

Patterns of Socioeconomic Inequality in Adolescent Health Differ According to the Measure of Socioeconomic Position

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Abstract Socioeconomic differences in health are ubiquitous across age groups, cultures, and health domains. However, variation in the size and pattern of health inequalities appears to relate to the measure of socioeconomic position (SEP) applied. Little attention has been paid to these differences in adolescents and their implications for health surveillance and policy. We examined health inequalities in 1371 adolescents in seven European countries using four measures of SEP: youth-reported material assets and subjective social status and parent-reported material assets and household income. For each SEP variable, we estimated risk ratios, risk differences, concentration curves, and concentration indices of inequality for fair/poor self-rated health and low life satisfaction. Results showed that inequalities in health and life satisfaction were largest when subjective social status was used as the SEP variable. Moreover, health inequalities defined by subjective social status did not change after differences in assets and income were statistically controlled. Although material assets yielded similar health inequalities as household income, the results suggest that subjective and objective SEP relate differently to adolescent health and are not equivalent indicators of the same construct. In addition, possible bidirectional effects on health and wellbeing may inflate health inequalities defined by subjective social status. These results indicate that SEP differences in adolescent health are related more closely to psychosocial processes than to material inequality.

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1 Introduction

Health inequalities are established early during the life course and are a focus of health practice and policy (Viner et al. 2012). A social gradient in health, whereby health and wellbeing improve as socioeconomic position (SEP) rises, has been reported in many cultures, age groups, and domains of health (Singh and Ghandour 2012; Starfield et al. 2002). However, different conceptual approaches to SEP and the resultant measurement of it have generated a complex picture including conflicting findings. It has therefore been difficult to synthesise the evidence and to measure progress towards the reduction of health inequalities [American Psychological Association (APA) Task Force on Socioeconomic Status 2007]. This problem is especially acute with respect to socioeconomic inequalities in child and adolescent health. There is disagreement on which are the most appropriate measures of SEP for this age group as well as practical considerations when self-completed questionnaire surveys are used. The strengths and limitations of different SEP measures for adolescents have not been thoroughly examined.

There are limited data available to determine the most appropriate measure of SEP for young people. Studies have used various measures including household income, parent occupation, parent education, or a combination of these when a parent or guardian has provided such data. Composite indices of parent SEP are limited in that components of the index usually measure distinct concepts, their relative weights in the index are arbitrarily set, and the resulting score may not have the same meaning across ethnic or cultural groups (Williams and Collins 1995). For example, the Hollingshead Index is a four-factor index comprised of an adult's occupation, education, sex, and marital status (Hollingshead 1975). Its occupation and education scales remain in widespread use even though occupation classification systems quickly become obsolete with the proliferation of new job titles that do not correspond to SEP (e.g., life coach, web designer). There is also disagreement about whether occupational class reflects material or structural factors associated with SEP (e.g., salary) or a hierarchy of power and prestige in society (Bradley and Corwyn 2002). Household income is a simple alternative to SEP indices and occupational classifications but sensitive to inflation, employment status, overtime hours worked, and government income transfers and tax credits. Moreover, requesting information about household income and parental occupation is not always feasible in surveys of children and adolescents (Currie et al. 2008). Youth questionnaires that request such information can yield high rates of missing or inadequate data since youths may not know or wish to reveal such information (Currie et al. 2008). Additionally, because parental SEP may not adequately represent the SEP of adolescents, there is still a need for valid and age-appropriate self-report measures of SEP in this population.

Therefore, the Health Behaviour of School-aged Children (HBSC) study examines health inequalities using an index of material assets. The HBSC Family Affluence Scale (FAS) is derived from a set of easy to answer, non-intrusive questions about common family assets that may provide or reflect affluence (cars, bedrooms, computers, vacations; Currie et al. 2008). Two assets (bathrooms and dishwasher) were added to the FAS for the 2014 HBSC survey cycle (Currie et al. 2014). Prior research using the 3- and 4-item

versions of the FAS found socioeconomic gradients in most health domains similar to those found in other populations and age groups (Currie et al. 2008). However, cross-national differences exist in the steepness of these gradients (Currie et al. 2012; Elgar et al. in press) and whether they also differ from those based on other SEP indicators is unclear.

Instead of employing objective, structural measures of SEP, other studies examined health inequalities in adolescents using subjective assessments of SEP (Goodman et al. 2001). Subjective social status (SSS) is an individual's perception of his or her place in the socioeconomic structure. The subjective interpretation of status is conceptually broader than other SEP indicators in that SSS can reflect current and past socioeconomic circumstances and future prospects. SSS is commonly measured by asking respondents to place an X on an image of a ten rung ladder to represent one's socioeconomic standing in the community or country (Goodman et al. 2001; Singh-Manoux et al. 2003). Studies of adults and adolescents have found that SSS is at least as good as objective SES measures at predicting health outcomes (Quon and McGrath 2014; Singh-Manoux et al. 2003). However, this research also found that objective SEP (e.g., education, occupation, income) does not fully account for the association between SSS and health, possibly because social position is more accurately estimated by SSS or because its subjective nature allows it to share bidirectional effects on health (Garbarski 2010; Singh-Manoux et al. 2003). A meta-analysis of 44 studies concluded that the size of the effect of SSS on adolescent health depended on the health domain, with larger effects of SSS observed for mental health, self-rated health, and general health symptoms than for health behaviours and physiological markers of allostatic load (Quon and McGrath 2014). The meta-analysis also found evidence of regional variation, with larger effects of SSS in Western European samples (UK, Finland, Sweden) than in Canada, USA, and Australia, and no significant effects in youths from Hungary, Serbia, and Mexico. These findings suggest that cultural or regional differences and emotional health may influence SSS appraisals. Therefore, both objective and subjective indicators are needed in multi-national samples of youths to fully understand the health impacts of SEP during this formative stage of the life course.

A deeper understanding of the dimensionality of adolescent SEP is needed to monitor trends in health inequalities in this age group, explore the structural determinants of these inequalities, and compare the socioeconomic differences in health between populations and across different domains of health. Foundational knowledge about the strength and specificity of associations between objective and subjective measures of SEP and health is an important first step to determining the nature of health inequalities and tailoring policy to reduce them. In this study, we examine four SEP indicators with regard to estimated health inequalities in adolescents and discuss practical and conceptual issues for their use.

2 Methods

2.1 Participants

A community sample of youths (11-, 13- and 15-years-old) and parents was recruited through schools in seven European countries: Greenland, Italy, Norway, Poland, Romania, Scotland, and Slovakia. These countries were chosen to represent diverse cultural and socioeconomic settings in the context of a survey whose purpose was to test new SEP indicators for use in future HBSC cross-national studies. Teachers or trained interviewers administered the youth survey in classroom settings. Parents received and returned

Table 1 Sample characteristics and descriptive statistics for health and socioeconomic variables by country

Country	N (% of sample)	N Female (%)	Mean age in years (95 % CI)	% Reporting poor/fair health (95% CI)	% Low life satisfaction (95% CI)	Mean parent-reported FAS ^a (95 % CI)	Mean youth-reported FAS ^a (95 % CI)	Subjective social status ^b (95 % CI)
Greenland	46 (3.4)	24 (52.2)	13.0 (12.5, 13.5)	10.9 (1.5, 20.2)	4.3 (-1.8, 10.5)	6.5 (5.8, 7.1)	6.6 (5.9, 7.2)	6.9 (6.6, 7.3)
Italy	392 (28.6)	157 (40.1)	13.7 (13.5, 13.8)	3.6 (1.7, 5.4)	10.2 (7.2, 13.2)	6.5 (6.3, 6.7)	7.1 (6.9, 7.3)	6.8 (6.6, 7.0)
Norway	238 (17.4)	118 (49.6)	13.1 (12.9, 13.3)	7.6 (4.2, 10.9)	5.5 (2.6, 8.4)	9.5 (9.3, 9.7)	9.9 (9.7, 10.1)	7.5 (7.3, 7.7)
Poland	216 (15.8)	128 (59.3)	12.8 (12.6, 13.0)	7.9 (4.3, 11.5)	11.6 (7.3, 15.9)	6.1 (5.8, 6.4)	6.8 (6.5, 7.1)	7.3 (7.0, 7.6)
Romania	70 (5.1)	45 (64.3)	14.1 (13.8, 14.5)	12.9 (4.8, 20.9)	5.7 (0.1, 11.2)	5.4 (4.9, 6.0)	5.8 (5.2, 6.3)	7.5 (7.1, 7.9)
Scotland	177 (12.9)	95 (53.7)	12.5 (12.3, 12.8)	9.6 (5.2, 14.0)	9.0 (4.8, 13.3)	7.4 (7.1, 7.8)	7.9 (7.6, 8.3)	7.3 (7.1, 7.6)
Slovakia	232 (16.9)	136 (58.6)	12.8 (12.6, 13.0)	6.9 (3.6, 10.2)	11.2 (7.1, 15.3)	5.9 (5.7, 6.2)	6.7 (6.4, 7.0)	6.8 (6.6, 7.0)
Total	1371	703 (51.3)	13.1 (13.0, 13.2)	7.0 (5.6, 8.4)	9.2 (7.7, 10.7)	6.9 (6.8, 7.0)	7.5 (7.4, 7.6)	7.1 (7.0, 7.2)

^a Family affluence scale (FAS) ranging from 0 (low) to 13 (high)

^b Reported position on 'social ladder', with scale ranging from 0 (worst off) to 10 (best off)

questionnaires by mail (84 % by mothers, 16 % by fathers). Participation in the study was voluntary and parents and youths both provided written informed consent. Unfortunately, it was not possible to calculate consent rates. Each participating country obtained approval to conduct the survey from the ethics review board or equivalent regulatory body associated with the institution conducting each respective national survey. The sample for the present study included 1371 youth-parent dyads whom provided information on all SEP and health measures.

Table 1 shows the gender and age composition of the sample. The gender distribution varied by country, with females representing 40.1 % of the sample in Italy to 64.3 % in Romania, $\chi^2(df = 6) = 39.8, p < 0.001$. Mean age also varied between countries from 12.5 (95 % CI = 12.3, 12.8) years in Scotland to 14.1 (95 % CI = 13.8, 14.5) years in Romania, $F(6, 1364) = 20.3, p < 0.001$.

2.2 Measures

Parents provided information about their families' gross household income (before deductions and taxes) in their local currency and completed the FAS. As described above, the latest version of the FAS is comprised of six items that address family assets or conditions that indicate wealth (Currie et al. 2014): "Does your family have a car or a van? (0 = no; 1 = yes one; 2 = yes two or more); Do you have your own bedroom for yourself? (0 = no; 1 = yes); How many times did you travel abroad for holiday/vacation last year? (0 = not at all, 1 = once, 2 = twice, 3 = more than twice); How many computers does your family own? (0 = none, 1 = one, 2 = two, 3 = more than two); At home, do you have a dishwasher (0 = no, 1 = yes); How many bathrooms (room with a bath) are in your home (0 = none, 1 = one, 2 = two, 3 = more than two). Responses were summed on a 0–13 scale with higher scores indicating greater affluence (Elgar et al. 2013). The validity and reliability of earlier, 3- and 4-item versions of the FAS in adolescents have been established using other SEP indicators and health outcomes (Currie et al. 2008; Torsheim et al. 2004). The updated 6-item version of the FAS contains two new items (bathrooms and dishwasher) and one revised item (holiday/vacation) that were designed to better differentiate medium and high SEP groups (Currie et al. 2014).

The adolescents also completed the FAS and reported SSS using the MacArthur scale of subjective social status (Goodman et al. 2001, 2007). This MacArthur scale depicted a ladder and read:

Imagine that this ladder pictures how [national] society is made up. At the top of the ladder are the people who are the best off. They have the most money, the highest amount of schooling and the jobs that bring the most respect. At the bottom of the ladder are the people who are the worst off. They have little or no education, no job, or jobs that make little money. Now think about your family. Please tell us where you think your family would be on this ladder.

Respondents placed an "X" on the rung on which they feel they stand in relation to the national population. The scale ranged from 0 (worst off) to 10 (best off). This measure has been widely used with adults and adolescents and the results have shown that SSS relates to self-rated health, mortality, depression, cardiovascular risk, and obesity (Goodman et al. 2001, 2007).

The health measures used were general self-rated health ("Would you say your health is excellent, good, fair or poor?") and Cantril's self-anchoring measure of life satisfaction (Cantril 1965). Previous studies found that self-rated health is relatively stable through

adolescence and predicts mental and physical health problems (Breidablik et al. 2009; Fosse and Haas 2009). We created a dichotomous variable to indicate fair or poor self-rated health, which identified 7.0 % of the sample. Cantril's life satisfaction ladder rated how respondents felt about their life at present on an 11-point scale ranging from 0 (worst possible life) to 10 (best possible life). A cut-point of 5 identified approximately 9.2 % of the sample as having low life satisfaction.

2.3 Data Analysis

We analysed the data using STATA 12.1 (StataCorp Inc., College Station, TX). Because the measure of SSS referred to national standard of social status, and because income was reported in different monetary currencies, we first harmonised the SEP variables to country-specific cumulative rank probabilities (ridit scores) that ranged from 0 (lowest) to 1 (highest). Health inequalities were then estimated between the top and bottom quintile groups (based on ridit scores) and across the full distribution of SEP. As our outcomes were dichotomous (fair/poor health and low life satisfaction), we used a logistic model and estimated predicted probabilities on the risk scale using STATA's *margins* command (Kleinman and Norton 2009). Risk differences and risk ratios were calculated for fair/poor health and low life satisfaction by comparing predicted risks of these outcomes in the most disadvantaged quintile to the least disadvantaged quintile. Risk differences and risk ratios represent absolute and relative health inequality. We also estimated concentration indices (*C*) of health inequalities across the range of SEP (Wagstaff et al. 1991). *C* quantifies the magnitude of inequality portrayed by the concentration curve, a plot of the share of health or wellbeing accounted for by cumulative proportions of individuals whom are ranked according to SEP. The index ranges between -1 and 1 and is equal to twice the area between the concentration curve and the diagonal (line of equality). Negative values of *C* indicate inequality to the disadvantage of low SEP.

As a supplementary analysis, we investigated changes in health inequalities across levels of SSS after controlling differences in the three objective measures of SEP (income, self-reported FAS, and parent-reported FAS). This was done by reestimating rate ratios and rate differences between the highest and lowest SSS groups with differences parent-reported income and assets and youth-rated assets controlled. All statistical tests and standard errors were adjusted for sample clustering at school and national levels.

3 Results

Table 1 summarises rates of fair or poor self-rated health and low life satisfaction by country and for the pooled sample. The table also shows mean scores on three SEP indicators—FAS (parent-reported), FAS (youth-reported), and SSS. The FAS showed moderate internal consistency ($\alpha = 0.61$ in youths, 0.66 in parents). Parents gave lower scores on the FAS than youths (6.9 vs. 7.5), $p < 0.001$ (Table 1). There was strong correlation between parent- and youth-reported FAS scores ($r = 0.77$). Correlations between the other SEP variables were weak to moderate (Table 2).

Figures 1 and 2 show concentration curves for fair/poor health and low life satisfaction for each of the four SEP variables. The curves extend above the diagonal line of equality, indicating inequality to the disadvantage of low SEP individuals. The concentration curves

Table 2 Correlations between four SEP variables after transformation to country-specific ridits (n = 1371)

Country	1	2	3	4
1. Material assets (youth-reported)	–			
2. Material assets (parent-reported)	0.77	–		
3. Household income	0.38	0.49	–	
4. Subjective social status	0.35	0.31	0.28	–

All correlations significant at $p < 0.001$

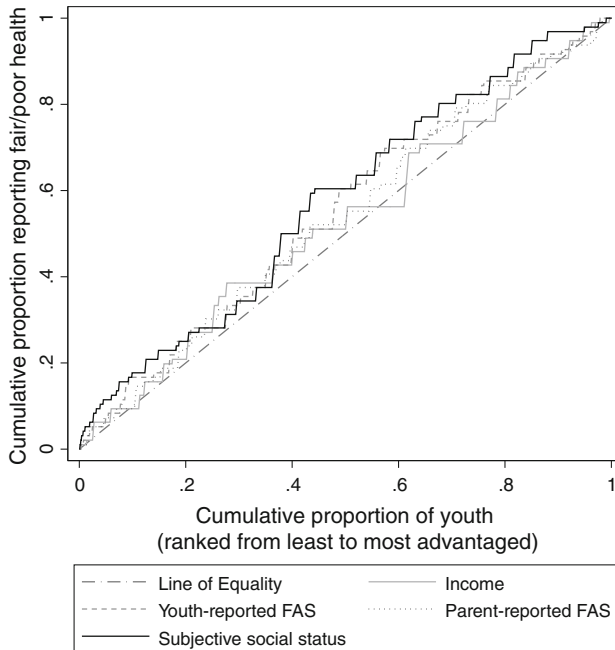


Fig. 1 Concentration curves for fair/poor self-rated health using four measures of socioeconomic position

also show that inequality was greatest when SSS was used as the measure of SEP, particularly for low life satisfaction.

Table 3 shows the estimated concentration indices derived from the concentration curves, as well as risk ratios and risk differences in fair/poor health and low life satisfaction between the highest and lowest SEP quintile groups. Health inequalities in low life satisfaction were larger than in fair-poor health across the four SEP variables. This was true for inequality measured by the rate ratio, the rate difference, and the concentration index. For both outcomes, inequalities tended to be greatest when SSS was used as the SEP measures, although the magnitude of inequality in fair/poor health was not statistically different between any of the SEP measures. For low life satisfaction, $C = -0.42$ for SSS, which was significantly larger than estimates using income ($C = -0.19$, $p = 0.002$), child-reported FAS ($C = -0.22$, $p = 0.008$), and parent-reported FAS ($C = -0.27$, $p = 0.039$).

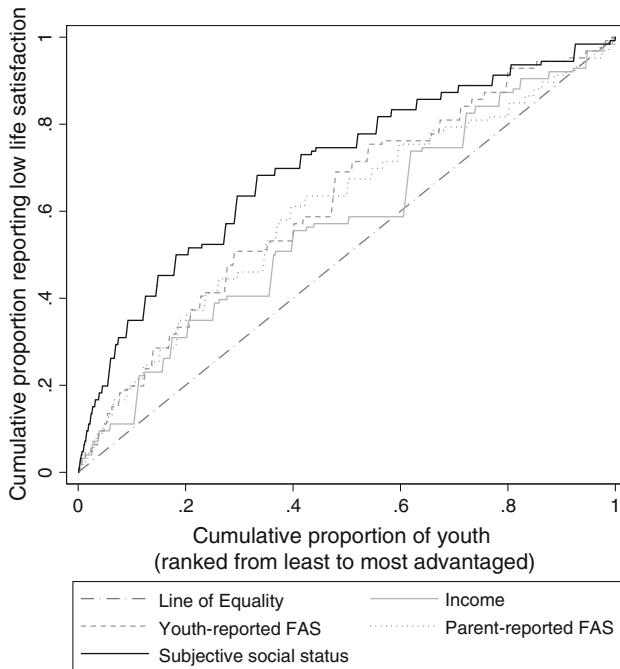


Fig. 2 Concentration curves for low life satisfaction using four measures of socioeconomic position

The percentage of youths reporting low life satisfaction was particularly high in the lowest quintile for all SEP variables. For example, there was a 20 percentage point increase in reporting low life satisfaction for the lowest compared to the highest quintile of SSS. The other SEP variables show smaller, but still considerable quintile differences: 9.8, 9.6, and 13.0 percentage points for income, youth-reported FAS, and parent-reported FAS, respectively. For low life satisfaction, the risk difference using SSS was significantly larger than the other SEP measures ($p < 0.05$), while risk ratios for SSS were larger than income and youth-reported FAS, although not statistically different than parent-reported FAS ($p = 0.24$). Risk ratios and risk differences for fair/poor health were not statistically different between any of the four SEP measures.

Finally, the regression analysis shown in Table 4 indicates that health inequalities defined by SSS remained largely unchanged after differences in assets and income were statistically controlled. There was no significant change in the rich-poor ratios or differences for either outcome after adjustment for differences in assets and income.

4 Discussion

Two key findings emerged from the study. First, health inequalities in low life satisfaction were larger when SSS was used as the SEP variable as compared to household income and material assets. The prominence of health inequality across levels of SSS might have been inflated by its bidirectional influence on subjective appraisals of health, in that self-rated wellbeing influenced appraisals of status, and vice versa. Another possibility is that

Table 3 Prevalence of fair/poor health and low life satisfaction across quintile groups in four measures of socioeconomic position (n = 1371)

	Income	Youth-reported FAS	Parent-reported FAS	Subjective social status
% Fair/poor health by quintile ^a				
1 (least advantaged)	9.2 (5.3, 13.1)	8.3 (5.6, 11.0)	9.4 (5.7, 13.0)	9.2 (6.1, 12.4)
2	6.7 (3.8, 9.7)	7.9 (5.1, 10.7)	7.6 (4.7, 10.5)	9.4 (5.8, 13.0)
3	7.4 (4.6, 10.1)	7.3 (3.5, 11.0)	7.7 (4.9, 10.5)	6.8 (4.1, 9.4)
4	5.7 (3.4, 8.1)	5.9 (3.1, 8.7)	5.0 (1.8, 8.2)	5.0 (2.3, 7.7)
5 (most advantaged)	5.8 (2.7, 8.8)	5.6 (2.6, 8.5)	5.1 (2.3, 8.0)	4.1 (1.6, 6.7)
Least-most advantaged ratio	1.6 (0.6, 2.6)	1.5 (0.6, 2.4)	1.8 (0.6, 3.0)	2.2 (0.6, 3.8)
Least-most advantaged difference	3.5 (-1.1, 8.0)	2.7 (-0.9, 6.4)	4.2 (-0.3, 8.8)	5.1 (1.0, 9.2)
Concentration index	-0.09 (-0.20, 0.01)	-0.10 (-0.21, 0.02)	-0.12 (-0.23, -0.01)	-0.18 (-0.28, -0.08)
% Low life satisfaction by quintile				
1 (least advantaged)	15.6 (11.8, 19.4)	16.6 (12.7, 20.5)	16.3 (12.2, 20.4)	23.0 (18.3, 27.8)
2	9.7 (7.2, 12.2)	11.2 (8.3, 14.0)	9.5 (6.0, 13.0)	9.4 (5.6, 13.2)
3	7.7 (4.5, 10.9)	6.0 (3.1, 9.0)	8.4 (5.3, 11.5)	5.4 (2.7, 8.1)
4	6.9 (4.0, 9.7)	4.4 (1.5, 7.3)	8.0 (4.8, 11.3)	4.2 (1.5, 6.8)
5 (most advantaged)	5.8 (2.5, 9.0)	7.0 (4.0, 10.0)	3.3 (0.9, 5.6)	3.0 (1.0, 5.0)
Least-most advantaged ratio	2.7 (1.1, 4.3)	2.4 (1.2, 3.6)	4.9 (1.5, 8.4)	7.7 (2.3, 13.0)
Least-most advantaged difference	9.8 (4.9, 14.7)	9.6 (4.5, 14.7)	13.0 (8.8, 17.2)	20.0 (14.9, 25.2)
Concentration index	-0.19 (-0.27, -0.10)	-0.22 (-0.32, -0.12)	-0.27 (-0.36, -0.18)	-0.42 (-0.52, -0.31)

FAS family affluence scale

^a Quintiles are calculated from country-specific ritid scores for each socioeconomic variable

Table 4 Inequality estimates for subjective social status with and without adjustment for objective measures of socioeconomic position (n = 1371)

	Model 1	Model 2 ^a
Percent reporting fair/poor health by quintile ^a		
1 (lowest SSS)	9.2 (6.1, 12.4)	8.7 (5.6, 11.8)
2	9.4 (5.8, 13.0)	9.1 (5.6, 12.7)
3	6.8 (4.1, 9.4)	6.9 (4.2, 9.7)
4	5.0 (2.3, 7.7)	5.3 (2.5, 8.2)
5 (highest SSS)	4.1 (1.6, 6.7)	4.2 (1.6, 6.8)
Least-most advantaged SSS ratio	2.2 (0.6, 3.8)	2.1 (0.5, 3.6)
Least-most advantaged SSS difference	5.1 (1.0, 9.2)	4.5 (0.3, 8.6)
Percent reporting low life satisfaction by quintile		
1 (lowest SSS)	23.0 (18.3, 27.8)	20.1 (15.4, 24.9)
2	9.4 (5.6, 13.2)	9.6 (5.7, 13.5)
3	5.4 (2.7, 8.1)	5.7 (2.8, 8.6)
4	4.2 (1.5, 6.8)	4.4 (1.6, 7.2)
5 (highest SSS)	3.0 (1.0, 5.0)	3.1 (1.1, 5.2)
Least-most advantaged SSS ratio	7.7 (2.3, 13.0)	6.4 (1.9, 10.9)
Least-most advantaged SSS difference	20.0 (14.9, 25.2)	17.0 (11.2, 22.3)

^a Estimates adjusted for income, parent-reported FAS, and youth-reported FAS

objective SEP is simply less relevant to adolescents than their own assessment of status, which is shaped less by material factors than by social factors (e.g., having friends, doing well in school; West and Sweeting 2004). Indeed, the correlations between SSS and the other SEP variables showed just 6–8 % of common variance. In their analysis of health inequalities in Scottish adolescents aged 11–15 years, West and Sweeting (2004) found that social class differences in health were reduced, removed, or even reversed between childhood and adolescence as peer influences exert stronger influences on health than family SEP. Their “equalisation hypothesis” offers another explanation for the weak correlation found in this study between family SEP and adolescent SSS.

The second finding supports this interpretation. Health inequalities between highest and lowest SSS groups did not change significantly after differences in other SEP variables were statistically controlled. This finding is consistent with a study by Goodman et al. (2007) that found that the association between SSS and adolescents’ self-rated health remained significant after differences in parental education are controlled. Together, the evidence suggests that subjective and objective SEP relate to adolescent health through different causal pathways. Even though the MacArthur scale of SSS referred specifically to “income,” “money,” and “jobs,” the self-anchoring and subjective qualities of the scale allowed youth to interpret what it meant to be “well off” in relation to other families and to decide if their status should reflect prior circumstances or future prospects more than the present. Incidentally, we noted that the country with lowest scores on the FAS (Romania) also scored the highest evaluations of SSS.

The strengths of the study include a large international sample and multiple SEP variables that allowed us to build on the conclusions of earlier studies (Goodman et al. 2001, 2007; West and Sweeting 2004). We were uniquely able to compare health inequalities in youth- and parent-reported assets, household income, and SSS. However,

we recognise that the study was limited by its self-report assessments of general health and wellbeing and by the cross-sectional design. It would be advantageous to replicate these findings using additional, objective measures of health symptoms and follow-up assessments given the possibility that the SSS-health relationship is sensitive to shared method variance and synchronicity. Furthermore, the small sample sizes in Greenland and Romania might have compromised the validity of ranked probability scores (ridits) in some SEP measures and thus the distribution of health across SEP quintile groups.

To summarise, this study found that (1) subjective self-assessments of SEP show greater health inequalities in adolescents' life satisfaction than parent-reported household income and indices of parent- and self-reported material assets in the home, but (2) that health inequalities defined by subjective status are not explained by differences in income and assets. An implication of these findings for health policy is that social inequalities in adolescent health are determined more by psychosocial processes and perceptions of social position than by material inequality.

5 Conclusions

Health inequalities in youths shape future inequities in educational attainment, employment, adult health, and life expectancy and therefore must be a focus of health policy and health surveillance efforts (Viner et al. 2012). A paucity of evidence on how health inequalities in youths vary as a function of SEP indicator has hindered this work. We present evidence that shows how the researcher's choice of SEP indicator can affect the magnitude of health inequalities in youth, thus leading to different conclusions (Lindelow 2006). These findings also suggest that social inequalities in adolescent health defined by subjective appraisals of status are larger and importantly distinct from health inequalities that stem from unequal material resources.

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