Spillover effects across school children's subjective well-being: Empirical evidence from 35 countries

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Abstract

Using wave three of Children's Worlds' International Survey on Children's Well-Being conducted between 2016 and 2019 across 35 countries, this study examines the influence of school-peer subjective well-being (SWB) on individual SWB of 10- and 12-year-old children. SWB measures employed in this study are life satisfaction, positive and negative affect. Controlling for individual, household, and social environmental characteristics, results show robust positive associations for all three measures. Our findings further indicate significantly stronger spillover effects for girls compared to boys in life satisfaction. Lastly, this study reveals interesting differences in the peer-SWB-individual-SWB-nexus across countries. Results suggest that SWB spills over within schools and thus fostering a positive school climate can be beneficial to raise individual SWB across the entire child population.

Keywords: Peer influence; subjective well-being; children; gender; cross-country analysis.

Theoretical focus

A number of studies have found that happiness and positive emotions can be contagious (Lundqvist & Dimberg, 1995; Wild et al., 2001; Blackman, 2007; Matteson et al., 2013; Tumen & Zeydanli, 2015). However, it has also been noted that it is important to separate spillover externalities from the group-level social context (Tumen & Zeydanli, 2015), given that subjective well-being (SWB) is positively correlated with socio-economic status. So far very little research has been done on children in this field. This study aims to fill this gap by investigating the relationship between school peer SWB and individual SWB, controlling for individual, household, and social environmental characteristics.

We hypothesize that (1) there is a significant effect of peer SWB on individual SWB; (2) that this effect will be stronger for girls, given their potentially stronger social needs; and (3) that the effect will differ by country/ culture group.

Data

We use data from Children's Worlds' International Survey on Children's Well-Being conducted between 2016 and 2019 across 35 countries, this study examines the influence of school-peer subjective well-being (SWB) on individual SWB of 10- and 12-year-old children. The third wave of the Children's Worlds survey asked over 128,000 children aged around 8, 10 and 12 years in 35 countries / territories across four continents their views about their lives. The survey provides a unique contemporary view of children's lives in a wide range of countries in terms of economic wealth, geography and culture.

The survey was carried out by an international team including researchers from universities in each of the countries taking part. It received core funding from the Jacobs Foundation and additional funding within each country. Ethic approval was gained for the research in each country. Children were interviewed at schools and surveys aimed to provide a nationally representative sample of children in mainstream schools.

We will employ two sets of questions designed to tap into three different aspects of self-reported well-being:

1. Cognitive subjective well-being (overall life satisfaction)

2. Affective subjective well-being (positive and negative affect)

These two components reflect the tripartite model of subjective well-being initially proposed by Andrews and Withey (1976) and developed by Diener (1984).

The measure of cognitive subjective well-being has been developed over several waves of the survey from a scale originally devised by Huebner (1991) – the Student Life Satisfaction Scale. The items in the scale have been refined during each wave through statistical testing.

Psychometric properties of the scale used in the first and second waves of the survey, including multi-group confirmatory factor analysis across countries, are discussed in Casas and Rees (2015) and Casas (2016) respectively. The items have been further modified in Wave 3 following discussions with children in low-income countries outside Europe with the aim of improving cross-cultural comparability.

The measure of affective subjective well-being has been prepared for Wave 3 on theoretical grounds based on a framework of core affect proposed by Feldman Barrett and Russell (1998). The six items relate to this framework as follows: general positive affect ('Happy'); activated positive affect ('Full of energy'); deactivated positive affect ('Calm'); general negative affect ('Sad'); activated negative affect ('Stressed'); and deactivated negative affect ('Bored'). This is a new measure but the three positive affect items were included in the Wave 2 questionnaire and appeared to function well (see Rees, 2017).

Methods

This study will use multivariate regression analysis to estimate the relationship between peer SWB and individual SWB. SWB will be measured using three concepts: life satisfaction, positive affect, and negative affect. Estimations will control for individual, household, and social environmental controls. Standard errors will be corrected for clustering at the school level. Estimations will also be carried out separately by sex.

Expected/ preliminary findings

Preliminary results show that indeed there are significant spillovers within schools for all three SWB measures (see Table 3 below). Results also suggest that the effect is significantly stronger for girls than for boys.

Table 3: Effects of peer SWB on individual SWB

	(1) Life satisfaction Female	(2) Life satisfaction Male	(3) Positive affect Female	(4) Positive affect Male	(5) Negative affect Female	(6) Negative affect Male
peer_lifesat	0.269***	0.191***				
	(0.0279)	(0.0265)				
peer_posaffect			0.353***	0.309***		
			(0.0344)	(0.0280)		
peer_negaffect					0.472***	0.476***

					(0.0338)	(0.0346)
age	-0.0764***	-0.0375***	-0.132***	-0.0738***	0.170***	0.0535***
	(0.0103)	(0.00980)	(0.0110)	(0.0102)	(0.0165)	(0.0161)
satisfiedhealth	0.495***	0.489***	0.333***	0.337***	-0.186***	-0.142***
	(0.0119)	(0.0129)	(0.0103)	(0.00947)	(0.0123)	(0.0115)
livewithfamily	0.287**	0.567***	0.182*	0.154	-0.364**	-0.0499
	(0.122)	(0.117)	(0.102)	(0.106)	(0.181)	(0.173)
familycare	0.352***	0.240***	0.213***	0.190***	-0.254***	-0.192***
	(0.0221)	(0.0194)	(0.0176)	(0.0162)	(0.0248)	(0.0236)
friendsenough	0.208***	0.180***	0.248***	0.191***	-0.233***	-0.212***
	(0.0138)	(0.0131)	(0.0136)	(0.0125)	(0.0183)	(0.0189)
frequencyworryfamilymoney	-0.134***	-0.101***	-0.104***	-0.0919***	0.439***	0.379***
	(0.0133)	(0.0137)	(0.0133)	(0.0121)	(0.0219)	(0.0216)
familyhascar2	0.0256*	0.0109	0.0120	0.0425***	-0.0298	0.0131
	(0.0136)	(0.0128)	(0.0146)	(0.0135)	(0.0222)	(0.0226)
nbathrooms	0.000405	-0.000966	-0.0299*	-0.0309*	0.00743	-0.00759
	(0.0180)	(0.0168)	(0.0170)	(0.0179)	(0.0288)	(0.0264)
familyncomputers	-0.00588	0.0216*	-0.0269**	-0.0128	-0.0140	-0.0655***
	(0.0123)	(0.0131)	(0.0127)	(0.0129)	(0.0204)	(0.0236)
internet	0.113***	0.0609*	0.142***	0.0938**	-0.0269	0.0557
	(0.0355)	(0.0352)	(0.0324)	(0.0365)	(0.0619)	(0.0611)
ownroom	0.0263	0.0139	0.0435*	0.0555***	-0.0116	-0.0525
	(0.0221)	(0.0219)	(0.0226)	(0.0211)	(0.0366)	(0.0358)
Country dummies	YES	YES	YES	YES	YES	YES
Constant	0.806**	1.492***	2.475***	2.480***	2.825***	3.043***
	(0.327)	(0.335)	(0.376)	(0.330)	(0.316)	(0.301)
Observations	24,001	23,797	24,428	24,239	24,378	24,173
R-squared	0.376	0.358	0.288	0.254	0.149	0.127

Notes: OLS estimation. Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

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