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TEENAGE SOCIAL BEHAVIOUR

Teenage social behaviour and emotional well-being: the role of gender and socio-economic factors

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This article draws on the Millennium Cohort Study (MCS) to examine parent ratings of social, emotional and behavioural difficulties and prosocial behaviour in pre- and mid-adolescents. A series of mixed-design ANOVAs yielded interesting results. Parent ratings of emotional difficulties in girls increased as they moved from pre- to midadolescence whereas for boys the reverse was found. Peer problems were found to be on the rise, whereas prosocial skills decreased for 14-year-olds. Most importantly, significant associations were found between socio-economic measures (that is, family income and parent education) and ratings across the domains of the Strengths and Difficulties Questionnaire, highlighting the socio-economic specificity of behaviour and well-being in adolescents. These findings have significant implications for understanding trends in young people's social behaviour and emotional well-being from pre- to mid-adolescence within their socio-economic context.

Key words: teenage social behaviour, teenage behavioural difficulties, gender and behaviour, poverty and behaviour

Introduction

The promotion of young people's social behaviour and well-being should be a fundamental goal of any society. A Global Burden of Disease Study comparing the prevalence of mental health difficulties worldwide, from 1990 to

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2010, found that anxiety and depression have increased over this period in developed countries, with the largest increase typically observed in adolescents and young adults (Bor et al., 2014; Murray et al., 2012). In 1999, the first England-wide survey of mental health in young people found that 11.3% of 11- to 15-year-olds were assessed as having a mental health difficulty with a significant impact on them and their family (Meltzer et al., 2003). In 2004, a national study was again undertaken with similar results (12.2%) (Green et al., 2005). In 2014, the Mental Health Difficulties in Early Adolescents study found self-reported emotional problems among adolescent girls to be on the rise (Finch et al., 2014). The authors compared two cross-sectional groups aged 11 and 13 and found mid-adolescent girls to report lower life-satisfaction, self-esteem, emotional well-being and resilience compared with younger girls whereas boys' measures remained stable over time. By 18 years, girls were found to be twice as likely to experience internalising difficulties (for example, anxiety, depression) that carried over into adulthood (Telzer & Fuligni, 2013; Torikka et al., 2014).

Inequalities in children's health and social and emotional well-being are linked to poverty and social disadvantage (Social Mobility and Child Poverty Commission, 2017). The effects of economic deprivation and low parental education on children's mental health, social behaviour and well-being have been replicated in many studies (Conti & Heckman, 2012; Fletcher & Wolfe, 2016; Kiernan & Mensah, 2009; Lund et al., 2010; Noonan et al., 2018). In two studies, using Millennium Cohort Study (MCS) data when children were aged 11 years, both persistent poverty and initial transitions into poverty were strongly linked to children's mental health problems (Fitzsimons et al., 2017; Wickham et al., 2017).

Although the pathways through which poverty affects children's social-emotional development are less clear, there is a growing consensus that the effects of disadvantage persist over time, being associated with poorer health and behavioural outcomes, such as obesity, substance abuse and criminality in later life (Fergusson et al., 2005). Heckman and colleagues proposed a dynamic framework for capability formation, enabled by higher family income, which presents young people's social-emotional skills and capacity to regulate behaviour as self-productive, in that these capabilities in earlier years are likely to support the development of capabilities later on (Conti & Heckman, 2012). Poverty and disadvantage are thought to cause direct stress on parents and children due to limited access to resources and opportunities and social comparisons between economically better-off and poorer families which are likely to trigger feelings of shame and moral failure. Disadvantage also fosters social isolation and works against social cohesion, 'leading to social fragmentation and leaving people vulnerable to psychosocial stressors' (Burns, 2015).

Considering the rise of mental health difficulties among young people, this study is timely and has important policy implications. Identifying changes in social, emotional and behavioural ratings in pre- and mid-adolescent boys and girls by taking into consideration their socio-economic circumstances is much needed in that, over the last decade, the financial crisis has contributed to widening inequality with the onus being increasingly placed on parents and families to deal with the effects of poverty and disadvantage and the impact of austerity on mental health provision for young people. Although most studies in this area include cross-section designs, this is a longitudinal study examining changes in the social behaviour and emotional well-being of young people over a three-year period, as they enter adolescence.

This study was guided by the following questions:

- 1. What are the broad trends in parent ratings of social behaviour and emotional well-being from early to mid-adolescence?
- 2. What are the associations between SDQ ratings, gender and socioeconomic measures?

Method

Sample

The data for this study came from the fifth and sixth sweeps of the Millennium Cohort Study (MCS), a national longitudinal study of children born in the UK. The MCS offers a wide range of information about the 'New Century's Children' and their families. The questionnaires used in this study were carried out when the cohort children reached the ages of 11 and 14, and achieved a response rate of 69.1% and 60.9%, respectively, of the original target sample. The working sample for the 11-year-olds was derived from 12,444 singleton cohort children from Wave 5. The working sample for the 14-year-olds was derived from 11,112 singleton cohort children from Wave 6. The MCS uses a geographically clustered and disproportionately stratified sample (Plewis et al., 2007). To ensure the representativeness of the study, the data were weighted to account for over-representation and all types of non-response including attrition, sweep non-response, unit non-response and item

non-response at ages 11 and 14. Information about the objectives and origins of the MCS is accessible from the UK Data Archive at Essex University (Hansen, 2014). Ethical approval for the MCS was gained from the relevant ethics committees and parents gave informed consent before surveys took place, and written consent for cognitive assessments.

Measures

There are three sets of measures, namely, social, emotional and behavioural difficulties, socio-economic factors and gender.

For the first set of measures, the Strengths and Difficulties Questionnaire (SDQ) was used (Goodman et al., 1998). This consists of five scales with five items each, offering a summarised measure including five sub-scales, three scales of child behavioural difficulties, one scale of child emotional difficulties and one scale of personal strengths. Total behavioural difficulties scales cover conduct problems (for example, 'often lies or cheats'), peer problems (for example, 'has at least one good friend') and hyperactivity-inattention scales (for example, 'thinks things out before acting'). The emotional difficulties scale covers emotional problems (for example, 'has many worries'). The personal strengths scale covers prosocial behaviours (for example, 'often volunteer to help others'). The SDO includes 25 items, 10 of which would be generally counted as strengths, 14 of which would generally be counted as difficulties, and one (namely, 'gets on better with adults than with other children') which is neutral. Items were marked 'not true', 'somewhat true' or 'certainly true'. In each sub-scale, scores for each of the five items were summed, giving a range of 0-10, and the total behavioural difficulties score, which is the sum of all behavioural problem SDQ domains (that is, hyperactivity, conduct problems and peer problems) had a range of 0-30. The SDQ has a good test-retest reliability of 0.85 (Goodman et al., 1998). SDO ratings were obtained from parents when the cohort children were 11 and 14 years old.

Net family income and parent educational qualifications were used as a proxy for socio-economic status. Net family income was classified along five OECD equivalised income quintiles which were calculated by dividing the total net income by the number of household members (equivalised household size). The OECD equivalised income scale was adjusted for the number and ages of household members. The income quintiles were coded as bottom fifth = 1 to top fifth = 5. The National Vocational Qualification (NVQ) scale was used to measure parent educational qualifications according to five levels: pre-GCSE

qualifications (NVQ1), GCSE (NVQ2), A Levels (NVQ3), Higher Education Degree (NVQ4) and Postgraduate Diplomas (NVQ5).

The sample was comprised of 49.5% boys and 50.5% girls.

Data analytic plan

To examine SDQ domains longitudinally (over the three-year period), repeated-measures analyses of variance (ANOVAs) (mixed design) were conducted as a function of gender, family income and parent education (Tables 4–6). Analyses of within-subject factors examined longitudinal patterns in the ratings of SDQ domains (that is, emotional symptoms, conduct problems, hyperactivity, peer problems, total behavioural difficulties and prosocial behaviour) at ages 11 and 14. Between-subject factors (that is, gender, family income and parent education) and their main and interaction effects were also examined. The effect size were calculated by applying the formulae $r = \sqrt{\frac{F(1,d/R)}{F(1,d/R)+d/R}}$ which converts the F-values to r. Effect size values of 0–0.2 are generally interpreted as small, 0.2–0.5 as medium and 0.5+ as large (Field, 2013).

Results

The mixed-design ANOVAs yielded significant results for both within- and between-subject designs for most SDQ domains. (Tables 1–3 present descriptive statistics for gender, family income and parent education and SDQ domains for ages 11 and 14.)

Longitudinal variation in SDQ

Significant longitudinal differences of a modest effect for peer problems and prosocial skills and of a small effect for emotional symptoms, hyperactivity and total difficulties were found, indicating significant upward changes in ratings of emotional symptoms and peer problems and a drop in ratings of hyperactivity and prosocial skills between the ages of 11 and 14. Less variability in ratings of conduct problems over the three-year period was noted (Tables 4–6).

The analyses yielded significant interactions between gender and emotional symptoms and conduct problems, indicating that ratings of these SDQ domains over the three-year period were different for boys and girls. As girls moved from pre- to mid-adolescence, they attracted higher ratings for emotional symptoms and conduct problems, whereas for boys a drop in ratings over the same period was found. Differences in ratings for hyperactivity, peer

	Age	Male	Female
Emotional symptoms ($N_{TOTAL} = 9,695$)	Ν	4,792	4,903
IOME	11	1.75 (194)	1.92 (1.99)
	14	1.68 (1.97)	2.30 (2.20)
Conduct problems ($N_{TOTAL} = 9,699$)	Ν	4,798	4,901
- IOIAL	11	1.45 (1.61)	1.19 (1.42)
	14	1.43 (1.66)	1.31 (1.52)
Hyperactivity ($N_{TOTAL} = 9,679$)	Ν	4,785	4,894
TOTAL	11	3.47 (2.53)	2.57 (2.22)
	14	3.35 (2.48)	2.44 (2.16)
Peer problems ($N_{TOTAL} = 9,705$)	Ν	4,800	4,905
TOTAL	11	1.38 (1.69)	1.22 (1.56)
	14	1.75 (1.85)	1.60 (1.72)
Total difficulties ($N_{TOTAL} = 9,659$)	Ν	4,774	4,885
TOTAL	11	8.03 (5.88)	6.88 (5.33)
	14	8.18 (6.01)	7.65 (5.68)
Prosocial skills ($N_{TOTAL} = 9,704$)	Ν	4,798	4,906
TOTAL	11	8.59 (1.61)	9.08 (1.35)
	14	8.10 (1.89)	8.62 (1.67)

Table 1: Descriptive statistics, M and (SD), for gender

problems and prosocial skills over the three-year period were found to be independent of gender. Likewise, the interaction effects between SDQ domains and socio-economic status (SES) measures (that is, family income and parent education) were not significant, indicating that longitudinal differences in parent ratings of internalising and externalising difficulties as well as prosocial behaviour over the three-year period were not differentiated by family income and parent education groupings.

SDQ, gender, income and parent education

Significant gender main effects were found for SDQ problem domains and prosocial behaviour. Specifically, medium-sized differences between boys and girls were found for hyperactivity and prosocial behaviour, whereby boys attracted higher ratings for hyperactivity and lower ratings for prosocial behaviour. Small-sized differences were found for conduct problems, peer problems and total difficulties. These results indicated that, compared to boys, girls were rated significantly higher for prosocial skills but slightly lower for hyperactivity, conduct problems and peer problems (as well as total difficulties). Also, significant main effects for family income and parent education were found across SDQ domains, pointing to a graded relationship between SES measures and SDQ domains. Children at age 11 and 14 attracted higher

Table 2: Descriptive statistics, M and (SD), for family income

	Age	Bottom	Second	Third	Fourth	Top
Emotional symptoms (N_{TOTT} , = 9,695)	z	1,424	1.577	1,963	2,363	2,368
IOIAL C	11	2.34 (2.16)	2,20 (2.09)	1.89 (2.04)	1.65 (1.83)	1.42 (1.71)
	14	2.69 (2.35)	2.38 (2.23)	2.05(2.13)	1.73(1.95)	1.54(1.85)
Conduct problems ($N_{TOTAI} = 9,699$)	Z	1,425	1,579	1,963	2,363	2,369
	11	1.97 (1.83)	1.72 (1.75)	1.33 (1.49)	1.06 (1.27)	0.90(1.18)
	14	2.03(1.91)	1.79(1.83)	1.36(1.55)	1.12(1.34)	0.93(1.22)
Hyperactivity ($N_{TOTAT} = 9,679$)	Z	1,417	1,574	1,959	2,361	2,668
	11	3.81 (2.56)	3.58 (2.60)	3.09 (2.41)	2.65 (2.23)	2.46 (2.18)
	14	3.66 (2.48)	3.54 (2.56)	2.96 (2.35)	2.55 (2.22)	2.29 (2.07)
Peer problems ($N_{TOTAI} = 9,705$)	Z	1,430	1,579	1,964	2,363	2,369
	11	1.97 (1.83)	1.58 (1.73)	1.27 (1.55)	1.09 (1.47)	0.95 (1.46)
	14	2.33(1.93)	2.08(1.90)	1.70(1.80)	1.40(1.57)	1.26 (1.62)
Total difficulties ($N_{TOTAI} = 9,659$)	Z	1,404	1,573	1,956	2,359	2,367
	11	10.04(6.36)	9.08 (6.19)	7.57 (5.58)	6.45 (4.83)	5.73 (4.64)
	14	10.67 (6.51)	9.79 (6.43)	8.07 (5.72)	6.80 (5.08)	6.02 (4.76)
Prosocial skills ($N_{TOTAI} = 9,704$)	Z	1,431	1,579	1,961	2,364	2,369
	11	8.48 (1.80)	8.72 (1.58)	8.88 (1.46)	8.98 (1.38)	8.95 (1.36)
	14	8.00 (2.07)	8.20 (1.83)	8.39 (1.76)	8.51 (1.70)	8.52 (1.69)

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	Age	NVQ1	NVQ2	NVQ3	NVQ4	NVQ5
Emotional symptoms ($N_{TOTAL} = 8,760$)	z	527	2,190	1,409	3,457	1,177
	11	2.23 (2.08)	2.02 (2.05)	1.90(1.95)	1.64(1.88)	1.49(1.80)
	14	2.56 (2.30)	2.20 (2.24)	2.01 (2.07)	1.77(2.01)	1.58(1.83)
Conduct problems ($N_{TOTAL} = 8,760$)	Z	528	2,190	1,408	3,458	1,176
	11	1.84(1.80)	1.48(1.61)	1.31 (1.45)	1.12(1.40)	0.93(1.17)
	14	1.85(1.76)	1.59(1.74)	1.31(1.53)	1.14(1.43)	1.06(1.30)
Hyperactivity ($N_{TOTAL} = 8,752$)	Z	525	2,187	1,410	3,455	1,175
	11	3.70 (2.49)	3.41 (2.50)	3.08 (2.40)	2.68 (2.33)	2.45 (2.16)
	14	3.50 (2.49)	3.25 (2.48)	2.98 (2.33)	2.58 (2.29)	2.34 (2.11)
Peer problems ($N_{TOTAI} = 8,763$)	Z	527	2,189	1,410	3,460	1,177
	11	1.70(1.70)	1.41(1.66)	1.29(1.61)	1.10(1.55)	1.04(1.49)
	14	2.18 (1.98)	1.87(1.86)	1.67(1.73)	1.47(1.73)	1.29(1.54)
Total difficulties ($N_{TOTAL} = 8,739$)	Z	525	2,182	1,405	3,453	1,174
	11	9.44(6.01)	8.31 (5.88)	7.58 (5.52)	6.54 (5.30)	5.91 (4.62)
	14	10.06(6.46)	8.90 (6.22)	7.97 (5.62)	6.95 (5.55)	6.27 (4.68)
Prosocial skills ($N_{TOTAI} = 9,659$)	Z	528	2,191	1,410	3,458	1,176
	11	8.54 (1.74)	8.78 (1.60)	8.87(1.46)	8.91 (1.42)	8.99(1.31)
	14	7.95 (1.89)	8.32 (1.85)	8.34 (1.76)	8.45 (1.73)	8.50 (1.72)

Source	Df	F	Р	r
Between subjects				
Gender (G)	1	118.430	0.000	0.11
Between-group error	9,693	(6.36)		
Within subjects				
Emotional symptoms (ES)	1	65.103	0.000	0.08
ES×G	1	134.154	0.000	0.12
Within-group error	9,693	(1.87)		
Between subjects				
Gender (G)	1	44.959	0.000	0.07
Between-group error	9,697	(3.87)		
Within subjects				
Conduct problems (CP)	1	12.315	0.000	0.04
$CP \times G$	1	27.145	0.000	0.05
Within-group error	9,697	(0.95)		
Between subjects				
Gender (G)	1	428.159	0.000	0.21
Between-group error	9,677	(9.22)		
Within subjects				
Hyperactivity (H)	1	39.344	0.000	0.06
$H \times G$	1	0.032	0.858	0.00
Within-group error	9,677	(1.84)		
Between subjects				
Gender (G)	1	24.399	0.000	0.05
Between-group error	9,703	(4.52)		
Within subjects				
Peer problems (PP)	1	530.005	0.000	0.23
$PP \times G$	1	0.072	0.788	0.00
Within-group error	9,703	(1.29)		
Between subjects		60 60 f		
Gender (G)	1	60.684	0.000	0.08
Between-group error	9,657	(55.96)		
Within subjects		106.000	0.000	0.10
Total difficulties (TD)	1	106.393	0.000	0.10
TD×G	1	48.102	0.000	0.07
Within-group error	9,657	(9.62)		
Between subjects	1	206.021	0.000	0.17
Gender (G)	1	306.021	0.000	0.17
Between-group error	9,702	(3.99)		
Within subjects	1	792 (04	0.000	0.27
Prosocial skills (PS) $PS \times C$	1	/83.694	0.000	0.27
PS × G	1 0 702	0.68/	0.407	0.01
within-group error	9,702	(1.39)		

Table 4: Mixed-design ANOVA for SDQ domains and gender

Note: Values enclosed in parentheses represent mean square errors.

Between subjectsIncome (I)4 104.933 0.000 0.10 Between-group error9,690 (6.17) 0.000 0.09 Within subjects1 77.016 0.000 0.09 Emotional symptoms (ES)1 77.016 0.000 0.09 ES × I4 4.648 0.001 0.02 Within-group error9,690 (1.90) 0.000 0.15 Between subjects1 205.774 0.000 0.15 Income (I)4 205.774 0.000 0.15 Between-group error9,694 (3.59) 0.000 0.04 CP × I4 $.271$ 0.896 0.01 Within-group error $9,694$ 0.000 0.12 Between subjects1 139.715 0.000 0.12 Between-group error $9,674$ (9.10) 0.02	Source	Df	F	Р	r
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Within-group error Between subjects9,690(1.90)0.0000.12Income (I)4205.7740.0000.15Between-group error Within subjects9,694 (3.59) 0.0000.04Conduct problems (CP)112.7410.0000.04CP × I4.2710.8960.01Within-group error Between subjects9,69496940.01Income (I)4139.7150.0000.12Between-group error9,674(9.10)0.0000.12	$ES \times I$	4	4.648	0.001	0.02
Between subjectsIncome (I)4 205.774 0.000 0.15 Between-group error $9,694$ (3.59) 0.000 0.15 Within subjects 0.000 0.04 0.000 0.04 Conduct problems (CP)1 12.741 0.000 0.04 CP × I4 $.271$ 0.896 0.01 Within-group error $9,694$ 0.01 0.000 0.12 Between subjects 0.000 0.12 0.000 0.12	Within-group error	9.690	(1.90)		
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CP × I 4 .271 0.896 0.01 Within-group error 9,694 $2000000000000000000000000000000000000$	Conduct problems (CP)	1	12.741	0.000	0.04
Within-group error 9,694 Between subjects 139.715 0.000 0.12 Between-group error 9,674 (9.10) 0.000 0.12	CP×I	4	.271	0.896	0.01
Between subjects 4 139.715 0.000 0.12 Between-group error 9,674 (9.10) 0.000 0.12	Within-group error	9,694			
Income (I)4139.7150.0000.12Between-group error9,674(9.10)	Between subjects				
Between-group error 9,674 (9.10)	Income (I)	4	139.715	0.000	0.12
	Between-group error	9,674	(9.10)		
Within subjects	Within subjects				
Hyperactivity (H) 1 35.440 0.000 0.06	Hyperactivity (H)	1	35.440	0.000	0.06
$H \times I$ 4 1.271 0.279 0.01	$H \times I$	4	1.271	0.279	0.01
Within-group error 9,674 (1.84)	Within-group error	9,674	(1.84)		
Between subjects	Between subjects				
Income (I) 4 150.975 0.000 0.12	Income (I)	4	150.975	0.000	0.12
Between-group error 9,700 (4.26)	Between-group error	9,700	(4.26)		
Within subjects	Within subjects				
Peer problems (PP) 1 534.488 0.000 0.23	Peer problems (PP)	1	534.488	0.000	0.23
$PP \times I \qquad 4 \qquad 5.043 \qquad 0.000 \qquad 0.02$	$PP \times I$	4	5.043	0.000	0.02
Within-group error 9,700 (1.29)	Within-group error	9,700	(1.29)		
Between subjects	Between subjects		247 207	0.000	0.16
Income (1) $4 24/.29/ 0.000 0.16$	Income (I)	4	247.297	0.000	0.16
Between-group error 9,654 (51.09)	Between-group error	9,654	(51.09)		
Within subjects	Within subjects $T_{1} + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +$	1	117 017	0.000	0.11
$\begin{array}{cccc} 10 \text{ total difficulties (1D)} & 1 & 11/.21/ & 0.000 & 0.11 \\ TD \times I & 4 & 2.000 & 0.015 & 0.02 \end{array}$	TD × I	1	11/.21/	0.000	0.11
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ID \times I$	4	3.099	0.015	0.02
Patwagn subjects	Patwaen subjects	9,034	(9.00)		
$\frac{Deliween subjects}{1}$	Income (I)	4	20.042	0.000	0.06
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Patwaan group arror	4	(4.05)	0.000	0.00
Within subjects (4.03)	Within subjects	9,099	(4.03)		
Prosocial skills (PS) 1 762 653 0.000 0.27	Prosocial skills (PS)	1	762 653	0.000	0.27
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$PS \times I$	4	0 707	0.587	0.27
Within-group error 9.699 (1.39)	Within-group error	9.699	(1.39)	0.007	0.01

Table 5: Mixed-design ANOVA for SDQ domains and income

Note: Values enclosed in parentheses represent mean square errors.

Source	Df	F	Р	r
Between subjects				
Parent education (PE)	4	40.623	0.000	0.07
Between-group error	8.755	(6.23)	0.000	0.07
Within subjects	0,,000	(0.20)		
Emotional symptoms (ES)	1	45 072	0.000	0.07
$ES \times PE$	4	1.738	0.138	0.1
Within-group error	8.755	(1.82)	01120	011
Between subjects	-,,	()		
Parent education (PE)	4	67.145	0.000	0.09
Between-group error	8.755	(3.60)		
Within subjects	-)	()		
Conduct problems (CP)	1	9.396	0.002	0.03
CP × PE	4	3.304	0.010	0.02
Within-group error	8,755	(0.88)		
Between subjects				
Parent education (PE)	4	65.729	0.000	0.09
Between-group error	8,747	(9.33)		
Within subjects				
Hyperactivity (H)	1	29.709	0.000	0.06
$H \times PE$	4	0.561	0.691	0.1
Within-group error	8,747	(1.77)		
Between subjects				
Parent education (PE)	4	44.703	0.000	0.07
Between-group error	8,758	(4.37)		
Within subjects				
Peer problems (PP)	1	364.736	0.000	0.20
$PP \times PE$	4	4.239	0.002	0.02
Within-group error	8,758	(1.23)		
Between subjects				
Parent education (PE)	4	92.039	0.000	0.10
Between-group error	8,734	(52.83)		
Within subjects				
Total difficulties (TD)	1	72.768	0.000	0.09
$TD \times PE$	4	1.066	0.372	0.01
Within-group error	8,734	(9.18)		
Within subjects		11.00	0.000	0.04
Parent education (PE)	4	14.605	0.000	0.04
Between-group error	8,758	(4.04)		
Between subjects	1	500 205	0.000	0.05
Prosocial skills (PS)	1	588.205	0.000	0.25
PS × PE	4	1.150	0.331	0.01
within-group error	8,758	(1.30)		

Table 6: Mixed-design ANOVA for SDQ domains and parent education

Note: Values enclosed in parentheses represent mean square errors.

ratings for emotional symptoms, conduct problems, hyperactivity and peer problems and lower ratings for prosocial skills as family income dropped from the first to the bottom quintile (Table 5) and parent education from NVQ5 (degree level) to NVQ1 (pre-GCSE level) (Table 6).

Taken together, as children moved into mid-adolescence, there was an increase in ratings for emotional difficulties and peer problems and a drop in prosocial skills. Over the three-year period, girls attracted higher ratings for emotional symptoms and conduct problems, whereas the reverse was noted for boys. A graded relationship between SDQ domains and family income and parent education was found, although longitudinal differences in SDQ domains were not found to depend on SES groupings. Ratings for emotional symptoms, peer problems and prosocial skills at age 14 were markedly different to those obtained at age 11, with gender having a differential effect on emotional symptoms and conduct problems.

Discussion

The aim of this study was to examine changes over time in parent ratings of internalising and externalising difficulties and prosocial behaviour in adolescent boys and girls within their socio-economic context. Longitudinal analyses showed an increase in parent-rated emotional difficulties in girls and a decrease in boys, and a drop in hyperactivity, conduct problems and prosocial behaviour as they entered mid-adolescence. Ratings of peer problems markedly increased over the three-year period. The findings also indicated a graded relationship between family income, parent education and SDO domains for 11- and 14-year-olds. As levels of family income and parent education decreased, ratings of social, emotional and behavioural difficulties increased, whereas ratings of prosocial behaviour decreased. Adolescence, with the autonomy and independence that accompany it, seems to be an unsettling place for many young people, girls in particular, compounded by gender and economic inequality and other gendered forms of disadvantage (such as sexism, bullying and verbal abuse). The findings from this study point to the need to move away from within-person indicators of social, emotional and behavioural functioning in young people, towards considering cultural and economic changes as explanations for the rise in social and emotional difficulties.

Changes in social behaviour from pre- to mid-adolescence

Although little variation was found in ratings for externalising behaviours (that is, hyperactivity, conduct problems) over the three-year period, changes

in ratings of emotional difficulties and peer problems as well as prosocial behaviour were relatively steep. As girls moved into mid-adolescence, ratings of emotional difficulties increased, whereas ratings of emotional difficulties and conduct problems decreased for boys. Consistently with previous studies examining the prevalence of social, emotional and behavioural difficulties in adolescents (Bor et al., 2014; Patel et al., 2007), girls attracted higher ratings for emotional difficulties and boys for behavioural problems. The gender specificity of emotional problems suggests that societal and economic changes, which are likely to underpin emotional problems, have differential effects for boys and girls. It may be that girls face additional pressures such as bullying due to their increased Internet and media usage and exposure, increased early sexualization and school performance pressure (Fink et al., 2015). Findings from cross-sectional studies have shown strong associations between body shaming, sexual harassment and emotional problems (such as, low self-esteem and depressive symptoms) among adolescent girls (Bucchianeri et al., 2014). Further research is needed to examine these trends in adolescent girls' emotional well-being.

The rise in emotional problems among girls may also reflect a lack of effective interventions specifically to tackle emotional problems in schools, due to an increased focus on disruptive behaviours in the classroom. Much previous research confirms that teachers are disproportionally attentive to behavioural problems (which tend to be over-represented in boys) because of their disruptive nature, whereas emotional problems (which tend to be over-represented in girls) are less likely to be registered and acted upon. This has implications for school policy.

Early- and mid-adolescent girls attracted higher ratings for prosocial skills than boys. This is consistent with previous studies indicating more prosocial skills in women (Di Riso et al., 2010). However, ratings of prosocial skills dropped steeply whereas ratings of peer problems increased as both boys and girls moved to mid-adolescence. These findings highlight the complexity inherent in adolescent peer interactions but also the fact that young people are far less integrated into society than they used to be; their physical and social geographies are shrinking. They tend to spend less time interacting with peers face-to-face, and making friends appears to be fraught with problems. A 2015 PISA report showed a dramatic fall across the developed world since 2012 in the number of children who would say 'I make friends easily at school' (OECD, 2015). Explanations for young people's restricted socialisation range from limited opportunities for unstructured/unsupervised play during childhood to increased Internet use and online engagement, giving rise to an 'indoor' generation. Also, a culture of unhealthy comparisons propelled by curated online lives and competition among young people in education, exacerbated by austerity and gender inequality, have fostered a difficult climate for peer interactions and friendships.

It is interesting to note that prosocial skills in terms of showing empathy and co-operation drop when young people need them most. This is counterintuitive in that as children grow up their social cognitive capacity to identify and predict others' emotions increase and thus, at age 14, they should be more capable of displaying prosocial behaviour in their interactions with peers than they were at age 11. However, because social competence involves both emotional and cognitive responses to social situations (Dunn, 1995), it is important to differentiate between these responses, considering that prosocial behaviour relies primarily on engaging emotionally with others. As such, although 14-year-olds may have the socio-cognitive resources to show prosocial behaviour, they are perceived by their parents as less emotionally responsive in the family context.

The socio-economic context of teenage social behaviour and emotional well-being The findings from this study showed a graded relationship for all SDQ domains, with peer problems and prosocial skills being particularly pronounced. It appears that for adolescents in families with low income and parental education, difficulties with displaying prosocial skills and interacting with peers perpetuate and potentially become more intense with age. Consistently, findings from previous waves of the MCS showed modest effects of family income and parental education on children's behaviour at ages three, five and seven years for behavioural difficulties (for example, hyperactivity, conduct difficulties, peer problems) and weak effects for prosocial behaviour (Hartas, 2011a). Furthermore, inappropriate behaviours seem to persist over time in that disruptive children also tend to present anti-social behaviour as teenagers and adults (Agerup et al., 2015). Interestingly, associations between socioeconomic factors and prosocial behaviour in four- to five-year-old Australian children (Edwards & Bromfield, 2009) and among two- to 11-year-old Canadian children (Romano et al., 2005) were found to be weak, suggesting that positive behaviour, such as being helpful and co-operative and showing empathy, was not affected by socio-economic circumstances in early childhood. However, this is not the case for adolescents in that although ratings of prosocial skills dropped between 11 and 14 years of age, the drop in ratings was steeper for teenagers in families with low income and parent education.

The graded relationship between SES measures and young people's social-emotional difficulties and prosocial behaviour raises important questions about the deleterious effects of long-term austerity and wealth inequality, especially as children move into adolescence. As income and, subsequently, health inequality is on the rise, socio-economic differences in young people's social behaviour and emotional well-being have increased in recent years. The odds are stacked against children and young people from poorer backgrounds not only in terms of (perceived or actual) difficulties in social behaviour and emotional functioning but also in terms of life chances (Social Mobility and Child Poverty Commission, 2017).

Rising income inequality has worsened young people's mental health in general (Viner et al., 2012). In terms of the pathways through which poverty affects children's ratings of behaviour, poverty is thought to have an indirect effect by impacting on parents' well-being (Bor et al., 1997) and, consequently, perceptions of their children's behaviour (Foster et al., 2005; Hobcraft & Kiernan, 2010). Poverty is taxing on parents and families; for example, mothers in poverty are likely to suffer from post-natal depression (Gregg & Washbrook, 2011), which in turn is likely to affect their perceptions of their children's behaviour and capacity to meet their social and emotional needs. In previous analyses of the MCS, maternal depression emerged as a significant predictor for three- and five-year-olds' behavioural difficulties (Hartas, 2011b). Parents who experience psychological stress may be less tolerant of children's age-appropriate misbehaviour and teenagers' need for independence; children could also develop inappropriate behaviours as a reaction to intolerant parenting. Moreover, parents with mental health difficulties tend to rate their children's behaviour more negatively (Campbell, 2006; Foster et al., 2005). In contrast, educated parents tend to rate children's behaviour less harshly, and are more likely to engage in conversation and reasoned argument to deal with behavioural challenges. Also, for parents in households towards the top quintile, dealing with children's behaviour is less taxing due to access to resources and social networks and other systems of support.

Strengths and limitations

The SDQ used in this study is a parent report questionnaire validated for 11to 16-year-olds. It addresses contemporary problems like impulsiveness or bullying, which is among the reasons why it is widely accepted by clinicians and educational professionals (Goodman et al., 2010;Stone et al., 2010). However, the validity of parent reports could be influenced by inconsistencies in recalling child behaviour; parents' awareness of child behaviour at the time of its occurrence; the degree to which children's internalising behaviour (such as emotional symptoms) can be objectively verifiable; the frequency of inappropriate behaviour; and individual parents' mood, personality or parenting style at the time of rating the behaviour. Moreover, although the SDQ scale is validated, it tends to identify the presence of symptoms or characteristics at a lower threshold than diagnostic interviews normally do.

A strength of this study lies in its use of longitudinal design. Most studies on examining SDQ domains have employed cross-section designs vulnerable to possible biases associated with attrition (Hardt & Rutter, 2004). Longitudinal designs on the other hand are more likely to be valid because they examine both within individual change and case control comparisons through the collection of multiple data over time to deal effectively with missing data.

Conclusion

The social and emotional challenges faced by young people today, particularly girls, are not just increasing but of a different nature. They display behavioural, social and emotional difficulties (such as anxiety, depression, phobias, anti-social behaviour/oppositional defiant problems); self-harm and performance anxiety triggered by increasing competition in the education market; social phobia triggered by a continuous process of evaluating, monitoring and competing with others; and body shaming and body dysphoria exacerbated by images that conform to narrow ideals of femininity and masculinity. Future research is needed to understand the triggers for these problem behaviours, because they affect how young people view themselves and relate to their peers as well as how they access educational support.

The graded relationship between internalising and externalising behaviour difficulties and family income and parent education contributes to a vast literature on disadvantage and young people's social behaviour and emotional well-being. The issue of child poverty is particularly topical, with UK levels increasing for the first time in almost two decades (Social Mobility and Child Poverty Commission, 2017). The findings from this study call for improved Government intervention to ameliorate social, emotional and behavioural difficulties, especially for adolescents from deprived backgrounds. However, the current austerity-driven, politically polarised environment of curtailed mental health services and support for young people is worrying. In 2014, a cross-government committee reported "serious" problems in child and youth mental health provision across the UK and the president of the Royal College of Psychiatrists agreed that mental health services in England are 'in

crisis' (Buchanan, 2014). In 2018/2019, research commissioned by the Local Government Association showed that councils faced a SEND funding gap of nearly 500 million. As we move towards the end of this decade, little has changed, with political and financial instability disproportionally affecting young people and parents in reduced-income households.

Given the diversity of young people facing emotional and behavioural challenges and the multitude of their socio-economic ecologies, it is no wonder that there is no one process that effectively addresses all their social, emotional and behavioural needs. From a SEND point of view, educators and mental health support staff are encouraged to broaden the scope of what they do to support adolescents, especially girls and teenagers from disadvantaged families. Providing support by learning about their lives, and using teacher self-reflection about teachers' roles in developing caring relationships with them, are effective practices to deal with the complexity of externalising and internalising difficulties. Most importantly, understanding the social dynamics that shape young people's social and emotional well-being within their social milieu is pivotal for reducing health inequalities.

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