

Being a Victim of Bullying Reduces Child Subjective Well-Being Substantively

An International Comparison

Child subjective well-being has gained growing international acknowledgement in the last decade, but there are still open questions. How do we measure child subjective well-being, and are the same indicators relevant for children and adults? Is child subjective well-being directly associated with material wealth? Does the subjective well-being of children vary between countries? How does it vary? What explains that variation? In the past the subjective well-being of children has been compared at country level using published data derived from comparable international surveys, most commonly the Health Behaviour of School-aged Children survey. The league tables of child well-being produced in this way are fairly consistent. In seeking to explain these national rankings we tend to explore associations with other national league tables. Thus in the UNICEF (2013) Report Card 11, country rankings on subjective well-being were compared with country rankings on more objective domains of well-being – material, health, education, housing and so on, all at a macro level. In this paper we explore international variations in subjective well-being.¹ To explore child subjective well-being and its determinants we use the Health Behaviour in School-aged Children Study – World Health Organisation Cross-National Survey (HBSC-study) which has been collecting data on adolescents every four years since 1983/84 in a growing number of countries in Europe and North America (Currie et al. 2012; www.hbsc.org). The aim of the HBSC-study is to increase the understanding of health, health-related behaviour and the social contexts of young people aged 11, 13 and 15 years. The study applies cluster-sampling at schools (classroom) and an identical questionnaire is used in all countries.

High country variations in child subjective well-being

To measure child subjective well-being we create an index of subjective well-being using HBSC data which encompasses four components:

- life satisfaction
- relationships to parents, friends
- subjective education
- subjective health

Each indicator selected contributes equally (z-scores; average = "0") to the component score. The subjective well-being index is an average of the z-scores of the four components.² Graph 1 gives an overview of the index construction and the underlying measurement indicators.

The four components show different country rankings (for details see Klocke et al. 2014). Life satisfaction: The individual young person's score on the 0-10 scale life satisfaction scale is used here. The Netherlands, Israel, Iceland and Spain have the highest mean life satisfaction. Canada, Poland, and Turkey have the lowest level of life satisfaction. Relationships: The relationship component is derived by combining the z-scores of the proportion of young people finding it easy to talk to father, mother and who found their friends kind and helpful. Young people in the Netherlands, Iceland, Israel and Sweden

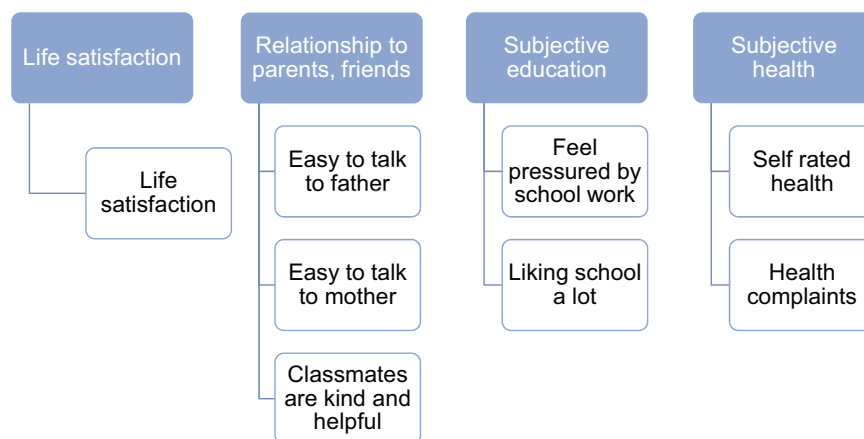
have the best relationships and young people in France and the USA the worst relationships. Relationship data is missing for Slovenia. Educational well-being was made up of two indicators. Liking school and feeling pressured by school work. The Netherlands is again a positive outlier on educational well-being with Spain and Italy having the lowest scores. Subjective health: This indicator is a combination of subjective health and the proportion of children in each country reporting health complaints. The highest level of subjective health is found in Slovenia, Greece and Portugal and the lowest in Turkey, the USA and Poland.

The subjective well-being composite index is a standardized combination of the z-scores of these four components: life satisfaction, relationships, subjective education and subjective health. For Slovenia we used the mean values for the relationships variable. Graph 2 shows the distribution of overall subjective well-being with the Netherlands at the top of the league table by some margin and Turkey, the USA, Canada, Italy and Poland at the bottom. It is hard to pin down why exactly some countries are ranging on the top and others at the bottom. Remarkably at the bottom we find one of the wealthiest (USA) and one of the poorest Countries in the OECD world (Turkey). The position of the Netherlands, on the other hand, is not a surprise. In quite a few studies the Netherlands come out in front of other countries (Bradshaw/Richardson 2009; Stiglitz et al. 2009). As Leon de Winter (a Dutch Novelist) puts it: "In the Netherlands... there is not very much to improve. If there is a pragmatic paradise, then it would look like the Netherlands" (Süddeutsche Zeitung 19. April 2014, translation A.K.). Germany is ranging in the upper third of the distribution together with Slovenia and Denmark, which again underlines that it is not material wealth which accounts for subjective well-being on the first hand.

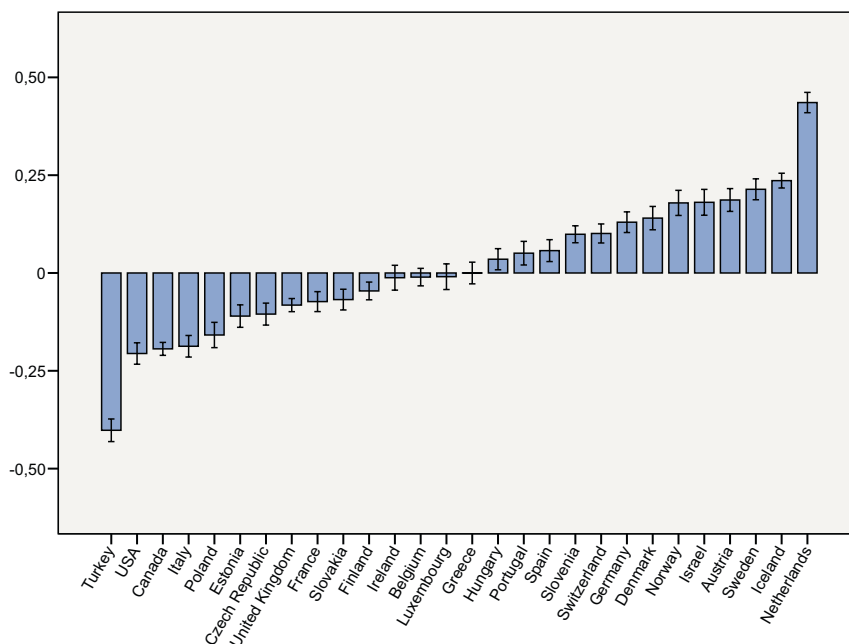
Being a victim of bullying reduces child subjective well-being substantively

How can variations in subjective well-being be explained? First we run a multiple regression with clustered standard errors. A range of individual level variables which have previously been associated with child subjective well-being are included. Three country level variables which give information about the macro level environment in which the children are living are also included³. Table 1 gives the results. In the first model, which includes age and gender, it turns out that girls have lower subjective well-being than boys and subjective well-being is lower at ages 13 and 15 than it is at age 11, which confirms long standing findings (Currie et al. 2012). The model including gender and age explains 8% of the variation in subjec-

Graph 1: Index of subjective well-being in HBSC data



Graph 2: Overall subjective well-being



Database: HBSC study 2009/2010

tive well-being. Model 2 adds indicators of family structure, parental employment and family affluence. Complete families in the household seem to offer good preconditions for child well-being. If the father is not in the main home subjective well-being is lower, as it is if the mother is not in the home. Gainful employment is not only of major importance for the life satisfaction of adults: Child subjective well-being is also lower if the father does not have a job and slightly lower if the mother does not have a job. Subjective well-being is positively associated with higher family affluence. The consideration of the additional variables in model 2 increases the percentage of subjective well-being explained to 12.4%.

Model 3 adds some bullying indicators which are all associated with subjective well-being and their introduction means that whether the mother is in work is no longer significant. In particular being a victim of bullying is of major importance: The frequency of bullying has a big and linear negative impact on subjective well-being. So the variation in subjective well-being explained raises to 19%. Alcohol abuse and smoking is a significant problem among the youth and the regression results (model 4) support the assumption that it affects subjective well-being. Currently smoking and ever been drunk has a negative impact and on the other hand taking exercise more than once a week increases subjective well-being. Taking these factors additionally into account pushes the proportion of variation in subjective well-being explained to 23%. In a further step model 5 then adds some country characteristics: GDP per capita (a measure of national wealth), youth unemployment (an indicator of the prospects that young people are facing) and public spending on families as % of GDP (an indicator of welfare state effort on behalf

of families with children)⁴. None of these macro variables are significantly associated with variation in subjective well-being!

Having investigated the differences in subjective well-being using regression models, further analysis was conducted using multilevel modelling to provide some understanding of what affects country level variation (not shown here, for details see Klocke et al. 2014). We find significant random coefficients at the country level showing that – while the individual level characteristics, such as gender and age, affect subjective well-being – the effect that they have is dependent on the country in which the child lives. This suggests that, for example, the effect of being a girl on subjective well-being is less dramatic in some countries than in others. Similarly the effect of drinking or bullying is less dramatic in some countries and so on.

The presented results suggest that individual level characteristics are of most importance to the subjective well-being of children. However, other aspects of a child's ecology including the school that they attend and the country in which they live are also influential.

Discussion

The regression analyses find that the country in which a child lives significantly con-

Table 1: Multiple regressions of subjective well-being with clustered standard errors

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	0.462***	0.560***	0.729***	0.558***	0.765***
Gender (female)	-0.185***	-0.172***	-0.199***	-0.178***	-0.177***
Age – 11 (Ref)					
Age – 13	-0.413***	-0.412***	-0.423***	-0.365***	-0.361***
Age – 15	-0.653***	-0.647***	-0.694***	-0.486***	-0.490***
Father not in home		-0.221***	-0.208***	-0.172***	-0.175***
Mother not in home		-0.198***	-0.193***	-0.154***	-0.147***
Father not in work		-0.207***	-0.189***	-0.172***	-0.167***
Mother not in work		-0.062**	-0.022	-0.015	-0.009
Family Affluence Scale		0.124***	0.103***	0.092***	0.087***
Victim of bullying (never) (Ref)					
Victim of bullying (once or twice)			-0.369***	-0.359***	-0.366***
Victim of bullying (2-3 times per month)			-0.641***	-0.614***	-0.623***
Victim of bullying (once a week)			-0.719***	-0.703***	-0.711***
Victim of bullying (several times a week)			-0.997***	-0.956***	-0.962***
Currently smoking				-0.362***	-0.356***
Been drunk				-0.286***	-0.287***
Exercise (more than once per week)				0.222***	0.220***
GDP PPP (in \$1,000s)					-0.004
Youth unemployment rate					-0.009
Public spending on children and families (% of GDP)					0.030
Model stats	F(3, 27) = 243.72, p < .001, R ² = .079	F(8, 26) = 218.46, p < .001, R ² = .124	F(8, 26) = 614.67, p < .001, R ² = .185	F(15, 25) = 520.02, p < .001, R ² = .231	F(18, 24) = 1343.87, p < .001, R ² = .235
Number of countries included in model	28	27 ¹	26 ²	26 ²	25 ³

* p < .05, ** p < .01, *** p < .001

Regression models conducted using Stata12 (with clustered standard errors)

1) Missing data for Canada

2) Missing data for Canada, and Turkey

3) Missing data for Canada, Turkey and Switzerland

Database: HBSC study 2009/2010

tributes to the level of subjective well-being that they report. Multilevel analysis confirms variation in the effects of individual characteristics on subjective well-being at the country level. No such effect was found for the country level variables included such as GDP and youth unemployment. This is a remarkable result. It indicates that it is not the economy (GDP) or the level of spending on family policies which can foster child well-being. Rather it is the country and school climate that influences the way that individual characteristics influence child subjective well-being. So referring to the Bronfenbrenner conception, child well-being looks to be more a result of the micro (family) and meso (school) level rather than the macro (society) level.

Future research should aim to elaborate why, for example, girls are more disadvantaged in terms of their subjective well-being compared to boys in some countries than in others. Some of the variance identified in the model is more likely to be policy salient than others. For example it is plausible that the variation in the effects of bullying on children's subjective well-being across nations is policy salient, through the adoption of anti-bullying strategies or support groups. However variation in the effects

of drinking on children's subjective well-being may instead reflect cultural attitudes towards drinking at a young age.

- 1 *This paper presents a short version of: Klocke A., Clair A., Bradshaw J., 2014*
- 2 *The reliability score of the subjective well-being index ranges (depending on country) from Cronbach's Alpha = 0.600-0.738, average = 0.678. A factor analysis extracted one factor and confirms the viability of the scale (51.3% variance explained)*
- 3 *Missing data means that not all countries can be included in all analyses*
- 4 *OECD SocX database for 2009*

Bradshaw, J.; Richardson, D., 2009: An index of child well-being in Europe. In: Journal of Child Indicators Research, 2(3), S. 319.

Bradshaw, J.; Martorano, B.; Natali, L.; de Neubourg, C., 2013: Children's Subjective Well-being in Rich Countries. In: Child Indicators Research, 6, 4, S. 619-635. DOI 10.1007/s12187-013-9196-4.

Casas, F., 2011: Subjective social indicators and child and adolescent well-being. In: Child Indicators Research, 4, S. 555-575.

Currie, C.; Zanotti, C.; Morgan, A.; Currie, D.; de Looze, M.; Roberts, C.; Samdal, O.; Smith, O.; Barnekow, V., 2012: Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: International report from the 2009/2010 survey. Copenhagen: World Health Organisation.

Klocke, A.; Clair, A.; Bradshaw, J., 2014: International Variation in Child Subjective Well-Being. In: Child Indicator Research, 7, 1, S. 1-20.

Stiglitz, J.; Sen, A.; Fitoussi, J.-P., 2009: Report of the commission on the measurement of economic performance and social progress. http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf.

UNICEF, 2013: Child well-being in rich countries: a comparative overview. Innocenti Report Card 11, UNICEF Office of Research, Florence.

**Andreas Klocke, Frankfurt University of Applied Sciences,
Amy Clair and Jonathan Bradshaw,
University of York, UK**
Tel.: 069 / 1533 2188
andreas.klocke@fzdw.de