# Appendix -Methodology

## The Bright Spots Programme

The programme offers local authorities the opportunity to conduct the *Your Life, Your Care* survey with looked after children. The data in this report uses responses from the Your Life, Your Care surveys gathered between 2015 and 2021.

Local authorities who use the surveys are supported by Coram Voice to distribute the survey to their care population. To ensure that children and young people are provided with the opportunity to take part, an initial working group meeting is held with key staff (and in some cases young people) to consider how lesser-heard voices (e.g., young people out of area, seeking asylum, in custody, or with disabilities) can be included. Professionals are encouraged to support young people who need help in completing the survey, but local authorities are also advised to avoid using foster carers or social workers as many of the survey questions ask about those relationships. Twice weekly response rates are shared with the local authority to keep them on track and make them aware of how effectively the survey is being distributed. Young people complete the survey has closed and results analysed each local authority is provided with a bespoke report on an analysis covering their local cohort. Follow-up meetings to disseminate the findings and explore how they can inform services are held.

## Distribution of the Your Life, Your Care surveys

*Your Life, Your Care* is available primarily as an online survey although paper surveys are also available and used where no internet is available, or when the child/young person prefers this method. *Your Life, Your Care* surveys differ by age group: a) 4 - 7 years (16 questions), b) 8 - 10/11 years in junior school (31 questions), and c) young people of secondary school age 11-18 years (46 questions). A core set of 16 questions appear in all three surveys. Children and young people are usually asked to complete the online survey in school over two weeks and, where appropriate, with a trusted adult present. The trusted adult is usually the designated teacher, learning mentor or SENCO. The adult is asked to record what the child said if the child was unable to complete the form. All the questions are optional to allow children to make their own decisions about which questions they answer and therefore the number of responses differs by question.

# Analysis

Data from September 2015 to March 2021 were merged to create three new data sets. In total surveys were completed by 9,472 children and young people after removing duplicates and any that were partially completed: age 4-7yrs (n=1,482), 8-10yrs (n= 2,423) and 11-18yrs (n=5,567). Age was recorded when the children and young people completed the survey.

## Missing data analysis

There were two questions where the response options had been changed in the surveys. The question, 'How happy are you with the way you look?' was originally on a five-point scale and was changed to a 0-10 scale in 2018 to enable comparisons with the general population. The other question asked about opportunities to explore the outdoors and the response options had changed from 'All the time/most of the time', 'sometimes', 'hardly ever/never' to 'every day', 'more than once a week', 'weekly', 'not at all'. There was also a new question added in 2018, 'How often do you talk to the adults you live with about things that matter to you?' Due to the way the survey had developed over the years responses on these variables were not available for the whole sample.

A Little's Missing Completely At Random (MCAR) test was run on the data (excluding those mentioned above) to see if missing data on the remaining variables was random or whether there were patterns. In each of the data sets (4-7yrs, 8-10yrs, 11-18yrs) tests showed that there was no evidence to suggest that data were not missing at random. There was no variable with more than 7% of responses missing.

Age 4-7yrs: 19% of children had at least one question unanswered. The questions with the most missing responses were

- a) Has an adult explained why you are in care? (5% missing)
- b) Do the adults you live with notice how you are feeling? (5% missing) and,
- c) How happy did you feel yesterday? (3% missing).

Age 8-10yrs<sup>123</sup> 25% of children had at least one question unanswered. The three questions with the most missing data were

- a) ethnicity (4% missing),
- b) Do you see your dad? (4% missing) and,
- c) Do you like school? (7% missing)

Age 11-18yrs 23% of young people had at least one question unanswered but there was no statistically significant pattern to the missing data<sup>124</sup>. The questions with the most missing data were

- a) Overall, to what extent do you feel things you do in your life are worthwhile? (5% missing)
- b) How positive are you about your future? (4% missing)
- c) Do you trust the adults you live with? (4% missing)
- d) Does your carer notice how you are feeling? (4% missing)
- e) How much do you like school? (4% missing)
- f) Are you ever afraid of going to school because of bullying? (4% missing) and,
- g) Can you do the same things as your friends? (4% missing).

The survey data were not weighted because there was no reliable published data on what the sample should look like such as ethnicity and sex by age, and therefore, any weighting scheme developed would be based on a set of assumptions that are difficult to verify. Also, the goal of this study did not include making any inference for the whole care population, as we already know that there is wide variation at the local authority level. Instead, the aim was to study characteristics associated with low/very high well-being using the rich survey data that shed light on children's voice. Nevertheless, we suspect that boys were underrepresented in the 11-18yrs age group.

#### **Descriptive** analysis

Descriptive analysis included examination of basic frequencies and means/modes of question responses and cross-tabulations examining associations by sex, ethnicity, placement type etc on each indicator. Correlations were also examined, including conducting the Spearman's correlation test, Somers' D and the Mantel-Haenszel test of trend for categorical/ordinal variables. A Bonferroni correction was applied for multiple comparisons.

# Categorising well-being

Low well-being was calculated for children aged 4-7yrs and 8-10yrs by selecting those who had responded that they were unhappy the previous day. For this group, their responses to all the other questions (including written comments) were examined and if three or more responses were negative, they were classified as 'low well-being'. For young people aged 11-18yrs low well-being was calculated using the four well-being scales: overall life satisfaction, happiness yesterday, doing things in life that have meaning, and positivity about your future. Young people who scored low (0-4) on any two of the four scales were classified as having low well-being. Young people who scored 9-10 on any two of the four scales were classified as having very high well-being. Logistic regression models were used in the 11-18yrs age group to examine which of the indicators (questions) had the most influence on 'low' well-being or 'very high' well-being.

#### **Regression models**

Several factors affected our decisions on which explanatory variables were tested in the logistic regression models. Two new questions were not included (frequency of going outdoors and talking to carers about things that matter), as they were recent additions and would have reduced the sample size considerably if they had been included.

We also knew from the descriptive analysis that some indicators were strongly correlated (meaning as one indicator changed higher or lower, so did the other). For example, feeling safe in the current placement was strongly correlated with feeling settled. For this reason, both indicators could not be tested in the model, and the stronger predictor of the two was chosen. Including both would have violated one of the key assumptions of regression analysis, which is that each explanatory variable is independent of the others. The model aims to isolate the relationship between each of the indicators and the binary outcome variable (e.g., low well-being compared to moderate/high well-being). The regression coefficient (how much of the variation is explained) represents the mean change in 'low' well-being when holding all the other indicators constant. By including two highly correlated explanatory variables unreliable estimates would have been produced due to a multicollinearity issue.

The first models included the question, 'Are you happy with the way you look?' that had been added as a 0-10 scale to the surveys in 2017-18. We knew that this indicator was strongly associated with well-being but the consequences of including it reduced the number of respondents to 53% of the total sample. We conducted a sensitivity analysis and examined whether there were differences in the sample populations for those who could or could not be included in the analyses. The proportions of girls/boys, types of placements, and length of time in care were very similar but the ethnicity of young people did vary between the two. In the early versions of the survey that did not include the happiness with appearance question, 50% of the young people identified as White but in later surveys, 68% did so.

We also examined the correlation between the two forms of continuous and categorical variables. Some assumptions have to be met for the results of logistic regression to be valid. The data did not meet a key assumption. We found that happiness with appearance was not linearly related to the logit of the dependent variable (Box-Tidswell procedure p<.009) and there was a moderately high correlation (point bi-serial coefficient .430, p<.001). Transformations did not resolve the problem and therefore a nominal version of the variable was tested (low, moderate, high, very high happiness with appearance) but was still correlated (Somers' D = 0.621 p=.000). The model estimates were not stable enough, with the indicator happiness with appearance explaining about 43% of the variance (Nagelkerke R2).

Most importantly, there was a conceptual issue around whether happiness with appearance should be understood as a separate explanatory variable that contributes to young people's well-being or if it was an integral aspect of a girl's well-being during adolescence. Putting together the conceptual concerns and the key assumptions of regression models not being met a decision was made to exclude the 'happiness with appearance' variable from the regression models.

Table 13 lists all the indicators and identifies the ones that after checking for confounders were the ones that were selected for the final low well-being model.

Indicator	Included in the low well-being model	Included in the high well-being model
Sex	Yes	Yes
Ethnicity		
Live with		
How long have you been in care?		Yes
How many placements have you had?		
Do you like your bedroom in the home you live in now?		
Do you feel settled in the home you live in?		Yes
Do you feel safe in the home you live in?	Yes	
Do you have a pet where you live?		
Has an adult explained why you are in care?		
Do you see your mother? Do you see your father?	Yes, derived variable - Contact with either parent is 'just right	Yes, derived variable - Contact with either parent is 'just right
If you have brothers or sisters, do you see them?	Yes - Contact is 'just right'	
Is your life getting better?		
Do adults do things that make you feel embarrassed about being in care?		
How happy are you with the way you look?		
Do you ever worry about your feelings or behaviour?	Yes	Yes
Do you have an adult you can trust?	Yes	Yes
Do you have a really good friend?		
Do you trust the adults you live with?	Derived variable 'Trust carer' and feel trusted	
Do the adults you live with notice how you are feeling?		
Do the adults you live with show an interest in what you are doing at school?		
Do you know who your social worker is now?		
How many social workers have you had in the last 12 months?		
Do you trust your social worker?		Yes
Is it easy to get in touch with your social worker?	Yes	
Do you know you can ask to speak to your social worker on your own?		
Do you feel included in the decisions social workers make about your life?	Yes	Yes
How much do you like school?	Yes	Yes
Do you ever feel afraid of going to school because of bullying?		
Can you connect to the Internet from where you live?		
Get the chance to show you can be trusted?	Yes, Derived variable 'Trust carer and feel trusted'	
Do the same as friends?	Yes	
Get to practise life skills?	Yes	
Get to have fun at the weekends?		

### Table 13: Indicators tested for association with low and very high well-being 11-18yrs

The final low well-being binary logistic regression model had a binary outcome variable: low well-being (0-4) compared with moderate to high well-being (7-10). Table 14 shows the model.

#### Table 14: Regression model low well-being n=3,897

Indicator	Responses	Odds Ratio (Exp <i>b)</i>	Confidence Interval (95%)	<b>P</b> *
Trust carer	Trust carer and feel trusted			
	All the time/sometimes (ref)			
	Hardly ever/never	2.73	2.09-3.57	.001
Like schoo	l I			
	A lot /A bit (ref)			
	Not very much/Not at all	2.64	2.12-3.28	.001
Worrying a	bout feelings or behaviour	•		
	Hardly ever/never(ref)			
	All the time/sometimes	2.34	1.85-2.97	.001
Feel safe in	n placement			
	Yes always ( ref)			
	Sometimes, hardly ever. Never	2.21	1.72-2.84	.001
Trusted ad	ult in young person's life	_		
	Yes (ref)			
	No	2.08	1.51-2.86	.001
Included in	n decision-making			
	All the time/sometimes (ref)			
	Hardly ever/never	1.79	1.37-2.33	.001
Able to do	the same as friends	_		
	All the time/sometimes (ref)			
	Hardly ever/never	1.80	1.42-2.30	.012
Opportunit	y to practise life skills			
	All the time/sometimes (ref)			
	Hardly ever/never	1.72	1.29-2.29	.001
Sex				
	Boy (ref)			
	Girl	1.66	1.34-2.04	.001
Contact wi	th brothers and sister is 'just right'			
	Yes (ref)	1.50	1.20-1.88	.001
	No			
Contact wi	th at least one parent is 'just right'			
	Yes (ref)			
	No	1.50	1.11-2.03	.001
Easy to ge	Easy to get in touch with the social worker			
	All the time/sometimes (ref)			
	Hardly ever/never	1.31	1.02-1.68	.034

Odds ratios were more than one, meaning that when comparing those who scored 'hardly eve/ never' with those who rated themselves as 'All/Sometimes' the odds of low well-being increased. The model explained 34% of the variability (Nagelkerke R2)<sup>125</sup> in well-being, was statistically significant<sup>126</sup>, and was a reasonable fit for the data.<sup>127</sup>

Checks on the residuals found nothing of concern: The effect of outliers on the model was checked using Cook's D (Cook's Distance); the figures were all under 1 which means that there were no influential cases having an effect on the model. The Leverage mean (.0036) was close to the expected value (12+1)/ 3,955= .0033. The standardised residuals were also examined: two cases had an absolute value over 3 and were retained. Checks for multi collinearity found no concerns after examining the eigenvalues and Variance Inflation Factor (VIF) scores. The model was able to discriminate between young people with and without low well-being. The area under the receiver operating characteristic (ROC) curve<sup>128</sup> was .831 (Cl.813-.850: p<.001).

Similarly, high well-being was modelled. However, in this model, those with low well-being were excluded as we were interested in what differentiated those with very high well-being (self-rating of 9-10 on two or more of the 4 well-being scale questions) from those who had been classified as moderate to high well-being (self-rating of between 5 and 8 on two or more of the 4 well-being scales). The reference category was the negative response to the question for most variables (Table 14). Many of the same variables were associated with very high well-being but there were some key differences.

<sup>&</sup>lt;sup>125</sup> Nagelkerke R2 provide an indication of the amount of variation in the dependent variable explained by the model.

<sup>&</sup>lt;sup>126</sup> x2 =792.135 [n=3,897] df12, p<.001

<sup>&</sup>lt;sup>127</sup> Hosmer and Lemeshow Test, a goodness of fit test for a logistic regression model. p=0.549 indicating the observed and expected do not differ significantly given the model.

<sup>&</sup>lt;sup>128</sup> A diagnostic tool for a model. 0.5 indicates that the model does not contribute to predict the outcomes while values closer to 1 indicates better predictability of the model.

Indicator	Responses	Odds Ratio (Exp <i>b)</i>	Confidence Interval (95%)	<b>P</b> *
Feel safe in	n placement			
	Sometimes, hardly ever. Never (ref)			
	Yes always	2.97	2.400-3.720	.001
Like schoo	l			
	Not very much/Not at all (ref)			
	A lot /A bit (ref)	2.44	1.965-3.019	.001
Worrying a	bout feelings or behaviour			
	All the time/sometimes (ref)			
	Hardly ever/never	2.44	1.892-2.556	.001
Has a good	l friend			
	No (ref)			
	Yes	1.72	1.222-2.403	.002
Trusted ad	ult in young person's life			
	No (ref)			
	Yes	1.50	1.0122.259	.051
Trust socia	l worker			
	Hardly ever/never (ref)			
	All the time/sometimes	1.50	1.1031.977	.010
Included in	decision-making			
	Hardly ever/never(ref)			
	All the time/sometimes	1.51	1.092-1.992	.013
Length of t	ime in care			
	Under a year (ref)			
	More than a year	1.40	1.175-1.812	.001
Contact wit	th at least one parent is 'just right'			
	No (ref)			
	Yes	1.31	1.065-1.553	.009
Sex				
	Girl (ref)			
	Boy	1.24	1.068-1.448	.005

#### Table 15: Regression model very high well-being n=3,096

Checks on the residuals found nothing of concern: Cook's Distance were all under 1 and the Leverage mean (.0039) was close to the expected value (10+1)/ 3,140= .0035. The standardised residuals were examined: eight cases had an absolute value over 3 and were retained. Checks for multicollinearity found no concerns after examining the eigenvalues and VIF scores. The model was statistically significant<sup>129</sup>, explained 21% of the variance (Nagelkerke R2) in high well-being, correctly classified 84% of those with very high well-being and 44% of those with moderate to high well-being and was a reasonable fit for the data.<sup>130</sup> However, the model for very high well-being was not as able to discriminate between those with very high well-being and those with moderate to high (area under the ROC curve .290 (CI .272-.308).

## Analysis of written comments

Text comments were entered into NVivo 12 for a reflexive thematic analysis (RTA: Braun and Clarke 2020<sup>131</sup>). RTA was chosen because of its flexibility in allowing existing research to be the lens through which the data were analysed as well as allowing new themes to be conceptualised. The RTA began with familiarisation reading all the comments and making notes. Due to a large number of comments, deductive structural coding was used initially. Coding used the response options of the individual questions e.g., 'all/most of the time/sometimes' and 'hardly ever/never'. However, the organisation of codes, themes and sub-themes were also conceptualised through the writing process, enabling a more inductive approach to examine for example the reasons why young people felt they were involved in decision-making.



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For more information about the Bright Spots Programme go to: www.coramvoice.org.uk/bright-spots

or contact: brightspots@coramvoice.org.uk

For more information on the research contact **julie.selwyn@education.ox.ac.uk** 

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