

Developing an index of children's subjective **well-being in England**

by Gwyther Rees, Haridhan Goswami and Jonathan Bradshaw



1. Introduction

This is the second in a series of reports from The Children's Society's programme of research on children's well-being, being undertaken in collaboration with University of York.

The programme aims to:

- **Develop a better understanding of the concept of well-being as it relates to young people, taking full account of the perspectives of young people themselves.**
- **Establish self-report measures of young people's well-being and use these to identify the reasons for variations in well-being and to monitor changes in well-being over time.**

The research programme consists of cycles of research involving consultation with young people, development and refinement of survey questions, survey administration and analysis. So far two waves of survey

work have been undertaken in 2005 and 2008. A third wave will be undertaken in late 2010. This paper focuses on the development of a short index of children's well-being that can be used to monitor the well-being of children over time and also has potential to explore differences in well-being amongst sub-groups of children and young people.

The paper is divided into three sections.

- **This introductory section sets the context for the development of the index.**
- **The middle section of the paper presents a proposal for a new index of child well-being based on analysis from two surveys undertaken in 2008 and 2010.**
- **The final section of the paper discusses the potential future uses of this short index and areas for future research and development.**



Well-being: What is it and why does it matter?

What is well-being?

Use of the term 'well-being' is becoming increasingly common in many areas of life. It regularly appears in government documents, charity mission statements, research studies, and commercial advertising campaigns. In common with other such widely used terms, 'well-being' has no agreed definition or meaning. Even if we focus on a narrower field, such as academic research, it is apparent that 'well-being' has been used in a diversity of ways¹.

For the purposes of this report we use the term 'well-being' in a broad sense to refer to the quality of people's lives. Viewed in this way, well-being can be measured in many ways. Two of the most common are through the use of available social indicators such as income, poverty, infant mortality rates and educational attainment and through the use of measures of subjective well-being – what people say about their lives. This report is concerned specifically with the latter. In particular we focus on young people's reports of their own subjective well-being – i.e. their assessments of satisfaction with life as a whole and with particular aspects of their lives.

Why does subjective well-being matter?

Subjective well-being is an important concept for a number of reasons.

First, it can be argued that the subjective well-being of the population, and of specific sub-groups and individuals within it, should be a fundamental concern for any society. There is a great deal of evidence of a limited link between economic prosperity and well-being. Certainly, average well-being tends to be lower in very poor countries. However, above a certain level of national prosperity, increases in wealth do not appear to be matched by increasing subjective well-

being.² Yet, there are substantial variations in average subjective well-being between nations.³ There is a need to understand why this is.

Second, the study of subjective well-being can be useful in illuminating the aspects and factors that are most important in people's lives. Earlier reports from the current research programme have highlighted the importance of family relationships and of a sense of autonomy to the lives of children and young people.⁴ Further examples of the potential of this are provided later in this report.

Third, there is evidence that low subjective well-being can be a

precursor to other issues and problems in people's lives such as poor mental health, for example.⁵

It has been argued by some that subjective well-being is not something that can be influenced by changes in policy.⁶ However if we can develop an understanding of the factors that cause subjective well-being to vary between nations; of the factors which are typically most important to individuals in terms of contributing to their overall subjective well-being; and of the extent and ways in which low subjective well-being can lead to further negative outcomes then we will surely be able to identify messages for policies that can be used to enhance people's lives.



Children's well-being: What do we know and what don't we know?

The last two decades have seen a substantial increase in the range of indicator-based information that is available on child well-being. In the UK there is a great deal of statistical evidence on topics like child poverty, child obesity, infant mortality, and so on. For some of these indicators there have been improvements over recent years, whereas other indicators have worsened. Overall, in a collection of 25 indicators in the UK, monitored through the annual *Opportunity For All* reports⁷, 15 indicators have shown an improvement and only four have shown a decline.

We still know much less about children's subjective well-being and about how this varies between groups and over time.

First, there is no completely satisfactory source of trend information. While several long-term studies have asked children questions about their subjective well-being (see further discussion below), there are limitations to each of these studies.

Second, we still need to learn more about the specific meaning of well-being for children and young people. As reviewed in an earlier report in this series (Rees et al, 2010) definitions and measures of child well-being have tended to be based on those developed for adults, and there has been a shortage of work that has gathered children's views on these issues.

Children's subjective reports can provide an important supplement to indicator-based information, particularly because for some areas, such as quality of family relationships, it is quite difficult to identify and gather satisfactory indicators through other means.

There are several existing ongoing studies that, to some extent, measure children's subjective well-being. Two government-funded

studies – the British Household Panel Survey (BHPS) and the Families and Children Study (FACS) – have regularly asked young people questions about their subjective well-being. The international Health Behaviour of School-Aged Children survey (HBSC), conducted every four years in various countries including England, also asks some questions about subjective well-being. None of these surveys necessarily covers all the key domains of children's lives, but all have yielded some interesting findings, which provide indications of the potential value of monitoring children's subjective well-being over time. Of these three surveys, the BHPS covers the longest time period and has been conducted most frequently and regularly.

Since 1994 the BHPS has included a questionnaire for young people aged 11 to 15 living in panel households. Over the last decade the survey has covered in the region of 1,200 to 1,400 young people each year. In terms of subjective well-being the survey questionnaire asks young people how they feel about their life as a whole and about a number of particular aspects of their lives – family, friends, appearance, school work and (since 2002) school. Recent analysis⁸ of time trends in this data set indicates that there have been significant increases in well-being in the friends and school work domains in the period covered by this survey, and also in an overall index of subjective well-being made up of the domains listed above.

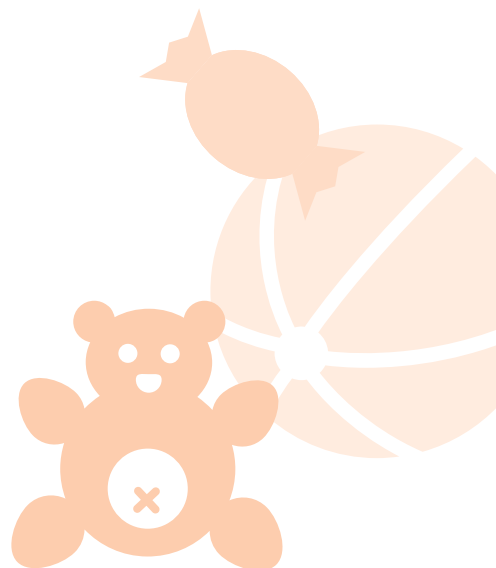
The BHPS data provides some valuable insights into what may have been going on for the well-being of children in the UK over a 15 year period. The evidence suggests a small but significant increase in well-being over this period – particularly during the 2000s. There is much more that can be done with the BHPS data

on subjective well-being, as it is possible to link this information with other data about young people and the families that they live in. However, as noted above, there are also limitations to this and other existing data sets in relation to children's subjective well-being. For example, the BHPS items are all measured on a seven point scale – research suggests that, particularly for subjective well-being where most people score themselves above the mid-point of the scale, longer scales such as an 11-point scale are preferable⁹. In addition, the number of domains in the BHPS (and the other surveys identified earlier) is limited and may not encapsulate the full set of domains that are important for children's well-being.¹⁰

In this paper we describe a proposed new short index of children's subjective well-being, which builds on and extends the type of approach used in the BHPS.

The proposed new index consists of:

- **A multi-item measure of overall life satisfaction**
- **Single-item measures of well-being in ten domains.**



2. A new short index of children's subjective well-being

Principles and aims

Principles

As reviewed in the previous section there is currently no entirely satisfactory index of children's subjective well-being in England. This constitutes a major evidence gap. In general, people's own perspectives of the quality of their lives can play an important part in building up a picture of the well-being of the population. They can complement information gathered through social indicators and are also able to tap into aspects of life, such as the quality of relationships, which are very difficult to measure using a social indicator based approach.

This holds true just as much for children and young people as for adults. In fact, given their relatively powerless status within society, it is arguably even more important that we gather children's own perspectives on

their lives. Section 12 of the United Nations Convention on the Rights of the Child emphasises the importance of consulting young people and giving them a voice. Asking children and young people to assess the quality of their lives is one means of doing this.

Of course it is vital also that young people perceive the questions asked of them as being relevant and important. One of the key principles underpinning the current research programme is therefore to consult with young people about the development of the well-being index. We began this process in 2005 with a set of questions that we included in a survey of a representative sample of 11,000 young people in England¹¹ and this formed an important starting point for the development of the index.¹² The Children's Society continued to

consult with children and young people about well-being through *The Good Childhood® Inquiry*, which involved a further 10,000 children.¹³ For this research we are currently undertaking another cycle of consultation focusing on younger children and groups such as disabled children who are often marginalised.¹⁴

Aims

Given the above context, the aim of this component of the programme is to develop an index of well-being, which:

- covers the main aspects of children's lives, including those identified by children themselves
- is statistically robust
- is brief enough for use in a variety of contexts.

We plan to use this short index to regularly monitor the well-being of children and young people in England. We also anticipate that it may be of interest to others – for example, in gaining an overview of children's well-being within a specific population such as a local area or a school, which can then also be compared with population averages.

The short index we present in this paper is suitable for these purposes. We do not know at this stage to what extent it may also be suitable to use as an individual change measure – for example in evaluations of interventions. In the final section of this paper we describe our progress in developing and validating a more detailed set of measures that may be suitable for these purposes.



Details of the surveys

The development of the index has made use of data gathered from three successive waves of research.

The first wave survey in 2005 asked young people open-ended questions about what contributed to, and what hindered, their well-being. Over 8,000 young people contributed their views through this survey. The survey methods and key findings are described in an earlier report.¹⁵ We have continued to make use of key themes identified through this work in the development of the index, as outlined later in this section.

The second wave survey in 2008 covered a sample of almost 7,000 young people aged 10 to 15. The survey questionnaires contained a series of questions about well-being, both overall and in particular domains. Of relevance to the current paper, this included three measures of

overall well-being and a set of 21 single-item measures of well-being in particular aspects of life. Most of these measures worked well. In particular, Huebner's Life Satisfaction Scale was found to be a reliable and stable measure of overall well-being; and a number of the 21 single-item domain measures appeared to make important contributions to explaining overall well-being. In our first report on the 2008 survey we published analysis of a set of nine such items that explained over half of the variation in overall well-being. We therefore felt that there was value in further exploring the potential of developing a short index of this kind.

In order to do this, we commissioned an additional survey¹⁶ of a representative sample of 2,000 children aged 8 to 15 in July 2010. The questionnaire consisted of 25 questions. These included two

measures of overall well-being (one five-item measure and one single-item measure) and 19 questions about well-being in specific domains. Sixteen of these latter items were taken from the 21 similar items in the 2008 survey (five items were dropped either because of concerns about wording, high correlations with other items or low explanatory power). Three additional items were added to the list for exploratory purposes. Details of the measures used are provided along with the presentation of statistics later in this section. In addition, the age and gender of young people was collected.

The intention of the survey was to validate a measure of overall well-being and a short list of domain measures. The next two sub-sections present basic findings on these two aspects.



Measuring overall subjective well-being

Our earlier report on the 2008 survey provides details of three measures of overall subjective well-being employed in that survey.

Of these three measures, we found that one – Huebner’s Student Life Satisfaction Scale – had the highest level of stability when young people were asked the questions twice within the space of just over two weeks. The scale also had a good level of reliability and factor analysis suggested that it measured a single underlying construct. It has also been validated in research in other countries.¹⁷

Additionally (as outlined in the above report) we found that there were benefits to removing two of the seven items without substantially affecting the reliability and stability of the scale. We therefore arrived at a five-item measure of overall well-being what consists of the following statements:

- ‘My life is going well’
- ‘My life is just right’
- ‘I wish I had a different kind of life’
- ‘I have a good life’
- ‘I have what I want in life’

Young people are asked to indicate how much they agree or disagree with each statement on a five point scale from ‘Strongly agree’ to ‘Strongly disagree’. The scale therefore produces a total life satisfaction score in the range from 0 to 20.

We utilised the scale as described above again in the 2010 test survey. The distribution of scores on the scale is shown in Figure 1. The pattern of scores is very similar to that from the 2008 survey and also typical of overall well-being scores in general with a peak approximately three-quarters of the way along the scale.¹⁸ The mean score for the whole sample was 14.2. In this survey nine percent of young people scored below the mid-

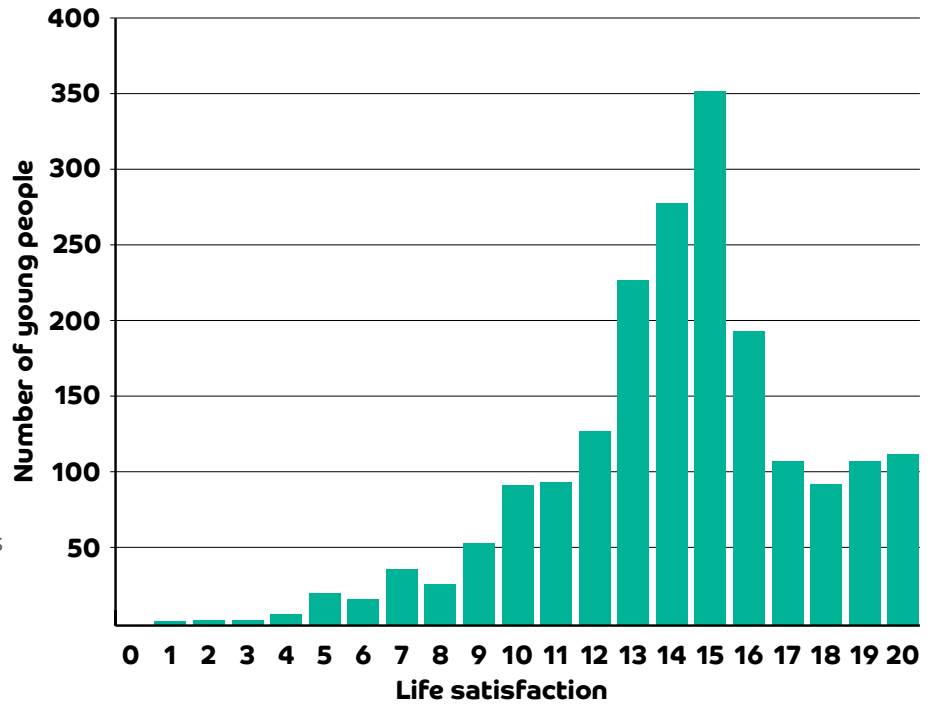


Figure 1: Overall scores for Life Satisfaction Scale (derived from Huebner)

point of the scale and could be said to be relatively dissatisfied with their lives.

We again found that the scale had a good level of reliability.¹⁹ We can also report good reliability²⁰ for each of the following sub-groups – males, females, children aged 8 to 11, young people aged 12 to 15.

The scale also yielded a very high level of response. For each of the five statements individually, less than 1.5% of young people selected the ‘Don’t know’ option; and overall there were complete responses to all five statements for just under 98% of the sample.

In addition to the above measure, we also included a single-item measure of happiness with life as a whole – measured on a scale from 0 to 10 where 0 represented ‘Very unhappy’ and 10 represented ‘Very happy’. Again results were very similar to those from the 2008 survey. Most young people were happy with their lives and in this sample only 4% scored below the mid-point and could be described as unhappy. The mean score for the whole sample was

7.8. Our earlier research showed that this measure is not as stable as the multi-item measure above. We have retained it in the new survey partly because there are indications that it may tap into a slightly different aspect of well-being²¹ than the life satisfaction scale – see later.

Gender and age differences in overall well-being

We were able to explore gender and age-related patterns in overall well-being.

First in terms of gender:

- **There were no significant²² gender differences in relation to life satisfaction using the modified Huebner scale.**
- **Females were slightly less²³ happy with life as a whole, with the mean score for females and males being 7.73 and 7.88 respectively.**

It is interesting to note that these gender differences are not consistent across countries. For example a recent study of a

sample of young people aged 12 to 20 in Australia reported higher well-being overall and for specific domains for females than males.²⁴

However in terms of age there were some stronger patterns with a significant²⁵ downward trend in overall well-being with age. These are illustrated for life satisfaction in Figure 2.

- The mean life satisfaction score for eight-year-olds was 15.3 and for 15-year-olds it was 13.2.
- Similarly the mean happiness score (not shown) dropped from 8.4 to 7.3 over the age range.

These findings are in line with our previous report and other research.²⁶

The effect of age is not that substantial – explaining around 4% of the variation in overall well-being on either of the measures used. However, looking at young people with low well-being scores there were substantial increases over the age range:

- Fewer than 3% of children aged 8 to 9 were unhappy with their lives (score of less than 5 out of 10) compared to over 6% of young people aged 14 to 15.
- 4% of children aged 8 to 9 had low life satisfaction (score of less than 10 out of 20) compared to 14% of young people aged 14 to 15.

So unhappiness more than doubled and low life satisfaction more than trebled across this age range.

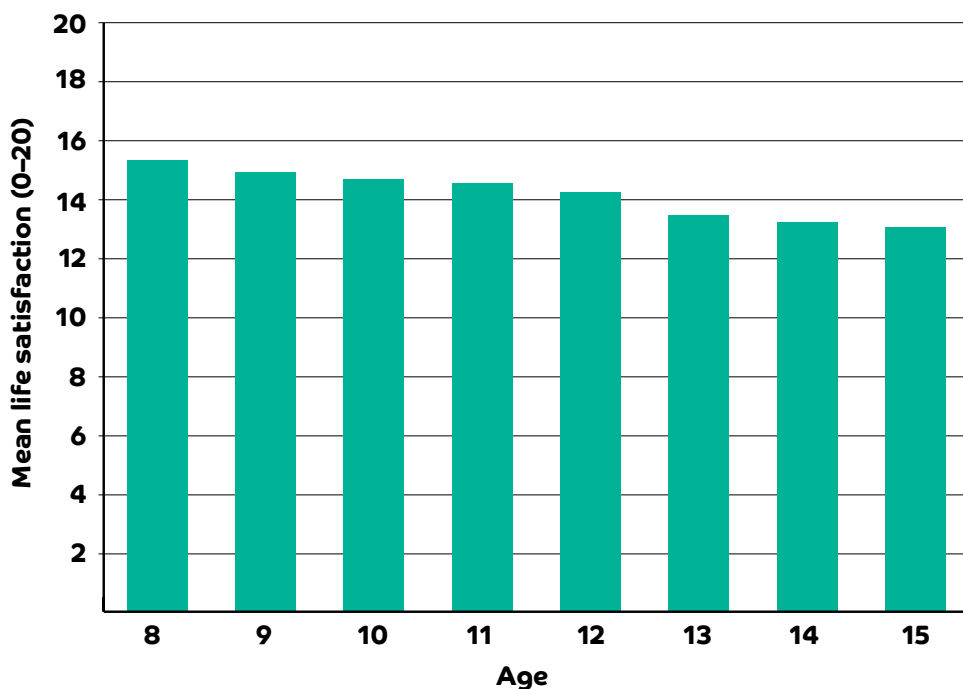


Figure 2: Age patterns in overall well-being

Variations in overall well-being according to other characteristics

We were not able to gather information about other socio-demographic characteristics in the current survey. However we have published some analysis of this issue based on the 2008 survey.

The key findings are:

- Some factors – being disabled, having difficulties with learning, living in a lone parent family and in a household where no adults had a paid job – were significantly associated with well-being, but in no case were these associations particularly strong.

- A number of other factors – including ethnicity, religious affiliation, number of siblings and country of birth – did not appear to be associated with levels of well-being to any significant extent.

- Overall the combined influence of all socio-demographic factors only explained around 7% of the total variation in well-being and by far the largest influence was the age of the young person.

These findings are consistent with previous research, which has tended to find that socio-demographic factors only account for a small proportion of the variation in subjective well-being.



Domains of well-being

Subjective well-being can be thought of both in terms of life as a whole (as above) and in relation to particular aspects or domains of life – such as satisfaction with personal relationships. The idea is that people make judgements of their satisfaction with various aspects of their lives, and then that their overall well-being consists of a summary of these judgements. Taking this view we can explore the extent to which well-being in particular domains contributes to a person’s sense of overall well-being and this can indicate aspects of people’s lives that are more or less important for their well-being.²⁷

There have been many attempts to define a set of these domains. We reviewed two examples in relation to young people in a previous report.²⁸ In that report we also described a set of domains derived from our consultation with young people in 2005 that appeared to work well in that together they explained over half of the variation in overall well-being.

Our new survey enabled us to explore this idea further. We present here our findings in relation to 12 questions on different aspects of young people’s lives.²⁹ These aspects were derived from our consultation with young people and from previous research literature. For each aspect young people were asked to rate their happiness³⁰ on a 0 to 10 scale where 0 indicated ‘Very unhappy’ and 10 indicated ‘Very happy’.

The wording of the twelve items is shown in Table 1 along with a short term that we will use for brevity to refer to each of the questions. It can be seen that the questions cover a range of aspects of young people’s lives including aspects relating to the ‘self’ (e.g. appearance, health), ‘relationships’ (e.g. family, friends) and ‘environments’ (e.g. home, local area). There are also some cross-cutting concepts – freedom

and safety. This set of domains is based on our analysis of young people’s ideas about well-being³¹ but also includes some additional items (e.g. appearance) which have emerged through the ongoing work as being conceptually and/or statistically important to the understanding of children’s well-being. Some of these items are taken from lists proposed by Cummins³² and Casas³³ and some have been developed and tested through this research programme.

To begin with, Table 2 shows mean scores and the percentage of young people who were unhappy (score of less than five out of 10) for each question. The domains are shown in descending order of average happiness based on the mean score:

- **Young people were happiest in relation to relationships with their family and friends, their health and their safety, the home that they lived in and the**

Brief term	How happy are you...
Health	... with your health?
Appearance	... with your appearance (the way that you look)?
Time use	... with the way you use your time?
The future	... about what may happen to you later in your life?
Family	... with your family?
Friends	... with your friends?
Home	... about the home you live in?
Money and possessions	... about the things you have (like money and the things you own)?
School	... about the school, in general?
Local area	... with your local area?
Choice	... about the amount of choice you have in life?
Safety	... about how safe you feel?

Table 1: 12 aspects of young people’s well-being

Happiness with...	Mean score	% unhappy
Family	8.5	4%
Health	8.2	5%
Friends	8.1	4%
Home	8.0	6%
Safety	7.9	5%
Time use	7.4	6%
Money and possessions	7.3	10%
School	7.0	14%
Local area	7.0	13%
Appearance	7.0	13%
Choice	6.9	13%
The future	6.8	10%

Table 2: 12 aspects of young people’s well-being

way they used their time. For all these domains only around 4% to 6% of young people could be said to be 'unhappy'.

- There were some areas where young people tended to be less happy, and in particular there were four areas – school, local area, appearance and the amount of choice – where more than one in eight young people scored less than five out of 10 and could be described as unhappy.

These patterns are very similar to those identified in our 2008 survey.

Age and gender variations in different domains

As with overall well-being it is possible to explore variations in well-being in particular domains according to the age and gender of the young person. Statistical analysis³⁴ indicates that:

- The gender differences in relation to appearance and time use are significant. Females are less happy than males in these two areas. In particular, twice as many females (17%) as males (8%) were unhappy with their appearance. This is consistent with previous research.³⁵
- However, females were significantly more happy with school than males although the percentages that were unhappy (13% and 14%) are not that different.

The percentages of females and males being unhappy in each of the 12 domains is shown in Figure 2.

Figure 4 shows similar statistics according to age. For ease of presentation we have divided the age group surveyed into two and have referred to the younger age group (8 to 11) as 'primary'³⁶ and the older age group (12 to 15) as 'secondary'.

As can be seen, in most domains, the younger age group were happier than the older age group

although there was no difference for 'home' and 'friends'.

We conducted statistical analysis³⁷ using exact ages (rather than two age groups). This analysis indicates that there is a significant downward age-related trend in mean happiness scores for all 12 domains. It would appear that in all these areas of life young

people become less happy as they get older. However as Figure 4 shows the age effect is stronger in some areas than others. The link between age and well-being is:

- Strongest in relation to 'school' and 'appearance'³⁸
- Weakest in relation to 'home' and 'friends'³⁹

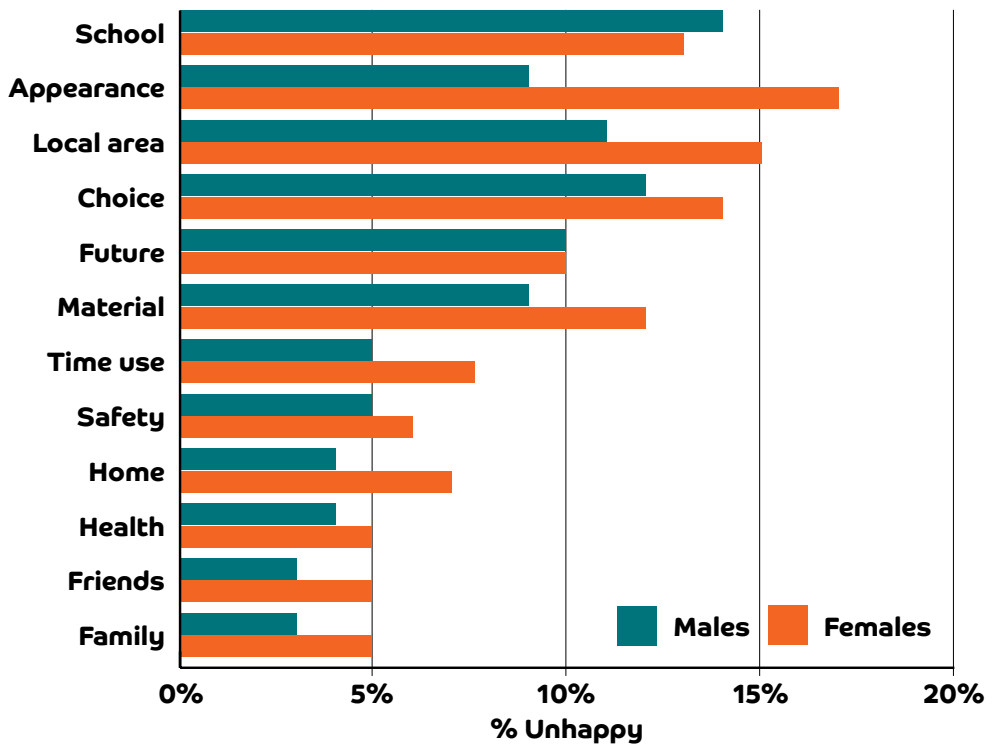


Figure 3: Well-being in different domains by gender

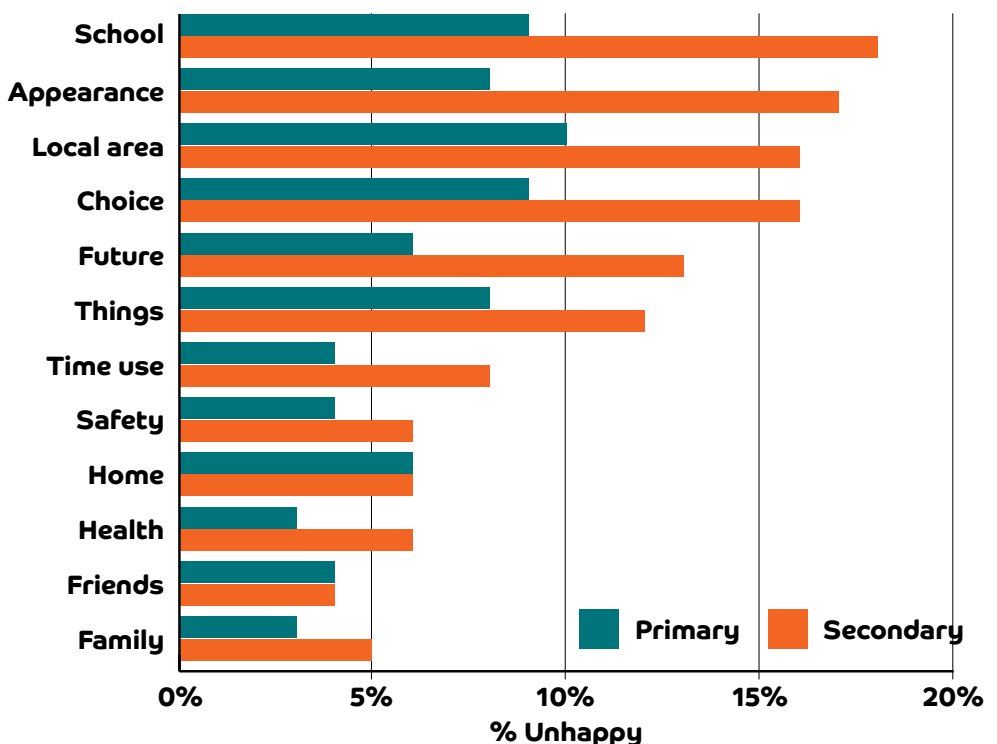


Figure 4: Well-being in different domains by age group

The structure of well-being: Which domains are most important?

In the above sections we have provided a basic description of the measures used, summary statistics and variations according to age and gender.

In this section we go on to explore the extent to which the different domains are associated with overall well-being. As an initial step Table 3 shows the correlation⁴⁰ of each domain with our two measures of overall subjective well-being. The domains are shown in order of strength of association with life satisfaction. As can be seen from comparing the figures in the second and third columns the pattern is broadly similar for the two measures but there are some differences. Most notably, happiness with friends and with family is more strongly associated with happiness with life as a whole than it is with life satisfaction.

This type of analysis is useful up to a point, but it is not completely satisfactory in terms of understanding the relative importance of different domains because there are also statistical relationships of varying strengths between the domains.

In order to look at this issue we used regression analysis to explore the relative influence of the different domains on overall well-being.

Table 4 shows the results of the regression analysis:

- In this table the second column provides an indication of the influence of each domain on overall well-being while holding the other domains constant. A larger 'beta' score shows a greater influence. The domains have been ranked in descending

order of influence. Family, choice and money/possessions made the largest contribution to explaining variation in overall well-being.

- The third column shows the extent to which each domain makes a significant contribution to the overall model. Nine of the 12 domains made a significant contribution at the 99% confidence level. Three domains – local area, friends and safety – did not.
- Overall the domains explained over half (52%) of the variation in overall well-being. Further analysis (not shown) indicated that six domains – choice, family, appearance, money/possessions, time use and health explained just over half (50.4%) of the variation.

How happy are you...	Life satisfaction	Happiness with life
Choice	.586	.582
Money and possessions	.546	.521
Family	.544	.596
Time use	.517	.537
Appearance	.501	.516
Home	.478	.496
The future	.476	.482
School	.463	.464
Safety	.450	.462
Health	.444	.475
Local area	.420	.414
Friends	.413	.469

Table 3: Correlations⁴² of domains with two overall well-being measures

	Beta	Sig
Family	.178	.000
Choice	.163	.000
Money and possessions	.139	.000
Health	.091	.000
Time use	.086	.000
The future	.081	.000
Appearance	.078	.000
School	.074	.000
Home	.055	.000
Local area	.031	.118
Friends	.024	.221
Safety	.012	.573

Adjusted R² = .516

Table 4: Regression analysis: Individual domains and life satisfaction



	Beta	Sig
Family	.240	.000
Choice	.144	.000
Health	.109	.000
Time use	.095	.000
Friends	.086	.000
Appearance	.084	.000
The future	.079	.000
Money and possessions	.070	.001
Home	.064	.001
School	.056	.003
Safety	.026	.182
Local area	.001	.960

Adjusted R² = .556

Table 5: Regression analysis: Individual domains and happiness with life as a whole

We also used the same method with happiness with life as a whole as a dependent variable (Table 5). Here the domains explained a slightly higher proportion (56%) of overall well-being. The relative influence of different domains was similar – family, choice and health were the three most important domains and these three domains alone explained just over half of the variation in overall well-being. For happiness with life as a whole, unlike life satisfaction, the friends domain also made a significant contribution to the model.

In summary, based on the regressions with life satisfaction

and with happiness with life as a whole, it would appear that ten of the 12 domains (i.e. those listed above excluding local area and safety) appear particularly important components of children's and young people's well-being. As described below we therefore focus our initial proposed index on these ten domains. However we also believe it is worth monitoring children's well-being in relation to the domains of local area and safety. Issues to do with local area emerged as a key concern for young people in our survey consultation in 2005. Issues of safety are a key public concern in relation to children's well-being.

Summing up: Proposed short index of children's well-being

The main aim of this part of the research programme is to develop a short index of children's well-being in England that is meaningful and relevant, statistically robust and brief enough to administer in a range of contexts.

Based on the findings presented above, we make the following proposals for such an index.

1. Overall well-being

We have tested the use of Huebner's Student Life Satisfaction Scale – originally developed and validated in the US – in two surveys. We have also discussed the items in the scale with children and young people. Our results suggest that the scale is a reliable and stable measure of life satisfaction and is suitable for general use with children and young people aged 8 to 15 years of age in England.

We have found that it is possible to reduce the scale from seven to five items without any substantial loss of reliability. We therefore

propose use of the five-item version of the scale as the measure of overall well-being in our index (see earlier in the paper for a listing of these five items).

2. Well-being domains

Through three waves of the survey we have attempted to identify a set of well-being domains that cover all aspects of young people's lives. The development of this list has been guided by three different considerations – consultation with young people, literature on well-being and statistical analysis.

Based on this work we propose the following list of ten items (not ranked in order of importance):

1. Family
2. Friends
3. Health
4. Appearance
5. Time use
6. The future
7. Home
8. Money and possessions
9. School
10. Amount of choice

Young people are asked to rate their happiness with each of these aspects on a scale from zero to ten. Hence it is possible to use this set of items to calculate an overall well-being score from zero to 100. The results of this for the current sample are shown in Figure 5.

The chart does not show values below 26, as this was the minimum score for any young person in the current survey.

Some statistical properties of this index are as follows:

- The mean score on the scale was around 75, which is typical for indexes of this kind.
- Factor analysis suggests that the scale captures a single concept.⁴³
- The scale has good reliability⁴⁴ and stability.⁴⁵
- Pearson correlations of the index with life satisfaction and happiness with life as a whole were both above 0.70.

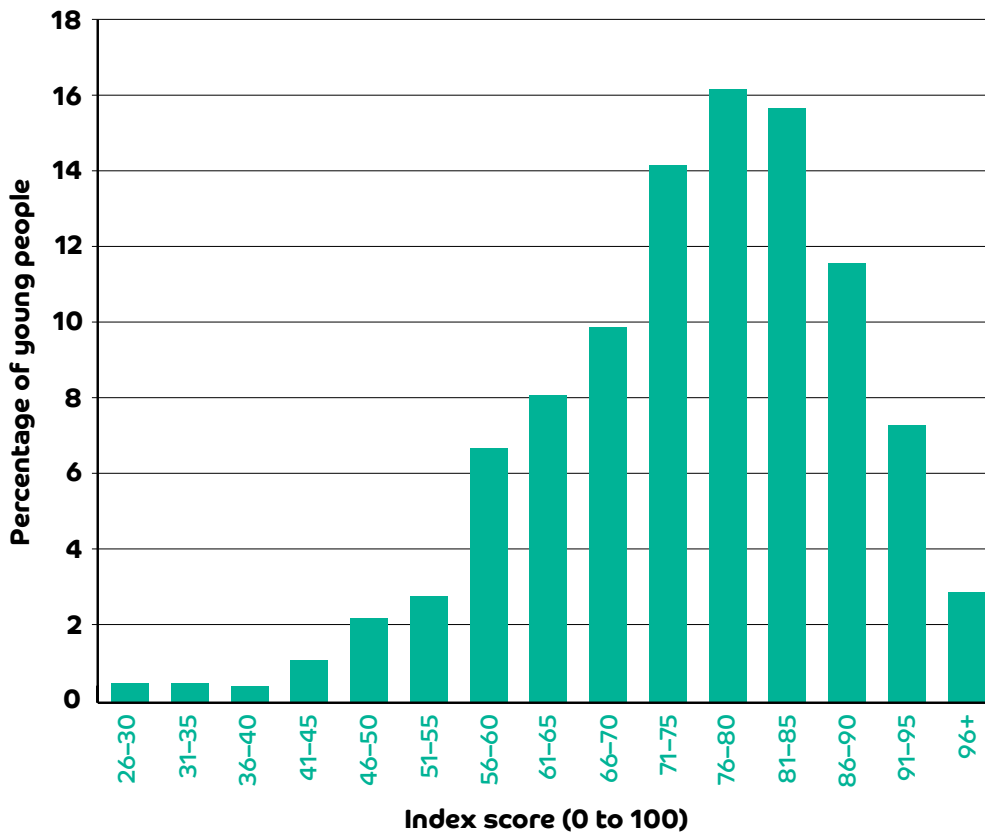


Figure 5: Ten domain index of well-being

Given these properties it is possible to use the index as an alternative measure of overall well-being. However we envisage the main use of the set of domains as being to monitor trends and sub-group differences in important aspects of children’s well-being in the ways set out in this paper.

We intend to regularly monitor the ten domains listed above in future survey work as part of this research programme. We provide further details of these plans in the concluding section of the paper. However, we do not see this list as necessarily being a definitive or exhaustive list of key domains.

First, there may be other aspects of young people’s lives not yet tested that can make an important contribution to overall well-being. For example, some pilot research we are currently undertaking with children suggests that ‘being listened to’ may be another important aspect.

Second, different aspects of life may be more or less important for different sub-groups of young people.

Analysis to answer this question is quite complex and requires large sample sizes. However, we provide two examples of patterns in the data here, based on an exploratory analysis, which suggest directions for future research.

- **First, the strength of association between happiness with appearance and overall well-being may vary for females and males. Based on a simple regression, the ‘appearance’ domain taken on its own explains 30% of the variation in overall well-being for females compared to 19% for males.**
- **Looking at age-related differences, the influence of happiness with school on overall well-being appears to increase with age. Happiness with school, looked at in isolation, explains a much greater proportion of the variation in overall well-being for secondary school-aged children (27%) than primary school-aged children (10%).**

These types of patterns suggest that it is important to consider different meanings and structures of subjective well-being for different groups of children and young people. We need to explore these issues further and also to broaden this exploration to also consider other sub-groups – for example, disabled children. There is therefore a need to continue to discuss, develop and test the ideas presented in this paper with diverse groups of children and young people in order to further our understanding of children’s well-being.

3. Discussion

Potential uses and limitations of the index

This brief report has presented proposals for a new index of children's subjective well-being. The index consists of a five-item measure of overall well-being and ten single-item measures of happiness with different aspects of life. These measures have been derived from consultation with young people, previous research on child well-being, and statistical analysis of two surveys conducted in England in 2008 and 2010 respectively.

We conclude this brief report with a discussion of potential uses of the proposed index and directions for future research.

Monitoring children's well-being in England

As outlined in the introductory section of the report, this short index has been developed to fill a gap in the measurement of subjective well-being in England. The Children's Society plans therefore to use the index as a means of regularly monitoring children's well-being from their own perspective. We will be running a further wave of this brief survey in October 2010 (results will be published by January 2011) and then intend to continue with similar waves on a quarterly basis.

Other uses

We believe that the index may have a range of other uses. In particular it could be used for monitoring and comparative work with general samples of young people e.g. at a local area or school level. For example, it would be possible to undertake a representative survey of young people within a local area and then compare the results with the national picture. This could provide a contextualised picture of child well-being in the area and also identify particular domains where children were faring relatively well or poorly.

Limitations

We should also note some potential limitations of the index. The index has not been tested and validated for use with small samples or as an individual change measure. So, for example, we are not able to say to what extent it could be used to test the effectiveness of project interventions designed to improve children's well-being (see also below). At this stage the index has not yet validated with particular sub-groups - for example, disabled children. We are currently doing work in this area (see also opposite).



Further developments

Further work on the short index

As outlined above and earlier in the paper, while we will regularly monitor subjective well-being in the ten domains of the proposed index presented in this report, we would also envisage that the index would continue to be developed and refined.

Some areas for future research include:

- **Testing out additional domains.** We plan to regularly include additional test domains in the survey and undertake analysis to assess whether they would merit inclusion in a future version of the index.
- **Understanding the meaning of domains for young people.** We are keen to explore the meaning of each of the ten domains with children and young people. For example, choice has emerged as an important aspect of children's well-being and more work is needed to understand the specific aspects of choice that young people feel are most important to their well-being.
- **Further exploration of sub-group differences.** We intend to undertake and publish further analysis of possible sub-group differences in the structure of subjective well-being – such as the apparently increasing importance of school well-being with age as outlined in the report.
- **Validation and refinement of the index with sub-groups of young people.** Following on from the above we intend to test out the use of the index with particular groups of young people. We are currently undertaking qualitative research with disabled children that will inform this. We also hope to do similar work with other sub-groups such as children in the public care system.

Further development of the index

It is possible to extend the structure of the index proposed in this paper to explore well-being in particular aspects of young people's lives. Table 6 outlines a potential hierarchical structure of subjective well-being measures. At each level of the hierarchy it is possible to measure well-being either by a single-item measure or a multiple-item measure that forms a scale. The advantages of single-item measures are brevity and openness of topic. On the other hand well-constructed multi-item measures tend to be more reliable and stable.

So our current index contains a single-item measure of global well-being (happiness with life as a whole) and a multi-item measure (a shortened version of Huebner's Student Life Satisfaction Scale). We have found that the latter is a more reliable and stable measure of overall well-being.

Our current index also contains single-item measures of well-being in particular domains. This is probably sufficient for exploring broad trends and patterns in large samples (as suggested by the BHPS evidence discussed earlier) but does not provide such a robust measure of well-being in a particular domain as would be provided by a multi-item measure.

For example if we consider the school domain, our single measure of happiness with school could be supplemented

by a multi-item measure (such as the school domain of Huebner's Multidimensional Student Life Satisfaction Scale). It is also possible to go further and identify sub-domains such as well-being in terms of relationships with teachers. Again this could be measured by a single-item measure (happiness with teachers) or by a multi-item measure. We have tested out both types of measures of this particular sub-domain and will also be publishing results of this analysis.

There are a number of potential applications of this approach. More detailed measures may broaden our understanding of well-being. They may be useful as stand-alone measures in particular contexts – for example if a school wished to monitor aspects of school well-being. They could also be tested and validated as individual change measures for use in evaluations of interventions.

Further information

Further information about the index and about the well-being research programme in general is available on our website at: www.childrensociety.org.uk/wellbeing including:

- **A full version of the proposed index, with some notes on potential uses**
- **Electronic versions of reports and working papers**
- **Details of future publications and events.**

Level	Measurement type	
	Single item	Multi item/Scale
Global (life as a whole)	Happiness with life as a whole	Huebner scale
Domain (e.g. school)	Happiness with school, etc	Huebner's school scale
Sub-domain (e.g. teachers)	Happiness with teachers, etc.	Teachers' scale

Table 6: Potential hierarchy of subjective well-being measures

Notes

1. Cummins RA (1996) 'The domains of life satisfaction: An attempt to order chaos' *Social Indicators Research*, 38: 303-328
2. Diener E (2000) 'Subjective well-being: The science of happiness and a proposal for a national index' *American Psychologist*, 55(1), 34-43
3. Diener E (2000) *op cit*
4. The Children's Society (2006) *Good Childhood? A Question for Our Times*. London: The Children's Society; Rees G, Bradshaw J, Goswami H & Keung A (2010) *Understanding Children's Well-being: A National Survey of Young People's Well-being*, London, The Children's Society.
5. Valois RF, Zullig KJ, Huebner ES and Drane JW (2004) 'Life satisfaction and suicide among high school adolescents' *Social Indicators Research*, 66: 81-105
6. OECD (2009) *Doing Better for Children*. Paris: OECD.
7. Department for Work and Pensions (2007) *Opportunity for All: Indicators Update, 2007*. London: DWP.
8. Bradshaw J & Keung A (2010) *Trends in Child Subjective Well-being in the United Kingdom (Paper for the Social Policy Association Conference 2010)*.
9. Kroh M (2006) *An Experimental Evaluation of Popular Well-Being Measures*. Berlin: German Institute for Economic Research.
10. Rees et al (2010) *op cit*.
11. The Children's Society (2006) *op cit*.
12. See Rees et al (2010) *op cit*.
13. *The Good Childhood Inquiry: What children told us* The Children's Society (2009)
14. Further information is available at www.childrenssociety.org.uk/research/wellbeing
15. The Children's Society (2006) *op cit*.
16. The fieldwork for the survey was conducted by Research Now with a sample of children from their online consumer panel.
17. Huebner ES (1991) 'Initial development of the Students' Life Satisfaction Scale' *School Psychology International* 12: 231-40.
18. Cummins RA & Nistico H (2002) 'Maintaining life satisfaction: The role of positive cognitive bias' *Journal of Happiness Studies*, 3: 37-69
19. Cronbach's alpha = 0.83, almost identical to that found in the 2008 survey.
20. Cronbach's alpha > 0.80 in all cases
21. The Pearson correlation between the two measures was +.747, $p < .001$.
22. Using a Mann-Whitney test.
23. Using a one-tailed Mann-Whitney test.
24. Tomyn AJ & Cummins RA (2010) 'The subjective well-being of high-school students: Validating the Personal Wellbeing Index - School Children' *Social Indicators Research* (Online First article)
25. Pearson correlations between age and life satisfaction and happiness were -.209 and -.198 respectively. Both p-values were less than .001.
26. Rees et al (2010) *op cit*; Bradshaw & Keung (2010) *op cit*.
27. Although as outlined in our earlier report there are theoretical debates about this idea - see Rees et al (2010), pages 62 to 63.
28. See Rees et al (2010), pages 66 to 70
29. As indicated earlier we included 19 of these questions in the most recent survey. However, initial analysis using correlations showed that the other seven questions appeared to overlap substantially with one or more of the twelve we have selected for discussion. These related to happiness with 'how you enjoy yourself', 'your self', 'your teachers', 'your school work', 'the things you have learned', 'the groups of people you belong to' and 'the amount of freedom you have'. For statistical reasons it would have been problematic to retain all 19 questions. So, choices were made between pairs of these similar variables on statistical, conceptual and methodological grounds. Further information available from the authors on request.
30. Note that, typically, adult versions of these types of questions ask how 'satisfied' people are rather than how happy they are. However use of the word 'satisfied' is not particularly common amongst children and young people and Cummins has found that, in English, the two wordings yield very similar results - Cummins R & Lau A (2005) *Personal Wellbeing Index - School Children (Third Edition)*, Melbourne: School of Psychology, Deakin University.
31. The Children's Society (2006) *op cit*.
32. Cummins & Lau (2005) *op cit*.
33. Casas F, Figuer C, Gonzalez M, Malo S, Alsinet C & Subarroca S (2007) 'The well-being of 12- to 16-year-old adolescents and their parents: results from 1999 to 2003 Spanish samples' *Social Indicators Research*, 83, 87-115
34. Using Mann-Whitney tests and a 99% confidence level.
35. Rees et al (2010) *op cit*.
36. This is broadly accurate as the survey took place in July but a small proportion of 11-year-olds would actually have been in secondary school.
37. Using Pearson correlations.
38. Pearson correlations were -.206 and -.199 respectively.
39. Pearson correlations were -.081 and -.089 respectively.
40. A measure of the strength of association between two variables, which can vary from zero to (plus or minus) one. Correlations further from zero show a stronger association.
41. Pearson correlations. All correlations shown in the table are positive and statistically significant at the 99% confidence level.
42. A statistical technique, which aims to explore the relative influence of various 'explanatory' variables (when other similar variables are 'held constant') on a single 'dependent' variable.
43. Varimax rotation produced a single factor explaining 47% of the variance.
44. Cronbach's alpha for the ten-item scale was 0.871
45. Intra-class correlation coefficient = 0.78 in a small test-retest study with a 16 day interval.