14 (ONS, 2014a). These are shown in Table B1.

**Table B1 Personal well-being ratings among adults in the UK population, 2013/14** <sup>1, 2</sup>

United Kingdom	Percentages
	2013/14
<b>Highest well-being</b>	
<b>% Rating of 9- 10:</b>	
Life satisfaction	26.8
Worthwhile	32.6
Happy yesterday	32.6
<b>% Rating of 0-1:</b>	
Anxious yesterday	39.4
<b>Lowest well-being</b>	
<b>% Rating of 0-4:</b>	
Life satisfaction	5.6
Worthwhile	4.2
Happy yesterday	9.7
<b>% Rating 6-10:</b>	
Anxious yesterday	20.0

Source: Table adapted from Office for National Statistics (2014)

1. Adults aged 16 and over were asked 'Overall, how satisfied are you with your life nowadays?', 'Overall, to what extent do you feel the things you do in your life are worthwhile?', 'Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?' where 0 is 'not at all' and 10 is 'completely'.

2. Data from April 2013 to March 2014 (ONS, 2014a)

<sup>14</sup> See ONS (2013a) for rationale for use of this scale with these items

<sup>15</sup> The APS survey forms part of the Integrated Household Survey

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## Further information

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