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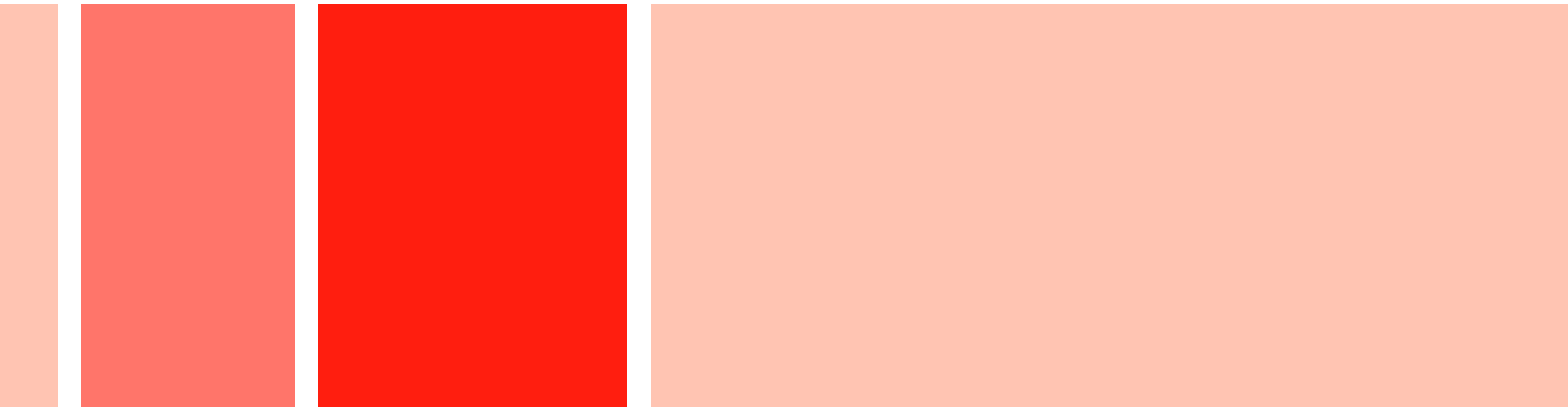


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Wellbeing in Wales

Secondary analysis of the
National Survey for Wales 2012-13



**Wellbeing in Wales:
Secondary analysis of the National Survey for Wales
2012-13**

**Jenny Chanfreau, Carl Cullinane, Evie Calcutt, and Sally
McManus, NatCen Social Research**

Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

For further information please contact:

Name: Lisa Walters

Department: Knowledge and Analytical Services

Welsh Government

Cathays Park

Cardiff

CF10 3NQ

Tel: 029 2082 6685

Email: lisa.walters@wales.gsi.gov.uk

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Key summary

1. Introduction

Wellbeing matters. We know that people with higher levels of wellbeing live longer and more healthily.¹ We also know that happier people are more generous, engaged, and sociable^{2,3}. These characteristics are key for successful assets-based approaches to community development, which uses the strengths and skills of residents within the community for grounded social policy formation.

The Welsh Government has made a commitment to develop a society in which every person is able to make the most of their abilities and contribute to the community in which they live. The wellbeing of people in Wales is at the heart of this, and will be reflected by integrating wellbeing into future policies.

The inclusion of measures of personal wellbeing on the National Survey for Wales (henceforth, the 'National Survey') has enabled better understanding of what shapes wellbeing in Wales. The survey is a way for the Welsh Government to capture the views and circumstances of adults living in Wales. This report explores the nature and distribution of wellbeing in Wales using data from the 2012/13 National Survey, and by identifying predictors, highlights the areas where policy and service delivery could have a key role to play in elevating overall wellbeing and in tackling inequalities in wellbeing.

2. Methods

Five approaches were used to examine personal wellbeing in Wales:

- Correlation analysis to see how close the relationship is between each pair of wellbeing indicators.
- Latent class analysis (LCA) to produce a typology of wellbeing that segments the population into discrete groups, each with a shared wellbeing profile.
- Descriptive tables to profile the population with high and low levels of wellbeing when other factors are not controlled for.
- Multiple logistic regression analyses to identify what predicts different types of wellbeing when other factors are controlled for.
- Mapping to visualise the geographic distribution of wellbeing.

¹ Banks J, Nazroo J, Steptoe A. (2012). The Dynamics of Aging: Evidence from the English Longitudinal Study of Ageing (ELSA); 2002-2010 (Wave 5). Institute for Fiscal Studies.

² Yaxley V, Gill V, McManus. (2012). Family Wellbeing Index: measuring what matters. NatCen. <http://www.familywellbeingindex.co.uk/family-wellbeing-natcen.pdf>

³ Stoll L, Michaelson J and Seaford C (2012). Wellbeing Evidence for Policy: A Review. new economics foundation.

3. Key findings

Many aspects of life are linked with personal wellbeing, but most are no longer significant once other factors are controlled for. For example, people who live in urban areas tend to report lower levels wellbeing than people who live in rural areas. However, after controlling for things such as health, financial strain and employment status, living in an urban area was no longer linked with low wellbeing. This is an important finding for policy as it shows that for many groups, low wellbeing is not inevitable but can be overcome through policy and service interventions such as health or financial support.

After controlling for other factors, age and sex emerge as key predictors of personal wellbeing:

- **Age:** Internationally, the midlife dip in wellbeing is well-established, as well as being clearly evident among Welsh adults. Policy interventions may often target the specific needs that people have when they are young and when they are in later life. The specific needs of people in midlife, sandwiched between the demands of work and caring for both children and ailing parents, risk being overlooked. From a wellbeing perspective, policy should prioritise the needs of this group.
- **Sex:** Women are both more likely than men to have low wellbeing and to have high wellbeing. This pattern is masked when comparing averages. Policies aimed at lifting people out of low wellbeing will be particularly relevant to women, while policies aimed at lifting people from moderate to high wellbeing will have greater relevance for men.
- **Ethnicity, religion and sexual identity:** Differences in wellbeing by religion, ethnicity, and sexual identity mostly disappeared when other factors, such as health and income, were taken into account.

4. Policy implications

Overarching

- **Supporting people out of low wellbeing requires tackling basic needs** within the individual and the family. Without security, comfort, safety and partnerships, people are less likely to have even moderate levels of wellbeing.
- **Policy can also aspire to lift people into levels of wellbeing where they thrive** and prosper. This is where community-focused measures can make a particular contribution, especially where they facilitate trust and social interaction in the local area.
- **Sharing information and prioritising communication emerged as key** components in public services linked to high wellbeing in patients and residents.
- **One person in six had mixed wellbeing: the Worthwhile-Anxious.** They were satisfied working towards goals they valued as worthwhile, but also felt anxious and low. This group – who were more likely to be young, female and living in a deprived area - is likely to benefit from policies that improve perceptions of safety, particularly public transport.

Specific policy areas

- **Health and disability:** A strong association is well-established between poor health and low wellbeing. However, the nature of health service provision is also key, and this is much more amenable to policy. Service delivery that focuses on good communication with patients, coupled with practitioners who have access to patient data, has the potential to enhance patient wellbeing. This lends strong support to developing systems for secure sharing of electronic patient records. The health care system may be able to nudge acceptance of data sharing by default, with opt-outs available to those who object.
- **Work and financial strain:** Unemployment and financial strain are enduring predictors of wellbeing. While income levels may not be easy for national and local policy providers to address, debt advice agencies and the development of financial management skills both in schools and throughout adult life have a role to play. Currently most people in serious debt are not accessing any debt advice services.
- **Neighbourhoods, services and communities:** Local social cohesion and perceived and actual safety in the local area emerged as important predictors of wellbeing. The social area factors - such as a sense of belonging and perceptions of neighbours - are closely linked with people's assessments of safety in the local area. This suggests that local authorities and other local decision-makers concerned with improving wellbeing among local residents may need to consider both local safety and social relationships locally together. Attempts to improve wellbeing by encouraging the social engagement of residents may not work if safety concerns remain unaddressed.

5. Priorities for future policy

A wellbeing perspective can highlight priorities for policy development. However, what these priorities are depends on whether the ultimate policy objective is to increase the proportion of the population with high wellbeing or to reduce the proportion of the population with low wellbeing. Both goals are valid, but can result in some different policy recommendations being highlighted. While there are many commonalities, the factors that are key predictors of low wellbeing are not all the same as those that predict high wellbeing.⁴

This makes sense. While we might expect a large proportion of people with a limiting and painful health condition to have a low level of wellbeing, we would not necessarily expect a large proportion of people without a limiting and painful health condition to be flourishing (that is, to have high levels of wellbeing).

Neighbourhood initiatives, especially where they support community capital, and focusing on dignity, respect and engagement in service delivery, are central to pulling people up into the flourishing category. In contrast, tackling the basic individual needs of sufficiency - in terms of having a job, a partner and fully functioning health - are at the core of lifting people out of the lowest levels of wellbeing.

⁴ Gill B and Green R (2013): Understanding differences in life satisfaction between local authority areas: Analysis based on the 2011/12 Annual Population Survey. Department for Communities and Local Government (DCLG)
<http://www.slideshare.net/DCLGIntegration/131021-dclg-wellbeing-and-places>.

Acronyms

APMS	Adult Psychiatric Morbidity Survey
APS	Annual Population Survey
BSA	British Social Attitudes
CI	Confidence interval
DH	English Department of Health
ELSA	English Longitudinal Study of Ageing
ESS	European Social Survey
EU-SILC	European Union Statistics on Income and Living Conditions
HSE	Health Survey for England
LLSI	Limiting longstanding illness
MCS	Millennium Cohort Study
nef	New Economics Foundation
ONS	Office for National Statistics
OR	Odds ratio
SHeS	Scottish Health Survey
SSA	Scottish Social Attitudes
SWEMWBS	Short Warwick Edinburgh Mental Wellbeing Scale
USoc	Understanding Society
WHS	Welsh Health Survey
WIMD	Welsh Index of Multiple Deprivation

Glossary

Affect - Affect refers to the experience of emotion or feeling. Positive affect indicates positive feelings such as happiness, and negative affect indicates negative feelings such as sadness.

Causal direction - It is generally not possible to identify causal direction in associations using cross-sectional survey data. That is, we cannot tell whether having more friends makes people happier, or whether happier people find it easier to make and maintain friendships. It is also harder to avoid some of the biases implicit in self-reported data when using cross-sectional surveys. For example, the close association between low job satisfaction and low wellbeing could result from a general propensity to view the world negatively.

Evaluative measure - Evaluative measures of wellbeing relate to measures that ask a survey participant to make an evaluation or judgement. Satisfaction measures are considered to be evaluative.

Eudemonic wellbeing - A eudemonic (eudaimonic or eudaemonic) perspective on wellbeing relates to people's functioning, social relationships, and perceptions of whether the things they do in life are meaningful or worthwhile.

Hedonic wellbeing - A hedonic perspective on wellbeing focuses on affect, and relates to experience of pleasure, happiness, and the avoidance of pain.

Odds ratio - An odds ratio describes the strength of association between two binary variables. It represents the ratio of the estimated odds of an event occurring in one group to the estimated odds of it occurring in another group. It can be produced in a logistic regression model. An odds ratio of less than one means lower odds (for example, of high wellbeing) in one group compared with another group; and an odds ratio greater than one indicates higher odds.

Personal wellbeing – 'Personal wellbeing' is used by the Office for National Statistics (ONS) as an alternative term for 'subjective wellbeing'. ONS found some uncertainty among the general public about what subjective wellbeing means. Personal wellbeing is the name given to one of the ten wellbeing domains that make up the national wellbeing framework developed by ONS. The domain includes the four core questions used in the National Survey: life satisfaction, happiness yesterday, anxiety yesterday, and feeling that things done are worthwhile.

P value - A p value is the probability of the observed result occurring due to chance alone. A p value of less than 5% is conventionally taken to indicate a statistically significant result ($p < 0.05$).

Significance - The term 'significant' refers to statistical significance (at the 95% level) and is not intended to imply substantive importance. Unless otherwise stated, differences mentioned in the text have been found to be statistically significant at the 95% confidence level. Standard errors that reflect the complex sampling design and weighting procedures used in the different surveys have been calculated and used in tests of statistical significance.

Wellbeing – Personal or subjective wellbeing is generally regarded as consisting of at least two factors. Broadly, these are 'hedonic' wellbeing (happiness, pleasure, enjoyment) and 'eudemonic' wellbeing (purpose, functioning, fulfilment). There are two main approaches to asking about personal wellbeing. 'Experience' questions ask how people felt at a specific and recent point in time, while the 'evaluative' approach asks people to make a more general judgement about their level of satisfaction (overall or with an aspect of their life). Also see 'personal wellbeing'.

1. Background

1.1 The National Survey for Wales

The National Survey for Wales is a general population survey of adults. It forms one of the main ways in which the Welsh Government accesses detailed information on the views and circumstances of people across the country. The key themes of the survey are public services (such as health, education, and transport) and wellbeing.

The National Survey results from 2012-13 are ideal for examining patterns in and predictors of wellbeing in Wales. This report builds on and extends analyses already undertaken using data from the first quarter of 2012,⁵ as well as work that has explored the distribution of wellbeing in Wales using data from the UK-wide Annual Population Survey.⁶

1.2 Aims of this report

The Welsh Government identified a range of questions about the nature, level and distribution of wellbeing in Wales, including:

- What are the key predictors of low, medium and high scores for the four main indicators of personal wellbeing included on the National Survey?
- How do the different indicators of wellbeing relate to each other?
- What personal characteristics and aspects of life are important in explaining variations in wellbeing?
- Which population subgroups have particularly high or low wellbeing?
- What are the characteristics of subgroups with unexpectedly high wellbeing (for example, the people with poor health but high wellbeing)?
- How does wellbeing vary by geographic area?
- What relevance and application do these results have for Welsh Government policy objectives?

1.3 Wellbeing in research and policy

There has been a tendency in social research and policy to focus on problems or deficits. For example, in health promotion this has focused on avoiding mental illness rather than on promoting mental wellbeing. Alongside this, there has been an international trend in recent years towards recognising that economic measures are insufficient for monitoring the social progress of societies. As well as more objective measures such as employment rates and GDP (Gross Domestic Product), more

⁵ National Survey for Wales, January - March 2012: Wellbeing Results: Statistical Bulletin.
<http://wales.gov.uk/docs/statistics/2013/130130-national-survey-wales-jan-mar-2012-wellbeing-en.pdf>

⁶ Blackaby D, Drinkwater S, Jones M, Murphy P, Parhi M, Robinson C (2012). An Analysis of Subjective Wellbeing in Wales: Evidence from the Annual Population Survey. Welsh Government Social Research.
<http://wales.gov.uk/docs/caecd/research/121031wellbeingen.pdf>

personal measures are required which capture change in positively defined social and personal resources such as happiness, life satisfaction, and social capital.

Personal (or subjective) wellbeing is at the core of this. It has been defined in many ways, but usually with the recognition that it is multi-dimensional. Personal wellbeing includes both feeling good about oneself (hedonic wellbeing, or 'affect'), and being able to function well in terms of getting on with other people, tasks, and having purpose in life (eudemonic wellbeing). There are two main approaches to asking people about their personal wellbeing. 'Experience' questions ask people how they felt at a specific and recent point in time, while the 'evaluative' approach asks people to make a more general judgement about their level of satisfaction (overall or with a particular aspect of their life).

The measurement of wellbeing has become central to public policy, its three main applications being to:

- Monitor progress,
- Inform policy design, and
- Appraise policy.⁷

1.4 Measures of wellbeing used in the National Survey

In 2012, the Office for National Statistics (ONS) developed four personal wellbeing questions as part of their Measuring National Wellbeing programme⁸. These questions are grouped together in one of the ten domains that form their wellbeing framework. The domain is named personal wellbeing, because this term was found to be more meaningful to general readers than the other wider used term, 'subjective' wellbeing.

The four questions draw on existing ones that have a long history of use on British social surveys, and seek to cover different aspects of wellbeing:

- Life satisfaction,
- Feeling that the things one does are worthwhile,
- Happiness yesterday, and
- Anxiety yesterday.

The National Survey includes these four indicators of personal wellbeing questions, as well as eight questions about satisfaction with various domains of life, which are listed below.

⁷ Dolan P, Peasgood T and White M. (2006). Review of research on the influence of personal well-being and application to policy making. London: Defra.

⁸ See ONS guidance: <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html>

Overall, how satisfied are you with...

- Your personal relationships?
- Your physical health?
- Your mental wellbeing?
- Your work situation?
- Your financial situation?
- The area where you live?
- The amount of time you have to do things you like doing?
- The wellbeing of any children you have?

Respondents answered each of the four indicators of personal wellbeing, and the eight questions about domains of life, using a response scale (0 to 10, where 0 was 'not at all' and 10 was 'completely'). Almost all of the wellbeing questions were positive statements; therefore a higher score indicates higher wellbeing. The exception to this is 'anxiety yesterday', which was scored in reverse, with a lower score indicating less anxiety and higher wellbeing.

In the analyses presented in this report, 'low' wellbeing was defined as those who gave scores of 0 to 6 (4 to 10 for anxiety), 'medium' wellbeing was defined as a score of 7 or 8 (2 or 3 for anxiety), and 'high' wellbeing as a score of 9 or 10 (1 or 0 for anxiety).

These groupings are the same as the ONS threshold groupings^{9,10}; but this report combines 'very low' with 'low' to create just the three groups of wellbeing.

Alongside questions about their social and economic circumstances, participants were also asked about a range of other topics felt to be salient to wellbeing, such as living near natural space, social capital and trust, quality of neighbourhood and financial inclusion. Views and attitudes towards public, health and Local Authority services in Wales were also sought.

⁹ The ONS thresholds are labelled Very low (0-4/ 6-10 for anxiety); Low (5-6/ 4-5 for anxiety); Medium (7-8/ 2-3 for anxiety) and High wellbeing (9-10/ 0-1 for anxiety).

¹⁰ See: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/first-annual-ons-experimental-subjective-well-being-results/first-annual-experimental-subjective-well-being-results.html#tab-Section-5--Countries-of-the-UK-and-English-regions>

1.5 Analyses presented in this report

Comparing people with high, medium and low wellbeing

This report discusses findings from nine regression models. Four models identify predictors of high wellbeing compared with moderate wellbeing, and four models identify predictors of low wellbeing (compared with moderate). The ninth regression model identifies predictors of having a combination of high eudemonic and low hedonic wellbeing.

Previous wellbeing analysis has shown that the factors that are associated with one end of the wellbeing distribution may differ in various ways from the factors associated with the other end. For example, work by Baljit Gill has highlighted that the policy action required in a local authority where the population has very low average levels of wellbeing, are different from the policy actions that could improve the wellbeing of local populations where wellbeing levels are already high.¹¹

Others have commented that it may be more efficient for policy to target interventions at the lower end of the wellbeing distribution, especially if the policy objective is to 'minimise misery'.¹² The rationale given for this is that the individual characteristics associated with low wellbeing may be more obviously identifiable and amenable to policy intervention (such as poverty and unemployment) than the personal attitudes and community spirit or sense of belonging linked with higher wellbeing.

Our analysis approach (comparing people with low wellbeing with those who have moderate wellbeing, and separately comparing people with high wellbeing with those with moderate wellbeing) builds on this previous research. The findings based on this approach allows the specific aspects of policy most relevant to pulling people up from low to moderate wellbeing to be highlighted and differentiated from the aspects that most help with increasing the proportion of the population with the highest levels of wellbeing.

¹¹ Gill B and Green R (2013). Understanding differences in life satisfaction between local authority areas. Analysis based on the 2011/12 Annual Population Survey. DCLG.
<http://www.slideshare.net/DCLGIntegration/131021-dclg-wellbeing-and-places>.

¹² Lelkes, O. (2013) Minimizing Misery: A New Strategy for Public Policies instead of Maximizing Happiness. European Centre for Social Welfare Policy and Research Policy Brief November 2013.
http://www.euro.centre.org/data/1386080017_62291.pdf

Presentation of data and findings in this report

- Only statistically significant associations are mentioned in the text.
- Unless stated otherwise, the data presented in this report are from the National Survey for Wales 2012-13.
- All analyses are weighted so that the sample is representative of people aged 16 and over living in private households in Wales.
- The bar charts in this report all show percentages taken from simple descriptive tables. The dot graphs all show odds ratios produced when controlling for other factors.
- Generally, it is not possible to disentangle cause and effect using cross-sectional data and we can not be certain of the causal direction of any of the associations presented in this report. For example, high wellbeing may lead to good social relationships and good social relationships could lead to high wellbeing.
- Full details about method and results, including what factors are controlled for in each regression model, are presented in the appendices¹³.

¹³ All regression results are detailed in a supplementary volume available on the National Survey website: <http://wales.gov.uk/statistics-and-research/nationals-survey/?lang=en>.

2. Wellbeing in international context

Policy implications

- While the level and distribution of wellbeing may vary somewhat between countries, what benefits wellbeing in one context is likely to also be beneficial for all.
- Some risk and protective factors, however, will be more common in particular countries.



Key findings

Wellbeing in Europe

- The United Kingdom ranks mid-table in Europe for many measures of personal wellbeing.
- It performs best (in relation to other countries) for measures relating to hedonic wellbeing (feeling good) and worst for measures related to eudemonic wellbeing (for example, perceiving value in things done).

Wellbeing in the UK

- Overall, levels of personal wellbeing are similar among adults living in Wales and England.
- However, people living in Northern Ireland and Scotland have lower levels of anxiety.
- Self-reported levels of happiness differ by UK country for children, even after controlling for other factors.
- Seven-year-olds in Northern Ireland were the most likely to report being happy and those living in England were the least. Children in Wales were more likely to be happy than those in England.
- In the future, more data will become available to enable wellbeing in the Welsh population to be compared with that of people living in other European countries.

2.1 Introduction

This chapter places wellbeing in Wales into an international context, comparing overall levels among people living in Wales with those of people living in the rest of Europe. This chapter highlights some of the key surveys with data that can be used to compare levels of personal wellbeing in Wales and the rest of the United Kingdom (UK), and between the UK and other different European countries.

2.2 European wellbeing data

The United Kingdom ranks mid-table in Europe for many aspects of personal wellbeing.

European Social Survey (ESS) data shows that for many measures of wellbeing, such as self-esteem, the UK as a whole ranks mid-table compared with other European nations.¹⁴ For hedonic measures, such as positive feelings, the UK often performs above the European average. However, for some eudemonic measures (such as having purpose and meaning in life) the UK ranks below that of many other European countries.¹⁵ Due to its small sample, separate analysis of the Welsh sample is not reliable using the ESS dataset.

In 2013 there will be a European Union (EU) wide wellbeing module in the EU Statistics on Income and Living Conditions (EU-SLIC), and the same questions are also being asked in the 2013-14 National Survey. This will allow for comparisons to be made between Wales and other European countries.

2.3 UK: wellbeing among adults

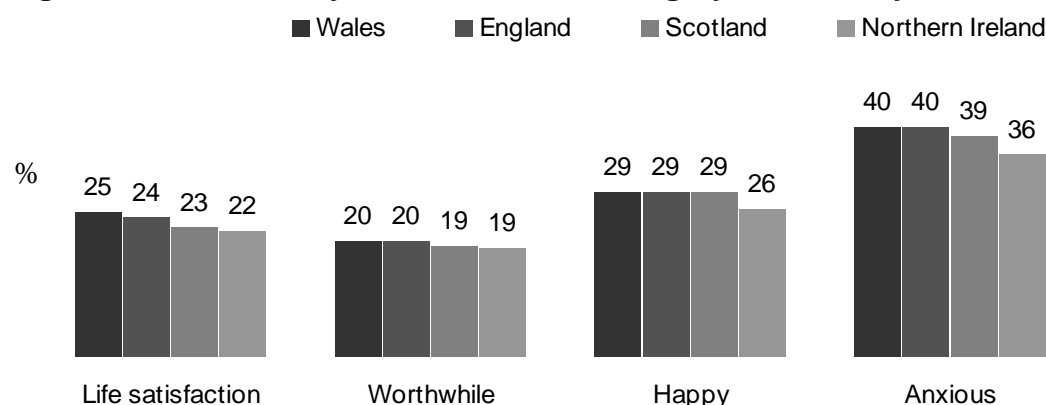
Levels of personal wellbeing are broadly similar across UK countries. However, there are indications that adults living in Wales and England are more likely to report low levels of some types of wellbeing compared with people living in Scotland and Northern Ireland.

The Annual Population Survey (APS) covers a large UK-wide sample (about 165,000 adults annually) and includes the same four key measures of personal wellbeing that are in the National Survey. ONS analysis of this dataset indicates that England and Wales had similar proportions of adults giving a low or very low rating for life satisfaction, feeling worthwhile, and feeling happy yesterday; as well as similar proportions giving high or very high ratings for feeling anxious yesterday.

¹⁴ International Comparisons of Health and Wellbeing: Where does the UK stand? (2013). A Compendium of Factsheets: Wellbeing Across the Life course. Department of Health.

¹⁵ See: <http://www.nationalaccountsofwellbeing.org/learn/measuring/european-social-survey.html>.

Figure 2.1 Low or very low level of wellbeing by UK country



Data source: Annual Population Survey 2012

People living in Scotland and Northern Ireland, however, were less likely to give a low rating for life satisfaction, and people in Northern Ireland were also less likely to report feeling anxious (36%, compared with the UK average of 40%).¹⁶

Understanding Society is a longitudinal survey of 40,000 households.¹⁷ It does not include the same measures of personal wellbeing as the APS and National Survey, but does have the short version of the Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS).¹⁸ This scale is used by the Scottish Government as a national indicator for monitoring subjective wellbeing in Scotland. The SWEMWBS is also part of the ONS' Measuring Wellbeing indicator set.¹⁹

Analysis of data from Understanding Society comparing the proportion of the population in different countries and regions with a SWEMWBS score above that of the UK average, suggests that personal wellbeing levels may be higher in Scotland and the South of England, and lower in Wales and North East England.

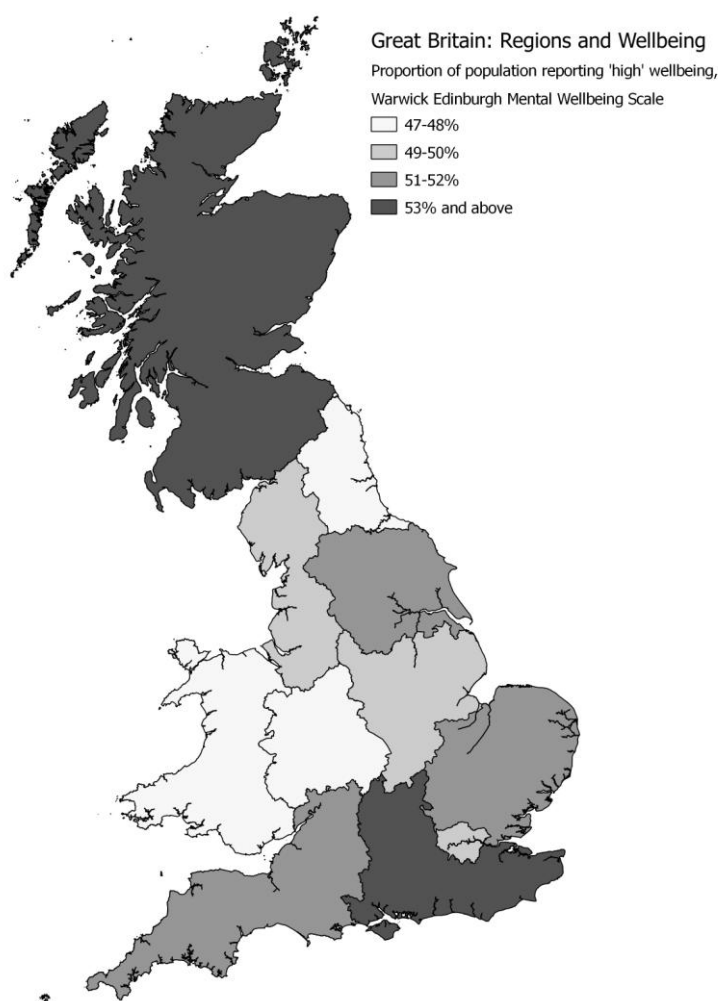
¹⁶ See: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/first-annual-ons-experimental-subjective-well-being-results/first-annual-experimental-subjective-well-being-results.html#tab-Section-5--Countries-of-the-UK-and-English-regions>

¹⁷ For analysis of subjective wellbeing data in Understanding Society see Chanfreau J, Lloyd C, Byron C, Roberts C, Craig R, De Feo D, McManus S. (2013) *Predicting Wellbeing*. NatCen-DH: London. <http://www.natcen.ac.uk/media/205352/predictors-of-wellbeing.pdf>

¹⁸ The Warwick-Edinburgh Mental Well-being Scale was funded by the Scottish Government National Programme for Improving Mental Health and Wellbeing, commissioned by NHS Health Scotland, developed by the University of Warwick and the University of Edinburgh, and is jointly owned by NHS Health Scotland, University of Warwick and University of Edinburgh. Tennant R, Hiller L, Fishwick R, Platt S, Joseph S et al. The Warwick-Edinburgh mental wellbeing scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes* 2007 5:1-13. The SWEMWBS is the short version of this scale.

¹⁹ See: <http://www.ons.gov.uk/ons/interactive/well-being-wheel-of-measures/index.html>

Figure 2.2 Proportion with an above average Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) score by country/region²⁰



Data source: Understanding Society Wave One

This comparison (mapped in Figure 2.2) does not make adjustments for other factors. However, even in multiple linear regression analysis that does take other factors (like employment rate and deprivation) into account, Wales still emerged as having a lower average SWEMWBS score than Scotland, Northern Ireland and most English regions.²¹

²⁰ 'High' was defined as greater than the UK average.

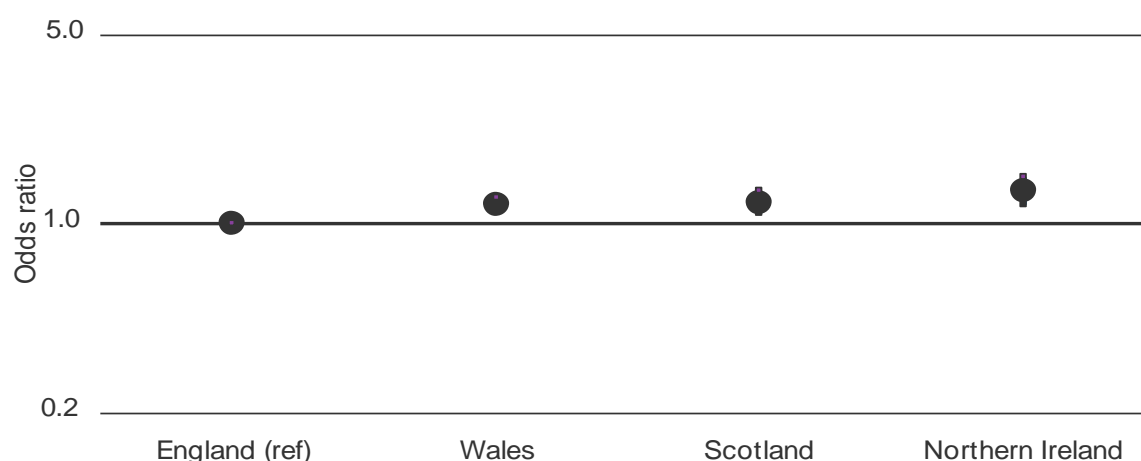
²¹ Chanfreau et al. 2013.

2.4 UK: wellbeing among children

According to data from the Millennium Cohort Study, children in Wales average a higher level of wellbeing than children in England, after controlling for other factors.

The Millennium Cohort Study is a UK-wide longitudinal survey of children born in 2000. It includes questions asked directly of children - as well as of the parents of children - about their levels of happiness and worry. Analyses of this dataset (which controlled for a wide range of factors) indicate that children living in Wales have a higher level of wellbeing than children living in England.²² Children in Wales average a similar level of wellbeing to those living in Scotland and Northern Ireland.

Figure 2.3 Odds ratios for a high level of self-reported happiness among seven year olds, by UK country²³



Data source: Millennium Cohort Study Wave 4, seven year olds

The dots on this chart show odds ratios (OR), and the lines represent the confidence interval (CI) around each estimate. In this analysis, children living in England have been designated as the reference group. The reference group always has odds of one. If the CI for another group does not cross one, then that group is significantly different from the reference group. In this case we can see that children living in Wales, Scotland and Northern Ireland all have higher odds of reporting happiness than children living in England. The differences are quite modest, but they are all statistically significant.

²² Chanfreau et al. 2013.

²³ Respondents answered using a response scale from 0 to 10, where 0 indicated 'not at all' and 10 'completely'. In the analyses presented in this report 'low' wellbeing included scores 0 to 6, and 'high' wellbeing as a score of 9 or 10.

3. The nature and distribution of wellbeing in Wales

Policy implications

- The National Survey provides Wales with a powerful evidence base for informing the integration of wellbeing into policy.
- Levels of personal wellbeing vary between Welsh constituencies. This variation, however, is explained by differences in the characteristics of people living in those areas.



Key findings

- Most people in Wales rate their personal wellbeing highly – that is, they give a score of at least 8 out of 10 for indicators such as life satisfaction, happiness and for feeling that the things they do are worthwhile.
- Personal wellbeing is made up of different aspects, including feeling good (hedonic wellbeing) and functioning well (eudemonic wellbeing). The National Survey includes measures that captured these different aspects of wellbeing.
- People who responded positively to one measure of personal wellbeing were also more likely to also respond positively to certain other measures of wellbeing.
- People tend to have either high, medium, or low personal wellbeing, that is they respond to each of the different wellbeing indicators in a fairly similar way.
- However, about one adult in six belongs to a 'mixed wellbeing' group. This group has a distinctive combination of high levels of eudemonic wellbeing (feeling satisfied and that what they do in life is worthwhile) coupled with particularly low hedonic wellbeing (feeling anxious and not happy).
- People in this 'Worthwhile-Anxious' group are more likely to be young, female, living in a deprived neighbourhood, and they are particularly likely to feel unsafe, particularly on public transport. They are also more likely to want information.

3.1 Introduction

In this chapter the different approaches to the measurement and analysis of wellbeing applied in this report are described.

3.2 Analysis of National Survey wellbeing indicators

Analysis of the four main personal wellbeing indicators on the National Survey shows that these measures are skewed towards the positive end of the scale. That is, most people in Wales rate their personal wellbeing as eight or more on a scale where 10 is the highest level of wellbeing.

The National Survey involves 25 minute face-to-face interviews with a randomly selected representative sample of people aged 16 and over across Wales. The survey runs all year round. The four core personal wellbeing indicators used on the National Survey - life satisfaction, happiness yesterday, anxiety yesterday and feeling that things done in life are worthwhile - were asked near the start of the interview and so responses would not have been affected by the subsequent sections of the questionnaire. All four questions were answered on a scale of 0 to 10 where 0 was 'not at all' and 10 was 'completely'.

Life satisfaction

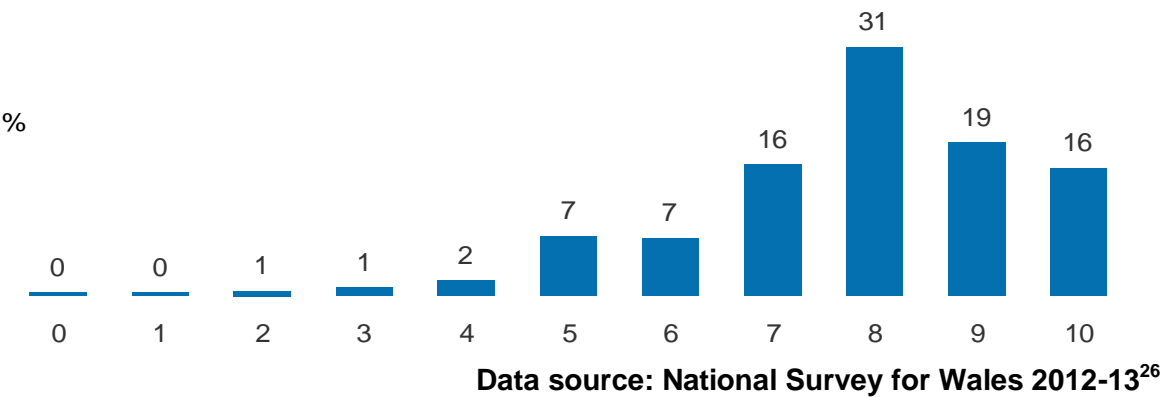
The 'evaluative' approach to measuring personal wellbeing asks individuals to step back and reflect on their life and make an assessment of how their life is going overall (or on certain aspects of their life). Asking about overall life satisfaction has the benefit of getting respondents to reflect only on the aspects of life that they themselves feel to be important.

It is worth noting that evaluative measures reflect people's expectations, and expectations can vary with personal characteristics and with wider context. For example, analysis of ESS data found that while working conditions in Britain have deteriorated during the recession, job satisfaction has gone up. This suggests that in a more challenging employment environment people's expectations declined and so they were more easily satisfied.²⁴

Very few people gave a very low rating (less than 5) for their overall satisfaction with life. About a third rated their life satisfaction as 8 out of 10, and the second most common rating was 9 out of 10. This suggests a distribution that is skewed towards positive wellbeing and with a long tail at the negative end of the spectrum. There is also evidence of a 'ceiling' affect, with about one person in six giving the highest possible rating.

²⁴ McManus S and Perry J. (2012). 'Hard Work? Employment, work-life balance and wellbeing in a changing economy'. Chapter in *British Social Attitudes 2011*.

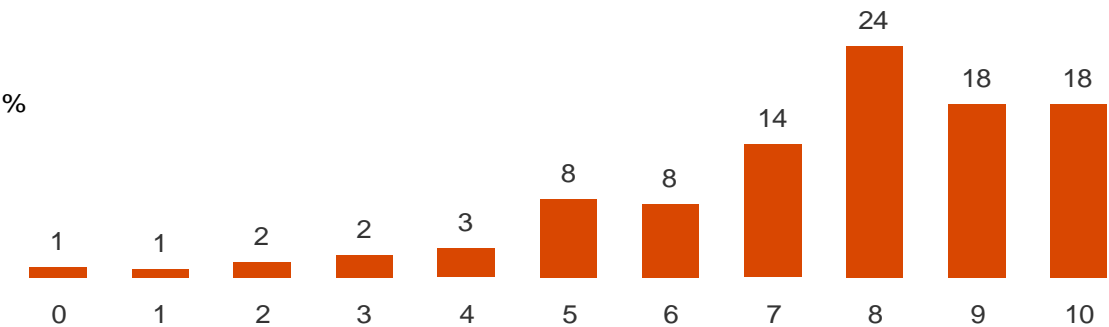
Figure 3.1 Distribution of responses to the ‘life satisfaction’ indicator²⁵



Happiness yesterday

The ‘experience’ approach to the survey measurement of personal wellbeing asks about positive and negative experiences of feelings or emotions (or affect) over a short and specific timeframe. The aim is to capture people’s wellbeing on a day-to-day basis and it also relates to the hedonic perspective on wellbeing.

Figure 3.2 Distribution of responses to the ‘happiness yesterday’ indicator²⁷



Positive affect was captured with a question about how happy the respondent felt yesterday. Asking about yesterday means that responses are not affected by the fact that respondents are currently taking part in a survey interview (which would impact on responses to questions about current happiness). Asking about yesterday means that it

²⁵ Respondents answered using a response scale from 0 to 10, where 0 indicated ‘not at all’ and 10 ‘completely’. In the analyses presented in this report ‘low’ wellbeing included scores 0 to 6, and ‘high’ wellbeing as a score of 9 or 10.

²⁶ Henceforth, all the data presented in the charts and tables in this report were collected as part of the National Survey.

²⁷ Respondents answered using a response scale from 0 to 10, where 0 indicated ‘not at all’ and 10 ‘completely’. In the analyses presented in this report ‘low’ wellbeing included scores 0 to 6, and ‘high’ wellbeing as a score of 9 or 10.

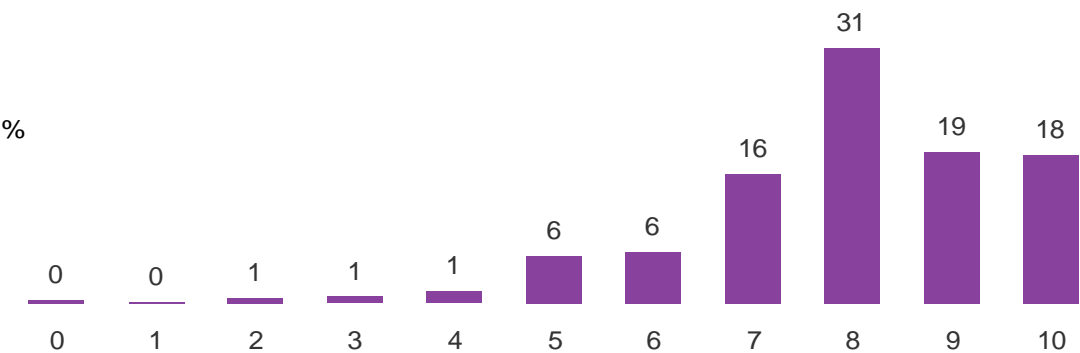
is close enough for people to remember, and also that people have a full day to refer to. It is important that interviewing took place on every day of the week.

The distribution in responses was similar for happiness and life satisfaction. Again, few people gave a rating of less than 5 for their level of happiness yesterday. About a quarter rated their happiness as 8 out of 10. This again suggests a distribution that is skewed towards positive wellbeing and with a long tail at the negative end of the spectrum.

Feeling that the things one does are worthwhile

The ‘eudemonic’ approach to wellbeing is sometimes referred to as the psychological or functioning/flourishing approach. It draws on self-determination theory and tends to measure things such as people’s sense of meaning and purpose in life, social connections with others, a sense of control and whether they feel part of something bigger than themselves.

Figure 3.3 Distribution of responses to the ‘worthwhile’ indicator²⁸



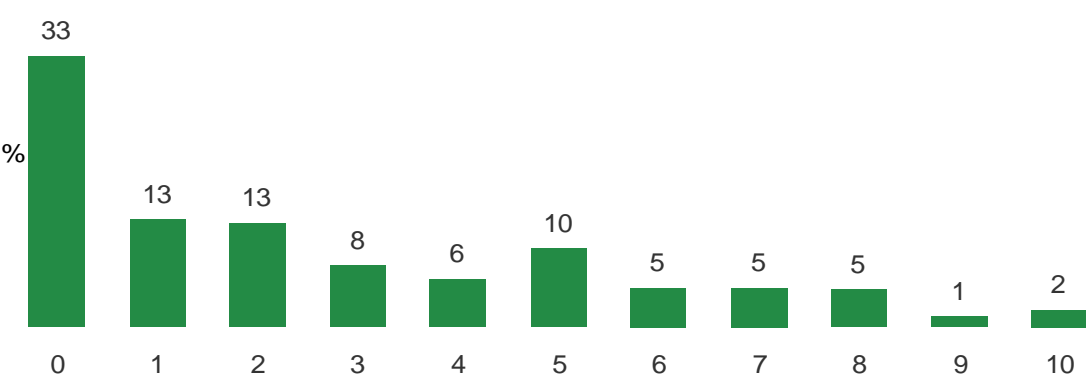
The response for this item was very similar to that of the other two positively framed indicators of personal wellbeing. About a third (31%) of the population rated how worthwhile are the things that they do as 8 out of 10, with the second most common responses being 9 and 10. Very few people gave a score of less than 5.

Anxiety yesterday

One of the four core personal wellbeing items sought to capture negative affect, in terms of how anxious the respondent felt yesterday. Like happiness, this is an experience measure.

²⁸ Respondents answered using a response scale from 0 to 10, where 0 was defined as ‘not at all’ and 10 was ‘completely’. In the analyses presented in this report ‘low’ wellbeing was defined as scores 0 to 6, and ‘high’ wellbeing as a score of 9 or 10.

Figure 3.4 Distribution of responses to the ‘anxiety yesterday’ indicator²⁹



The response distribution for anxiety was very different from that of the other three personal wellbeing measures. Firstly, it was scored in reverse, with a lower score indicating less anxiety and higher wellbeing. The other difference was that there was no evidence at all of a normal or bell-shaped distribution in scores in the population. A third (33%) of people stated that they had not been anxious at all the previous day, and the second most commonly cited responses were ratings of 1 and 2. It is also noticeable that there was a tendency for some participants to opt for the ‘middle’ option of a score of five.

3.3 Links between wellbeing indicators

A correlation analysis confirmed that people who responded positively to one wellbeing indicator were also more likely to respond positively to another. Life satisfaction was the measure linked with the largest number of other wellbeing indicators. Anxiety was not linked strongly with other wellbeing indicators, other than happiness.

Different measures of personal wellbeing are associated with each other, so someone who responds positively to one measure will also be more likely to respond positively to another. However, the different wellbeing indicators are not all measuring exactly the same thing, and some items are much more closely related to each other than others.

²⁹ Respondents answered using a response scale from 0 to 10, where 0 was defined as ‘not at all’ and 10 was ‘completely’. In the analyses presented in this report ‘low’ wellbeing was defined as scores 6 to 10, and ‘high’ wellbeing as a score of 0 or 1.

Figure 3.5 Correlation matrix: the strength of association between each pair of wellbeing questions

Pearson's correlation coefficients	Life satisfaction	Worth-while	Happiness	Anxiety yesterday	Personal relationships	Physical health	Mental wellbeing	Work situation	Financial situation	Area lived in	Time to do things enjoy	Wellbeing of children
Life satisfaction	1											
Things in life worthwhile	0.633	1										
Happiness yesterday	0.537	0.464	1									
Anxiety yesterday	-0.287	-0.21	-0.444	1								
Satisfaction with... Personal relationships	0.415	0.369	0.294	-0.175	1							
Physical health	0.381	0.355	0.316	-0.217	0.271	1						
Mental wellbeing	0.490	0.443	0.379	-0.320	0.450	0.503	1					
Work situation	0.408	0.389	0.325	-0.215	0.259	0.252	0.335	1				
Financial situation	0.449	0.361	0.318	-0.202	0.273	0.237	0.338	0.517	1			
Area lived in	0.307	0.279	0.260	-0.149	0.251	0.151	0.238	0.275	0.356	1		
Amount of time to do things enjoy doing	0.338	0.260	0.297	-0.205	0.209	0.137	0.253	0.278	0.323	0.260	1	
Wellbeing of children	0.175	0.173	0.138	-0.095	0.247	0.092	0.176	0.183	0.169	0.169	0.110	1
Number of associations (0.30+)	9	7	7	2	3	4	8	5	7	2	2	0

Note: dark blue shading indicates a strong level of association; pale blue shading indicates a weak or moderate association; no shading indicates no significant association between that pair of wellbeing indicators.

The strength of association between two different variables can be summarised with a Pearson correlation coefficient. A general rule of thumb for interpreting these coefficients is that a score of:

- 0.50 or more indicates a strong association between two variables;
- 0.30 to 0.49 indicates a weak to moderate association; and
- Less than 0.30 indicates little, or no, association.

A correlation matrix was produced which summarises the strength of associations across the twelve wellbeing indicators used in the National Survey. If two measures have a correlation of 1, they may be considered to be measuring the same thing. These are the four core wellbeing measures, matching those used by ONS in the UK-wide Measuring National Wellbeing Programme to assess personal wellbeing, and the eight domain-specific satisfaction measures. This matrix (Figure 3.5) shows that many (but not all) of the wellbeing measures are correlated, and correlated in the expected direction.

In summary, the correlation analyses show that:

- While many of the different wellbeing measures are related to each other, they also do tap into different aspects of wellbeing. They are not all measuring the same thing.³⁰
- Life satisfaction is the wellbeing indicator that links strongly with the largest number of other wellbeing indicators, especially the other satisfaction measures. This is not unexpected, given that the satisfaction measures all involve a similar process of evaluation.
- Happiness and anxiety show a strong (inverse) association, as we would expect given that they are both indicators of hedonic wellbeing (or affect).
- Sometimes anxiety has been used to represent poor mental health. While it was correlated with 'satisfaction with mental health', this correlation was not as strong as might have been expected.
- The anxiety measure has a weaker correlation with many of the other wellbeing measures. This indicates that anxiety is not just the opposite of positive wellbeing: for example it is quite possible to be both happy and anxious.
- The strength of association between satisfaction with mental health and with physical health was particularly high.
- Reported satisfaction with children's wellbeing stands out as having a weaker correlation with the other wellbeing measures. This is not surprising given that the other measures all relate to the participant's own wellbeing.

³⁰ If two measures have a correlation coefficient of 1 (or -1), they may be considered to be measuring the same thing.

3.4 A typology of wellbeing

A segmentation analysis identified four main ‘types’ of wellbeing in the Welsh population. Three map closely on to high, medium and low wellbeing. A fourth group also emerged with mixed wellbeing. This group consists of people with a high sense of life satisfaction and feeling that what they do is worthwhile, coupled with high anxiety and low levels of happiness. That is, they have high eudemonic wellbeing, combined with low hedonic wellbeing.

Personal (or ‘subjective’) wellbeing is a complex concept consisting of at least two factors: hedonic wellbeing (the experience of emotions and feelings) and eudemonic wellbeing (including meaning and purpose in life and social connections). It is because of this complexity that personal wellbeing is measured using several questions.

The majority of this report considers the four core wellbeing measures separately. However, we also wanted to examine whether, in the population, different groups of people share different combinations of scores on these items. To do this we used an analytical technique called latent class analysis (LCA). LCA is an approach widely used in commercial and marketing analyses to segment the population into distinct, non-overlapping ‘clusters’ (or ‘groups’ of people) where each cluster shares a similar pattern or profile of responses - in this case a particular pattern of similar scores across the different wellbeing measures.

We entered the four core indicators of personal wellbeing into a series of LCA models³¹ to identify how people group together into distinct ‘personal wellbeing types’. Every respondent in the dataset was assigned to a group, where they were most similar to the others in terms of their responses to the four wellbeing indicators.³²

Clusters of wellbeing in Wales

Based on the results of the LCA, four clusters (or groups) of people sharing a similar wellbeing profile were identified. That is, people in Wales can be assigned to one of four distinct wellbeing types which we called:

- ‘Typical’,
- ‘Flourishing’,³³
- ‘Struggling’, and
- ‘Worthwhile-Anxious’.

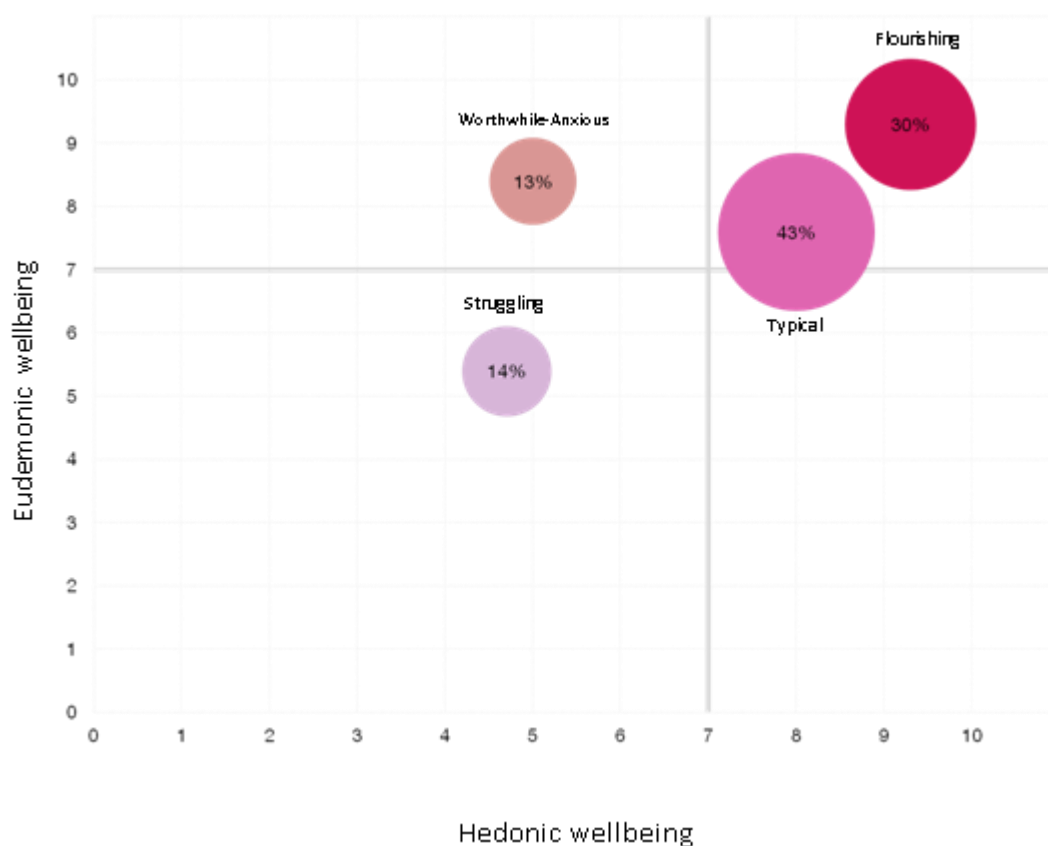
³¹ All regression results are detailed in a supplementary volume available on the National Survey website: <http://wales.gov.uk/statistics-and-research/nationals-survey/?lang=en>.

³² To our knowledge, segmentation analysis has not been applied to these measures of wellbeing using other datasets and thus more research is required to establish whether these clusters emerge as stable and discrete groups of people in Wales, or in the UK as a whole.

³³ This is based on Felicia Huppert’s use of this term to refer to people who are ‘enjoying a high level of psychological wellbeing’. See Huppert F ‘Psychological Well-being: Evidence Regarding its Causes and Consequences’. *Applied Psychology: Health and Wellbeing*. 2009, 1 (2), 137–164.

Figure 3.6 illustrates how the people in each group share similar levels of hedonic and eudemonic wellbeing. The size of the bubble represents the prevalence of each cluster in the adult population, while the placement of each bubble gives an indication of the combination of hedonic and eudemonic wellbeing of the people in the group³⁴. The skewed distribution of the measures needs to be borne in mind when interpreting the placement of the bubbles. In other words, the fact that many more people score towards the top of the wellbeing scales rather than the middle of the scale, means that the middle of the scale (a score of 5) does not correspond to typical wellbeing. The horizontal and vertical lines dividing the hedonic and eudemonic axes mark the threshold between low/very low wellbeing and medium/high wellbeing.

Figure 3.6 People in Wales can be assigned to one of four wellbeing groups



Groups derived from LCA analysis of the four core National Survey personal wellbeing items.

Typical: The largest group had medium wellbeing on the life satisfaction, worthwhile and happiness measures and medium levels of anxiety. This cluster accounted for 43% of the Welsh population. With a demographic profile very similar to that of the Welsh population as a whole, this cluster can be thought of as representing the typical or average Welsh adult and we refer to this cluster as the 'Typical' wellbeing group.

³⁴ The centre of each bubble corresponds to the mean scores on the things done in life are worthwhile (eudemonic) and the happiness (hedonic) measures for the people assigned to each cluster.

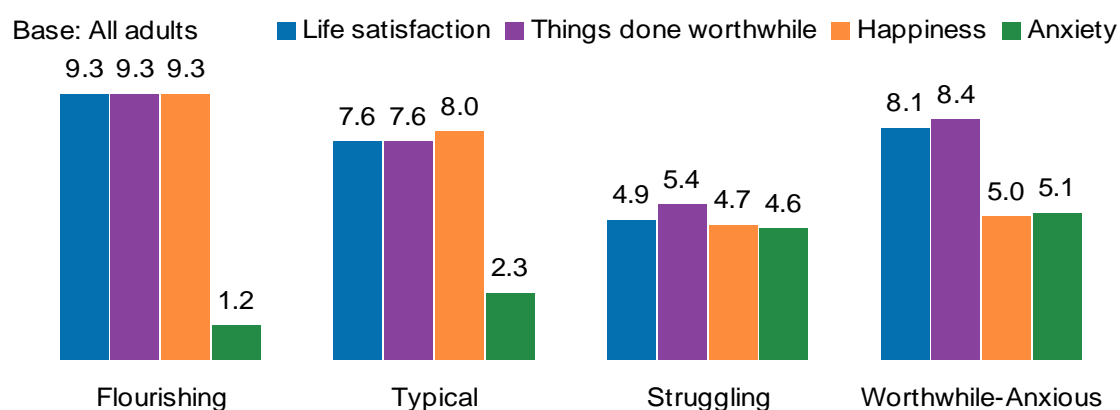
Flourishing: The second largest group was characterised by high levels of wellbeing on the life satisfaction, worthwhile and happiness measures and very low levels of anxiety. 30% of Welsh adults have this type of wellbeing, which we describe as ‘Flourishing’.

Struggling: A smaller wellbeing group, made up of 14% of the population, scored very low or low on the life satisfaction, worthwhile and happiness measures of wellbeing. This was combined with high to very high anxiety levels. These people have particularly low wellbeing and we refer to the group as ‘Struggling’.

Together, these three clusters effectively capture wellbeing on a scale ranging from low, through medium, to high. However, a fourth group, similar in size to the ‘Struggling’ one, stands out as not fitting on this scale.

Worthwhile-Anxious: The people in this group had medium to high levels of life satisfaction and feeling that things done in life are worthwhile, but scored low on happiness and high on anxiety. 13% of the Welsh population have this type of ‘mixed’ wellbeing, which we refer to as ‘Worthwhile-Anxious’. The people in this group effectively combined having high levels of eudemonic wellbeing with low levels of hedonic wellbeing.

Figure 3.7 The four wellbeing groups by personal wellbeing (mean scores)



Characteristics of people in the Worthwhile-Anxious group

Much of this report examines what predicts low, medium and high wellbeing. However, the wellbeing typology revealed that some people in the population have a distinct wellbeing profile that mixes high and low wellbeing. Because the ‘Worthwhile-Anxious’ wellbeing group does not map onto the low-to-high wellbeing scale suggested by the other groups, we analysed the characteristics of individuals assigned to this ‘mixed’ group, using logistic regression.

After controlling for other factors, such as ethnicity, level of education and economic activity, a number of respondent characteristics were associated with being in the Worthwhile-Anxious group. These were:

- Gender,
- Age and family living arrangements,
- Desire for more information on the performance of local health services,
- Having internet access at home,
- Local area deprivation, and
- Perceived safety on public transport.

The results³⁵ paint a picture of a group of adults who tend to be young and digitally connected, who want to be well informed but are affected by the deprivation and perceived lack of safety in the localities where they live and travel.

- **Women** were more likely than men to belong to this cluster; 15% of women belonged to the Worthwhile-Anxious cluster, compared with 12% of men.
- **Young adults** (16-24 year olds) living at home with their parents were particularly likely to belong to this cluster: 19% of young people living at home reported this combination of wellbeing compared with 13% overall.
- **People who want more information on the performance of local health services** were more likely to belong to this group. While health did not emerge as a significant predictor of belonging to this group (and so was not included in the final model) wanting more information on the performance of local health services did emerge as a predictor of low happiness, a high level of things being worthwhile and high anxiety in the other regressions, and these models did control for health status. The results of these models are discussed in the next chapter.
- **People who reported having access to the internet** at home were more likely than those without such access to belong to this cluster.
- **Feeling unsafe travelling on public transport in the local area after dark** predicted belonging to the Worthwhile-Anxious group.
- **People living in the most deprived fifth of areas** were more likely to belong to this group than those living in the least deprived areas.

³⁵ All regression results are detailed in a supplementary volume available on the National Survey website: <http://wales.gov.uk/statistics-and-research/nationals-survey/?lang=en>.

- **Trust in people in the local neighbourhood** also emerged as a significant factor in the regression. However, the two categories that stood out as substantially different capture only a very small proportion of the population. Compared with those who reported that many people in their neighbourhood are trustworthy, those who reported that none of the people in the neighbourhood can be trusted (1% of adults report this) were *less* likely to belong to this cluster. People who were unable to answer this question because they had just moved to the area (also about 1% of adults) were *more* likely to.

Figure 3.8 below summarises some of the characteristics associated with belonging to the Worthwhile-Anxious cluster, compared with the overall prevalence of the cluster in the adult population (13%).

Figure 3.8 Some of the characteristics associated with Worthwhile-Anxious wellbeing (%)

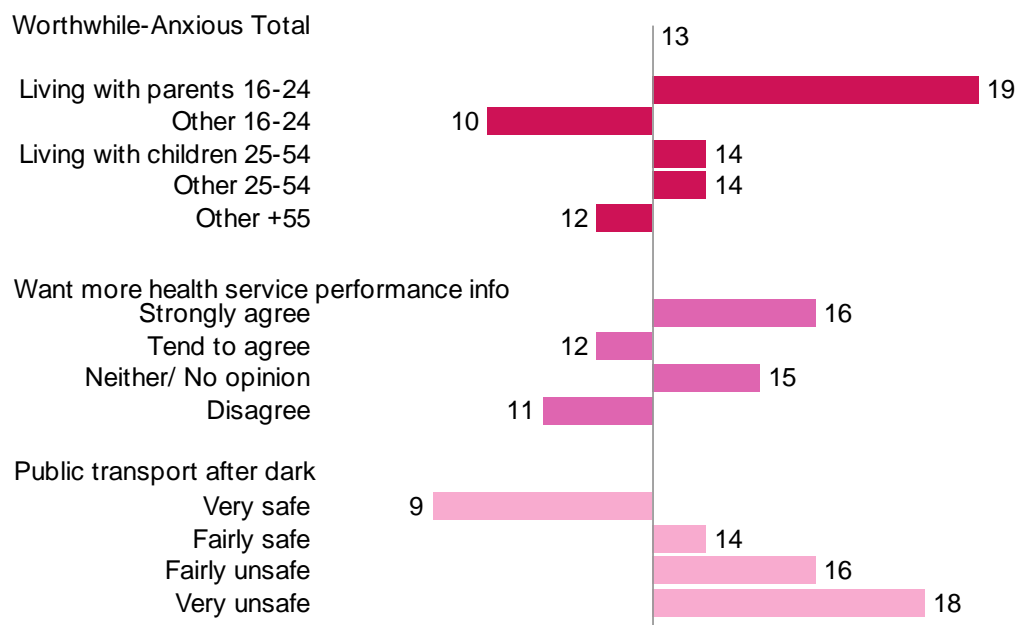
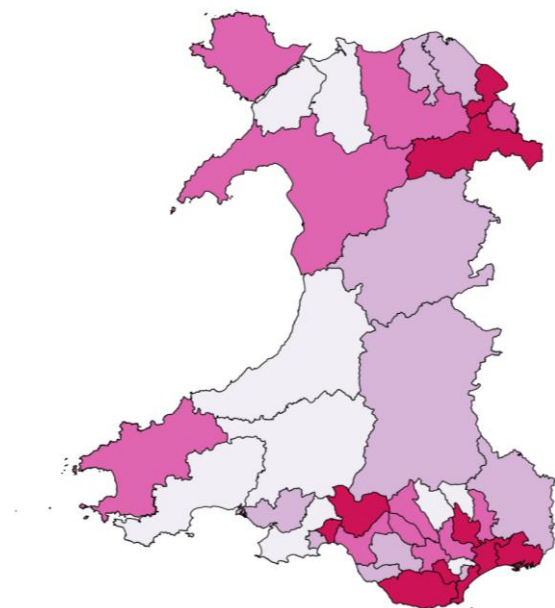


Figure 3.9 Proportion belonging to the Worthwhile-Anxious group, by Welsh Assembly Constituency

Anxious & Worthwhile Life
Welsh Assembly Constituencies
Proportion of population in 'high anxiety, high life worthwhile' cluster

- Less than 11%
- 11-12%
- 13-14%
- 15% and above



People in the Worthwhile-Anxious group were particularly likely to live in Welsh Assembly Constituency areas in the North East and South East, where this group accounted for as much as a quarter of the adult population.

3.5 Identifying predictors of wellbeing

Regression modelling was used to identify what factors predict high and low levels of each of the four core wellbeing indicators, after controlling for other factors. The results from these analyses are discussed in the topic specific chapters of this report (four to nine).

Simple analyses

Simple statistical techniques (bivariate logistic regression) can be used to look at the association between two variables, without taking account of other factors. This was carried out to identify the full range of variables we might want to include in subsequent, more complex analyses. However, such approaches to data analysis are also useful in their own right, in order to understand the profile of the population and to identify which groups experience the most need.

Complex analyses

A more complex statistical technique (multiple logistic regression modelling) was used to identify what factors predict wellbeing after the influence of other factors are taken account of. For example, associations between wellbeing and marital status might actually be explained by another factor, such as age.

We examined the data and after controlling for the influence of a range of factors identified which predicted high wellbeing (compared with having medium wellbeing), as well as which predict low wellbeing (again, compared with medium). We took the approach of looking separately at high and low wellbeing because previous analysis of wellbeing data has found that the factors crucial to high wellbeing may be different from those that play a key role in low wellbeing.³⁶

The National Survey is cross-sectional, which means that when using this dataset it is generally not possible to disentangle cause from effect. It is important to recognise that even where wellbeing shows an association with another factor, the direction of influence is often not clear. For example, wellbeing may have an impact on whether or not someone has a job, just as having a job may impact on someone's wellbeing. Causal impact may go in either direction, or even in both directions.

See Appendices D to I in the supplementary volume³⁷

³⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/252530/Understanding_differences_in_life_satisfaction_LA_areas.pdf

³⁷ All regression results are detailed in a supplementary volume available on the National Survey website: <http://wales.gov.uk/statistics-and-research/nationals-survey/?lang=en>.

4. Wellbeing, identity and demography

Policy implications

- Wellbeing analysis highlights people in midlife as a group that policy should not neglect.
- Age discrimination is strongly linked with wellbeing and affects both younger people and those in their late fifties and early sixties.



Key findings

Age

- Life satisfaction is at its lowest ebb in midlife.

Sex

- Women are both more likely than men to have low wellbeing and to have high wellbeing. This pattern is masked when comparing averages.
- Policies aimed at lifting people out of low wellbeing may have particular relevance to women, while policies aimed at lifting people from moderate to high wellbeing may have greater relevance for men.

Ethnicity, religion and sexual identity

- Most differences in wellbeing by religion, ethnicity, and sexual identity disappeared when other factors, such as health and income, were taken into account.

National identity, language and country of birth

- While national identity and country of birth were not associated with wellbeing, regularly speaking Welsh was predictive even after controlling for other factors, including region.

Discrimination

- Age discrimination remained a strong predictor of low wellbeing after controlling for other factors.

4.1 Introduction

In this chapter the associations between wellbeing and different demographic and identity characteristics are examined. These characteristics are:

- Age
- Sex
- Ethnic group
- Welsh language
- Country of birth
- National identity
- Religion
- Sexual identity
- Experience of discrimination.

The groups with particularly high or low levels of different aspects of wellbeing are identified, and what this means for the potential targeting of intervention or support is discussed.

In summary, this chapter shows that a number of subgroups had low levels of personal wellbeing that were not easily explained away by the other factors asked about in the study. Groups with low levels of at least one type of personal wellbeing included:

- People in mid-life,
- Women,
- Minority ethnic groups,
- People who cannot, or do not, speak Welsh, and
- People with experience of age discrimination.

4.2 Age

Age had a U-shaped association with life satisfaction. After controlling for other factors it did not remain associated with levels of happiness and feeling worthwhile.

Context

In general, wellbeing has been found to have a U-shaped relationship with age, although sometimes this pattern is reduced or disappears once other factors are taken into account.³⁸ There is also evidence that associations with age are different for different aspects and measures of wellbeing.

Analyses of ONS' Annual Population Survey (APS) 2011-2012 data has shown that wellbeing was highest for both young and old adults, and lowest for people in their

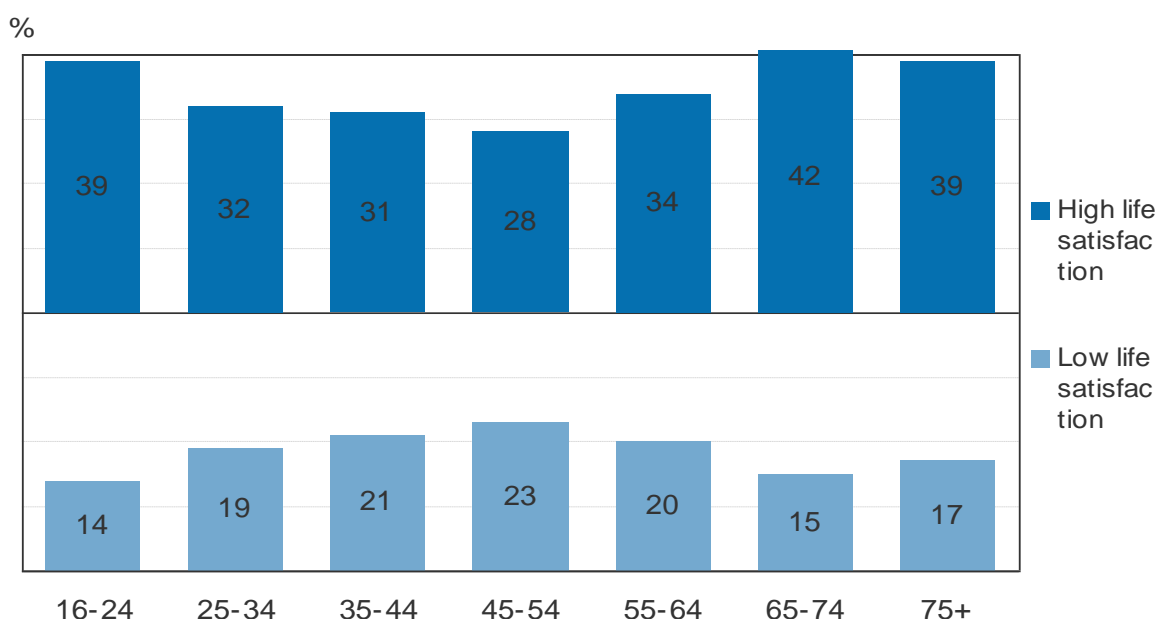
³⁸ Chanfreau J, Lloyd C, Byron C, Roberts C, De Feo D, Craig R, McManus S. (2013) *Predicting Wellbeing*. London, NatCen. Prepared for the Department of Health.

middle years.³⁹ They also found that wellbeing dips again among those aged 80 and over. Analyses of APS data that controlled for other factors confirmed that age was a significant predictor for wellbeing, with an additional decline in wellbeing seen with increasing age in later life.⁴⁰

Age and wellbeing in the National Survey data

Before controlling for other factors, age was found to be associated with all four indicators of wellbeing, with wellbeing lowest in midlife (usually around age 45 to 54 years of age).

Figure 4.1 Proportion with high and low life satisfaction, by age group⁴¹



After controlling for other factors⁴² age no longer predicted whether or not people felt that the things they did were worthwhile or how happy they felt yesterday.

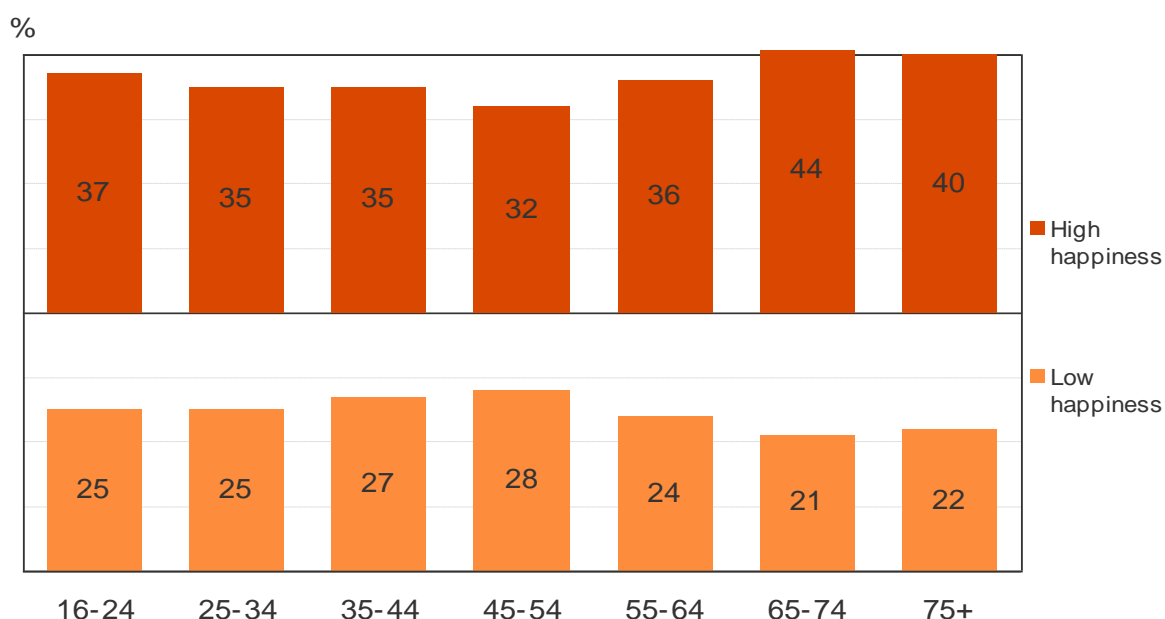
³⁹ First Annual Experimental Subjective Well-being Results (2012). United Kingdom, Office for National Statistics.

⁴⁰ Abdallah S, Shah S. (2012). *Wellbeing patterns uncovered: An analysis of UK data*. new economics foundation: London.

⁴¹ Respondents answered using a response scale from 0 to 10, where 0 indicated 'not at all' and 10 'completely'. In the analyses presented throughout this report 'low' wellbeing included scores 0 to 6, and 'high' wellbeing was a score of 9 or 10, except for 'anxiety yesterday' where 0 to 1 indicated high wellbeing and 6 to 10 indicated low.

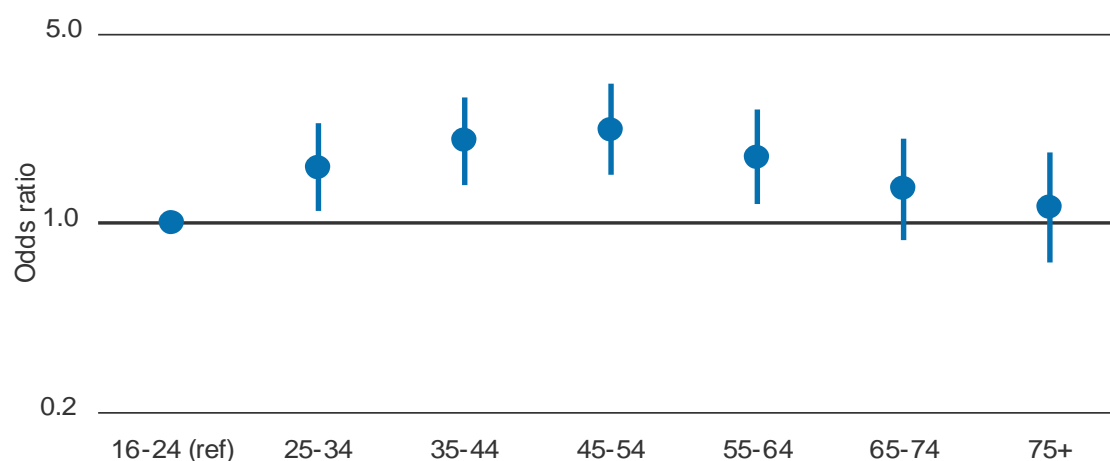
⁴² See Appendices in the supplementary volume for lists of all variables controlled for in each of the final models.

Figure 4.2 Proportion with high and low happiness, by age group



Age, however, remained associated with life satisfaction and anxiety after controlling for other factors. The odds ratios (OR) for having a low level of life satisfaction are shown in Figure 4.3.

Figure 4.3 Odds ratio for low life satisfaction by age group, after controlling for other factors



The dots on the chart show the OR for each age group, and the lines represent the confidence interval (CI) around each estimate. The reference group always has an OR of 1.0. If the CI for another group does not cross 1.0, then that group is significantly different from the reference group.

In this case we can see that the pattern of association between age and low life satisfaction clearly has the expected inverted U-shape. The youngest and oldest age

groups have the lowest odds of reporting low life satisfaction and those aged 45 to 54 are the most likely to report very low levels of low satisfaction.

In terms of anxiety, people across the working age range were more likely to have a higher level of anxiety than those aged 16 to 24. The different age groups, however, were equally likely to have low levels of anxiety.

What does this mean?

Data from the National Survey confirms the ‘U-curve’ pattern of association between age and life satisfaction which is widely discussed in the literature. It is also consistent with the literature that this midlife dip in wellbeing was most evident for measures of life satisfaction and anxiety, rather than for happiness or perceiving things to be worthwhile.⁴³

Some theories seeking to explain the U-curve in wellbeing have suggested that midlife can trigger a period of ‘crisis’ and re-evaluation in people’s lives. People still have some youthful aspirations, but at midlife these may also be coupled with the dawning realisation that many of these aspirations will never be achieved. This theory would fit with it being the evaluative measure of wellbeing – life satisfaction – rather than the other measures which has this U-shaped pattern of association with age.

For the analysis all respondents aged 75 and over were grouped into a single category. It is likely that this group contains a lot of heterogeneity, and combining people age 75 with those age 95 may have masked a tailing off of wellbeing among the oldest.

4.3 Gender

Women were more likely than men both to report very high wellbeing and to report very low wellbeing. For this reason, it would be better to avoid relying on comparisons of average wellbeing when comparing men and women as this distinctive pattern would be masked.

Context

The pattern of association between gender and wellbeing is a somewhat mixed picture. In surveys from across the UK, gender has often been found to significantly predict wellbeing. However, sometimes wellbeing emerges as higher in men and sometimes it emerges as higher in women.⁴⁴ It appears that the direction of the association between gender and wellbeing depends on what measure of wellbeing is used. For example, analysis of data from the Adult Psychiatric Morbidity Survey 2007 indicated that

⁴³ Blanchflower, David G. and Oswald, Andrew J. (2007) *Is well-being U-shaped over the life cycle?* Working Paper. Coventry: University of Warwick, Department of Economics.

⁴⁴ Chanfreau J, Lloyd C, Byron C, Roberts C, De Feo D, Craig R, McManus S. (2013) *Predicting Wellbeing*. London, NatCen: Prepared for the Department for Health.

average hedonic wellbeing was lower – and eudemonic wellbeing higher – in women than in men.⁴⁵

Gender and wellbeing in the National Survey data

After controlling for other factors,⁴⁶ women were more likely than men to report a very high level of wellbeing. While gender was not a strong predictor – women’s likelihood of having high wellbeing was only slightly greater than that of men – it was a pattern of association that was consistent across all four of the National Survey wellbeing indicators. This can be seen clearly in Figure 4.4. After controlling for other factors, women were more likely to report 9 or 10 out of 10 for life satisfaction, feeling that things done in life are worthwhile, and feeling happy yesterday, and 0 or 1 out of 10 for feeling anxious yesterday.

Figure 4.4 Odds ratios for HIGH wellbeing by gender, after controlling for other factors

High life satisfaction



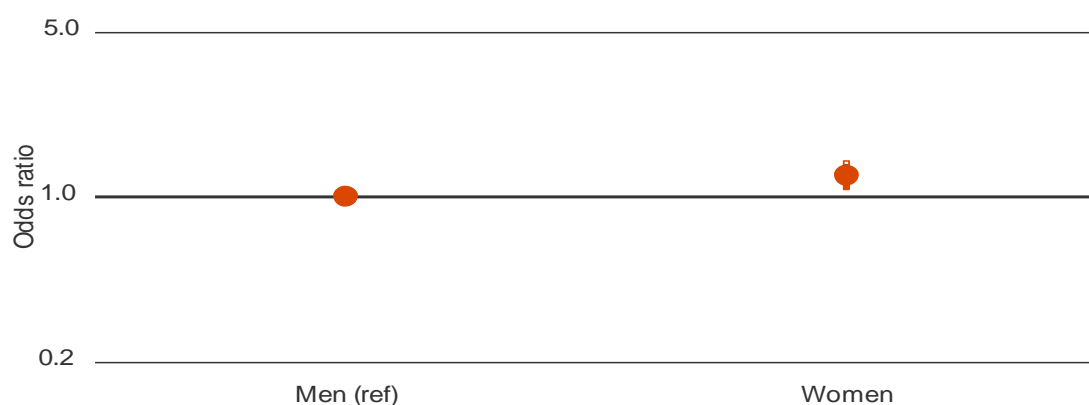
High things done in life are worthwhile



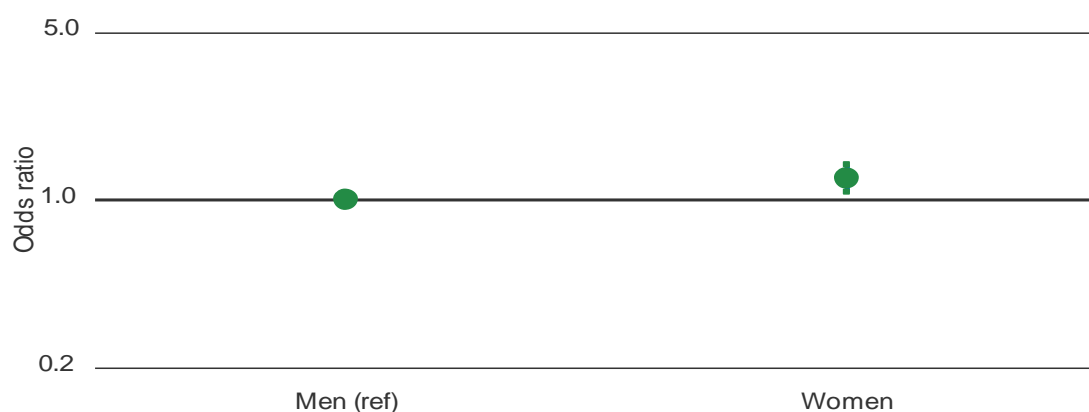
⁴⁵ Weich S, Brugha T, King M, McManus S, Bebbington P, Jenkins R, Cooper C, McBride O, Stewart-Brown S. (2011) Mental Wellbeing and Mental Illness: Findings from the Adult Psychiatric Morbidity Survey for England 2007. *British Journal of Psychiatry*.199: 23-28.

⁴⁶ See the appendices document for lists of the variables retained in each of the final models.

High happiness yesterday



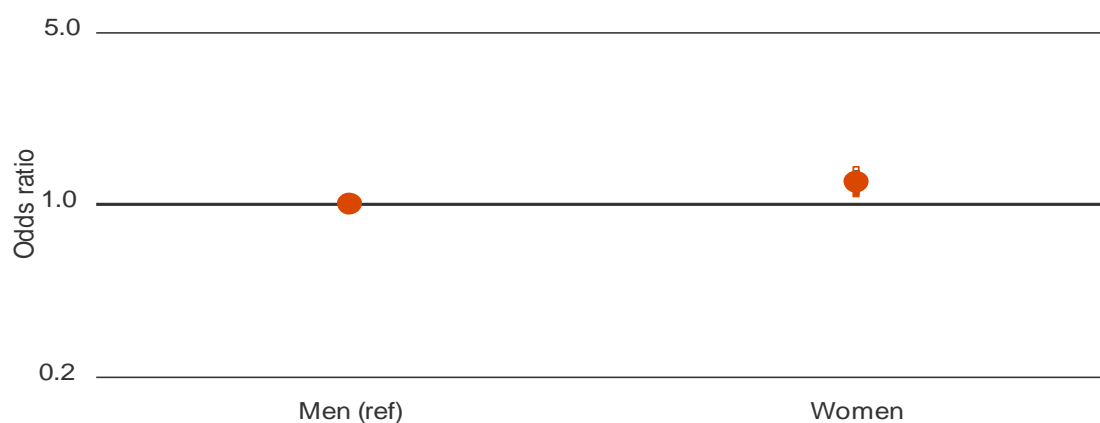
Low anxiety yesterday



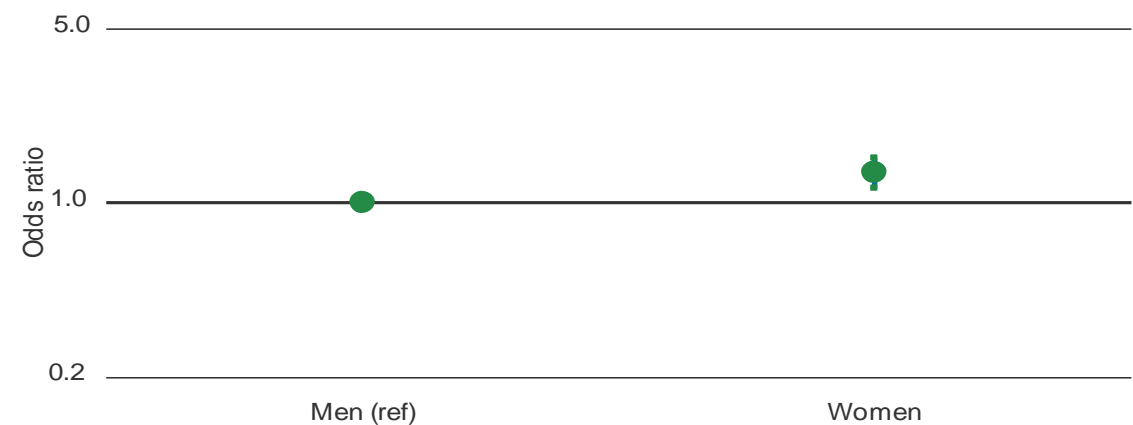
However, when separately examining what predicts low wellbeing, we found that women were *also* more likely than men to report very low levels of wellbeing. This was the case both for having a low level of happiness and for having a high level of anxiety. Women also appeared to be more likely to not feel that the things they do were worthwhile (although this did not reach statistical significance).

Figure 4.5 Odds ratios for LOW wellbeing by gender, after controlling for other factors

Low happiness yesterday

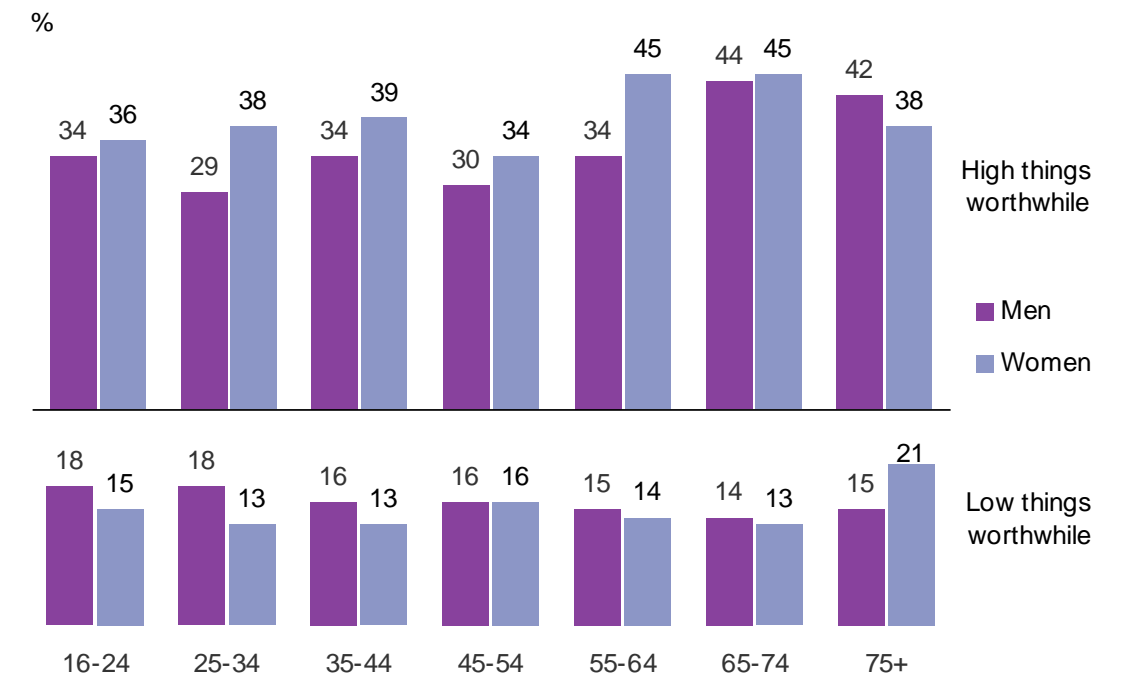


High anxiety yesterday



The pattern of wellbeing by age was generally similar for men and women for most of the wellbeing measures. However, differences were observed between men and women in terms of a high level of things being worthwhile. Women aged 25 to 64 were more likely than men of the same age to have high levels of things being worthwhile. For younger and older age groups there did not appear to be a different profile for men and women.

Figure 4.6 Proportion with high and low sense of things done being worthwhile, by age group and gender



There was also a borderline significant⁴⁷ difference in age profile between men and women reporting low levels of things being worthwhile. Younger men (aged 16-44)

⁴⁷ p=0.050; these analyses do not control for other factors.

were more likely than women of the same age to report low wellbeing. However, in old age (age 75 and over), it was women who were substantially more likely to report low wellbeing.

What does this mean?

Data from the Millennium Cohort Study also found that girls were both more likely to report high levels of wellbeing and to report low levels of wellbeing than boys.⁴⁸ However, other analyses of wellbeing data have tended to focus on what is associated with either a mean or a threshold wellbeing score. Such approaches may mask this interesting pattern of association, apparent when predictors of high and low (compared with medium) wellbeing are examined separately.

It could well be that when answering survey interviewers' questions, women are simply more likely to report emotional extremes than men. However, if this pattern is real - and not just an artefact of survey reporting styles - then it would suggest that to move people out of the lowest wellbeing level support should include the targeting of women. And to shift people from average up into high wellbeing, men would be a group to target.

When comparing the overall average wellbeing scores between men and women, this very distinctive pattern may be lost because the averages even out. Therefore, it may make sense to avoid relying on averages when comparing the wellbeing of men and women.

4.4 Ethnicity

Minority ethnic people in Wales were more likely than white people to have very low levels of life satisfaction. After controlling for other factors the other wellbeing indicators (anxiety, happiness, and worthwhile) were not associated with ethnicity.

Context

The links between wellbeing and ethnicity are complicated by confounding factors, such as relationship status, education, employment and living conditions, and again different studies have found different patterns of association.

After controlling for other factors, analysis of APS 2011-2012 data showed that Arab, Bangladeshi, Black, Indian and Pakistani adults had significantly lower wellbeing than White adults.⁴⁹

⁴⁸ This was found, for example, in analysis of seven year old boys and girls using data from the Millennium Cohort Study (Chanfreau et al., 2013).

⁴⁹ For example, the EMPIRIC study in England found that some ethnic groups, such as people of Indian origin, had better mental health and wellbeing than the white British majority, while the white Irish and black Caribbean groups had worse. Weich S, Nazroo J, Sproston K, McManus S, Blanchard M, Erens B, Karlsen S, King M, Lloyd K, Stansfeld S, Tyrer P. (2004). Common Mental Disorders and Ethnicity in England: The EMPIRIC Study. *Psychological Medicine*, 34: 1543-1551.

On the other hand, analysis of Understanding Society and Health Survey for England data, also controlling for other factors but using a different measure of wellbeing, found that Black adults had significantly higher wellbeing than adults in other ethnic groups.⁵⁰

Ethnicity and wellbeing in the National Survey data

The number of non-white participants in the National Survey sample was small (4% of the sample), and so this potentially heterogeneous group had to be combined into a single category for analysis. We know that different minority ethnic groups can have very different circumstances and experiences from each other, and this variation is masked when the categories are combined.

Figure 4.7 Proportion with low wellbeing by BME^a group

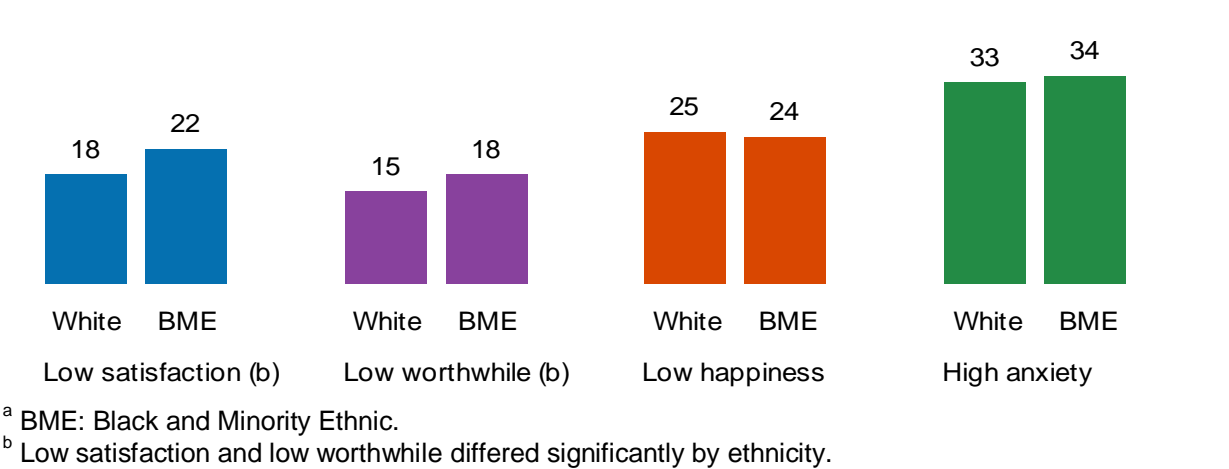
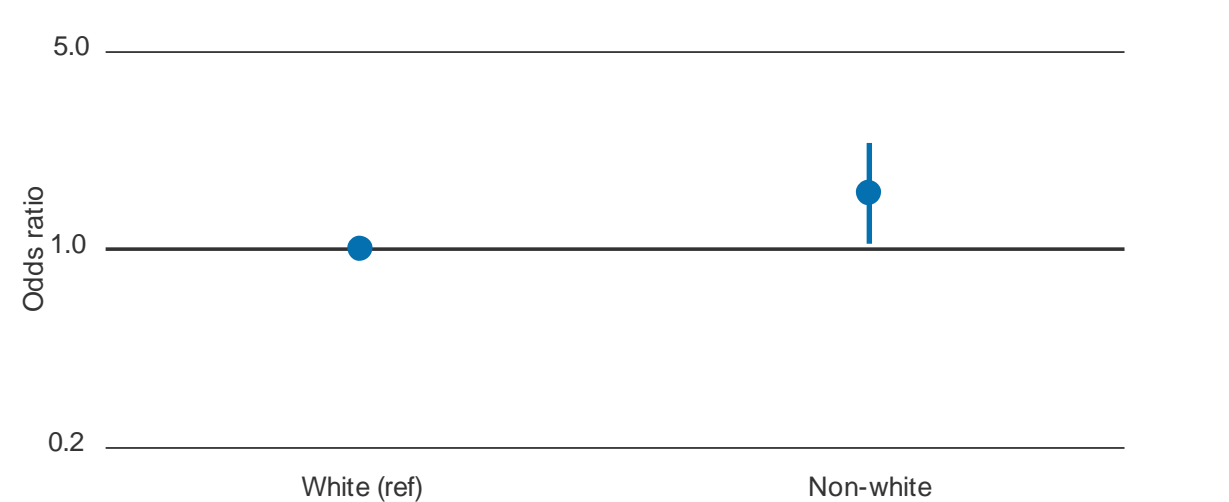


Figure 4.8 Odds ratio for low life satisfaction by ethnic group, after controlling for other factors



⁵⁰ Using the WEMWBS and SWEMWBS. (Chanfreau et al., 2013).

Despite these analytical issues, in analyses that did not take account of other factors people from a minority ethnic group were more likely to have low life satisfaction and low levels of viewing things done as worthwhile, than white people. The lower levels of life satisfaction among the minority ethnic group persisted after controlling for factors such as age, health, marital status and economic activity.

What does this mean?

In terms of evaluation and judgement about the aspects of life that they felt were important to them, minority ethnic people were less likely to be satisfied with their life. However in terms of how they felt – their feeling of happiness and anxiety – and in terms of the value they saw in the things they do, there were no differences. This could suggest that minority ethnic people are more likely to be aspirational, or that – sometimes in the face of poor life circumstances – they are more likely to be emotionally resilient.

4.5 Welsh language

People living in Wales who cannot speak any Welsh were more likely to have low levels of some types of wellbeing than people who speak Welsh fluently and on a daily basis. This remained significant even after taking account of other differences that may also be associated with wellbeing.

Context





The National Survey has a number of questions about Welsh language: including whether the respondent understands spoken Welsh, speaks, reads or writes Welsh; and among Welsh-speakers the level of fluency and the frequency of use of the Welsh language. According to the National Survey estimates, most people (76%) in Wales cannot, or do not, speak Welsh.⁵¹

The National Survey does not ask whether Welsh is spoken at home, nor whether the respondent regards the Welsh language to be their main language. We therefore combined the responses to both the fluency and frequency questions to identify those who speak Welsh both fluently and daily, as a proxy measure for those who perhaps use Welsh as their main or home-based language.

Please see Table 4.1 below to see how language fluency and frequency have been grouped for this analysis.

⁵¹ The 2011 Census stated that 81% of people living in Wales were unable to speak Welsh. The differences between the two sources are discussed in the introduction to the StatsWales tables on the National Survey's Welsh language results <https://statswales.wales.gov.uk/Download/File?fileId=353>

Table 4.1 Crosstab showing fluency in Welsh by frequency of speaking Welsh

		Fluency				
		Fluent in Welsh	Can speak a fair amount of Welsh	Can only speak a little Welsh	Can say just a few words	Can't speak Welsh
Frequency	Daily	8%	1%	1%	0%	-
	Weekly	1%	1%	1%	0%	-
	Less often	1%	1%	3%	1%	-
	Never	0%	0%	1%	2%	76%
Key:			Fluent and speaks daily			
			Speaks a fair amount or fluent but does not speak daily			
			Can speak a little or a few words			
			Can't or never speaks Welsh			

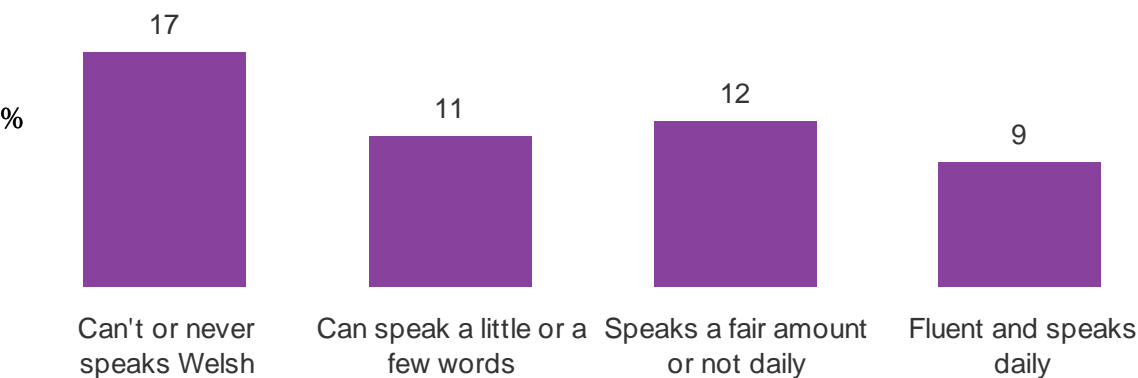
Adults who spoke Welsh fluently and daily (8%) were grouped together, those who were fluent, but did not speak Welsh daily were grouped with those who could speak a fair amount of Welsh (5%) and those who could only speak a little or just a few words of Welsh were also grouped together (7%).

Adults who never speak Welsh were grouped together with those who reported that they can't speak Welsh. Welsh speakers were most common in Gwynedd, where 52% of people reported speaking Welsh both fluently and daily. This was followed by Isle of Anglesey, where 44% of people reported speaking Welsh both fluently and daily.

Language and wellbeing in the National Survey data

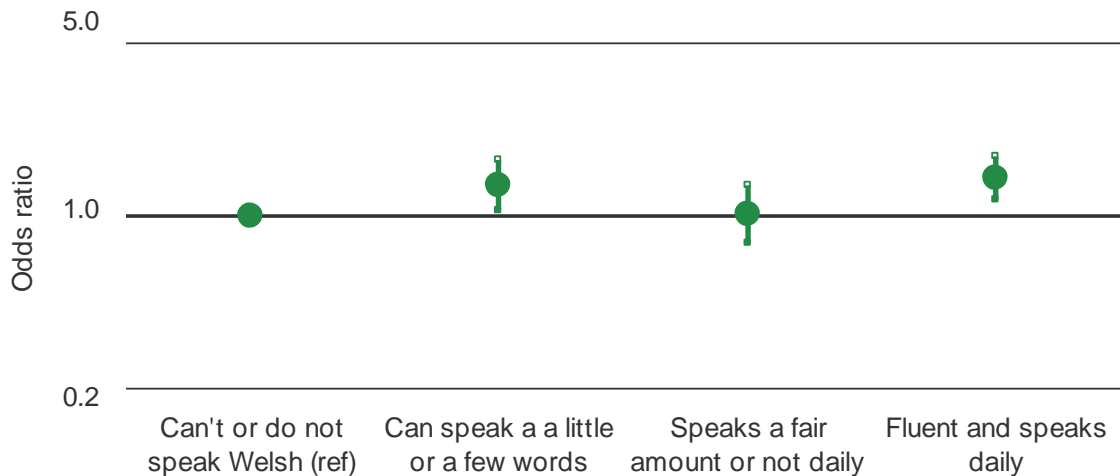
Before controlling for other factors, speaking Welsh was positively associated with all four measures of personal wellbeing. For example, 17% of people who cannot or do not speak Welsh reported low levels of perceiving things to be worthwhile, compared with 9% of people who are fluent and speak Welsh daily.

Figure 4.9 Proportion with low levels of perceiving things to be worthwhile, by Welsh language knowledge and use



After controlling for other factors (including age, level of education, economic activity and area-specific factors⁵²), ‘fluent and daily’ Welsh speakers, as well as those who ‘can speak a little or just a few words’ of Welsh, still predicted having low levels of anxiety. Not being able to speak any Welsh at all also predicted having a high level of anxiety and a low level of feeling things done are worthwhile. After controlling for other factors, no significant associations were evident between speaking Welsh and life satisfaction or happiness.

Figure 4.10 Odds ratio for low anxiety by Welsh language knowledge and use, after controlling for other factors



⁵² Region was not significantly related to wellbeing in the regression models and so was not included in this model. However, separate analysis (not shown), looking at the relationship between Welsh language and wellbeing even when controlling for region (and also the proportion of Welsh-speakers in the region), showed that the relationship between Welsh language ability and wellbeing still remained significant.

What does this mean?

We do not know the causal direction of this, or any of the other associations presented in this report. This association appears to provide support for ensuring that everyone has access to the opportunity to learn the Welsh language. However, it is equally possible that the Welsh language indicator is picking up some underlying social or cultural differences that are not controlled for in the models.⁵³ More information from research specifically designed to disentangle these issues would be needed before drawing firm policy conclusions, perhaps drawing on wellbeing research from other bilingual countries or regions.

4.6 Country of birth and national identity

Country of birth and national identity were not found to be associated with wellbeing, even prior to controlling for other factors.

Even before controlling for other factors, neither country of birth nor national identity was found to be associated with any of the indicators of personal wellbeing.

4.7 Religion

Religion was associated with some aspects of wellbeing, but only before controlling for other factors.

Context

Previous analysis of the association between religion and wellbeing has found regular participation in religious activities to be linked to happiness, particularly among older people.⁵⁴ But data from the UK has not consistently found – after controlling for participation – a difference in levels of wellbeing between those who describe themselves as belonging to a religious group and those who do not. Analysis of Health Survey for England data which controlled for other factors did find that belonging to particular religions did predict higher wellbeing, but only among men. This analysis found that, after controlling for other factors, low wellbeing was less likely among Muslim men and men of ‘other’ (non Christian) religions.⁵⁵ The literature on religion and mental health has also had mixed results, but analysis of the Adult Psychiatric

⁵³ For example, research on Finnish and Swedish native speakers in Finland suggests that differences in health outcomes may be explained, at least in part, by differences in social capital and engagement (like taking part in organised group hobby activities and belonging to voluntary associations) between the language groups. See for example Hyyppä and Mäki (2003) Social participation and health in a community rich in stock of social capital. *Health Education Research Theory & Practice* 18(6): 770-779.

⁵⁴ Cooper C, Bebbington P, King M, Jenkins R, Farrell M, Brugha T, McManus S, Stewart R, Livingston G. Happiness across age groups: results from the 2007 National Psychiatric Morbidity Survey. *International Journal of Geriatric Psychiatry*. 2011. 26:6:608-614.

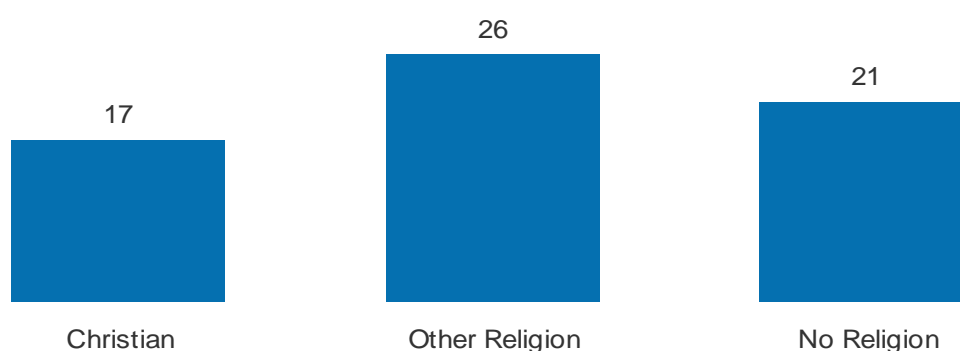
⁵⁵ Chanfreau et al. 2013.

Morbidity Survey found that people who do and do not belong to a religious group had broadly similar levels of mental illness, after controlling for other factors.⁵⁶

Religion and wellbeing in the National Survey data

Most people (59%) in Wales identify as Christian, although more than a third (37%) state that they have no religion and a small minority (3%) identify with a different religion. Before controlling for other factors, religion was associated with three wellbeing measures: life satisfaction, feeling that the things done are worthwhile, and happiness yesterday (at a lower level of confidence). For example people with no religion or with a non-Christian religion were more likely than Christians to report low life satisfaction.

Figure 4.11 Proportion with low life satisfaction by religion



However, these associations were explained by confounding with other factors, as they all disappeared after other factors were controlled for.

What does this mean?

Associations with religion may be evident in unadjusted analysis of the predictors of wellbeing, but this appears to be only as a result of confounding with other factors. This finding is broadly consistent with the wider literature.

4.8 Sexual identity

Associations between sexual identity and life satisfaction disappeared after controlling for other factors.

Context

Historically there has been a lack of general population survey data collected on sexual identity. However, this has changed in recent years with sexual identity now regarded

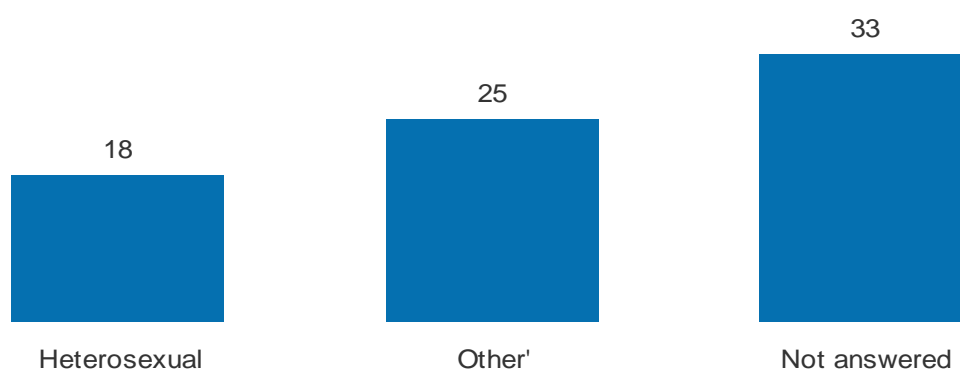
⁵⁶ King M, Marston L, McManus S, Brugha T, Meltzer H, Bebbington P. (2012) Religion, spirituality and mental health: results from a national study of English households. *British Journal of Psychiatry*. BJP/2012/112003.

as a key demographic characteristic for equalities monitoring. A link has been found between non-heterosexual identities and increased likelihood of poor mental health, although less research has been done looking at links between sexual identity and wellbeing. However, the association between sexual identity and adverse outcomes is reduced when other factors such as partnership status and discrimination are taken into account.⁵⁷

Sexual identity and wellbeing in the National Survey data

The great majority of people (98%) in Wales identify as heterosexual, with a small minority (2%) in a combined 'other sexual identity' category. Less than 1% of participants preferred not to respond to this item.

Figure 4.12 Proportion with low life satisfaction by sexual identity



In analyses that did not control for other factors, sexual identity was a significant predictor of life satisfaction. While 18% of people who described their sexual identity as heterosexual had low or very low life satisfaction, this was the case for 25% of people in the 'other' category. Interestingly, people who refused to answer this question were particularly likely to have low wellbeing, although this should be treated with some caution given the small number of respondents in this group (85 respondents).

After controlling for other factors, however, sexual identity was no longer associated with any of the wellbeing indicators.

What does this mean?

It is possible that the sample was too small to pick up on associations that would have been significant if the sample had had more respondents in the 'other sexual identity' group. The group is also very heterogeneous, combining people who identify as

⁵⁷ Chakraborty A, McManus S, Brugha T, Bebbington P and King M. Mental health of the non-heterosexual population of England: Findings from APMS 2007 *British Journal of Psychiatry*. 2011, 198: 143-148.

lesbian, gay, bisexual and other. It is also possible that due to the sensitivity of the question some people may not have responded honestly to the question.

However, the key message is that the low life satisfaction evident among lesbian, gay and bisexual people in descriptive analysis can be entirely explained by factors other than sexual identity. That is, sexual identity in itself does not predict level of personal wellbeing.

4.9 Experience of discrimination

After controlling for other factors discrimination on the basis of age and health (both mental and physical) predicts anxiety and not feeling that things done are worthwhile. These associations were very strong.

Context

Data from the Scottish Health Survey (SHeS) has shown that people in Scotland who had experienced discrimination also had higher odds of low wellbeing (using the SWEWMBS measure of personal wellbeing).⁵⁸ The National Survey asked about experience of discrimination – in any context – over the last 12 months. Discrimination was asked about separately in relation to ten different characteristics:

- Age
- Sex
- Ethnicity, colour, or religion
- Accent
- Language
- Nationality
- Sexual orientation
- Mental ill health
- Health problems or disability
- Area lived in.

Discrimination and wellbeing in the National Survey data

In analyses that did not control for other factors, discrimination on the basis of nine out of the ten characteristics asked about were associated with at least one indicator of wellbeing.

The only form of discrimination not found to significantly predict low wellbeing was where it was on the basis of sexual orientation. It is possible that if the survey sample had been larger this too may have been found to be a significant predictor of low wellbeing.

⁵⁸ Anderson S, Brownlie J & Given L. (2009) 'Therapy culture? Attitudes towards emotional support in Britain.' Chapter in British Social Attitudes: 25th report. Sage: London.

Life satisfaction and anxiety were the wellbeing indicators most likely to be linked with experience of discrimination (Table 4.2).

Table 4.2 Summary of associations between discrimination in the last 12 months on the basis of different respondent characteristics and different aspects of personal wellbeing

Type of Discrimination	Wellbeing measure				Worthwhile-Anxious group
	Life satisfaction	Worthwhile	Happy	Anxious	
Age	s	s	s	s	(s)
Sex	s	-	s	s	s
Ethnicity, colour or religion	s	(s)	-	-	-
Accent	(s)	-	-	s	s
Language	-	-	-	(s)	-
Nationality	(s)	-	-	-	-
Sexual orientation	-	-	-	-	-
Mental ill health	s	s	s	s	-
Health problems or disability	s	s	s	s	-
Area lived	s		s	s	
Number of associations:	6	3	5	6	2

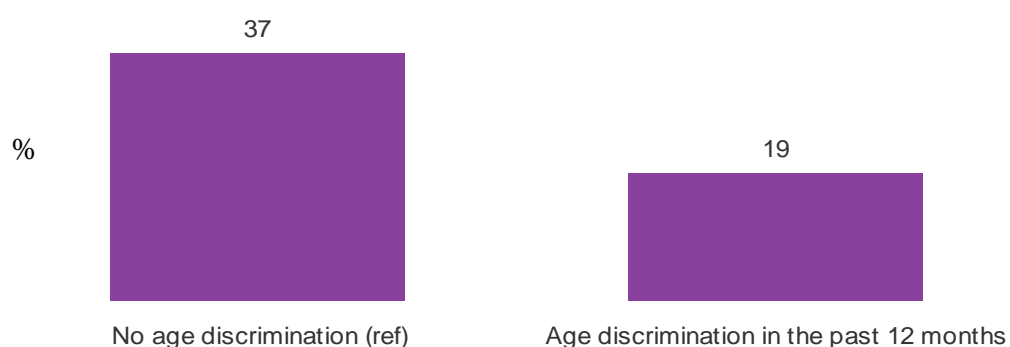
Note: 's' denotes associations significant at the 5% level; '(s)' denotes associations significant at the 10% level.

Discrimination on the basis of age, mental health, or to a health problem or disability was associated with all four wellbeing indicators. For example, a fifth (19%) of people experiencing age discrimination reported a high level of feeling that the things they do are worthwhile, compared with more than a third (37%) of people not exposed to age discrimination.

After controlling for other factors, it was only age discrimination that continued to predict wellbeing. Specifically, people who felt that they had been discriminated against in the past 12 months on the basis of age were:

- Much less likely to feel that the things they do are worthwhile, and
- Much more likely to have high levels of anxiety.

Figure 4.13 Proportion with high levels of perceiving things to be worthwhile, by experience of age discrimination



However, age discrimination was not common. Overall just 1% of people had experienced it in the last 12 months. There was some suggestion in the data that age discrimination might be more strongly associated with age among the youngest age group (age 16-24), but this was not a significant trend.

Figure 4.14 Odds ratios for wellbeing by age discrimination in past 12 months, after controlling for other factors

High worthwhile



High anxiety yesterday



What does this mean?

Age discrimination was the type of discrimination most clearly linked with low wellbeing. It was one of the strongest predictors of high anxiety out of all the factors included in that model. It is important to note however that we cannot discount that anxious people may be more likely to be discriminated against, or even that anxious people may be more likely to perceive or admit to discrimination.

Feeling that the things one does are worthwhile was the other aspect of wellbeing to remain linked with age discrimination after controlling for other factors. This might suggest that participation in employment, volunteering and related activities might be the area where discrimination was experienced. That is, that the age discrimination that

people experienced may have taken the form of a barrier or restriction to their full and fulfilling participation.

4.10 Key identity and demographic factors for wellbeing

In summary, a number of demographically defined subgroups have been highlighted in this chapter as having low levels of wellbeing that were not easily explained away by the other factors asked about in the study. Groups to have low levels of at least one type of personal wellbeing include:

- People in mid-life,
- Women,
- Minority ethnic groups,
- People who cannot, or do not, speak Welsh, and
- People with experience of age discrimination.

4.11 Implications for social policy

- We would expect most links between demographic characteristics and wellbeing to be explained away by other factors. By identifying the factors which explain the lower levels of wellbeing experienced by particular groups, support for those groups can be informed and focused.
- However, these analyses are, necessarily, constrained by the available data (that is, we only have the responses to the questions that were asked). There are many aspects of life that we know to be strongly associated with wellbeing that we cannot control for as we do not have them in the dataset. These factors include insecure employment; poor working conditions; experience of harassment, bullying or violence; poor housing conditions; and caring responsibilities to name but a few.
- Age discrimination emerged as a strong predictor of low wellbeing. What the data also showed was that age discrimination is not only an issue for older people, but was just as likely to be reported by adults in the youngest age group.

5. Wellbeing, health and disability

Policy implications

- Low wellbeing may be reduced and high wellbeing increased by changing people's perception of their general health.
- Chronic disease management programmes should focus on developing people's sense of overall wellbeing and control over their condition, and avoid developing a self-identity as a patient.



Key Findings

- While having a health condition that impacts on functioning is linked with low wellbeing, how people *feel* about their general health is an even stronger predictor and is linked with both low and high wellbeing.
- Longitudinal analyses have shown that low wellbeing contributes to the onset of poor health. However, it is also likely that reducing ill health in the population, for example through strategies that improve nutrition and exercise, could also reduce the proportion of people with low wellbeing.
- Many of the people accessing health care services are also the ones in the population with the lowest levels of wellbeing. Health care services therefore present an ideal route for reaching this group.
- People with low wellbeing are more likely to report difficulties with accessing services. Continued efforts to improve walk-in services, same-day appointments and the physical accessibility of premises could help.
- Informed health care professionals and informed patients are associated with better wellbeing outcomes. This supports the roll-out of digitised health systems that enable information sharing between primary, secondary and social care.
- Patients who tended to agree that they were treated by health care professionals with dignity and respect also had higher wellbeing, although the picture here was mixed and further work is required to understand the nature of this relationship.

5.1 Introduction

This chapter explores associations between wellbeing and a range of different health, disability and health service use factors.

Context

Health and personal wellbeing have been found to have a two-way relationship, with better health contributing to improved personal wellbeing and higher personal wellbeing leading to better health.⁵⁹

A large longitudinal study of older people in England found low psychological wellbeing to predict the onset of disability, slower walking speed, impaired self-rated health and the incidence of coronary heart disease less than ten years later, with associations stronger for hedonic and eudemonic wellbeing than for life satisfaction.⁶⁰ Enjoyment of life was even found to strongly predict survival.⁶¹

Many different measures of ill-health, disability, use of health services and satisfaction with health services all hold strong associations with wellbeing. However, these associations can be difficult to interpret in statistical models that control for other factors because so many health, disability and service use factors are all related to each other. For example, people who rate their health as poor are also more likely to have a long-term illness or disability, and are also more likely to use and rely on health services. People with poor health (and low wellbeing) are therefore more likely to be exposed to situations that might provoke strong views of those services.

5.2 General health

Self-reported general health strongly and consistently predicted all four wellbeing indicators, both before and after controlling for other factors.

Context

Self-reported health is well-established as one of the strongest and most consistent predictors of personal wellbeing. ONS's *Measuring National Wellbeing: Life in the UK* report, for example, showed that those who felt that they had good general health were much more likely than those with poor health to report higher levels of wellbeing.⁶²

⁵⁹ *Wellbeing – why it matters to health*. (2013) A Compendium of Factsheets: Wellbeing Across the Lifecourse. Department of Health.

⁶⁰ English Longitudinal Survey of Aging (ELSA) (2012). <http://www.ifs.org.uk/ELSA>

⁶¹ *The Relationship Between Wellbeing and Health* (2013). A Compendium of Factsheets: Wellbeing Across the Lifecourse. Department of Health.

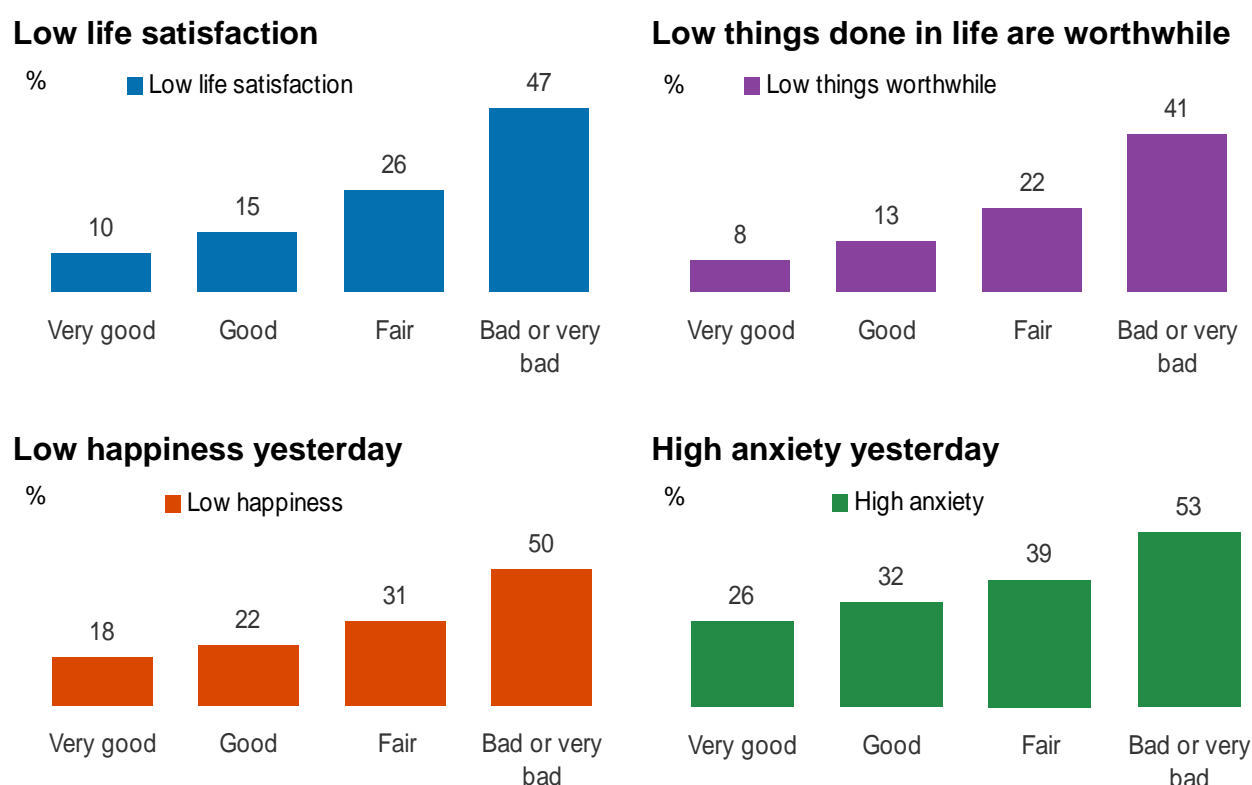
⁶² Self A, Thomas J & Randall C. (2012) *Measuring National Well-being: Life in the UK 2012*. Office for National Statistics.

General health and wellbeing in the National Survey data

A third (32%) of people described their general health as very good, 38% as good, 22% as fair, and 8% felt their health was either bad or very bad.

People reporting fair, bad or very bad general health, were more likely than those describing their general health as very good to have low wellbeing across all the four core indicators. This association had a pattern. Even having 'good' general health was linked with lower personal wellbeing than having 'very good' health, although this was not always significant.

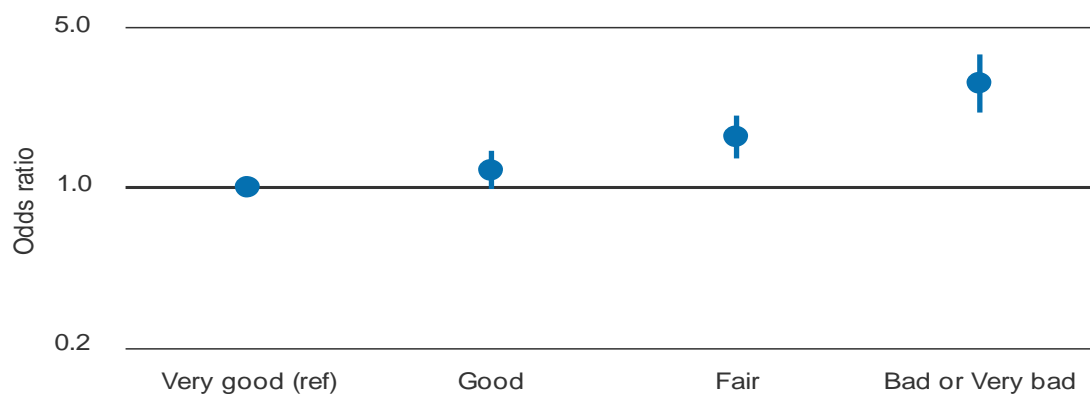
Figure 5.1 Proportion with low wellbeing, by self-reported general health



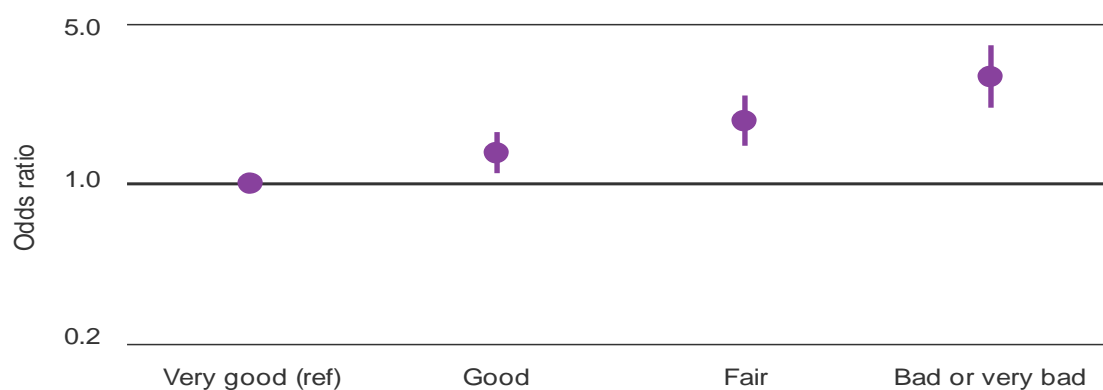
After controlling for other factors, the same pattern of association remained. The dots on Figure 5.2 show odds ratios (OR), and the lines represent the confidence interval (CI) around each estimate. In this analysis, people who describe their general health as 'very good' are designated as the reference group. The reference group always has odds of one. If the CI for another group does not cross one, then that group is significantly different from the reference group. In this case we can see that even describing ones' health as bad or very bad is associated with much higher odds of low wellbeing. The differences are very pronounced and highly significant. What the four charts show is that the same trend is evident for all four wellbeing indicators.

Figure 5.2 Odds ratios for low wellbeing by self-reported general health, after controlling for other factors

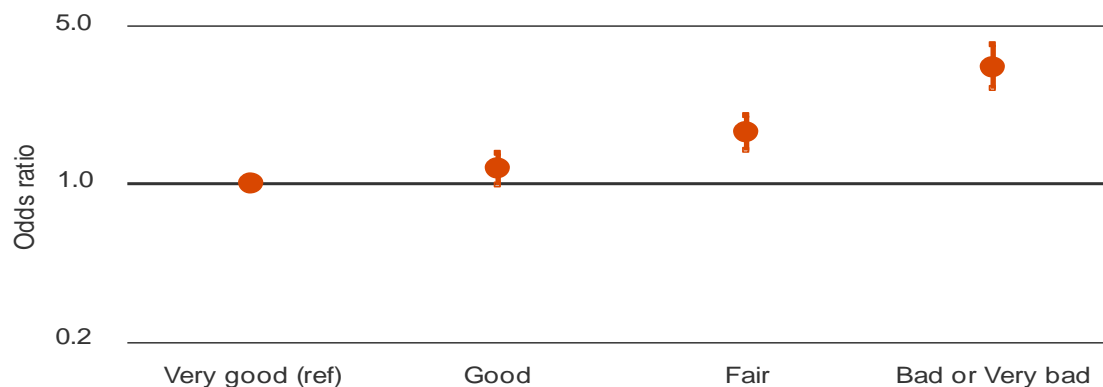
Low life satisfaction



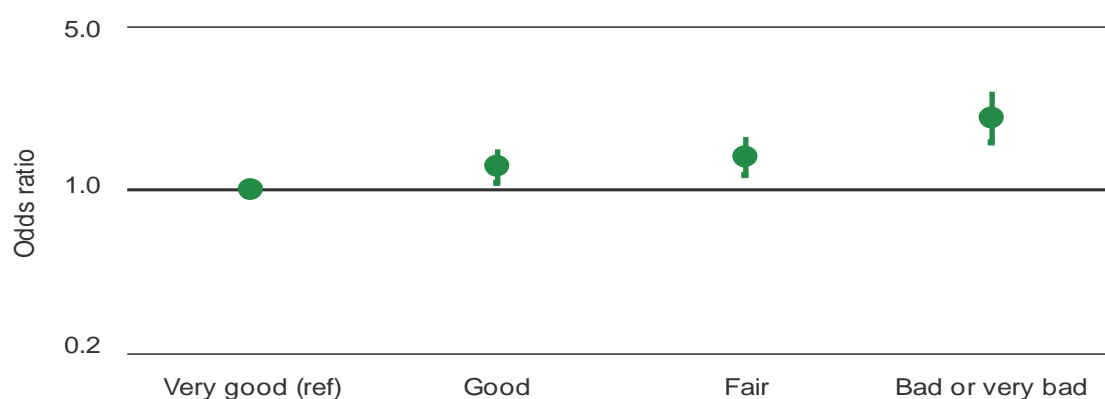
Low things done in life are worthwhile



Low happiness yesterday



High anxiety yesterday



Not only did poor general health predict low wellbeing, but very good general health also predicted high wellbeing.

What does this mean?

Self-reported health is a more subjective indication of general health than having a health condition. People with a generally negative world view may be both more likely to describe their health as bad and to report low levels of wellbeing. What this suggests is that how people feel about their health may be just as – if not even more – important to wellbeing than actual illness.

This suggests that chronic disease management programmes, which support people with long term conditions such as asthma, epilepsy and diabetes, would do well to develop people's sense of their own wellness, not as patients defined by sickness but as people who have control over their conditions.

Self-reported general health predicted both having low wellbeing and having high wellbeing. There are wellbeing benefits to be gained from extending condition management approaches even to people who view their health as 'good', to find ways in which even this broadly positive view could be improved.

5.3 Limiting longstanding illness or disability

How people feel about their general health is more strongly linked with their wellbeing than whether or not they have a limiting, longstanding illness or disability. After controlling for other factors, the presence of a health condition or disability meant having low wellbeing was more likely, but its absence did not mean that high wellbeing was more likely.

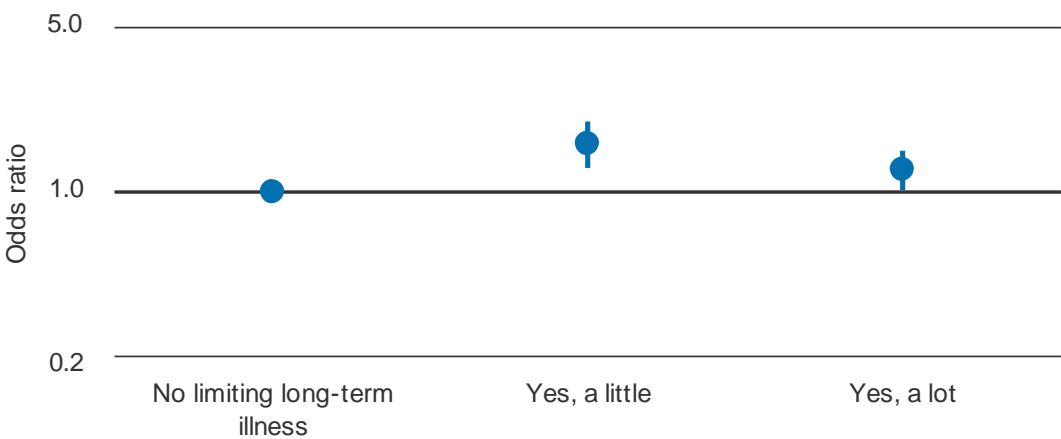
Context

Questions about limiting, longstanding illness or disability are widely used to indicate the presence of a chronic condition or impairment. However, it is variable what types of conditions people choose to include. Furthermore, many people may have a condition that has not been diagnosed or which they are not aware of.

Illness and wellbeing in the National Survey data

A quarter (27%) of the population report having a limiting longstanding illness (LLSI), with half of those (13%) feeling that they are limited a little and half of those (14%) feeling that they are limited a lot. In analyses that did not control for other factors, LLSI was associated with all the wellbeing indicators. However, after controlling for other factors – including self-rated general health, with which LLSI is closely associated – it was associated with fewer indicators.

Figure 5.3 Odds ratio for low life satisfaction by LLSI, after controlling for other factors



The presence of a LLSI made having low satisfaction and the view that things done are not worthwhile both more likely. However, not having a LLSI was not associated with high life satisfaction or things being worthwhile.

What does this mean?

Having a diagnosed condition matters to low wellbeing, but not to high wellbeing. It is plausible that reducing the extent of ill health in the population, for example through strategies that improve nutrition and the uptake of exercise, could well reduce the proportion of people with low wellbeing.

5.4 Health service use

While it is difficult to disentangle cause and effect in this data, the findings do suggest that people's wellbeing is closely linked to many different aspects of their experience of health care. Health care services are highly likely to be accessed by people with the lowest levels of wellbeing: they are therefore a useful way of reaching this group.

Context

How satisfied someone reports being with a service can be shaped by their personal characteristics, and not necessarily by the quality of that service.⁶³ However, it is possible to control for some of these other factors, especially health status which is associated both with service use and with wellbeing.

Many different aspects of attitudes towards and use of health services were found in our analysis of National Survey data to be linked with all the wellbeing indicators when other factors were not controlled for. However, as many of the health service questions are only asked of people who have used the services in the past year, it was not possible to include them all in the main regression models.

For this section we therefore carried out a series of separate analyses. These focused on experience of health services in relation to wellbeing. These analyses control for socio-demographic background, general health and limiting long-term illness but not for the other factors included in the main regression models (for full results see the detailed tables in Appendix I of the supplementary volume).

Satisfaction with health services in the National Survey data

Overall, satisfaction with health care received was generally very high: 68% of people who had visited their GP were very satisfied, as were 70% of those who had had a hospital appointment.

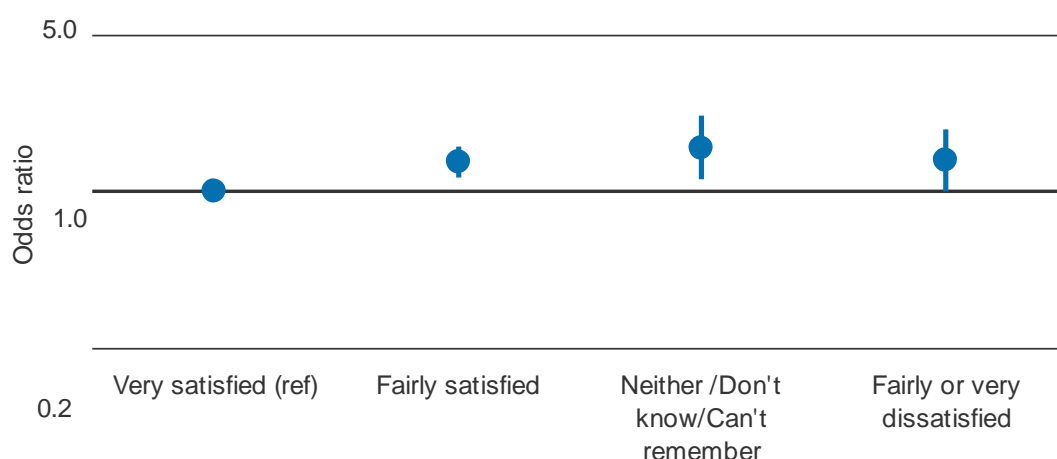
Being less than very satisfied with health care received was linked with being less likely to have high wellbeing. For example, lower satisfaction with GP services was associated with being less likely to have high wellbeing, across all four measures, after

⁶³ Salisbury C, Wallace M, Montgomery AA. Patients' experience and satisfaction in primary care: secondary analysis using multilevel modelling, *BMJ* 2010; 341:c5004.

controlling for socio-demographic and health factors. This was also the case for those with lower satisfaction with hospital care.

Furthermore, patients who were less satisfied with GP services were also more likely to have low life satisfaction, and those who were less satisfied with hospital care were more likely to report a low level of things being worthwhile.

Figure 5.4 Odds ratio for low life satisfaction by satisfaction with health services used, after controlling for demographic and health factors



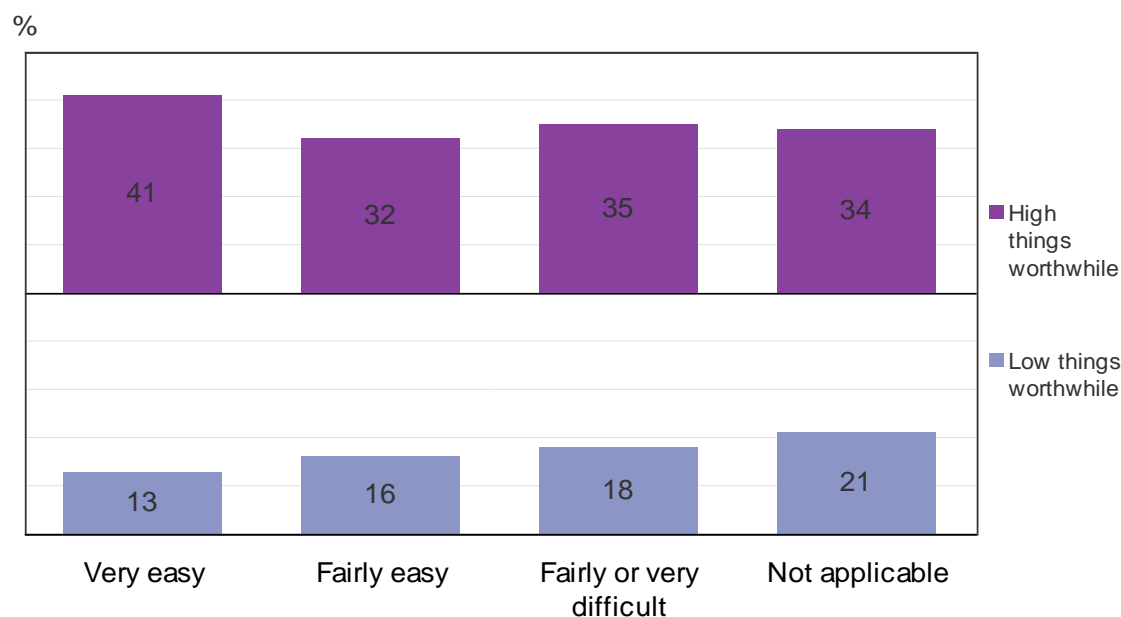
Ease of obtaining an appointment and ease of travel to appointment

The ease of getting an appointment with a family doctor or GP was related to wellbeing on the life satisfaction and worthwhile measures, while ease of getting a hospital appointment was associated with low life satisfaction but not the other wellbeing measures.

About a third (30%) of people who visited their GP in the past year thought it was fairly or very difficult to get an appointment at a convenient time. Compared with those who thought it was very easy to get an appointment, these patients were more likely to also have low life satisfaction and low levels of things in life being worthwhile, and less likely to have high life satisfaction and high levels of things in life being worthwhile.

How easy it was to travel to and from GP and hospital appointments was also associated with wellbeing. Overall, most people found it relatively easy to get to and from their health care appointments. Two-thirds of people who had visited the GP (68%) rated it very easy to get to and from the surgery, while a small minority (6%) thought it was fairly or very difficult to do so. Among those who had had a hospital appointment, half (52%) rated it very easy and 16% rated it fairly or very difficult to get to and from their hospital appointment.

Figure 5.5 Proportion with high and low level of things in life being worthwhile by ease of getting convenient GP appointment



- Ease of getting to and from the GP surgery was associated with high wellbeing (worthwhile and happiness), while finding it fairly easy or difficult was associated with lower wellbeing (worthwhile and happiness).
- People who did not find it very easy to get to the GP surgery were more likely to have high anxiety.
- Ease of travel to hospital appointments was associated with high levels of wellbeing on all measures, while difficulty in getting to and from the hospital appointment was also associated with low levels of happiness.

Although these findings control for general health and the presence of a limiting longstanding illness or disability, difficulty in getting to and from health services could reflect other mobility difficulties. So it is likely that ease of getting to the GP is heavily confounded by presence of a mobility restriction, and that this functional limitation may explain the reduced level of wellbeing (low levels of feeling that things are worthwhile or feeling happy).

Interaction with health service professionals

Those who had used GP or hospital services in the past year were asked about whether the health professional(s):

- A. Knew all the relevant information about them at the start of the appointment,
- B. Gave them all the relevant information needed, and
- C. Treated them with dignity and respect.

For each of these, the majority of service users strongly agreed that their GP or hospital health professional was well-informed, gave the necessary information and treated them with dignity and respect. However, differences in patient's experience of their interactions with health professional interactions was related to wellbeing.

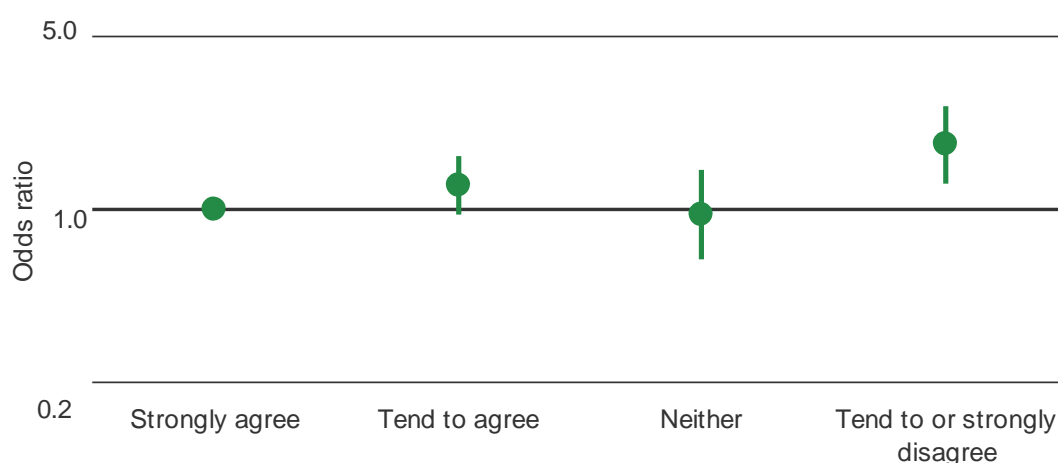
A. Professional knew the relevant information

People who felt that their GP did not have the relevant information about them at the start of the appointment were less likely to have a high level of life satisfaction.

Feeling that hospital health professionals were uninformed was associated with even more aspects of personal wellbeing. Compared with those who strongly agreed that the health professional seen at hospital knew all the relevant information about them at the start of the appointment, those who did not were:

- *less likely to have high levels of things in life being worthwhile,*
- *more likely to have low life satisfaction,*
- *more likely to have low happiness, and*
- *more likely to have high anxiety.*

Figure 5.6 Odds ratio for high anxiety by hospital staff knew all relevant patient information, after controlling for demographic and health factors



B. Treated with dignity and respect

Being treated with dignity and respect by health professionals was related to wellbeing, for example patients who felt that their GP treated them with dignity and respect were more likely to have high life satisfaction and less likely to high anxiety.

Interestingly, with the measures related to being treated with dignity and respect by hospital staff, it was those who 'tended to agree' with the statement who generally reported the higher wellbeing, rather than those who strongly agreed. Further research is needed to unpack and understand the nature of this relationship.

C. Professional provided enough information

The extent of feeling fully informed by the health professional was related to wellbeing. For example, feeling that the GP did not provide all the information that was needed predicted a lower level of happiness.

What does this mean?

There is a positive association between health professionals having up-to-date information about their patients and the overall wellbeing of those patients. This supports drives to digitise health care records and to facilitate the sharing of information between community, primary and secondary health-care providers.

It must be highlighted again that this is cross-sectional data and we are unable to disentangle cause and effect. It is likely that people with lower levels of wellbeing may regard their interactions with health professionals more negatively. And it is also possible that health professionals may respond more positively to people with higher levels of wellbeing.

Despite this, these findings do suggest that models of health care delivery could well play a role in improving national wellbeing. Many people with low wellbeing will have contact with health services due to the strong association with poor general health and the presence of an impairment. This therefore presents an ideal mechanism for reaching this group.

The quality of healthcare contact seems to play a role both in reducing low wellbeing and in increasing high wellbeing. For example, being treated with dignity and respect seems to have particular relevance for wellbeing at the higher end of the spectrum.

5.5 Use of local health services

Information about local health services in the National Survey data

All adults, whether or not they had used health services in the past year, were asked whether they would like more information about the performance of local health services. The desire to have more information on health services was linked to wellbeing on all measures, with higher wellbeing among those who did *not* have a strong desire for more performance information.

Health-related local area deprivation and wellbeing in the National Survey data

Finally, area level deprivation, as measured by the Welsh Index of Multiple Deprivation (WIMD) health domain score was related to individual anxiety. Those living in more deprived areas were more likely to have low levels of anxiety compared with those living in the least deprived areas.

What does this mean?

Interpreting the findings on desire for more information is not straight forward. It is not possible to tell from the National Survey whether people are already in receipt of information about local health service performance. We cannot tell whether not wanting more information is in fact an indication that the person is already well informed. Although the analysis controlled for general health and/ or long-term limiting illness, it may well be that the people who do not want more information have less need for health services, and it is this that explains the association with higher wellbeing.

5.6 Implications for health policy

In this section it has been particularly difficult to disentangle cause and effect, and to control for the many different types of confounding that were possible in the data. Policy recommendations should therefore be interpreted as tentative hypotheses.

Reducing the proportion of the population with a health condition – for example through promotion of good nutrition and exercise - is likely to reduce the proportion of the population with low wellbeing.

Low wellbeing may be reduced and high wellbeing increased by changing people's perception of their general health. It is possible that this could be achieved through chronic disease management programmes and by encouraging people to think of themselves as people in control of their condition rather than as 'patients'.

Many of the people accessing health care services are the ones in the population to have low wellbeing. Health care services may therefore be an ideal route for reaching this group. People with low wellbeing are more likely to report difficulties with accessing services. Continued efforts to improve walk-in services and appointments could help.

Informed professionals and informed patients are both linked with better wellbeing outcomes. There is strong support for digitised health care systems that enable the sharing of information between primary, secondary and social care.

6. Wellbeing, work and finance

Policy implications

- Accessing debt advice services and financial management skills training has particular relevance for tackling low wellbeing.
- Programmes aimed at return to work support should address people's needs as soon after job loss as possible, as the first year of unemployment is key in terms of low wellbeing.



Key findings

- Unemployment and debt were both strongly associated with low life satisfaction and a low sense of things in life being worthwhile.

Economic activity

- People in routine and manual occupations were more likely to have low life satisfaction compared with managers and professionals. The long-term unemployed and people who have never worked were also more likely to have low life satisfaction.
- Men's wellbeing emerged as more strongly associated with economic activity status than women's wellbeing.
- Unemployed people who lived alone or as a lone parent were especially unlikely to have high wellbeing.
- Even after controlling for other factors - including individual employment status - living in an area where a high proportion of other residents are unemployed was linked with having lower wellbeing.

Managing financially

- Serious financial problems were rare but accompanied by low wellbeing. Being in debt was associated with low levels of life satisfaction and perceiving things done to be worthwhile.

6.1 Introduction

This chapter explores the relationship between wellbeing and socio-economic factors, such as education, employment and financial situation.

6.2 Education

Level of education was no longer associated with most aspects of wellbeing once other factors were controlled for. The one aspect that did remain significant was that people with a lower level of educational qualifications were slightly more likely to have low levels of anxiety.

Context

Previous research does not present a clear and consistent pattern of association between education and wellbeing once other factors are controlled for. Multivariate analysis of Scottish Health Survey data found educational level to only predict wellbeing among women,⁶⁴ and analyses of Understanding Society and Health Survey for England found lower levels of wellbeing among adults with lower levels of education.⁶⁵

Education and wellbeing in the National Survey data

Level of education is associated with life satisfaction, things in life being worthwhile, and happiness before controlling for other factors, but the pattern of association was mixed.

After controlling for other factors such as age, health and economic activity status, people with lower educational qualifications (up to school leaving level) were more likely to report low levels of anxiety, compared with those with higher education qualification. For the other wellbeing measures, and for high levels of anxiety (compared with medium levels), educational qualification was not significantly related to wellbeing when controlling for other factors.

6.3 Economic activity

Unemployment, including in the first year, is strongly linked with low life satisfaction and a low sense of things in life being worthwhile.

Context

There is an established relationship between employment status and wellbeing.

⁶⁴ McManus S. (2012) 'General health and mental well-being' in Given L (ed) The Scottish Health Survey 2011. Scottish Government: Edinburgh.

⁶⁵ Chanfreau J et al., 2013.

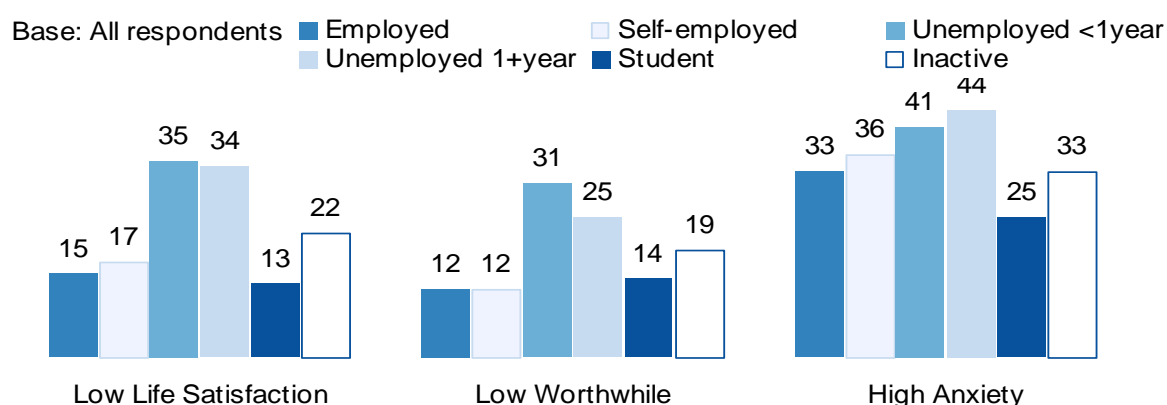
Analyses of a number of datasets have shown that unemployed people tend to experience lower overall wellbeing and worse mental health than employed and self-employed people, even after other circumstances are controlled for.^{66 67} Research also suggests that this effect tends to be greater for men than women.⁶⁸

Analyses using longitudinal data have shown that a decline in wellbeing is generally observed after an individual becomes unemployed and that lower wellbeing among unemployed people is linked with a slower return to work.

Economic activity status

5% of adults in Wales reported being unemployed, and unemployment was associated with lower life satisfaction and things in life being worthwhile, when controlling for other factors. A third of unemployed adults, irrespective of the length of time since they were last in a paid job, reported low levels of life satisfaction, compared with 15% of employees. Those who had recently become unemployed (within the last 12 months) were also more likely to report low levels of things being worthwhile (31% compared with 12% of employees).

Figure 6.1 Economic activity and wellbeing



In terms of anxiety, students stood out as being the least likely to have low wellbeing. A quarter (25%) of students reported high or very high anxiety, compared with a third (33%) of employees and approaching half (44%) of the long-term unemployed. This difference remained significant when controlling for other factors, including age.

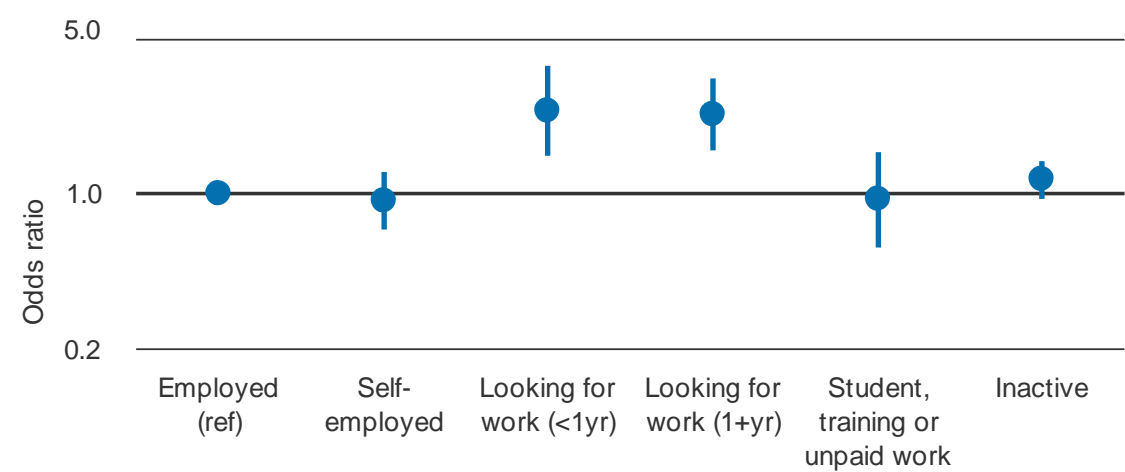
⁶⁶ Ford E, Stansfeld S, McManus S, Harris J, Clark C. Common mental disorder, unemployment and welfare benefits in England. *Journal of Public Health* 2010 ;124(12):675-81.

⁶⁷ McManus S, Mowlam A, Dorsett R, Stansfeld S, Clark C, Brown V, Wollny I, Rahim N, Morrell G, Graham J, Whalley R, Lee L, Meltzer M. (2012) *Mental health in context: the national study of work-search and wellbeing*. Research Report No 810. DWP: London.

⁶⁸ Dolan P, Peasgood T and White M. (2008) Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology*, 29: 94-122.

Employed and self-employed workers did not differ significantly in terms of their life satisfaction. However, adults who worked as a sole trader or in a partnership without employees were more likely to report high levels of things in life being worthwhile than those in small organisations (with up to 24 employees).

Figure 6.2 Odds ratio for low life satisfaction by employment status, after controlling for other factors



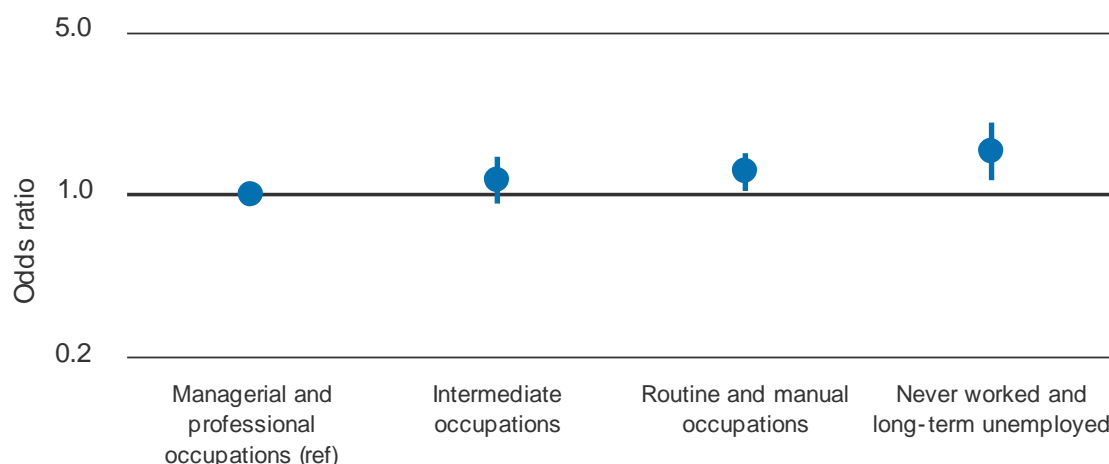
Area level employment rate

Even after controlling for other factors, including individual employment status, living in an area where a high proportion of other residents are unemployed was linked with having lower wellbeing. People who lived in an area with a higher concentration of people on unemployment benefits (i.e. a more deprived area as measured on the WIMD Employment domain) were less likely to have high (and more likely to have low) levels of things being worthwhile.

Socio-economic classification

Socio-economic classification, that is people’s occupation level, was related to their life satisfaction, perception of things being worthwhile, and happiness before controlling for other factors. After controlling, socio-economic class was only related low life satisfaction. People in routine and manual occupations were more likely to have low life satisfaction (21% reporting low wellbeing), as were the long-term unemployed and people who have never worked (22%), compared with managers and professionals (14% of whom reported low wellbeing). About half of all Welsh adults belong to the routine and manual category, and the pattern of wellbeing by socio-economic classification did not vary between men and women.

Figure 6.3 Odds ratio for low life satisfaction by socio-economic class, after controlling for other factors



Economic activity and gender differences

Consistent with other research, men's wellbeing emerged as more strongly associated with economic activity status than women's. Working-age men who were unemployed or economically inactive were much more likely than unemployed or economically inactive women to report low levels of things being worthwhile. A similar pattern was also observed for low life satisfaction.

Among people who were economically inactive, this pattern is likely to be because working-age men and women tend to be inactive for different reasons. Women who are economically inactive are more likely to be looking after children, while economic inactivity among men may be more likely to be due to poor health.

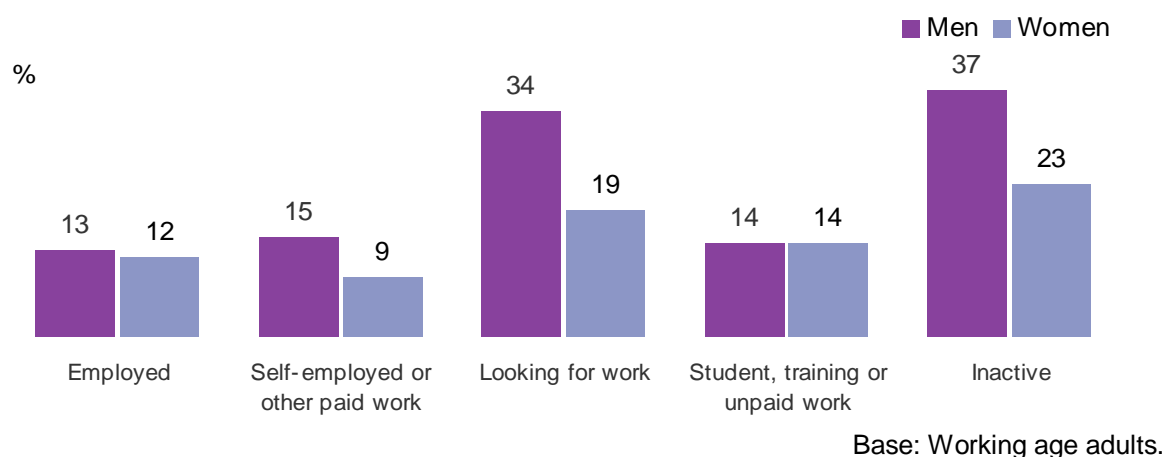
The gender difference in wellbeing among the unemployed suggests that for women work may be less central to wellbeing. It may still be less stigmatising for women to be out of work. In addition, women may be more likely to have a higher earning partner.

Without a measure of household income, it is not possible with the National Survey data to examine to what extent it is the financial impact of unemployment and to what extent it is the unemployment per se (the lack of something productive to do, the lack of a vocation for self-definition, the social stigma of unemployment) that is driving the relationship between unemployment and low wellbeing. However, household income is likely to be a strong driver.

Among unemployed people, the likelihood of having high life satisfaction was associated with being young, being female and sharing the household with either a partner or one's parents.⁶⁹

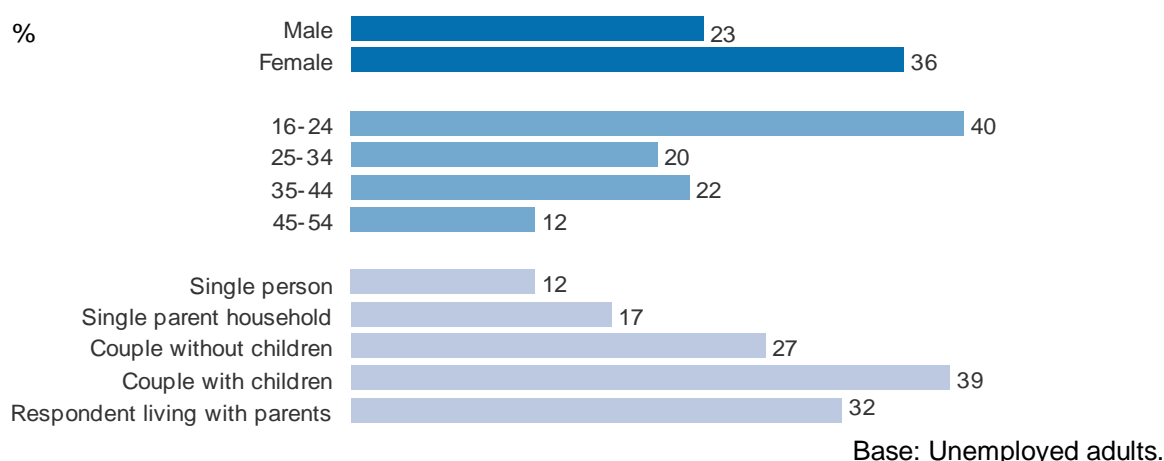
⁶⁹ Note: these analyses do not control for other factors.

Figure 6.4 Low sense of things being worthwhile, by economic activity status and gender among working age adults



The particularly low proportion of single unemployed people, and unemployed lone parents, with high life satisfaction suggests that having the support of a partner or parents can mitigate the effect of unemployment. Again, it seems plausible that it is the financial support provided by these other adults in the household that accounts for at least part of the difference observed. However, the emotional support provided by family members may also play a key role, as suggested by the difference in life satisfaction between those with and without children.

Figure 6.5 High life satisfaction among unemployed adults



Financial circumstances and wellbeing are explored in more detail in the next section.

What does this mean?

Unemployment in general is linked with lower evaluative wellbeing, while recently having become unemployed is particularly strongly linked with lower eudemonic wellbeing. Again, it should be remembered that it is not possible to infer causality from these findings.

6.4 Managing financially

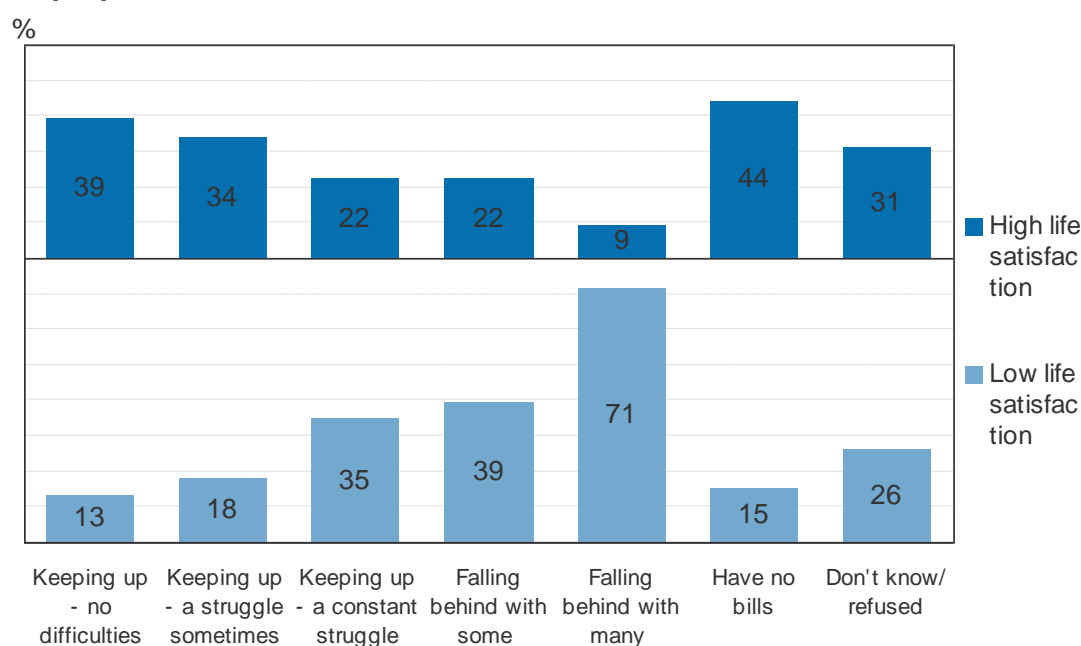
Getting into serious debt is both linked with being more likely to have low levels of personal wellbeing and less likely to have high levels of wellbeing.

Context

As mentioned previously, the National Survey does not include questions on household income or material deprivation, which have been shown in other analyses to be significant predictors of wellbeing. For example, low household income was associated with lower wellbeing using Scottish Social Attitudes data, and among women (but not among men when controlling for economic activity) using Health Survey for England data. The National Survey does include, however, information on how well people feel able to keep up with bills and credit repayments.

Managing financially and wellbeing in the National Survey data

Figure 6.6 Proportion with high and low life satisfaction, by ability to keep up with bills



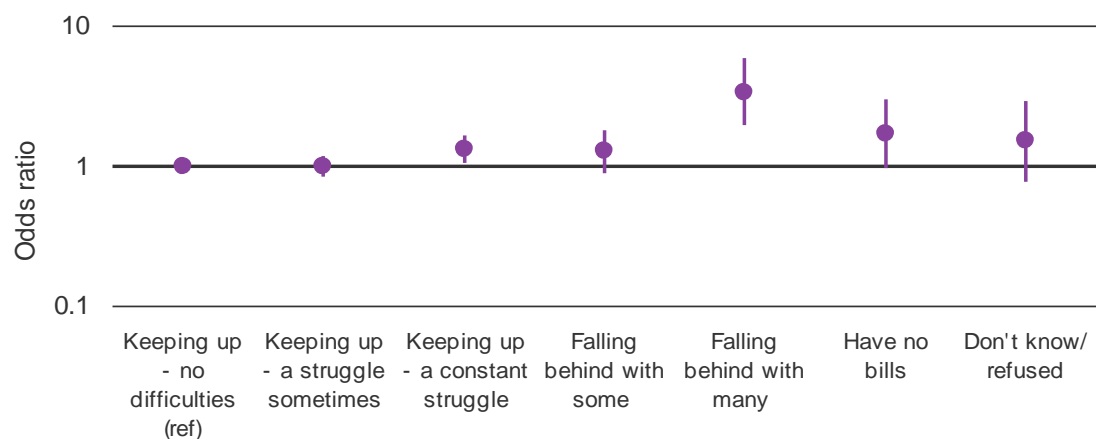
Problem debt has been found in previous research to be associated with poor mental health,⁷⁰ and being in arrears on bills or credit commitments was also associated with poor wellbeing in the National Survey data. The worse the individual's assessment of their ability to keep up with bills and repayments, the higher the likelihood of having low life satisfaction, and the lower the likelihood of having high life satisfaction. For example, 13% of people without debt problems had low life satisfaction, compared with

⁷⁰ McManus, S. et al. (2012) Mental health in Context: the National Study of Work-search and Wellbeing. DWP: London.

71% of people in serious debt. The association with debt remained significant when controlling for other factors.

Being in debt was also associated with other measures of wellbeing, including low levels of perceiving things done to be worthwhile.

Figure 6.7 Odds ratio for low on things being worthwhile by bills, after controlling for other factors



People living in areas with a high proportion of residents receiving income-related benefits (i.e. a deprived area as measured by the WIMD income domain) were also less likely to have high levels of feeling things to be worthwhile.

Although use of a debt advice and support services was significantly associated with all four domains of wellbeing before controlling, contact with such services was not significantly related to wellbeing when other factors - such as ability to keep up with bills - were controlled for. This is likely to be because people who use these services are those experiencing financial difficulties. It is the financial problems and not the use of the services which are associated with wellbeing.

What does this mean?

Unemployment and being unable to manage financially are both linked with low life satisfaction and low levels of things in life being worthwhile. People who are unemployed are also more likely to struggle financially. A quarter (23%) of long-term unemployed people and a third (32%) of recently unemployed people could keep up with bill repayments, compared with half of those who are in work. However, the data shows that both unemployment and debt are independently associated with wellbeing.

6.5 Implications for policy

The finding that unemployed people in Wales have low wellbeing is consistent with evidence from other research. Although it is not possible to infer causality from these results, other studies using longitudinal data that tracks the same people over time, has shown that a decline in wellbeing is generally observed after an individual has become unemployed, and there is less support for the view that previously employed people with low wellbeing are more likely to become unemployed in the first place.⁷¹

The finding has implications for services supporting unemployed people. A study that followed up jobseekers over time found that low wellbeing was linked with people's confidence in their abilities and their optimism about the future, which in turn contributed to poorer employment outcomes. The same analysis also showed that a decline in mental health was associated with the experience of financial crisis.⁷²

Being in arrears on multiple bill repayments was also associated with a low wellbeing in the National Survey data.

In the National Survey, the use of debt advice services was higher among unemployed people, and was most common among those who had recently become unemployed (12% of whom had used debt advice services, compared with 9% of those who had been unemployed for a year or more and 4% of adults overall). While this may suggest that debt advice services are being targeted at those most struggling with their finances, it was also the case that the majority (59%) of people who reported serious financial difficulties had not used any debt advice service.

⁷¹ See, for example, Dolan P, Peasgood T, White M, 2008, Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being, *Journal of Economic Psychology*, 29:94-122 .

⁷² McManus, S. et al., 2012.

7. Wellbeing and family, household and social relationships

Policy implications

- Ensuring that relationship guidance and support is available to help couples through stressful periods is a policy that could have longer term benefits for national wellbeing.



Key Findings

Partnership

- Life satisfaction levels were similar for those who were cohabiting and those who were married to their partner. It seems that partnership, rather than marriage, is linked with wellbeing.
- People who were divorced or widowed were more likely to have low levels of life satisfaction than people with a partner.

Children

- Having children is related to feeling that things done in life are worthwhile. Compared with adults with no children, those with school-aged children were less likely to report low wellbeing, while those with a pre-school aged child were more likely to report high levels wellbeing.
- Parents who felt that their children had low wellbeing were more likely to also have low wellbeing themselves.
- Being kept informed about children's progress at school, and being involved in decisions regarding children's education (where that was wanted) stood out as being linked particularly strongly with parental wellbeing.

Household

- Private tenants are less likely than owner occupiers to have high life satisfaction and feel that things done in life are highly worthwhile, when controlling for other factors including economic activity status.

7.1 Introduction

This chapter looks in more detail at the household circumstances of individuals: whether they are living with a partner, whether they have children, and what their housing situation is like and considers how this relates to their wellbeing.

7.2 Relationships

People who were divorced or widowed were more likely to have low levels of life satisfaction than people with a partner. Life satisfaction levels were similar for those who were cohabiting and those who were married to their partner.

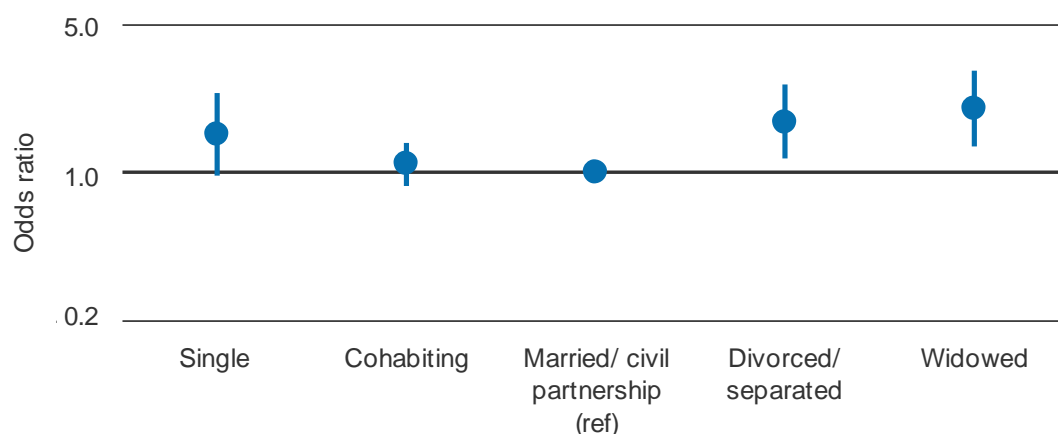
Context

Being in a relationship appears to have a positive effect on wellbeing. Results from the Annual Population Survey (APS) 2011-2012 show that having a partner is associated with higher subjective wellbeing. The quality of the relationship between partners is also linked to wellbeing. The ONS *Measuring National Wellbeing: Life in the UK 2012* report showed that overall satisfaction with life was related to satisfaction with personal relationships.⁷³ Analysis of Understanding Society data has shown that higher frequency of quarrelling between partners is associated with lower levels of wellbeing on average.

Relationships and wellbeing in the National Survey data

Adults who have been divorced or widowed were more likely to have low life satisfaction, compared with those who were married.

Figure 7.1 Odds ratio for low life satisfaction by marital status, after controlling for other factors



⁷³ Self A, Thomas J & Randall C. (2012) *Measuring National Well-being: Life in the UK 2012*. Office for National Statistics.

Marital status was also significantly related to high scores on reporting that things done in life are worthwhile but the pattern was different to that observed for low life satisfaction. The likelihood of having high worthwhile scores was highest among single people and lowest among those who have been widowed.

7.3 The home and the household

Private tenants were less likely than owner occupiers to have high life satisfaction and to feel that things done in life are highly worthwhile, when controlling for other factors, including economic activity status.

Context

Housing tenure has been found to be associated with wellbeing in both UK and international research. Analysis of the wellbeing of young adolescents using Understanding Society data found lower wellbeing among young people whose families were private renters, compared with owner-occupiers.⁷⁴ Similar findings have also been found for adults in England.⁷⁵ Eurofound analysis of wellbeing in Europe suggested that owner-occupancy was associated with high life satisfaction while social housing tenancy was associated with low life satisfaction, not controlling for other factors. This research also found that perceived housing insecurity and poor housing conditions (such as having rot or damp) was negatively associated with life satisfaction.⁷⁶

Home, household and wellbeing in the National Survey data

Housing tenure was significantly related to the higher end of the wellbeing distribution on both life satisfaction and feeling that things in life are worthwhile. When controlling for other factors, those who rented their home privately were both less likely to have high satisfaction with life overall and less likely to feel that the things they do in life are worthwhile, compared with those who owned their home or are buying it with a mortgage.

Before controlling for other factors, the social tenants were also less likely to have high wellbeing on both these measures. However, no differences in the likelihood of having high wellbeing on these measures were found between social tenants and owner-occupiers after controlling for other factors. This suggests that the difference observed between social tenants and owner occupants can be explained by other differences in circumstances between the two groups, for example the economic and financial circumstances discussed in the previous chapter. Tenure was not a significant predictor of low wellbeing on any of the measures.

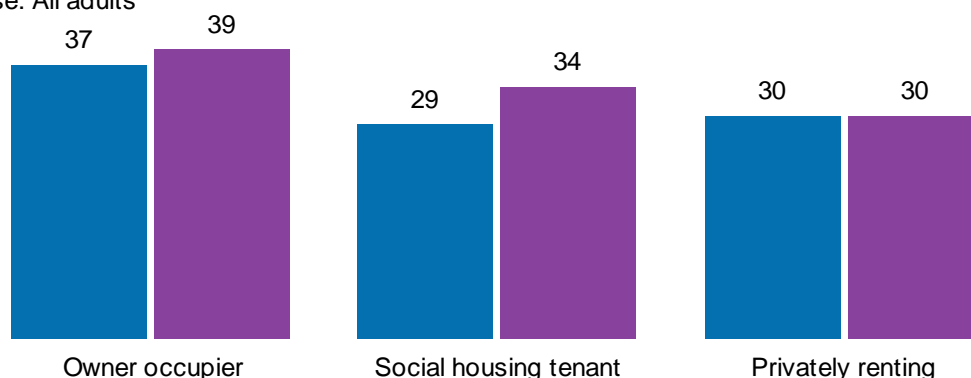
⁷⁴ Chanfreau *et al.* (2013) Predicting Wellbeing. NatCen and DH: London.

⁷⁵ Harris J, Hall J, Meltzer H, Jenkins R, Oreszczyn T and McManus S. (2010) *Health, mental health and housing conditions in England*. Eaga Charitable Trust and NatCen: London.

⁷⁶ Eurofound (2013), Third European Quality of Life Survey – Quality of life in Europe: Subjective wellbeing, Publications Office of the European Union, Luxembourg.

Figure 7.2 Percentage with high life satisfaction (blue) and things in life being worthwhile (purple), by housing tenure

Base: All adults



Adults living at home with their parents were more likely to have higher levels of anxiety, compared with couples without children. This mirrors the finding for the low happiness/ high anxiety type of people found in the latent class analysis discussed in Chapter 3.

What does this mean?

Private tenants standing out from owner-occupiers and social tenants could be an indicator that a less stable housing situation is affecting people's wellbeing. Other research has also shown that material deprivation that relates to home or housing conditions, such as the ability to keep the home adequately warm and to keep the home in a decent state of repair and decoration is important to people's wellbeing. The National Survey does not collect information on housing conditions which would be necessary to establish whether the observed difference by housing tenure in fact reflects differences in condition.

7.4 Children

Having children is significantly related to feeling that things done in life are worthwhile. Compared with adults with no children, those with school-aged children were less likely to report low levels of wellbeing on this measure, while those with a pre-school aged child were more likely to report high levels wellbeing.

Context

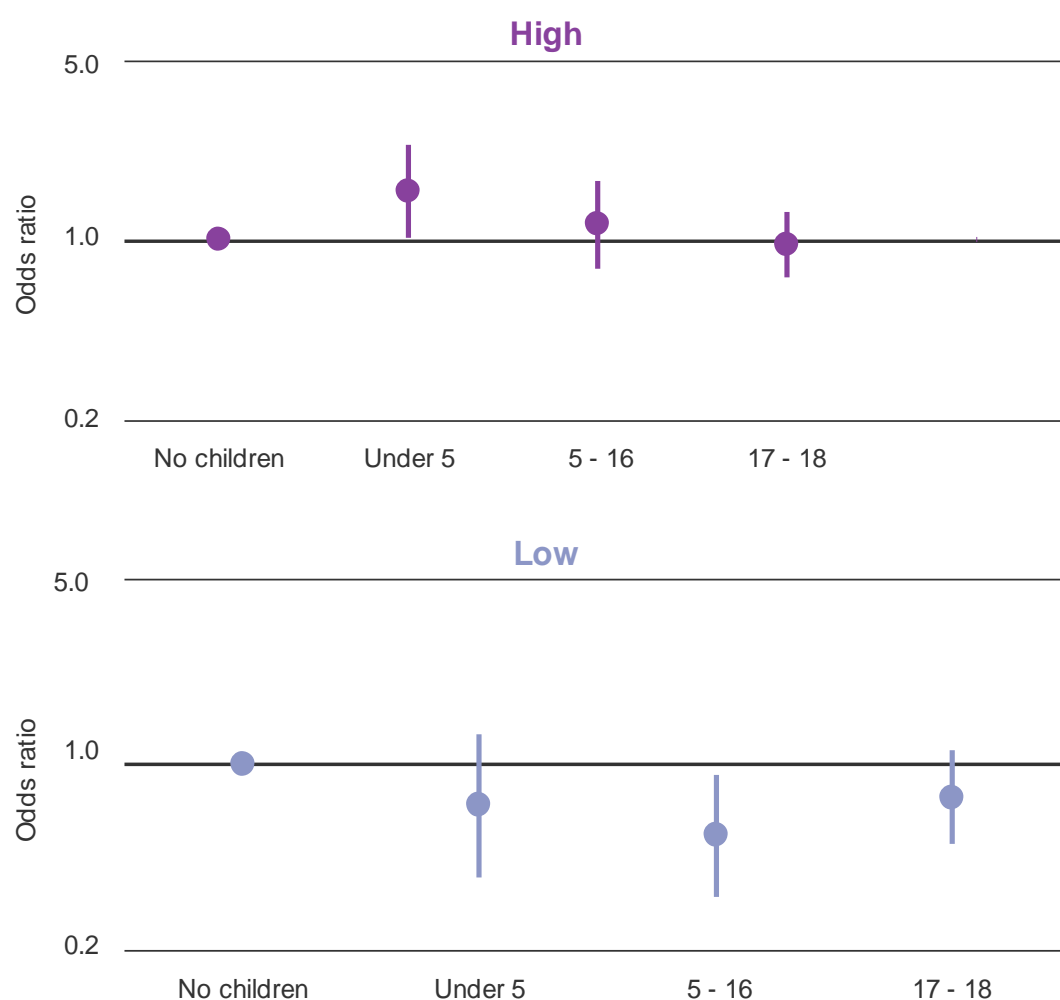
The evidence on the effects of having children on the wellbeing of adults is somewhat mixed, depending on the measures used and what is controlled for in the analysis. Studies have found that when controlling for household finances, the presence of children is not related to happiness but is positively associated with life satisfaction. On the other hand, the presence of children can impact on household finances, and other

studies have found that where circumstances are difficult (for example family poverty) the presence of children can be negatively associated with wellbeing.⁷⁷

Children and wellbeing in the National Survey data

Having children stands out as associated with feeling that things in life are worthwhile. Compared with adults without children, adults with children younger than 5 years of age were significantly more likely to have a high score on things in life being worthwhile. At the other end of the scale, and again comparing with childless adults, those whose youngest child was aged between 5 and 16 years were significantly less likely to have a low score on things in life being worthwhile.

Figure 7.3 Odds ratio for high and low levels of things in life being worthwhile by age of youngest child, after controlling for other factors

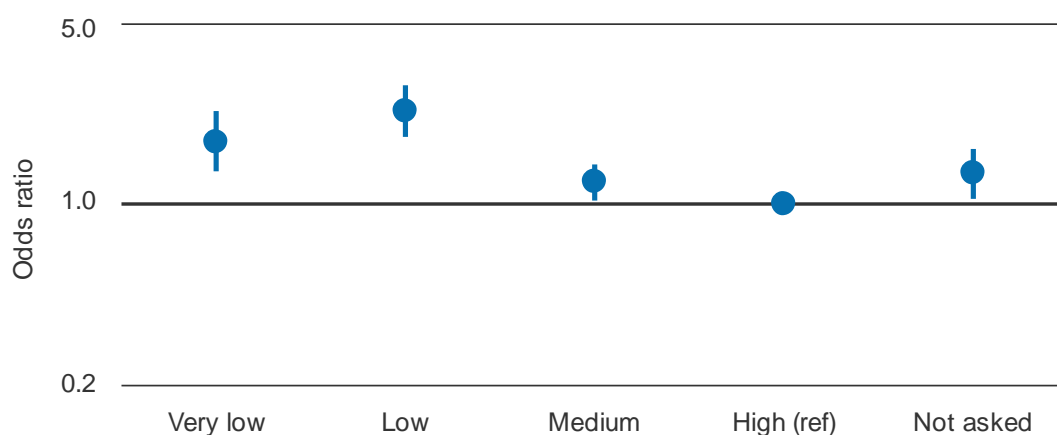


Parents' assessments of their child or children's wellbeing was related to all of the wellbeing measures in some form. Parents who felt that their children had high wellbeing were more likely to also have high wellbeing themselves. This was the case

⁷⁷ Dolan et al. (2008).

for the life satisfaction, worthwhile and happiness measures. At the other end of the scale, those who felt that the wellbeing of their child(ren) was low, were also more likely to have low wellbeing themselves (on all four of the measures).

Figure 7.4 Odds ratio for low life satisfaction by satisfaction with wellbeing of own children, after controlling for other factors



Parental experience of state education services

The National survey includes questions asked of parents about their satisfaction with their child's school, the extent to which they feel they are:

- able to meet with the child's teacher,
- kept informed about the child's progress
- kept informed about the school's performance and
- able to be involved in decisions affecting the child's education.

These questions are only asked of parents with at least one school-aged child who attends state school (that is, not a private fee-charging school). To investigate the relationship between parents' experience of the state education system and their wellbeing in more detail, in this section we restricted the analysis to just those adults with a child in state education. These analyses control for socio-demographic background characteristics, parents' satisfaction with their child's wellbeing and the age of the youngest child in the family, but not the other factors included in the main regression models (for full results, see Appendix J in the supplementary volume).

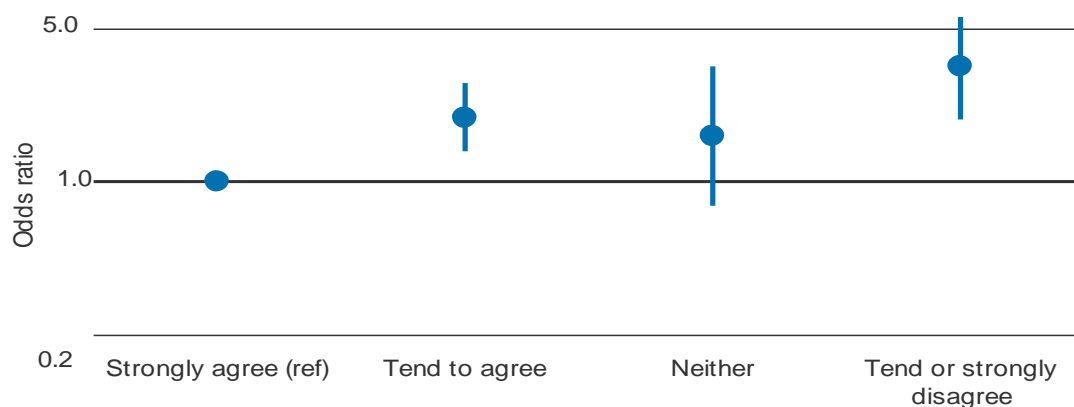
Being kept informed as much as the parent would like about the child's progress at school, and being as involved as much as the parent would like to be in decisions regarding the child's education stood out as particularly important for different aspects of parental wellbeing.

Compared with parents who strongly agreed that the school kept them informed about their child's progress, 'tending to agree' with the statement was associated with a higher likelihood of high life satisfaction, high happiness and low anxiety (when

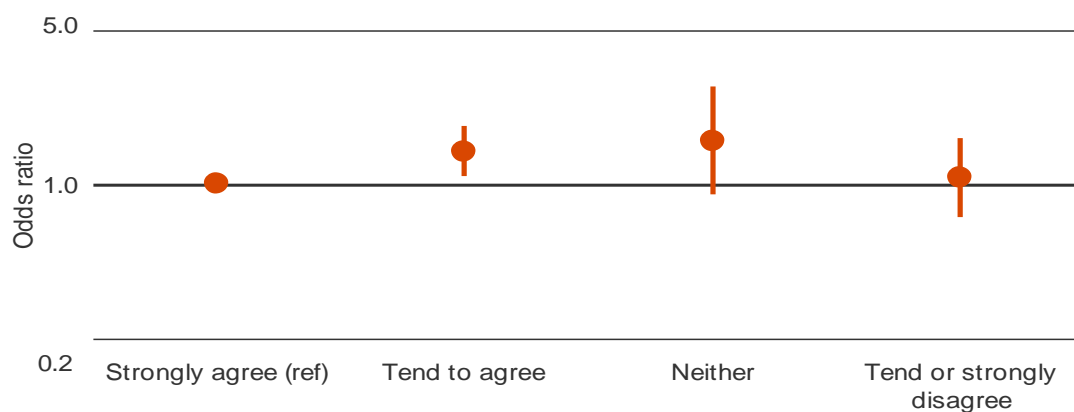
controlling for other factors). Interestingly, those who disagreed about being kept informed about their child's progress were also more likely than those who strongly agreed to report high life satisfaction. It is possible that those who are most informed about their child's progress are kept closely involved because their child is experiencing problems of some sort.

Figure 7.5 Odds ratios for high wellbeing by being informed about child's progress at school, after controlling for other factors

High life satisfaction



High happiness yesterday



Low anxiety yesterday

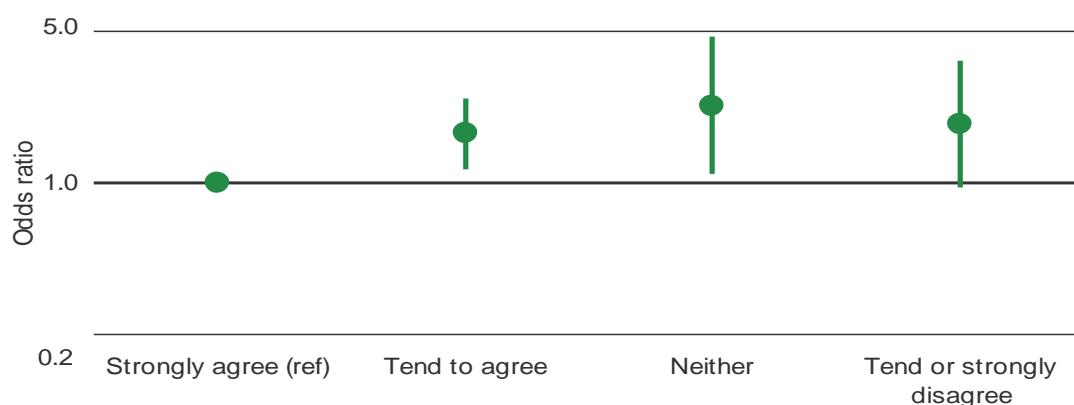
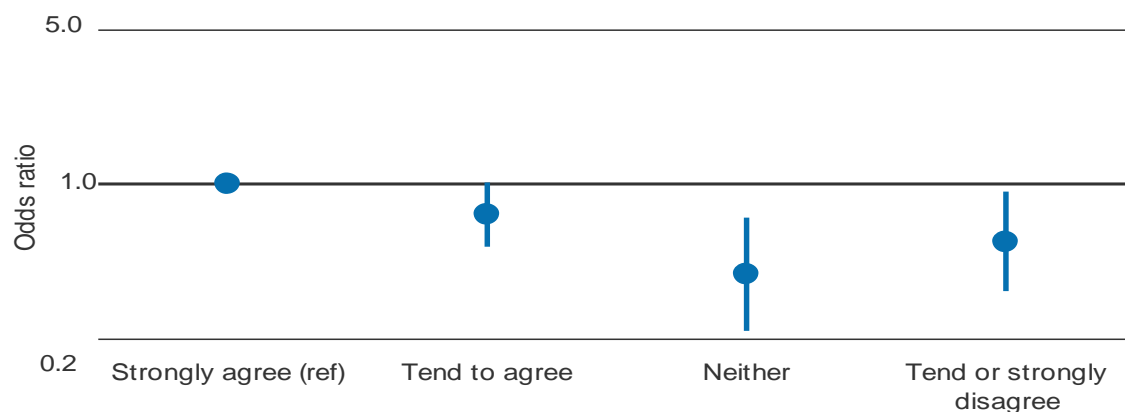
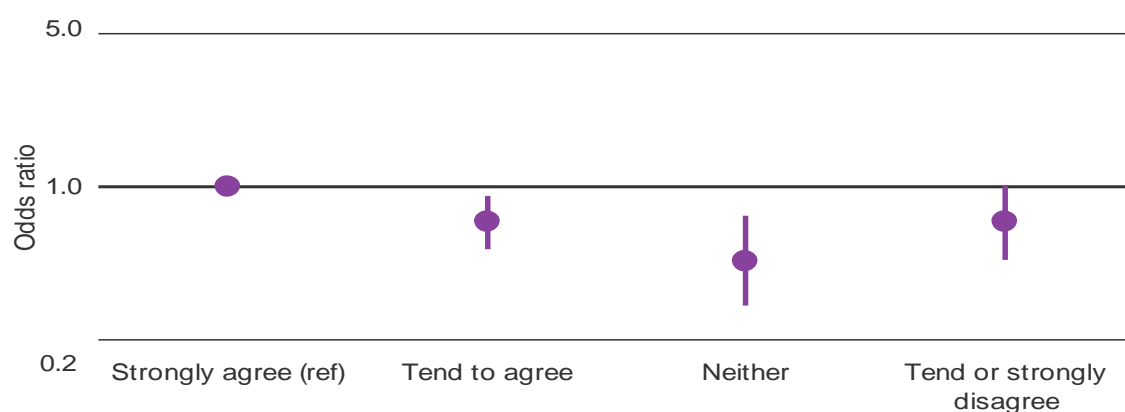


Figure 7.6 Odds ratios for high and low wellbeing by being involved as much as would like to be in decisions affecting child's education, after controlling for other factors

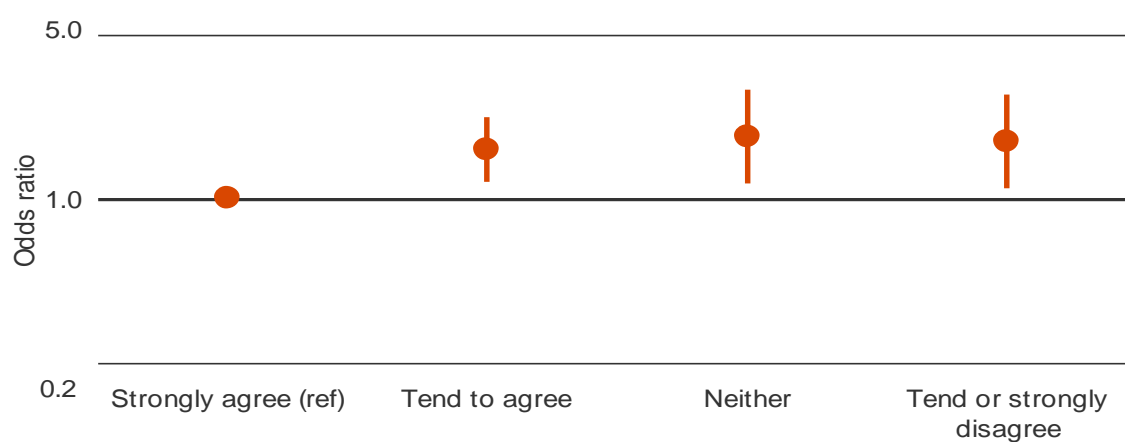
High life satisfaction



High sense of things worthwhile



Low happiness yesterday



Feeling unable to be involved to the extent that the parent would like to be involved in the decisions that affect their child's education was associated with a lower likelihood of high life satisfaction and a lower likelihood of feeling that things in life are worthwhile. Conversely, feeling unable to be involved in the decisions that affect their child's education was associated with low parental happiness.

What does this mean?

Having dependent children is related to eudemonic wellbeing (feeling that the things done in one's life are worthwhile). The age of the youngest child in the household also emerged as informative, with parents of young children being more likely than adults without children to rate the things they do in life as highly worthwhile.

The child wellbeing measure does differ from the other domain-specific wellbeing measures included in National Survey in that it relates to someone other than the adult respondent. It is therefore not surprising that it is less strongly correlated with each of the main wellbeing measures (see Chapter 2). However, there are still links and these could still be a reflection of people who feel more positively about their own lives simply being more prone to more positive reporting more generally.

Parents' wellbeing is associated with how informed and involved they feel in their child's education.

8. Wellbeing and place

Policy implications

- Neighbourhood renewal initiatives would do well to support social cohesion and perceptions of safety, as both of these aspects of the local community were strongly linked with wellbeing.



Key findings

- Lower levels of local physical environment deprivation were associated with higher life satisfaction.
- Access to green or blue space was associated with wellbeing, but not when other factors were controlled for.
- A sense of belonging to the area where one lives predicts happiness and perceiving things as worthwhile, even after controlling for other factors.
- A positive perception of people in the neighbourhood is also associated with higher wellbeing when controlling for other factors. The perceived helpfulness of neighbours was linked to high wellbeing in terms of life satisfaction, things being worthwhile and happiness.
- Overall satisfaction with the transport system was positively associated with wellbeing. Feeling safe travelling by local public transport after dark was related to high wellbeing on all measures, while having use of a car was associated with a high level of things in life being worthwhile.
- The perceived quality of services provided by the local authority was associated with both high and low life satisfaction. High life satisfaction was most common among people who strongly agreed that the LA provides high quality services. Low life satisfaction was most common among those who strongly disagreed.
- People who were highly satisfied with how the Welsh Government does its job were more likely to have high life satisfaction and to feel things in life were worthwhile, and they were less likely to have low levels of happiness.

8.1 Introduction

This chapter looks in detail at how where people live is associated with their wellbeing, in terms of local neighbourhood characteristics, relations between neighbours, access to natural space, and satisfaction with local authority services, transport and perception of the Welsh Government. The chapter starts with an overview of the regional distribution of wellbeing in Wales and is then divided into the following themes:

- Physical environment,
- Sense of belonging and people in the neighbourhood,
- Perceptions of safety,
- Transport,
- Local Authority services, and
- Perceptions of the Welsh Government.

Context

Multivariate analyses have tended to find that individual level factors are more strongly linked to people's wellbeing than area level factors. However, past research has also found that both area deprivation and some social cohesion measures are key to wellbeing. Multivariate analysis of the APS (2011-2012) found that the Index of Multiple Deprivation (IMD) score for the local area where people predicted their wellbeing, but that it accounted for less than half of the regional variation observed.⁷⁸ The same analysis also showed that people living in rural locations had higher wellbeing than those in urban areas.

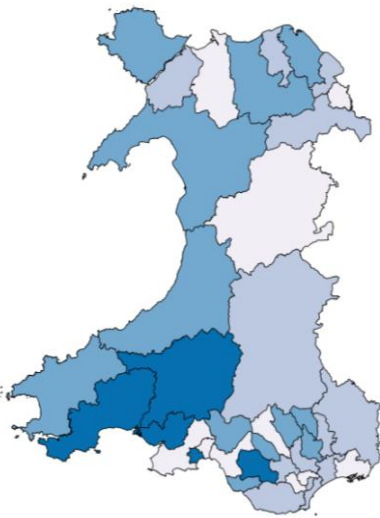
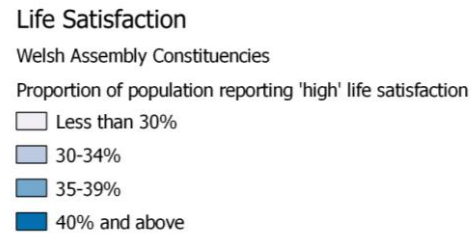
8.2 Region

The highest proportion of adults reporting high levels of wellbeing were in South West Wales. South East Wales had relatively fewer adults reporting high wellbeing and stood out as having the highest proportion of adults reporting low wellbeing on each of the measures.

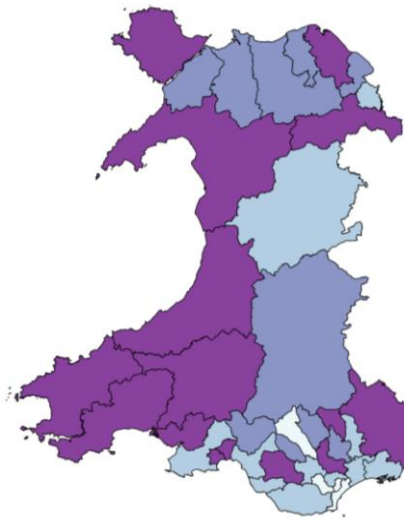
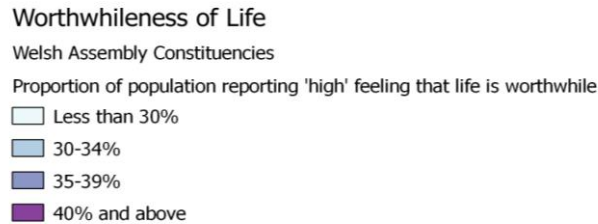
⁷⁸ Abdallah S & Shah S. (2012) Well-being patterns uncovered: An analysis of UK data. New economic foundation: London.

Figure 8.1 Proportion with high wellbeing by Welsh Constituency

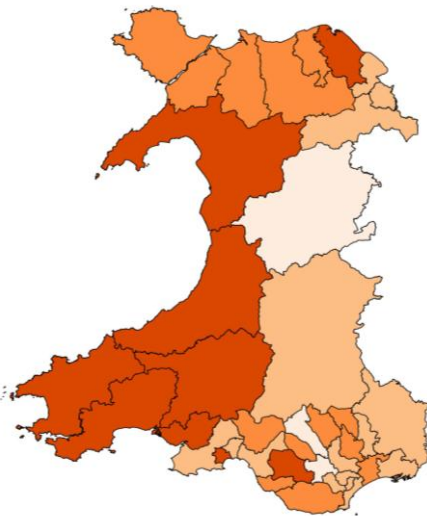
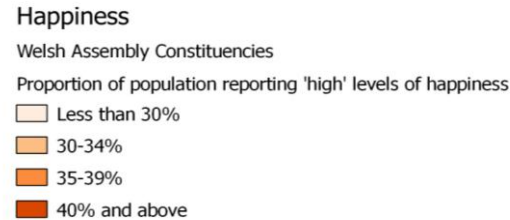
High life satisfaction



High things done in life being worthwhile



Happiness yesterday



Low anxiety yesterday

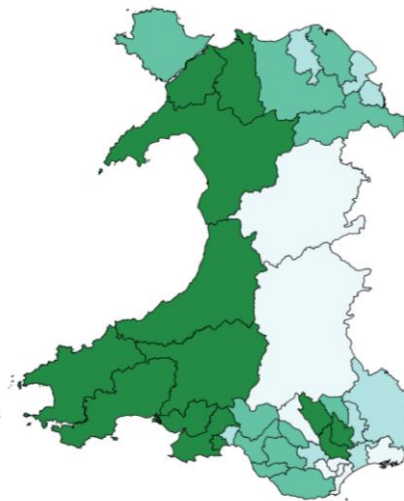
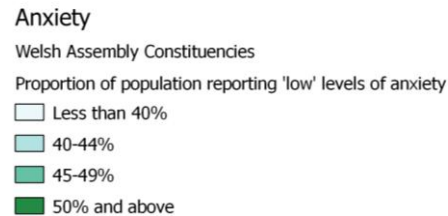
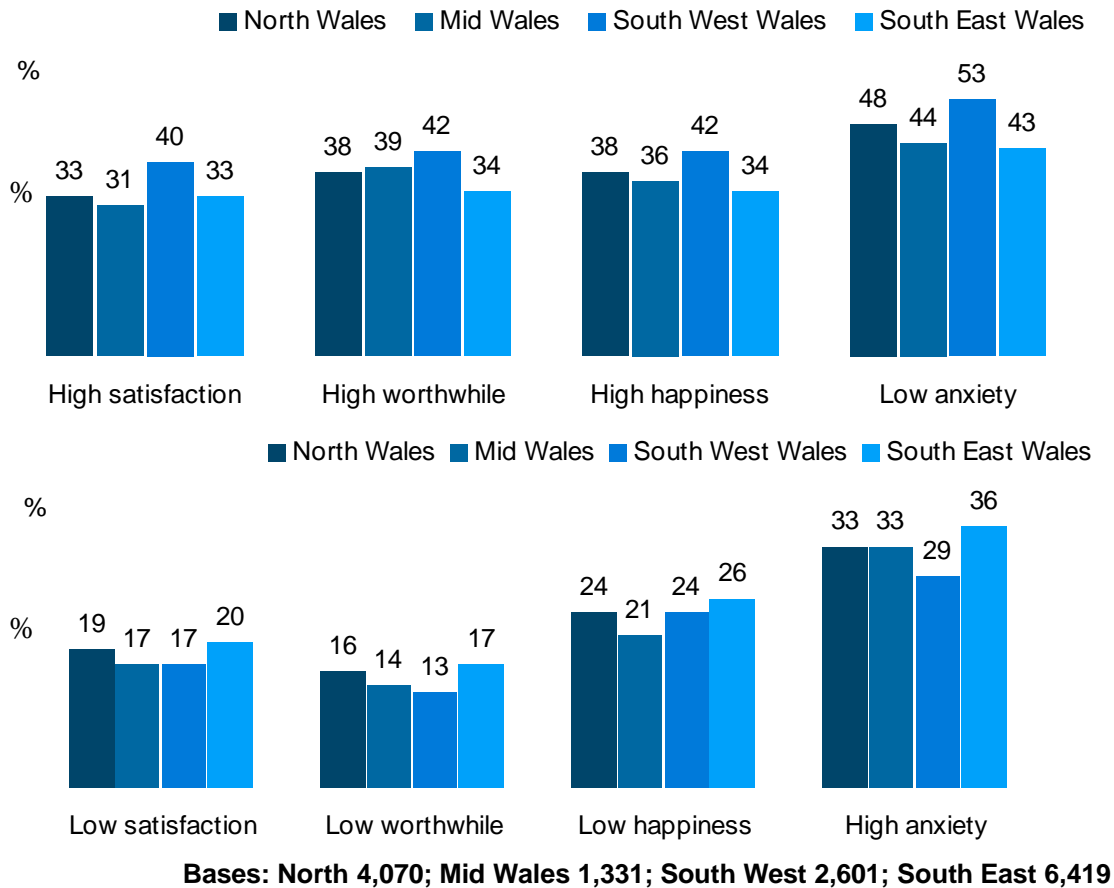


Figure 8.2 High and low levels of wellbeing by Welsh regions



8.3 The physical environment

Low levels of local physical environment deprivation was associated with high life satisfaction. Access to green or blue space was associated with wellbeing, but not when other factors were controlled for.

Context

Area deprivation has been found to be associated with lower wellbeing and a part of the policy agenda within neighbourhood renewal has generally focused on improving the physical fabric of more deprived neighbourhoods; tackling issues of maintenance, such as repairing broken windows, and clearing litter and graffiti quickly and regularly.

Access to natural environments has also been widely promoted as a way of improving national wellbeing. While there is some international evidence to suggest that living in a large city might be associated with lower life satisfaction while rural living is associated with higher life satisfaction, other studies have not found a link between population density and wellbeing.⁷⁹ This could be an indication that it is the natural environment

⁷⁹ Dolan et al. (2008).

per se that is beneficial and the authors of the review called for further research to identify what it is about the rural environment that is beneficial for wellbeing.

Physical neighbourhood characteristics in the National Survey data

The local area deprivation score for the physical environment was significantly associated with high life satisfaction, when controlling for other factors. Those who lived in least deprived 40% of areas in Wales were more likely to report high satisfaction with life in general.

Before controlling for other factors there were strong associations between perceptions of the neighbourhood in terms of it being:

- well maintained,
- free from litter and rubbish, and
- free from graffiti and vandalism.

Positive perceptions were generally linked to higher wellbeing across the four indicators for the area being well maintained and free from litter and rubbish. However, these associations were not significant when controlling for other factors.

A somewhat more mixed picture emerged for graffiti and vandalism. Overall, three-quarters of people agreed that their local area is free from graffiti and vandalism and only 4% of people strongly disagreed with the statement. After controlling for other factors, people who reported that there was graffiti and vandalism in their area were slightly but significantly *less* likely to reporting high levels of anxiety. Strong disagreeing that the area was free from graffiti and vandalism was also associated with a high level of feeling things done are worthwhile, again when controlling for other factors. Both of these associations are in the opposite direction to what one might expect; that is, one might expect vandalism and graffiti to be linked with lower wellbeing. This finding would need to be replicated before any potential policy implications should be inferred.

Countryside and green space and wellbeing in the National Survey data

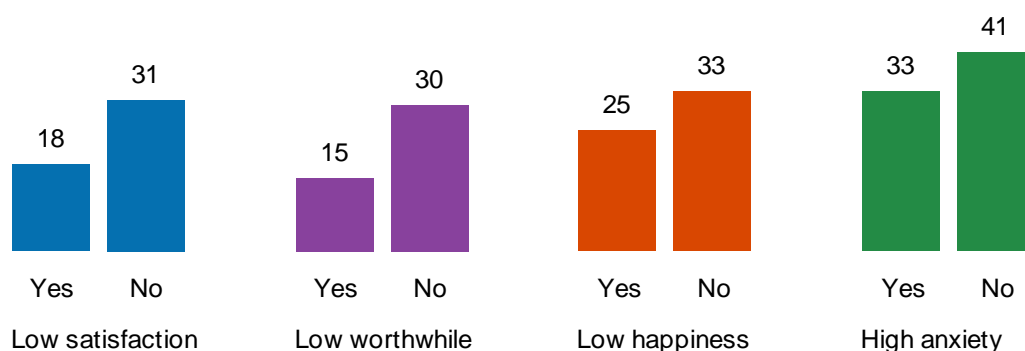
While the urban-rural classification of the area was related to wellbeing on all four measures before controlling for other factors, this association was not significant in any of the regression models when controlling for other factors.

Participants were asked whether or not they lived within a ten-minute walk of natural green or blue space such as the countryside or parks or a river, lake or the sea. Almost all adults (98%) reported living within a ten-minute walk of such a natural space and doing so was significantly associated with all four of the core wellbeing indicators in analyses that did not control for other factors.

Figure 8.3 Low levels of wellbeing by whether live near natural space

Base: All adults

Live within 10-minute walk of green or blue space



Bases: Yes 14,092; No 316.

After controlling for other factors, access to green and blue space was no longer associated with wellbeing, suggesting that the differences observed are can be explained by other factors – such as the level of multiple deprivation in the area.

What does this mean?

The area deprivation score relating to the physical environment is significantly linked with life satisfaction, with those living in the least deprived two fifths of areas being the most likely to have high life satisfaction.

More specifically, perceptions that the local area was well maintained and free from litter were associated with higher wellbeing on all four measures. However, these associations were not significant when controlling for other factors, suggesting that this may have been explained by other factors included in the model, such as satisfaction with the quality of local authority services or local area deprivation, capturing similar perceptions or experiences.

People who live near green spaces – such as woodlands or parks – and those who live close to the sea, do have higher wellbeing than those who live further away from such places. In addition, this picture may be different if quality and ability to access to space was captured. For example, high rise estates are often located within green fields. But these can be poorly maintained and sometimes are linked with feeling less safe (a strong predictor of lower wellbeing, as discussed later in the chapter).

Overall, as the association between access to natural space and wellbeing is not significant after controlling for other factors, such as area deprivation, it appears that simply living near green or blue space is not sufficient to improve wellbeing. Thus, the policy rationale of maintaining green and blue space may better promote other justifications, such as environmental or aesthetic reasons.

8.4 Sense of belonging and people in the neighbourhood

A sense of belonging to the area where one lives predicted happiness and things being worthwhile, even after controlling for other factors. A positive perception of people in the neighbourhood, for example seeing others as helpful, was also associated with higher wellbeing.

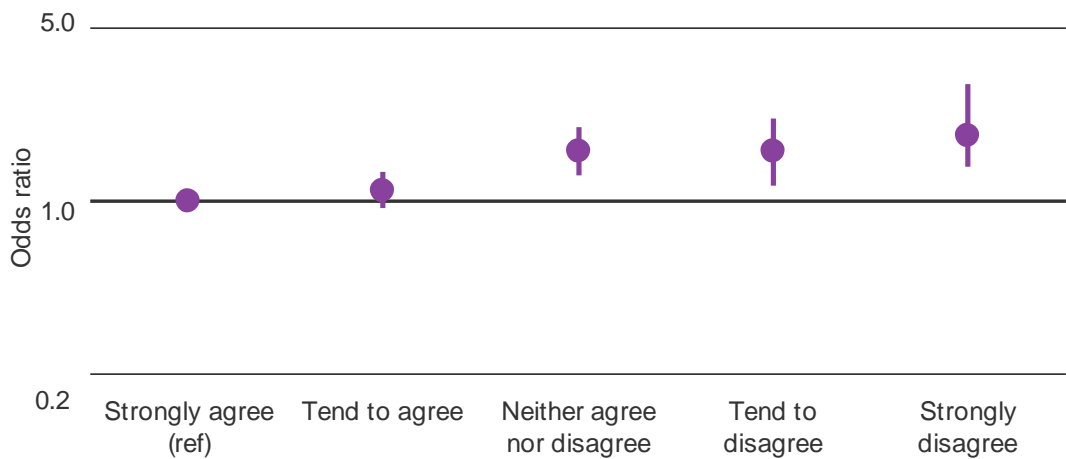
Context

Analysis of Understanding Society data has shown that social relations between neighbours, and residents’ sense of belonging to the local area is associated with wellbeing. Adults who feel that they belong in their neighbourhood, are willing to improve the neighbourhood, and who interact with their neighbours on a regular basis tend to have higher wellbeing.⁸⁰

Belonging and wellbeing in the National Survey data

Most people (76%) felt a sense of belonging to the area they lived in, which is positive since being ambivalent about belonging or feeling a distinct lack of belonging is associated with lower wellbeing. Before controlling for other factors, a sense of belonging to the area where one lives was positively associated with all the wellbeing indicators. After controlling, the associations with low wellbeing on the happiness and things being worthwhile measures remained significant.

Figure 8.4 Odds ratio for low levels of things in life being worthwhile by belonging, after controlling for other factors



Adults who did not feel that they belonged in the area where they lived were much more likely than those who strongly agreed that they belonged to report low levels of happiness and low levels of things they do are worthwhile. The pattern of the

⁸⁰ Chanfreau *et al.* (2013) Predicting Wellbeing. NatCen and Department for Health: London.

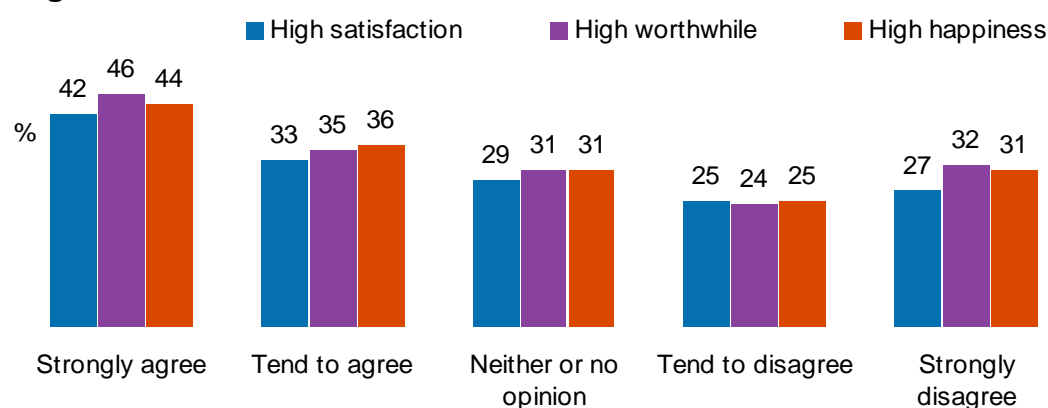
association was very similar for both wellbeing measures and the results for low levels of things done in life being worthwhile are shown in Figure 8.4.

People in the neighbourhood and wellbeing in the National Survey data

The social relations in the local area, such as whether people locally are willing to help their neighbours, whether they are viewed as trustworthy, whether they treat each other with respect and consideration, and whether people from different backgrounds get on well together in the local area, were all associated with each of the wellbeing measures before controlling for other factors.

After controlling for other factors, none of the questions on the neighbourhood relations were associated with anxiety but people's perceived willingness to help neighbours remained related to high wellbeing on all the other 'positive wellbeing' measures.

Figure 8.5 Wellbeing by people in the local area are willing to help neighbours

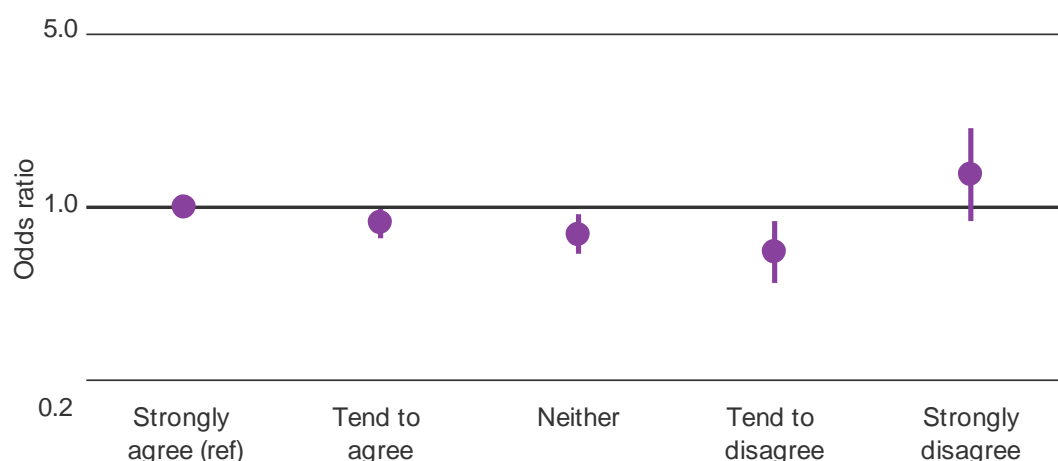


On all three measures, adults who strongly agreed that people in the local area are willing to help neighbours, reported the highest wellbeing. Wellbeing levels decreased with lower perception of people's helpfulness, but with a slight increase in wellbeing again among those who strongly disagreed with the statement. This pattern of association with high satisfaction and things being highly worthwhile was also observed when controlling for other factors. The likelihood of having high life satisfaction or high levels of things being worthwhile did not differ significantly for those who strongly disagreed that people locally are willing to help neighbours (3% of all adults) compared with those who agreed strongly.

Perceived trustworthiness was related to a low sense of things in life being worthwhile, and to low levels of happiness. Compared with those who felt that most people can be trusted, those who felt that only a few can be trusted, and those who could not say because they had just moved to the area, were somewhat more likely to report low levels of happiness. The differences were significant but not very large, when controlling for other factors.

Again, compared with those who felt that most people can be trusted, those who could not say because they had just moved to the area were significantly less likely to report low levels of things in life being worthwhile. There were no other significant differences in things in life being worthwhile by the perceived trustworthiness of people in the local area.

Figure 8.6 Odds ratio for high levels of things worthwhile by how well people from different backgrounds get on in the local area, after controlling for other factors



Before controlling for other factors, the perceived respectfulness of others in the local area was clearly negatively related to low levels of things done in life being worthwhile. Those who strongly agreed with the statement were least likely to report low levels of things being worthwhile, and the likelihood of having low wellbeing increased as the perceived respectfulness of others reduced. The association between the perceived respectfulness of others and low levels of things in life being worthwhile remained significant after controlling for other factors.

How well people from different backgrounds get on in the local area was positively related to how worthwhile people felt the things they did were, when controlling for other factors. Compared with those who strongly agreed that people from different backgrounds get on well, those who agreed less strongly were increasingly less likely to report high levels of things being worthwhile – with the exception of the small minority (2% of adults) who strongly disagreed with the statement and whose wellbeing did not differ significantly from those who agreed strongly.

What does this mean?

Feeling rooted in a place is key for both eudemonic and hedonic wellbeing, and social relations in the local area are also important. There was a significant relationship between how individuals feel about the people in their neighbourhood and reported feelings of life satisfaction, worthwhile, anxiety and happiness.

After controlling for other factors, those who feel people in their local area are willing to help their neighbours were significantly more likely to have high levels of wellbeing in terms of life satisfaction, worthwhile actions and happiness. Furthermore, those who agree with the statement that people from different backgrounds get on well are significantly more likely to feel that the things they do in life are worthwhile.

People's sense of belonging to an area is clearly linked to the social relations in that area. For example, the majority of people (61%) who strongly agreed that people in their area were willing to help neighbours also strongly agreed that they felt a sense of belonging to the area, compared with less than a third (between 21% and 27%) of people who rated the helpfulness of local people less strongly.

There is evidence to link the wellbeing objective and support for local community cohesion strategies. Such support can take many forms, from inclusive architectural design to encouraging engagement between schools and the local community, encouraging ownership of communal space through advertised and organised volunteer activities open for all local residents (for example to maintain planted areas) and supporting existing local community organisations.

8.5 Perceptions of safety in the local area

- Both feeling safe at home and in the local area after dark were associated with high levels of life satisfaction, while feeling safe at home and in the local town centre were associated with feeling that things in life are highly worthwhile.
- Feeling unsafe in the local area after dark was associated with low levels of things in life being worthwhile. Living in more deprived areas, as measured by the WIMD community safety score, was associated with low levels of things in life being worthwhile and high anxiety.

Context

Safety is often a focus of police community and neighbourhood watch schemes. The main objectives of such policies and schemes are to prevent crime and the associated emotional harm and cost to society. Experience of assault, while a relatively rare life event, has been associated with poor mental health. Furthermore, irrespective of actual local crime rates and personal experience of crimes the perceptions of vulnerability can serve to increase social isolation and negatively influence wellbeing.

Safety and wellbeing in the National Survey data

Before controlling for other factors, a number of factors relating to how safe an individual feels in their local area were significantly related with variations in wellbeing. Those who felt it was:

- Safe at home after dark
- Safe walking in their local area after dark
- Safe walking in their nearest town or city after dark
- Safe travelling on public transport after dark
- Safe for their children to play outside and were
- Living in a less deprived area according to the WIMD community safety score; were more likely to report higher wellbeing, across all four wellbeing indicators.

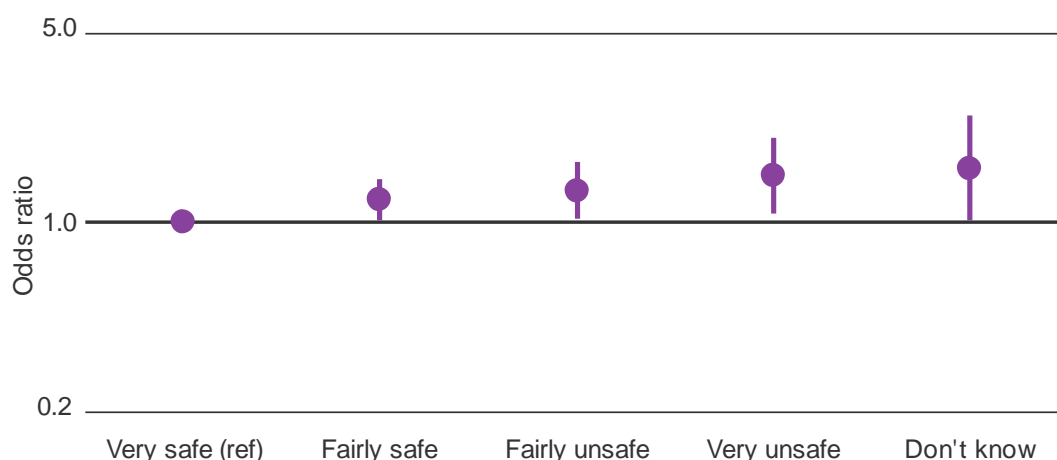
After controlling for other factors, safety on public transport after dark was associated with high wellbeing on all measures. This is discussed in more detail in the next section on local transport (Section 0). Variations in different aspects of perceived safety were also associated with life satisfaction, actions being worthwhile and anxiety.

Overall, the vast majority feel very safe (66%) or fairly safe at home (30%) after dark, and feelings of safety in the local area and the local town or city centre after dark are also high (35% feel very safe and 44% feel fairly safe in the local area; 15% feel very safe and 42% feel fairly safe in the town centre).

- Compared with feeling very safe, feeling fairly safe at home after dark was significantly associated with a lower likelihood of having high satisfaction with life, after controlling for other factors.
- Compared with feeling very safe, feeling fairly safe walking in the local area after dark was significantly associated with a low likelihood of having high satisfaction with life, after controlling for other factors.
- Compared with feeling very safe, feeling fairly safe at home after dark was significantly associated with a lower likelihood of rating things done in life as highly worthwhile, after controlling for other factors.
- Compared with feeling very safe, feeling very *unsafe* walking in the nearest town centre after dark was significantly associated with a lower likelihood of having rating things done in life as highly worthwhile, after controlling for other factors.

Controlling for other factors the likelihood of reporting low wellbeing increased as perceived safety decreased (see Figure 8.7). The same pattern was observed before controlling: while 11% of those who felt very safe reported low levels of things being worthwhile, 27% of those who felt very *unsafe*, did so.

Figure 8.7 Odds ratio for low worthwhile by safety in the local area after dark, after controlling for other factors



As with many of the self-reported measures, the association between feeling safe and wellbeing could merely be a reflection of more positive people perceiving their surroundings more positively. However, the reported feelings of safety were strongly linked to the more objective measure of the community safety deprivation score, which in turn was also associated with the same two measures of wellbeing.

The proportion of people feeling very safe walking in their local area after dark increased from 23% among those living in the most deprived fifth of areas to 50% among those living in the least deprived fifth of areas. Area-level community safety, as measured on the WIMD community safety score, was associated with low levels of things in life being worthwhile and high anxiety. Low ratings of things in life being worthwhile, and high levels of anxiety, were most common in the most deprived 40% of areas and least common in the least deprived areas.

What does this mean?

Safety in the local area, both as measured on the WIMD community safety deprivation score, and in terms of perceived safety among local residents is linked to wellbeing. Local area safety is also linked to the social cohesion factors discussed in the previous section. For example, a strong sense of belonging in the area increased as the community safety WIMD deprivation level declined. 31% of people in the most deprived areas strongly agreed that they belonged in their area; while 41% of residents in the least deprived areas did so.

Perceived helpfulness of neighbours was likewise associated with community safety area deprivation; 23% in the most deprived fifth of areas strongly agreed that neighbours were helpful, compared with 40% in the least deprived areas. More focused research on how these interact would be required to understand any causal mechanisms but local area initiatives aiming to improve wellbeing may need to consider safety and social relationships in tandem.

8.6 Transport and use of a car

Overall satisfaction with the transport system generally is positively associated with wellbeing. Feeling safe travelling by local public transport after dark is related to high wellbeing on all measures, while having use of a car is associated with a high level of things in life being worthwhile.

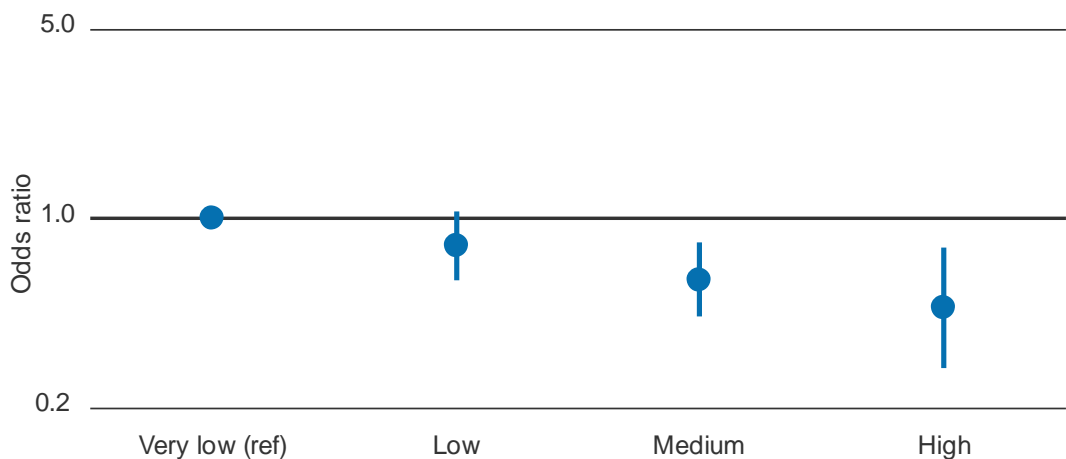
The transport system and wellbeing in the National Survey data

A sub-sample of the respondents taking part in the National Survey were asked to rate their overall satisfaction with the transport system in Wales. This includes all aspects of transport, from roads, rail and bus services to cycling and walking facilities. Answers were given on a scale of nought to ten which is presented here in four categories ranging from very low to high. Among those asked about their satisfaction with the transport system, the majority reported low or medium satisfaction (33% low; 36% medium)⁸¹.

When controlling for other factors, overall satisfaction with the transport system was associated with low levels of life satisfaction, high levels of things done in life being worthwhile and both high and low happiness. Compared with those who reported very low overall satisfaction with the transport system, those who reported either medium or high satisfaction were less likely to have low life satisfaction (Figure 8.8). On the other hand, it was only those who reported high satisfaction with the transport system who were more likely to have a high level of things in life being worthwhile.

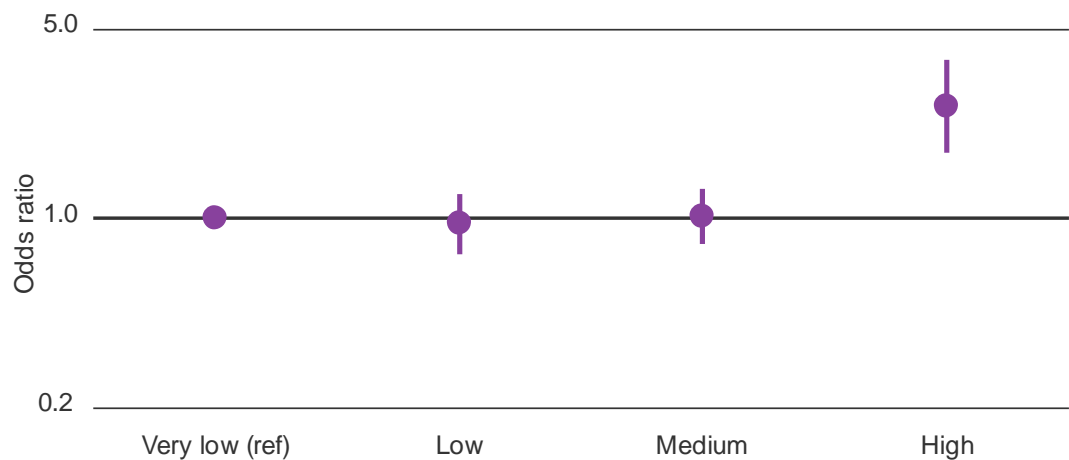
Figure 8.8 Odds ratio wellbeing indicators by satisfaction with transport, after controlling for other factors

Odds ratio for low life satisfaction by satisfaction with transport



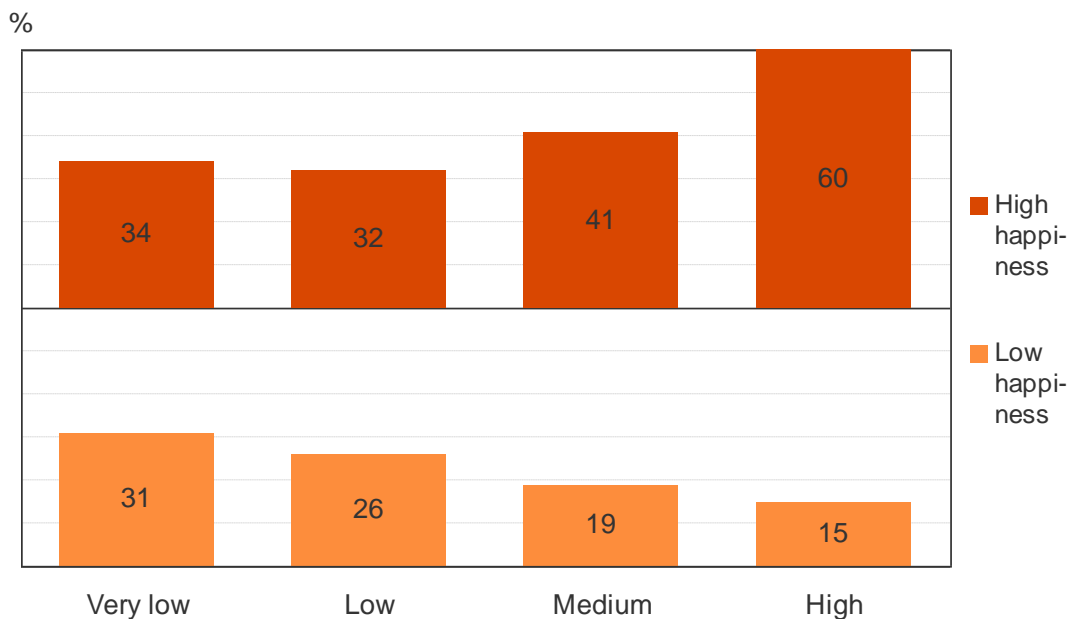
⁸¹ Scores of 0-4 were categorised as 'Very low' and 5-6 as 'Low'. 3% of those asked about the transport system answered 'Don't Know' and these were retained in the analysis, as is usual practice in analysis of opinion questions.

Odds ratio for high things done are worthwhile by satisfaction with transport



Overall satisfaction with the transport system in Wales was also associated with happiness. People with medium to high satisfaction with the transport system were less likely to have low happiness, and high satisfaction with the transport system was particularly strongly linked with high level of happiness.

Figure 8.9 Proportion with high and low happiness, by overall satisfaction with the transport system in Wales

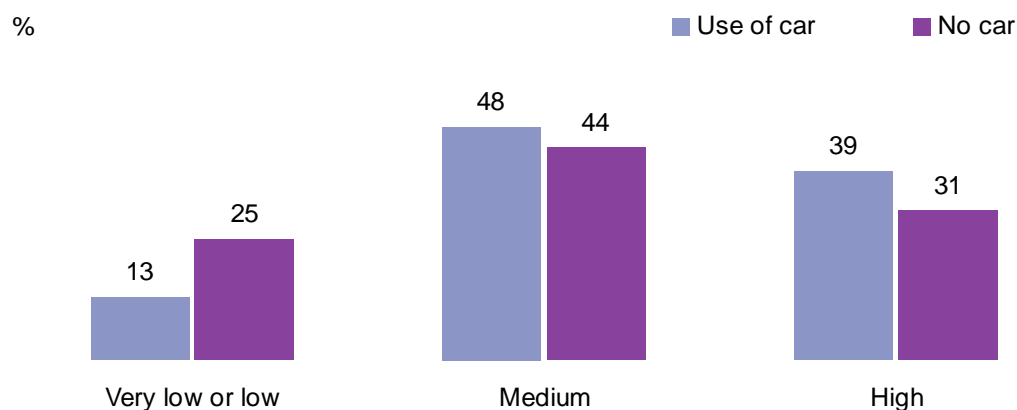


The direction of this association is not clear. Being dissatisfied with the transport system could be a reflection of issues and problems with the transport system which can impact on wellbeing. However, people with poor wellbeing, that is people who feel unhappy and dissatisfied with their life, may well be more likely to view experiences and aspects of their environment more negatively in general.

Cars, public transport and wellbeing in the National Survey data

Both access to a car and living in an area free from heavy traffic were associated with all the indicators of wellbeing before controlling for other factors.

Figure 8.10 Things done in life are worthwhile, by use of a car



After controlling for other factors, though, there were no associations between freedom from traffic and wellbeing. However, those with access to a car continued to be more likely to feel that they did worthwhile things, and those without a car were more likely not to feel that the things they did in life were worthwhile.

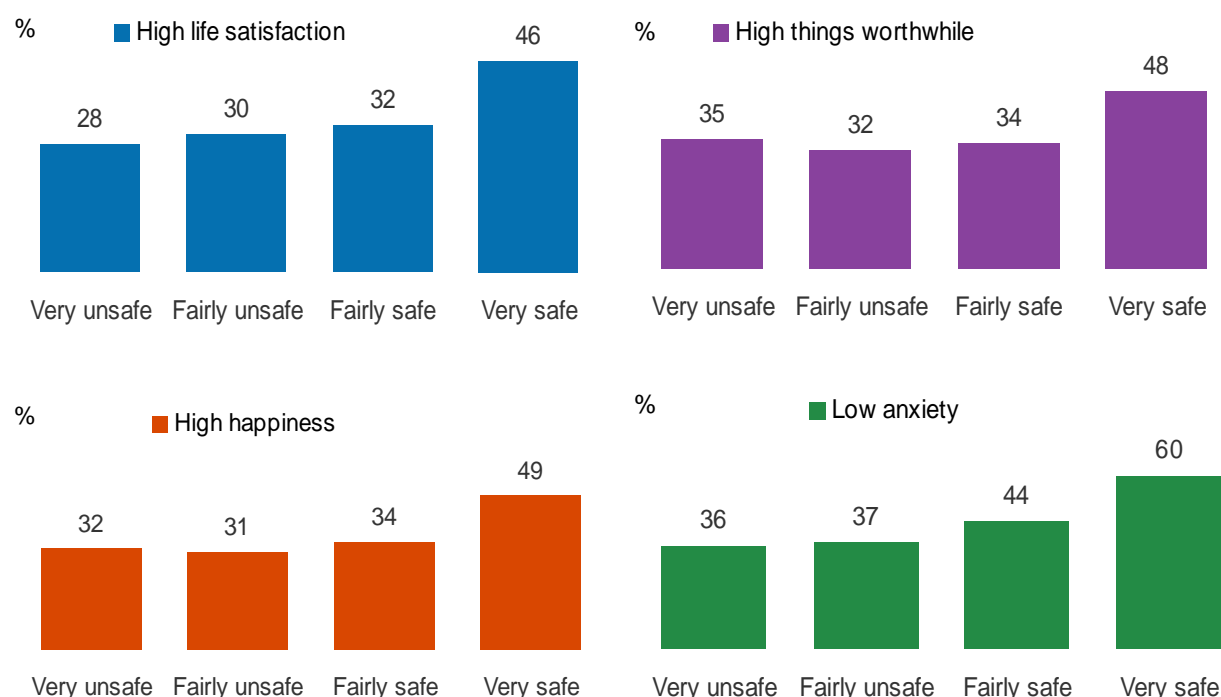
The National Survey defines car access relatively broadly, as having the use of a car, and as such might capture both car owners and those with strong ties with family, friends or neighbours who they can get a lift from for going shopping or visiting the doctor. However, it is likely that the use of a car is strongly linked with household car ownership⁸² and thus may be reflecting differences in household income levels.⁸³

How safe people feel when travelling locally on public transport after dark were associated to high levels of wellbeing on all measures when controlling for other factors. Safety on public transport was not associated with low wellbeing.

⁸² According to the 2011 Census, 77% of households in Wales have use of a car, defined as owning a car or having a company car for personal use. The National Survey estimate of households with use of a car is also 77%.

⁸³ Household income is an established predictor of poor mental health and low income, although much of this association may be explained by debt. See: Jenkins R, Bhugra D, Bebbington PE, Brugha T, Farrell M, Coid J, Fryers T, Weich S, Singleton N, Meltzer H (2008) Debt, income and mental disorder in the general population. *Psychol Med* 38:1485–1493.

Figure 8.11 High wellbeing, by safety travelling by public transport after dark



What does this mean?

Feeling safe on public transport is linked with high wellbeing on all measures.

There are no questions on the National Survey regarding the type of public transport used and the frequency and purpose of using public transport (such as whether used for the daily commute or for more ad hoc outings). However, perceived safety on local public transport after dark varies significantly by car access with those without use of a car being somewhat more likely to feel fairly or very unsafe (25%) compared with those with access to a car (22%).

8.7 Views on the Local Authority and Welsh Government

- Perceived quality of local authority (LA) services was associated with both high and low life satisfaction. High life satisfaction was most common among people who strongly agreed that the LA provides high quality services. Low life satisfaction was most common among those who strongly disagreed.
- People who were highly satisfied with how Welsh Government does its job were more likely to have high life satisfaction, feel things in life were highly worthwhile and less likely to low levels of happiness.

Local Authority services and wellbeing in the National Survey data

A number of factors relating to the services provided by local authorities (LA) were significantly related with variations in wellbeing on all four measures in unadjusted analyses:

- The perceived quality of services provided by the LA;
- How good the LA is at communicating information about its performance;
- The desire for more information on how the LA is performing, and
- The extent to which the individual feels able to influence decisions that affect the local area.

The extent to which the individual would like to be more involved in the decisions made by the LA that affect the local area was also associated with variations in anxiety.

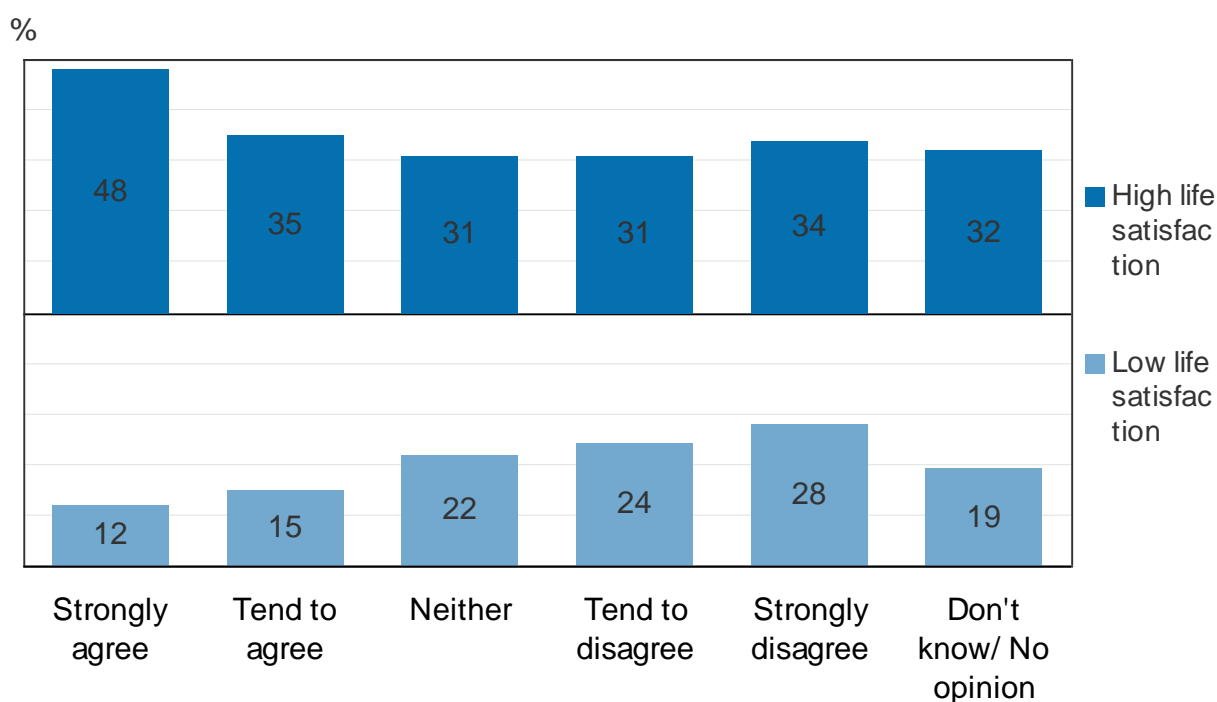
After controlling for other factors the perceived quality of LA services was associated with both high and low levels of life satisfaction, and with high anxiety. High levels of life satisfaction was most common among those who strongly agreed with the statement that the local authority provides high quality of services, while conversely, low levels of life satisfaction were more common as dissatisfaction with the quality of LA services increased.

Wanting more information on how the LA is performing had a U-shaped association with things in life being rated as highly worthwhile, with the highest levels of wellbeing reported by those who strongly agreed and those who strongly disagreed. This pattern was evident in both the unadjusted analysis and in the regression controlling for other factors.

Wanting more LA performance information was also associated with low levels of happiness, with low happiness being most common among those who strongly agreed that they wanted more information and those who were ambivalent about having more information.

The extent to which the individual feels able to influence decisions that affect the local area was also associated with low levels of things being rated as worthwhile, when controlling for other factors. Those who neither agreed nor disagreed with the statement, and those who strongly disagreed, were both more likely to report low levels of things in life being worthwhile.

Figure 8.12 High and low life satisfaction by quality of local authority services



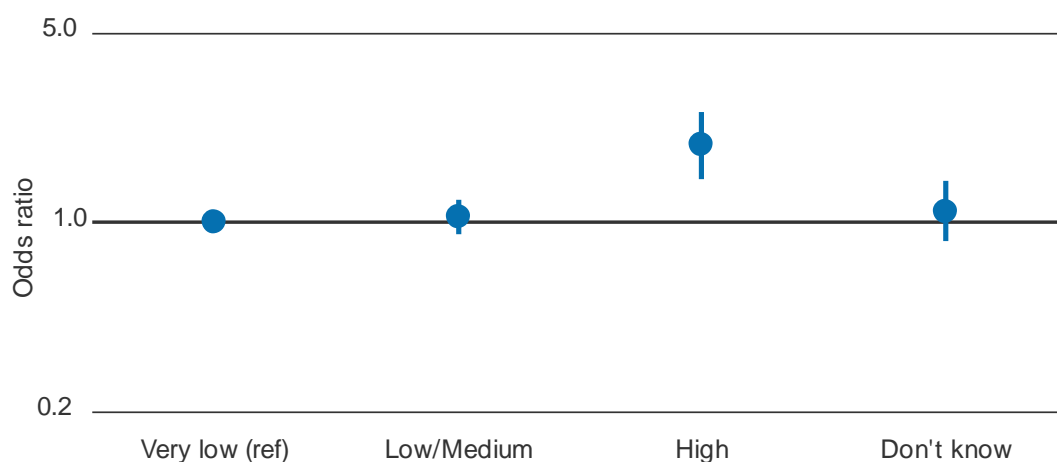
The mixed picture with wellbeing suggests that these indicators may capture two distinct types of people – those who are highly engaged and want more information and are willing and feel able to influence matters – and those who are dissatisfied with their local authority and feel both uninformed and not empowered.

Satisfaction with Government and wellbeing in the National Survey data

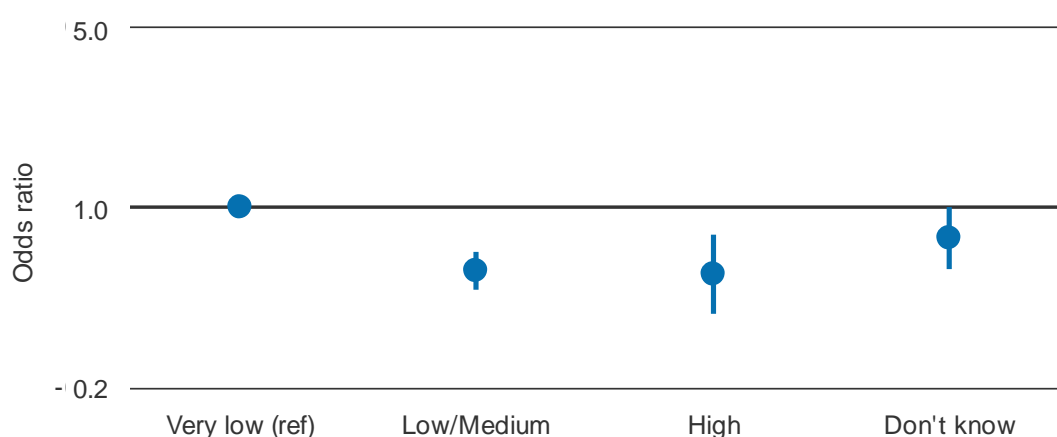
The National Survey asks respondents both about the extent to which they have heard and seen mention of the work of the Welsh Government in the past year. In the unadjusted analysis, this was significantly associated with most of the wellbeing measures but these associations did not remain when other factors were controlled for.

Satisfaction with how the Welsh Government is doing its job was associated with both high and low life satisfaction, and with low levels of actions being worthwhile and low levels of happiness, when controlling for other factors. Those who reported high levels of satisfaction with the work of the Welsh Government were also most likely to report high life satisfaction, while those with low to medium or high satisfaction with the Welsh Government were less likely to report low life satisfaction (compared with those with very low satisfaction with the Welsh Government).

Figure 8.13 Odds ratios for high life satisfaction by satisfaction with Welsh Government, after controlling for other factors



Odds ratios for low life satisfaction by satisfaction with the Welsh Government, after controlling for other factors



As with life satisfaction, satisfaction with how the Welsh Government is doing its job was also associated with both high and low levels of things in life being worthwhile. People who were highly satisfied with the Welsh Government were significantly more likely to feel that things in their life were highly worthwhile. Also, compared with people with very low satisfaction with the Welsh Government, those who were more satisfied were significantly less likely to report low levels of things being worthwhile.

Finally, when controlling for other factors, those with low to medium or high satisfaction with the Welsh Government were less likely to report low happiness (compared with those with very low satisfaction with the Welsh Government).

What does this mean?

Overall satisfaction with the work of the Welsh Government is associated with wellbeing, although to some extent the similarity of these measures (for example that both the wellbeing measures and the satisfaction with Welsh Government are rated on a scale of 0-10) means it is difficult to infer the direction of the effect. A respondent's rating of their satisfaction with the Welsh Government may reflect either their objective experience and evaluation of the Welsh Government's performance, or a general disposition to view things positively, or both.

Although some of the general local authority indicators, including perceived quality of services, were linked to differences in wellbeing this may not be very informative for policy makers. For more specific policy implications it may be more useful to review the more specific aspects of life and location, such as perceived safety in the local area and on transport, and community cohesion.

8.8 Implications for Local Authorities, planning, transport and regeneration policy

The analysis did not find that access to green or blue space was associated with wellbeing when other factors, including area deprivation and personal circumstances, were taken into account. This finding is broadly in line with previous research which has failed to identify what it is about rural living that might be beneficial for wellbeing.

Instead, local social cohesion and subjective and objective measures of safety in the area emerged as important predictors of wellbeing. Furthermore, the social area factors, such as sense of belonging and perceptions of local people, are associated with assessments of the safety in the local area. This suggests that local authorities and other local decision-makers concerned with improving wellbeing among local residents may need to consider both local safety and social relationships locally together. Attempts to improve wellbeing by encouraging the social engagement of residents may not work if safety concerns remain unaddressed.

9. Priorities for future research and policy

Key findings

- The National Survey is a powerful resource for policy design that seeks to integrate wellbeing.
- Not everyone has only high, medium or low wellbeing. Some people have mixed wellbeing.



Priorities for research

- Ensure key predictors of wellbeing that have been identified in the literature, such as life events and material deprivation, are covered in future waves of the National Survey.
- Gather the necessary permissions from respondents to link survey responses to administrative data, such as health or benefits records.
- Following up survey respondents can either provide longitudinal survey data that allows for some unpacking of cause and affect, or in depth qualitative exploration.
- In analysis, different waves of National Survey data can be combined. This means that low prevalence groups can be examined more robustly.
- Particularly when comparing wellbeing in men and women, avoid using only average wellbeing as this may mask distinct patterns.

Priorities for policy

- An assets-based approach to policy formation involves engaging members of the community in prioritising and developing policy objectives. The results of this report can be used as a starting point in open discussions.
- Some policy objectives (such as meeting basic needs) are key for lifting people out of the lowest wellbeing, while others (such as supporting community cohesion) have more relevance for helping people to flourish.
- Feeling unsafe is strongly associated with low wellbeing. Work with communities and neighbourhoods must identify what changes would help people feel safer in their local areas.
- Patients and service users with higher wellbeing cite satisfaction with services that have accessible information and good communication.

9.1 Wellbeing in Wales: priorities and opportunities for policy

Addressing high and low wellbeing

Policies designed to improve national wellbeing may focus on:

- People who are struggling, to lift them out of low wellbeing
- Supporting people with moderate wellbeing to flourish.

Alternatively the policy objective may be to shift the whole wellbeing curve upwards.

While there are many commonalities, the factors that have emerged in this report as key predictors of low wellbeing are not entirely the same as those that predict high wellbeing. This makes sense. While we might expect a large proportion of people with a limiting and painful health condition to have a low level of wellbeing, we would not necessarily expect a large proportion of people without a limiting and painful health condition to be flourishing.

Maslow's classic hierarchy of needs⁸⁴ provides a useful theoretical model. Even moderate levels of wellbeing will be difficult to achieve unless basic needs are met. These include health, ability to function, feeling safe, occupied and able to afford warmth, food and shelter. To address those in the long tail of low wellbeing, basic needs – the bottom levels of Maslow's hierarchy of needs – must be tackled. The policy implications of such an objective might include:

- Strategies for income maximization through encouraging benefit take-up
- Debt reduction through training in financial management skills
- Return to work support, and
- Supported management of long term health conditions.

Further up Maslow's hierarchy are needs relating to respect and wider social engagement. To focus on the majority of people, who have 'typical' or 'moderate' levels of wellbeing, and to aim to lift them into the flourishing group, policies may include:

- Neighbourhood-based activities focused on fostering social cohesion
- Ensuring people are well informed about local services
- Developing opportunities for people to engage with local administrations and service providers.

While different factors have emerged in terms of what predicts hedonic, eudemonic, and evaluative wellbeing, a clear pattern in this has not been evident. Perhaps a more important finding for policy has been that not everyone neatly fits on a scale from low to

⁸⁴ <http://psychclassics.yorku.ca/Maslow/motivation.htm>

high wellbeing, but that some people's wellbeing profile consists of a mix of high and low personal wellbeing. This was particularly the case for younger women living in deprived neighbourhoods. For this group, their high levels of anxiety may well have been related to the stress of where they lived and the fact that they were likely to feel unsafe.

9.2 Wellbeing in Wales: priorities and opportunities for research

Topic coverage

There are a range of topics which, if included on the National Survey or on another data collection vehicle alongside information about wellbeing, would enable more complete analysis. These topics include:

- A validated, multidimensional measure of personal wellbeing such as the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS).
- More information that allows the household's financial situation to be understood. This could include whether the respondent's partner is in paid work, and if the partner is not working, their reason for not working; information on household income, or proxy indicators of low income households (e.g. whether eligible for any of named means-tested benefits); and selected material deprivation items, including child-specific and pensioner items.
- Separate, but related to, low income is the important issue of debt. Debt has been found to be a stronger driver of anxiety than low income. It may also be informative to understand why some people who experience financial difficulties such as problem debt or credit arrears have not sought advice and support from relevant services.
- Housing conditions and aspects of fuel poverty, such as whether or not the respondent can afford to keep the home warm in the winter months.
- Whether the respondent provides care for someone who is ill, disabled or frail due to old age.
- Life events, such as bereavement, harassment and assault have very strong links with wellbeing, and it would be useful to be able to control for these.
- The quality of partner relationship is also key, in particular any experience of intimate partner violence.

Combining survey waves

By retaining much of the existing survey content in future waves of the National Survey, not only can trends be drawn out but also samples from the different survey waves can be combined. The large combined sample would enable low prevalence groups in the population - such as minority ethnic groups or people who are lesbian, gay or bisexual – to be analysed more robustly.

Data linkage

Given the importance of health and experience of health services to wellbeing, requesting permission from respondents to link their survey answers to Hospital Episode Statistics, Cancer Register and mortality data would increase the value of the survey data greatly.

Linking to economic data, such as information on benefit receipt or income tax, may be harder to achieve but would improve the socio-economic analysis greatly. Linking to administrative data also has the added benefit of introducing a longitudinal element to the study.

Follow-up studies

This can also be achieved by following up respondents with a second interview. With longitudinal data there is more scope for disentangling the causal direction of relationships.

Small groups can also be followed up for in-depth qualitative research. For example, exploratory interviews could be held with people with a 'Worthwhile-Anxious' wellbeing profile, or people with unexpectedly high levels of wellbeing (for example, those with very poor health but high personal wellbeing).

Further analysis

This report has separately addressed the predictors of high and low wellbeing (compared with moderate) for each of the four core personal wellbeing items. While this approach has highlighted key issues for the tailoring of policy, it is an approach that has generated a very large number of results. Using a single measure of personal wellbeing, such as the SWEMWBS, would simplify the process of interpretation greatly.

Of the four main personal wellbeing items used on the National Survey, life satisfaction is the indicator related to the largest number of other indicators. If one measure of wellbeing was to be selected to function as a summary measure, life satisfaction would be a key candidate.

Looking separately at high and low wellbeing, however, has highlighted that given women are more likely to be at both extremes looking only at average wellbeing is likely to mask this more complex pattern.

This report presented what the authors believe to be the first latent class analysis approach to national population data on wellbeing. This segmentation approach brought to light a key group in the population who have not received much focus: those with high eudemonic but low hedonic wellbeing. It will be important to attempt to replicate this analysis with another dataset, for example with the next wave of the National Survey.