

Appendix

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Classification of self-harm cases

These cases were identified as people fulfilling at least one of the following criteria in either the National Patient Register¹ or the Psychiatric Central Research Register²:

- 1) Reason for contact code = 4 (National Patient Register)
- 2) Any psychiatric diagnosis (ICD-10 chapter F) and a comorbid diagnosis of poisoning with medication and biological compounds (ICD-10 codes T36 through T50) or non-medical compounds, excluding alcohol and poisoning from food (ICD-10 codes T52 through T60)
- 3) Any psychiatric disorder (ICD-10 Chapter F) and comorbid diagnosis reflecting lesions on forearm, wrist or hand (ICD-10 codes S51, S55; S59, S61, S65, or S69)
- 4) Any hospital contact due to poisoning with weak or strong analgesics, hypnotics, sedatives psychoactive drugs, anti-epileptics and anti-Parkinson drugs or carbon monoxide (ICD 10 codes T39, T42, T43, and T58)
- 5) Intentional self-harm: ICD-10 X60-X84 (recorded as a primary or secondary diagnosis in either Register)

References

1. Lynge E, Sandegaard JL, Rebolj M. The Danish National Patient Register. *Scand J Public Health* 2011; **39(7 Suppl)**:30–3.
2. Mors O, Perto GP, Mortensen PB. The Danish Psychiatric Central Research Register. *Scand J Public Health* 2011; **39(7 Suppl)**:54–7.

Additional information regarding measurement of parental income

A basic description of the procedures used to measure parental income is provided in the main text of the manuscript (please see the 'Exposures' subsection). Here we provide additional information.

If a parent's income was missing in a particular year, the parental income for that year would be that of the non-missing parent. The percentages of cohort members with maternal and paternal income both missing were: 0.002% at birth year, 0.035% at age 5 and at age 10, and 0.001% at age 15. Individuals with missing information on parental income were categorised into a 'missing' category that was included in all statistical modelling.

Appendix Table S1. Basic demographic information on cases of self-harm and violent offending

	Self-harm (n=21,267)	Violent offending (n=23,724)
<i>Gender</i>	% of cases	% of cases
Males	39.5	87.3
Females	60.5	12.7
<i>Age at occurrence of outcome</i>	% of cases	% of cases
15-19	60.4	61.5
20-24	30.2	29.7
25-29	8.1	7.8
30-33	1.3	1.1
Mean age	19.8	19.8
Median age	19.1	19.0
<i>Year of occurrence of outcome</i>	% of cases	% of cases
1997-2000	3.3	3.5
2001-2005	21.1	24.9
2006-2010	39.1	39.1
2011-2015	36.6	32.6

Appendix Table S2. Descriptive information on covariates for cases and controls

	Cases (%) (n=44,991) ¹	Controls (%) (n=1,124,775) ²
<i>Highest level of maternal education</i> ³		
Primary school	42.7	25.6
High school/vocational training	39.2	42.3
Higher education	16.8	31.4
No information ⁴	1.3	0.6
<i>Highest level of paternal education</i> ³		
Primary school	39.0	23.6
High school/vocational training	45.4	49.5
Higher education	12.2	25.3
No information ⁴	3.4	1.6
<i>Mother with a secondary care treated mental illness</i>	17.0	8.1
<i>Father with a secondary care treated mental illness</i>	14.5	6.7
<i>Maternal age at time of child's birth</i>		
20 or under	6.8	2.4
21-24	33.6	22.7
25-29	36.1	41.5
30-34	17.6	24.8
35-39	5.1	7.5
40 and over	0.9	1.1
<i>Paternal age at time of child's birth</i>		
20 or under	2.1	0.7
21-24	20.1	11.7
25-29	35.2	34.7
30-34	25.7	32.0
35-39	11.6	14.8
40-44	3.9	4.5
45 and over	1.5	1.5
<i>Number of full siblings</i>		
0	25.7	16.3
1	45.1	50.5
2	21.5	25.4
3	5.9	6.3
4	1.3	1.1
5	0.4	0.3
6 or over	0.3	0.2
<i>Number of maternal half-siblings</i> ⁵		
0	66.3	83.2
1	18.9	10.4
2	10.4	4.9
3	3.2	1.2
4	0.8	0.3
5 or over	0.3	0.1
<i>Number of paternal half-siblings</i> ⁶		
0	69.2	82.2
1	16.0	9.7
2	10.0	5.8
3	3.4	1.7
4	1.0	0.4
5 or over	0.5	0.2

¹ Total number of cases of self-harm and violent offending. An individual who had both adverse outcomes would be counted as two cases in the total.

² Total number of controls matched to cases of self-harm and violent offending (25 controls per case). Each individual in the study cohort could be a control for more than one case. In addition, since controls were matched to the cases on age and gender, no inference should be made to the covariate distribution of the general population.

³ In the year of cohort members' 15th birthdays.

⁴ A 'missing' category was included in the analyses when models were adjusted for parental education.

⁵ Number of siblings with the same mother and different father(s), born before a cohort member's 15th birthday.

⁶ Number of siblings with the same father and different mother(s), born before a cohort member's 15th birthday.

Appendix Table S3. Numbers and percentages of cases and controls for self-harm and violent offending by parental income quintiles measured at age 15

Self-harm		
	Cases (%)	Controls (%) ¹
Parental income quintile		
1 (lowest)	6,690 (31.5)	90,115 (17.0)
2	4,570 (21.5)	98,688 (18.6)
3	3,912 (18.4)	107,210 (20.2)
4	3,521 (16.6)	114,560 (21.6)
5 (highest)	2,574 (12.1)	121,095 (22.8)
Missing	0 (0.0)	7 (0.0)
Total	21,267 (100.0)	531,675 (100.0)

Violent offending		
	Cases (%)	Controls (%) ¹
Parental income quintile		
1 (lowest)	8,297 (35.0)	100,774 (17.0)
2	5,148 (21.7)	110,233 (18.6)
3	4,245 (17.9)	119,039 (20.1)
4	3,504 (14.8)	127,591 (21.5)
5 (highest)	2,530 (10.7)	135,456 (22.8)
Missing	0 (0.0)	7 (0.0)
Total	23,724 (100.0)	593,100 (100.0)

¹ Since controls were matched to the cases on age and gender, no inference should be made to the parental income distribution of the general population.

Appendix Table S4. Numbers and percentages of cases and controls for self-harm and violent offending by cumulative parental income scale during childhood

Parental income scale	Self-harm		Violent offending	
	Cases (%)	Controls (%) ¹	Cases (%)	Controls (%) ¹
4	1,174 (5.5)	10,388 (2.0)	1,640 (6.9)	11,037 (1.9)
5	1,259 (5.9)	14,096 (2.7)	1,590 (6.7)	15,154 (2.6)
6	1,354 (6.4)	16,757 (3.2)	1,532 (6.5)	17,960 (3.0)
7	1,467 (6.9)	22,023 (4.1)	1,679 (7.1)	23,816 (4.0)
8	1,593 (7.5)	27,120 (5.1)	1,812 (7.6)	29,698 (5.0)
9	1,566 (7.4)	31,148 (5.9)	1,901 (8.0)	34,869 (5.9)
10	1,620 (7.6)	34,623 (6.5)	1,745 (7.4)	38,050 (6.4)
11	1,539 (7.2)	36,939 (7.0)	1,750 (7.4)	41,043 (6.9)
12	1,523 (7.2)	39,406 (7.4)	1,701 (7.2)	42,758 (7.2)
13	1,477 (7.0)	38,947 (7.3)	1,572 (6.6)	43,760 (7.4)
14	1,311 (6.2)	37,986 (7.1)	1,401 (5.9)	42,739 (7.2)
15	1,149 (5.4)	37,032 (7.0)	1,239 (5.2)	41,833 (7.1)
16	1,064 (5.0)	38,997 (7.3)	1,080 (4.6)	43,498 (7.3)
17	839 (4.0)	32,135 (6.0)	897 (3.8)	36,632 (6.2)
18	688 (3.2)	29,240 (5.5)	698 (2.9)	33,163 (5.6)
19	642 (3.0)	29,226 (5.5)	608 (2.6)	32,784 (5.5)
20	992 (4.7)	55,248 (10.4)	872 (3.7)	63,896 (10.8)
Missing	10 (0.1)	364 (0.1)	7 (0.0)	410 (0.1)
Total	21,267 (100.0)	531,675 (100.0)	23,724 (100.0)	593,100 (100.0)

¹ Since controls were matched to the cases on age and gender, no inference should be made to the parental income distribution of the general population.

Appendix Table S5. Incidence rate ratios for self-harm: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

Adjustment	Income quintiles ¹	At birth	At age 5	At age 10	At age 15
Inherently adjusted for age, sex and calendar year	1	3.49 (3.31-3.68)	3.27 (3.12-3.43)	3.38 (3.23-3.54)	3.51 (3.35-3.68)
	2	2.54 (2.42-2.66)	2.29 (2.19-2.40)	2.23 (2.12-2.33)	2.18 (2.08-2.29)
	3	1.86 (1.78-1.94)	1.75 (1.67-1.83)	1.77 (1.68-1.86)	1.72 (1.64-1.81)
	4	1.37 (1.31-1.43)	1.44 (1.37-1.50)	1.40 (1.33-1.47)	1.45 (1.37-1.52)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	1	2.39 (2.26-2.53)	2.15 (2.05-2.27)	2.24 (2.13-2.35)	2.32 (2.20-2.44)
	2	1.86 (1.77-1.95)	1.66 (1.58-1.74)	1.65 (1.57-1.73)	1.61 (1.53-1.70)
	3	1.44 (1.38-1.51)	1.37 (1.31-1.44)	1.42 (1.35-1.49)	1.40 (1.33-1.47)
	4	1.17 (1.12-1.23)	1.24 (1.19-1.30)	1.24 (1.18-1.31)	1.31 (1.24-1.38)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	1	2.80 (2.65-2.96)	2.64 (2.51-2.77)	2.77 (2.64-2.90)	2.88 (2.75-3.02)
	2	2.22 (2.12-2.33)	2.06 (1.97-2.16)	2.05 (1.96-2.15)	2.02 (1.92-2.12)
	3	1.73 (1.66-1.81)	1.67 (1.59-1.74)	1.70 (1.62-1.78)	1.66 (1.58-1.74)
	4	1.34 (1.28-1.40)	1.41 (1.34-1.47)	1.37 (1.30-1.44)	1.42 (1.35-1.50)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	1	2.71 (2.57-2.86)	2.60 (2.47-2.73)	2.70 (2.57-2.83)	2.82 (2.69-2.96)
	2	2.16 (2.06-2.27)	2.03 (1.94-2.12)	2.01 (1.91-2.10)	1.98 (1.88-2.08)
	3	1.70 (1.63-1.78)	1.66 (1.58-1.73)	1.68 (1.60-1.76)	1.64 (1.56-1.72)
	4	1.34 (1.28-1.40)	1.41 (1.34-1.47)	1.37 (1.30-1.44)	1.42 (1.35-1.49)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	1	2.60 (2.46-2.76)	2.62 (2.49-2.76)	2.83 (2.70-2.97)	3.03 (2.89-3.17)
	2	2.09 (1.99-2.20)	1.95 (1.86-2.05)	1.94 (1.85-2.03)	1.93 (1.84-2.03)
	3	1.63 (1.56-1.70)	1.56 (1.49-1.63)	1.60 (1.52-1.68)	1.56 (1.49-1.65)
	4	1.28 (1.23-1.34)	1.34 (1.28-1.41)	1.32 (1.26-1.39)	1.38 (1.31-1.45)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Full adjustment ²	1	1.51 (1.42-1.61)	1.49 (1.41-1.57)	1.61 (1.53-1.70)	1.74 (1.65-1.83)
	2	1.42 (1.35-1.49)	1.37 (1.31-1.44)	1.41 (1.34-1.49)	1.42 (1.34-1.49)
	3	1.25 (1.19-1.31)	1.25 (1.19-1.31)	1.31 (1.25-1.38)	1.30 (1.23-1.37)
	4	1.11 (1.06-1.16)	1.19 (1.13-1.25)	1.19 (1.13-1.25)	1.26 (1.20-1.33)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)

¹ Quintile 1 = lowest income; quintile 5 = highest income

² In addition to inherent adjustment for age, sex, and calendar year, also adjusted for number of full and maternal and paternal half-siblings, maternal and paternal age at cohort member's birth, history of any maternal and paternal mental illness, and highest levels of maternal and paternal educational attainment.

Appendix Table S6. Incidence rate ratios for violent offending: inherent adjustment, additional adjustment for each covariate domain separately, and full adjustment

Adjustment	Income quintiles ¹	At birth	At age 5	At age 10	At age 15
Inherently adjusted for age, sex and calendar year	1	4.86 (4.62-5.12)	4.45 (4.25-4.66)	4.49 (4.29-4.70)	4.43 (4.23-4.63)
	2	3.11 (2.97-3.25)	2.72 (2.61-2.85)	2.61 (2.49-2.73)	2.51 (2.39-2.63)
	3	2.14 (2.05-2.23)	2.03 (1.94-2.12)	2.05 (1.96-2.16)	1.91 (1.82-2.01)
	4	1.55 (1.49-1.62)	1.52 (1.45-1.59)	1.53 (1.46-1.61)	1.47 (1.40-1.55)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	1	2.84 (2.69-3.00)	2.45 (2.33-2.57)	2.41 (2.29-2.53)	2.31 (2.20-2.43)
	2	1.99 (1.90-2.08)	1.69 (1.61-1.77)	1.62 (1.54-1.70)	1.53 (1.45-1.61)
	3	1.48 (1.42-1.54)	1.40 (1.34-1.47)	1.43 (1.36-1.50)	1.34 (1.27-1.41)
	4	1.22 (1.17-1.27)	1.21 (1.15-1.26)	1.25 (1.19-1.31)	1.22 (1.16-1.29)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	1	4.03 (3.82-4.25)	3.75 (3.58-3.93)	3.84 (3.67-4.02)	3.80 (3.63-3.98)
	2	2.78 (2.66-2.91)	2.51 (2.40-2.62)	2.45 (2.33-2.56)	2.37 (2.25-2.48)
	3	2.02 (1.93-2.10)	1.96 (1.87-2.04)	2.00 (1.90-2.09)	1.86 (1.77-1.96)
	4	1.52 (1.45-1.58)	1.49 (1.43-1.56)	1.51 (1.44-1.59)	1.45 (1.38-1.53)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	1	3.60 (3.41-3.79)	3.42 (3.27-3.59)	3.47 (3.32-3.64)	3.44 (3.28-3.60)
	2	2.58 (2.46-2.70)	2.37 (2.26-2.48)	2.30 (2.20-2.42)	2.24 (2.13-2.35)
	3	1.93 (1.85-2.02)	1.90 (1.82-1.99)	1.94 (1.85-2.03)	1.80 (1.72-1.90)
	4	1.50 (1.44-1.56)	1.48 (1.41-1.55)	1.49 (1.42-1.57)	1.43 (1.36-1.51)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	1	3.16 (2.98-3.34)	3.28 (3.13-3.44)	3.50 (3.34-3.67)	3.61 (3.45-3.78)
	2	2.31 (2.20-2.42)	2.15 (2.06-2.26)	2.12 (2.02-2.23)	2.10 (2.00-2.20)
	3	1.73 (1.65-1.80)	1.70 (1.62-1.77)	1.76 (1.67-1.84)	1.67 (1.59-1.75)
	4	1.37 (1.32-1.43)	1.36 (1.30-1.42)	1.40 (1.33-1.47)	1.36 (1.30-1.44)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Full adjustment ²	1	1.66 (1.57-1.77)	1.67 (1.58-1.76)	1.73 (1.64-1.82)	1.75 (1.66-1.84)
	2	1.43 (1.36-1.50)	1.36 (1.30-1.43)	1.35 (1.29-1.42)	1.33 (1.27-1.40)
	3	1.22 (1.17-1.28)	1.24 (1.19-1.30)	1.29 (1.23-1.36)	1.24 (1.17-1.30)
	4	1.12 (1.07-1.17)	1.13 (1.08-1.18)	1.17 (1.12-1.23)	1.16 (1.10-1.23)
	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)

¹ Quintile 1 = lowest income; quintile 5 = highest income

² In addition to inherent adjustment for age, sex, and calendar year, also adjusted for number of full and maternal and paternal half-siblings, maternal and paternal age at cohort member's birth, history of any maternal and paternal mental illness, and highest levels of maternal and paternal educational attainment.

Appendix Table S7. Incidence rate ratios for self-harm and violent offending by cumulative parental income scale during childhood: inherently adjusted for age, sex and calendar year and fully adjusted

Cumulative parental income scale	Self-harm		Violent offending	
	IRR - Inherent adjustment ¹	IRR - Full adjustment ²	IRR - Inherent adjustment ¹	IRR - Full adjustment ²
4	7.19 (6.58-7.86)	2.17 (1.97-2.40)	13.0 (11.9-14.1)	2.85 (2.59-3.14)
5	5.42 (4.97-5.90)	2.03 (1.85-2.23)	8.60 (7.90-9.37)	2.36 (2.15-2.59)
6	4.85 (4.46-5.28)	2.06 (1.88-2.26)	6.86 (6.30-7.47)	2.17 (1.98-2.37)
7	3.93 (3.62-4.27)	1.88 (1.72-2.06)	5.55 (5.11-6.04)	2.01 (1.84-2.19)
8	3.47 (3.20-3.76)	1.83 (1.68-1.99)	4.82 (4.44-5.23)	1.91 (1.75-2.08)
9	2.95 (2.72-3.20)	1.67 (1.53-1.82)	4.27 (3.93-4.63)	1.84 (1.69-2.01)
10	2.72 (2.51-2.95)	1.64 (1.51-1.79)	3.55 (3.27-3.85)	1.63 (1.50-1.78)
11	2.40 (2.21-2.60)	1.53 (1.40-1.66)	3.25 (3.00-3.53)	1.62 (1.49-1.76)
12	2.21 (2.04-2.40)	1.48 (1.36-1.61)	3.01 (2.77-3.27)	1.60 (1.47-1.74)
13	2.16 (1.99-2.34)	1.52 (1.40-1.66)	2.70 (2.48-2.94)	1.52 (1.39-1.65)
14	1.95 (1.79-2.12)	1.44 (1.32-1.56)	2.45 (2.25-2.67)	1.48 (1.36-1.62)
15	1.75 (1.61-1.91)	1.35 (1.24-1.47)	2.20 (2.02-2.40)	1.40 (1.28-1.53)
16	1.54 (1.41-1.68)	1.26 (1.15-1.37)	1.85 (1.69-2.03)	1.30 (1.19-1.42)
17	1.46 (1.33-1.60)	1.23 (1.12-1.35)	1.80 (1.64-1.98)	1.31 (1.19-1.44)
18	1.31 (1.19-1.45)	1.15 (1.04-1.27)	1.54 (1.39-1.70)	1.21 (1.09-1.33)
19	1.22 (1.11-1.35)	1.12 (1.01-1.24)	1.36 (1.22-1.51)	1.15 (1.04-1.28)
20	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)

¹ Adjusted for age, sex, and calendar year (inherently in the nested case-control design).

² In addition to inherent adjustment for age, sex, and calendar year, also adjusted for number of full and maternal and paternal half-siblings, maternal and paternal age at cohort member's birth, history of any maternal and paternal mental illness, and highest levels of maternal and paternal educational attainment.

Appendix Table S8. Incidence rate ratios for self-harm and violent offending in relation to trajectories in parental income levels between birth and age 15: inherently adjusted for age, sex and calendar year and fully adjusted

Parental income quintile at birth	Parental income quintile at age 15	Self-harm		Violent offending	
		IRR - Inherent adjustment ¹	IRR - Full adjustment ²	IRR - Inherent adjustment ¹	IRR - Full adjustment ²
1	1	6.02 (5.58-6.49)	2.02 (1.85-2.20)	9.90 (9.20-10.6)	2.42 (2.22-2.62)
1	2	3.89 (3.52-4.30)	1.71 (1.54-1.90)	5.65 (5.13-6.23)	1.83 (1.65-2.03)
1	3	2.86 (2.52-3.24)	1.54 (1.35-1.75)	3.63 (3.19-4.12)	1.51 (1.32-1.72)
1	4	2.61 (2.27-3.01)	1.69 (1.47-1.95)	2.80 (2.41-3.26)	1.50 (1.29-1.75)
1	5	1.63 (1.36-1.96)*	1.26 (1.05-1.52)*	1.63 (1.33-2.01)*	1.18 (0.96-1.46)*
2	1	4.55 (4.24-4.89)	1.94 (1.80-2.10)	6.26 (5.84-6.71)	2.02 (1.87-2.18)
2	2	3.20 (2.95-3.46)	1.73 (1.59-1.88)	4.08 (3.76-4.42)	1.67 (1.54-1.82)
2	3	2.46 (2.24-2.69)	1.52 (1.38-1.67)	3.10 (2.83-3.41)	1.49 (1.36-1.64)
2	4	2.07 (1.85-2.30)	1.44 (1.29-1.61)	2.61 (2.34-2.91)	1.50 (1.34-1.67)
2	5	1.47 (1.27-1.71)	1.16 (1.00-1.35)	2.00 (1.74-2.31)	1.44 (1.25-1.67)
3	1	3.58 (3.33-3.85)	1.84 (1.70-1.99)	4.61 (4.30-4.96)	1.81 (1.68-1.96)
3	2	2.33 (2.16-2.52)	1.44 (1.32-1.56)	2.89 (2.68-3.12)	1.38 (1.28-1.50)
3	3	2.08 (1.92-2.26)	1.41 (1.30-1.53)	2.58 (2.38-2.79)	1.40 (1.29-1.52)
3	4	1.83 (1.67-2.00)	1.35 (1.23-1.48)	2.18 (1.99-2.39)	1.34 (1.22-1.47)
3	5	1.42 (1.26-1.60)	1.14 (1.01-1.29)	1.69 (1.50-1.91)	1.20 (1.07-1.36)
4	1	2.78 (2.55-3.03)	1.63 (1.49-1.78)	3.70 (3.41-4.01)	1.74 (1.60-1.89)
4	2	1.95 (1.80-2.12)	1.34 (1.23-1.46)	2.49 (2.30-2.70)	1.38 (1.27-1.49)
4	3	1.73 (1.60-1.87)	1.30 (1.20-1.41)	2.05 (1.90-2.22)	1.27 (1.17-1.38)
4	4	1.57 (1.45-1.70)	1.30 (1.20-1.41)	1.77 (1.64-1.92)	1.26 (1.16-1.36)
4	5	1.16 (1.05-1.29)	1.01 (0.91-1.12)	1.45 (1.31-1.60)	1.12 (1.02-1.24)
5	1	2.31 (2.07-2.59)**	1.58 (1.41-1.77)**	2.87 (2.58-3.20)**	1.65 (1.48-1.85)**
5	2	1.82 (1.62-2.04)	1.36 (1.21-1.53)	2.16 (1.94-2.41)	1.36 (1.22-1.53)
5	3	1.49 (1.35-1.64)	1.22 (1.10-1.35)	1.90 (1.72-2.09)	1.35 (1.22-1.48)
5	4	1.34 (1.23-1.45)	1.21 (1.12-1.32)	1.37 (1.25-1.49)	1.15 (1.05-1.25)
5	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)

¹ Adjusted for age, sex, and calendar year (inherently in the nested case-control design).

² In addition to inherent adjustment for age, sex, and calendar year, also adjusted for number of full and maternal and paternal half-siblings, maternal and paternal age at cohort member's birth, history of any maternal and paternal mental illness, and highest levels of maternal and paternal educational attainment.

* Most upwardly mobile group; ** Most downwardly mobile group

Appendix Table S9. Results of conditional logistic regression models for self-harm by parental income at birth: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at birth						
1	3.49 (3.31-3.68)	2.39 (2.26-2.53)	2.80 (2.65-2.96)	2.71 (2.57-2.86)	2.60 (2.46-2.76)	1.51 (1.42-1.61)
2	2.54 (2.42-2.66)	1.86 (1.77-1.95)	2.22 (2.12-2.33)	2.16 (2.06-2.27)	2.09 (1.99-2.20)	1.42 (1.35-1.49)
3	1.86 (1.78-1.94)	1.44 (1.38-1.51)	1.73 (1.66-1.81)	1.70 (1.63-1.78)	1.63 (1.56-1.70)	1.25 (1.19-1.31)
4	1.37 (1.31-1.43)	1.17 (1.12-1.23)	1.34 (1.28-1.40)	1.34 (1.28-1.40)	1.28 (1.23-1.34)	1.11 (1.06-1.16)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.70 (0.68-0.72)	–	–	–	0.79 (0.76-0.82)
Higher education	–	0.55 (0.53-0.58)	–	–	–	0.66 (0.63-0.69)
Information missing	–	1.15 (1.00-1.31)	–	–	–	1.10 (0.96-1.26)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.72 (0.69-0.74)	–	–	–	0.79 (0.77-0.82)
Higher education	–	0.57 (0.54-0.59)	–	–	–	0.66 (0.63-0.69)
Information missing	–	1.17 (1.08-1.28)	–	–	–	1.10 (1.01-1.20)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	2.06 (1.99-2.14)	–	–	1.75 (1.69-1.82)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.86 (1.79-1.94)	–	–	1.60 (1.53-1.67)

Appendix Table S9 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	0.97 (0.93-1.01)	–	1.01 (0.97-1.05)
2	–	–	–	1.01 (0.96-1.06)	–	1.07 (1.02-1.12)
3	–	–	–	1.12 (1.05-1.20)	–	1.17 (1.09-1.25)
4	–	–	–	1.18 (1.03-1.34)	–	1.17 (1.02-1.33)
5	–	–	–	1.27 (1.01-1.60)	–	1.23 (0.98-1.55)
6 or over	–	–	–	1.67 (1.28-2.18)	–	1.66 (1.27-2.18)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.73 (1.66-1.80)	–	1.49 (1.43-1.55)
2	–	–	–	1.94 (1.84-2.05)	–	1.63 (1.55-1.72)
3	–	–	–	2.36 (2.17-2.58)	–	1.89 (1.73-2.07)
4	–	–	–	2.59 (2.21-3.05)	–	1.99 (1.69-2.35)
5 or over	–	–	–	2.43 (1.87-3.16)	–	1.89 (1.45-2.47)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.39 (1.33-1.45)	–	1.28 (1.23-1.34)
2	–	–	–	1.37 (1.31-1.45)	–	1.28 (1.21-1.34)
3	–	–	–	1.48 (1.36-1.61)	–	1.33 (1.22-1.45)
4	–	–	–	1.73 (1.50-2.00)	–	1.53 (1.32-1.77)
5 or over	–	–	–	1.54 (1.23-1.92)	–	1.27 (1.02-1.60)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.30 (1.16-1.45)	1.12 (1.00-1.26)
21-24	–	–	–	–	1.14 (1.09-1.19)	1.06 (1.01-1.10)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	1.02 (0.98-1.06)	0.99 (0.95-1.03)
35-39	–	–	–	–	1.08 (1.03-1.14)	0.97 (0.92-1.02)
40-44	–	–	–	–	1.23 (1.14-1.33)	1.00 (0.92-1.08)
45 and over	–	–	–	–	1.21 (1.07-1.37)	0.86 (0.76-0.98)

Appendix Table S9 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	1.89 (1.75-2.03)	1.33 (1.24-1.43)
21-24	–	–	–	–	1.39 (1.34-1.44)	1.20 (1.16-1.25)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.93 (0.89-0.97)	0.94 (0.90-0.98)
35-39	–	–	–	–	0.95 (0.89-1.02)	0.91 (0.85-0.98)
40 and over	–	–	–	–	1.03 (0.89-1.20)	0.91 (0.79-1.06)

Appendix Table S10. Results of conditional logistic regression models for self-harm by parental income at age 5: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 5						
1	3.27 (3.12-3.43)	2.15 (2.05-2.27)	2.64 (2.51-2.77)	2.60 (2.47-2.73)	2.62 (2.49-2.76)	1.49 (1.41-1.57)
2	2.29 (2.19-2.40)	1.66 (1.58-1.74)	2.06 (1.97-2.16)	2.03 (1.94-2.12)	1.95 (1.86-2.05)	1.37 (1.31-1.44)
3	1.75 (1.67-1.83)	1.37 (1.31-1.44)	1.67 (1.59-1.74)	1.66 (1.58-1.73)	1.56 (1.49-1.63)	1.25 (1.19-1.31)
4	1.44 (1.37-1.50)	1.24 (1.19-1.30)	1.41 (1.34-1.47)	1.41 (1.34-1.47)	1.34 (1.28-1.41)	1.19 (1.13-1.25)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.69 (0.67-0.72)	–	–	–	0.79 (0.76-0.82)
Higher education	–	0.56 (0.54-0.59)	–	–	–	0.67 (0.64-0.70)
Information missing	–	1.14 (1.00-1.30)	–	–	–	1.10 (0.96-1.26)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.72 (0.69-0.74)	–	–	–	0.80 (0.77-0.82)
Higher education	–	0.59 (0.56-0.62)	–	–	–	0.68 (0.64-0.71)
Information missing	–	1.17 (1.07-1.27)	–	–	–	1.10 (1.01-1.20)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	2.05 (1.97-2.13)	–	–	1.75 (1.69-1.82)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.83 (1.75-1.90)	–	–	1.59 (1.53-1.66)

Appendix Table S10 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	0.97 (0.94-1.01)	–	1.01 (0.97-1.05)
2	–	–	–	1.02 (0.98-1.07)	–	1.08 (1.03-1.13)
3	–	–	–	1.13 (1.06-1.21)	–	1.18 (1.10-1.26)
4	–	–	–	1.18 (1.03-1.34)	–	1.18 (1.04-1.35)
5	–	–	–	1.26 (1.00-1.58)	–	1.25 (1.00-1.58)
6 or over	–	–	–	1.64 (1.25-2.14)	–	1.69 (1.29-2.21)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.74 (1.67-1.81)	–	1.49 (1.43-1.55)
2	–	–	–	1.94 (1.84-2.05)	–	1.64 (1.55-1.73)
3	–	–	–	2.37 (2.17-2.58)	–	1.91 (1.75-2.09)
4	–	–	–	2.60 (2.21-3.06)	–	2.02 (1.71-2.38)
5 or over	–	–	–	2.40 (1.84-3.12)	–	1.91 (1.47-2.50)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.39 (1.33-1.45)	–	1.28 (1.23-1.34)
2	–	–	–	1.37 (1.30-1.44)	–	1.28 (1.21-1.35)
3	–	–	–	1.46 (1.35-1.59)	–	1.34 (1.23-1.46)
4	–	–	–	1.69 (1.46-1.95)	–	1.54 (1.33-1.78)
5 or over	–	–	–	1.47 (1.18-1.83)	–	1.28 (1.02-1.60)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.39 (1.24-1.56)	1.17 (1.04-1.31)
21-24	–	–	–	–	1.16 (1.11-1.21)	1.07 (1.02-1.12)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.99 (0.95-1.02)	0.98 (0.94-1.01)
35-39	–	–	–	–	1.03 (0.98-1.08)	0.95 (0.90-1.00)
40-44	–	–	–	–	1.15 (1.06-1.24)	0.97 (0.90-1.05)
45 and over	–	–	–	–	1.11 (0.98-1.25)	0.84 (0.74-0.95)

Appendix Table S10 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	1.93 (1.80-2.07)	1.37 (1.27-1.47)
21-24	–	–	–	–	1.38 (1.33-1.43)	1.21 (1.17-1.26)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.92 (0.88-0.96)	0.94 (0.90-0.98)
35-39	–	–	–	–	0.94 (0.88-1.00)	0.90 (0.84-0.97)
40 and over	–	–	–	–	1.00 (0.87-1.16)	0.90 (0.78-1.05)

Appendix Table S11. Results of conditional logistic regression models for self-harm by parental income at age 10: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 10						
1	3.38 (3.23-3.54)	2.24 (2.13-2.35)	2.77 (2.64-2.90)	2.70 (2.57-2.83)	2.83 (2.70-2.97)	1.61 (1.53-1.70)
2	2.23 (2.12-2.33)	1.65 (1.57-1.73)	2.05 (1.96-2.15)	2.01 (1.91-2.10)	1.94 (1.85-2.03)	1.41 (1.34-1.49)
3	1.77 (1.68-1.86)	1.42 (1.35-1.49)	1.70 (1.62-1.78)	1.68 (1.60-1.76)	1.60 (1.52-1.68)	1.31 (1.25-1.38)
4	1.40 (1.33-1.47)	1.24 (1.18-1.31)	1.37 (1.30-1.44)	1.37 (1.30-1.44)	1.32 (1.26-1.39)	1.19 (1.13-1.25)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.71 (0.68-0.73)	–	–	–	0.80 (0.77-0.83)
Higher education	–	0.59 (0.56-0.61)	–	–	–	0.69 (0.66-0.72)
Information missing	–	1.13 (0.98-1.29)	–	–	–	1.10 (0.96-1.26)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.72 (0.70-0.75)	–	–	–	0.80 (0.78-0.83)
Higher education	–	0.61 (0.59-0.65)	–	–	–	0.70 (0.67-0.74)
Information missing	–	1.14 (1.05-1.24)	–	–	–	1.09 (1.00-1.19)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	2.01 (1.93-2.08)	–	–	1.74 (1.68-1.81)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.76 (1.69-1.83)	–	–	1.57 (1.50-1.63)

Appendix Table S11 (cont)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	0.98 (0.94-1.02)	–	1.01 (0.97-1.05)
2	–	–	–	1.04 (0.99-1.09)	–	1.09 (1.04-1.14)
3	–	–	–	1.15 (1.08-1.23)	–	1.19 (1.11-1.27)
4	–	–	–	1.18 (1.04-1.35)	–	1.19 (1.05-1.36)
5	–	–	–	1.25 (0.99-1.57)	–	1.26 (1.00-1.58)
6 or over	–	–	–	1.62 (1.24-2.11)	–	1.69 (1.29-2.21)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.71 (1.64-1.78)	–	1.48 (1.42-1.54)
2	–	–	–	1.89 (1.80-2.00)	–	1.62 (1.54-1.71)
3	–	–	–	2.28 (2.09-2.48)	–	1.88 (1.72-2.06)
4	–	–	–	2.50 (2.12-2.94)	–	2.00 (1.69-2.36)
5 or over	–	–	–	2.32 (1.78-3.01)	–	1.91 (1.46-2.49)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.38 (1.32-1.43)	–	1.28 (1.23-1.34)
2	–	–	–	1.35 (1.29-1.43)	–	1.28 (1.21-1.35)
3	–	–	–	1.44 (1.32-1.56)	–	1.34 (1.23-1.45)
4	–	–	–	1.63 (1.41-1.89)	–	1.53 (1.32-1.77)
5 or over	–	–	–	1.39 (1.11-1.73)	–	1.26 (1.01-1.58)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.40 (1.25-1.57)	1.18 (1.05-1.32)
21-24	–	–	–	–	1.17 (1.12-1.22)	1.07 (1.03-1.12)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.97 (0.94-1.01)	0.97 (0.93-1.01)
35-39	–	–	–	–	0.99 (0.94-1.05)	0.94 (0.89-0.99)
40-44	–	–	–	–	1.09 (1.01-1.18)	0.96 (0.88-1.03)
45 and over	–	–	–	–	1.01 (0.90-1.14)	0.82 (0.72-0.92)

Appendix Table S11 (cont)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	1.88 (1.75-2.02)	1.37 (1.27-1.47)
21-24	–	–	–	–	1.36 (1.31-1.41)	1.21 (1.17-1.26)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.92 (0.88-0.96)	0.93 (0.90-0.97)
35-39	–	–	–	–	0.92 (0.86-0.98)	0.89 (0.83-0.96)
40 and over	–	–	–	–	0.98 (0.85-1.14)	0.89 (0.77-1.03)

Appendix Table S12. Results of conditional logistic regression models for self-harm by parental income at age 15: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 15						
1	3.51 (3.35-3.68)	2.32 (2.20-2.44)	2.88 (2.75-3.02)	2.82 (2.69-2.96)	3.03 (2.89-3.17)	1.74 (1.65-1.83)
2	2.18 (2.08-2.29)	1.61 (1.53-1.70)	2.02 (1.92-2.12)	1.98 (1.88-2.08)	1.93 (1.84-2.03)	1.42 (1.34-1.49)
3	1.72 (1.64-1.81)	1.40 (1.33-1.47)	1.66 (1.58-1.74)	1.64 (1.56-1.72)	1.56 (1.49-1.65)	1.30 (1.23-1.37)
4	1.45 (1.37-1.52)	1.31 (1.24-1.38)	1.42 (1.35-1.50)	1.42 (1.35-1.49)	1.38 (1.31-1.45)	1.26 (1.20-1.33)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.71 (0.69-0.74)	–	–	–	0.81 (0.78-0.83)
Higher education	–	0.60 (0.57-0.63)	–	–	–	0.70 (0.67-0.74)
Information missing	–	1.10 (0.96-1.25)	–	–	–	1.09 (0.95-1.25)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.73 (0.70-0.75)	–	–	–	0.81 (0.78-0.84)
Higher education	–	0.62 (0.59-0.65)	–	–	–	0.71 (0.68-0.75)
Information missing	–	1.11 (1.02-1.21)	–	–	–	1.07 (0.98-1.16)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.98 (1.90-2.05)	–	–	1.73 (1.66-1.79)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.72 (1.65-1.79)	–	–	1.54 (1.48-1.60)

Appendix Table S12 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	0.99 (0.95-1.02)	–	1.02 (0.98-1.06)
2	–	–	–	1.05 (1.00-1.10)	–	1.09 (1.04-1.14)
3	–	–	–	1.15 (1.08-1.23)	–	1.19 (1.12-1.28)
4	–	–	–	1.19 (1.04-1.36)	–	1.20 (1.05-1.37)
5	–	–	–	1.21 (0.96-1.52)	–	1.25 (1.00-1.57)
6 or over	–	–	–	1.62 (1.24-2.11)	–	1.70 (1.30-2.23)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.69 (1.63-1.76)	–	1.47 (1.41-1.53)
2	–	–	–	1.88 (1.79-1.99)	–	1.62 (1.54-1.71)
3	–	–	–	2.26 (2.07-2.47)	–	1.88 (1.72-2.05)
4	–	–	–	2.47 (2.10-2.90)	–	2.00 (1.69-2.35)
5 or over	–	–	–	2.26 (1.74-2.93)	–	1.89 (1.45-2.47)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.37 (1.31-1.42)	–	1.28 (1.23-1.33)
2	–	–	–	1.35 (1.28-1.42)	–	1.28 (1.21-1.35)
3	–	–	–	1.42 (1.30-1.54)	–	1.34 (1.23-1.45)
4	–	–	–	1.59 (1.38-1.84)	–	1.52 (1.31-1.76)
5 or over	–	–	–	1.38 (1.10-1.72)	–	1.27 (1.01-1.59)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.44 (1.29-1.61)	1.19 (1.06-1.33)
21-24	–	–	–	–	1.18 (1.13-1.23)	1.08 (1.03-1.13)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.96 (0.92-0.99)	0.96 (0.93-1.00)
35-39	–	–	–	–	0.96 (0.91-1.01)	0.92 (0.88-0.97)
40-44	–	–	–	–	1.04 (0.96-1.12)	0.93 (0.86-1.01)
45 and over	–	–	–	–	0.93 (0.82-1.05)	0.79 (0.69-0.89)

Appendix Table S12 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	1.87 (1.74-2.01)	1.38 (1.28-1.48)
21-24	–	–	–	–	1.36 (1.31-1.41)	1.22 (1.17-1.26)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.91 (0.87-0.95)	0.93 (0.89-0.97)
35-39	–	–	–	–	0.91 (0.85-0.97)	0.89 (0.83-0.95)
40 and over	–	–	–	–	0.96 (0.83-1.11)	0.88 (0.76-1.02)

Appendix Table S13. Results of conditional logistic regression models for violent offending by parental income at birth: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at birth						
1	4.86 (4.62-5.12)	2.84 (2.69-3.00)	4.03 (3.82-4.25)	3.60 (3.41-3.79)	3.16 (2.98-3.34)	1.66 (1.57-1.77)
2	3.11 (2.97-3.25)	1.99 (1.90-2.08)	2.78 (2.66-2.91)	2.58 (2.46-2.70)	2.31 (2.20-2.42)	1.43 (1.36-1.50)
3	2.14 (2.05-2.23)	1.48 (1.42-1.54)	2.02 (1.93-2.10)	1.93 (1.85-2.02)	1.73 (1.65-1.80)	1.22 (1.17-1.28)
4	1.55 (1.49-1.62)	1.22 (1.17-1.27)	1.52 (1.45-1.58)	1.50 (1.44-1.56)	1.37 (1.32-1.43)	1.12 (1.07-1.17)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.65 (0.64-0.67)	–	–	–	0.73 (0.71-0.75)
Higher education	–	0.43 (0.41-0.45)	–	–	–	0.52 (0.49-0.54)
Information missing	–	1.23 (1.10-1.38)	–	–	–	1.24 (1.10-1.40)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.67 (0.65-0.69)	–	–	–	0.74 (0.72-0.76)
Higher education	–	0.41 (0.39-0.43)	–	–	–	0.48 (0.45-0.50)
Information missing	–	1.26 (1.17-1.36)	–	–	–	1.20 (1.11-1.29)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.76 (1.69-1.82)	–	–	1.42 (1.37-1.47)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.79 (1.72-1.86)	–	–	1.45 (1.40-1.51)

Appendix Table S13 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.00 (0.96-1.04)	–	1.03 (0.99-1.07)
2	–	–	–	1.01 (0.97-1.06)	–	1.06 (1.02-1.11)
3	–	–	–	1.06 (0.99-1.13)	–	1.09 (1.02-1.16)
4	–	–	–	1.26 (1.12-1.42)	–	1.24 (1.10-1.40)
5	–	–	–	1.48 (1.20-1.83)	–	1.46 (1.18-1.80)
6 or over	–	–	–	1.34 (1.02-1.78)	–	1.36 (1.03-1.80)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.86 (1.79-1.93)	–	1.57 (1.51-1.63)
2	–	–	–	2.03 (1.93-2.13)	–	1.70 (1.62-1.78)
3	–	–	–	2.48 (2.29-2.68)	–	1.98 (1.82-2.14)
4	–	–	–	2.56 (2.21-2.98)	–	2.00 (1.72-2.32)
5 or over	–	–	–	3.12 (2.48-3.92)	–	2.41 (1.91-3.05)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.60 (1.54-1.67)	–	1.47 (1.42-1.53)
2	–	–	–	1.56 (1.48-1.63)	–	1.46 (1.39-1.53)
3	–	–	–	1.67 (1.55-1.80)	–	1.50 (1.39-1.63)
4	–	–	–	1.75 (1.53-2.00)	–	1.56 (1.36-1.79)
5 or over	–	–	–	2.12 (1.75-2.56)	–	1.78 (1.47-2.16)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.24 (1.12-1.37)	1.07 (0.97-1.19)
21-24	–	–	–	–	1.21 (1.16-1.25)	1.10 (1.06-1.15)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	1.00 (0.96-1.04)	0.97 (0.93-1.00)
35-39	–	–	–	–	1.10 (1.05-1.16)	0.96 (0.91-1.01)
40-44	–	–	–	–	1.21 (1.12-1.31)	0.90 (0.83-0.98)
45 and over	–	–	–	–	1.44 (1.29-1.61)	0.92 (0.82-1.03)

Appendix Table S13 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	2.09 (1.96-2.23)	1.35 (1.26-1.44)
21-24	–	–	–	–	1.45 (1.40-1.50)	1.20 (1.16-1.24)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.82 (0.78-0.85)	0.86 (0.82-0.89)
35-39	–	–	–	–	0.69 (0.64-0.74)	0.69 (0.64-0.74)
40 and over	–	–	–	–	0.77 (0.66-0.90)	0.70 (0.59-0.82)

Appendix Table S14. Results of conditional logistic regression models for violent offending by parental income at age 5: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 5						
1	4.45 (4.25-4.66)	2.45 (2.33-2.57)	3.75 (3.58-3.93)	3.42 (3.27-3.59)	3.28 (3.13-3.44)	1.67 (1.58-1.76)
2	2.72 (2.61-2.85)	1.69 (1.61-1.77)	2.51 (2.40-2.62)	2.37 (2.26-2.48)	2.15 (2.06-2.26)	1.36 (1.30-1.43)
3	2.03 (1.94-2.12)	1.40 (1.34-1.47)	1.96 (1.87-2.04)	1.90 (1.82-1.99)	1.70 (1.62-1.77)	1.24 (1.19-1.30)
4	1.52 (1.45-1.59)	1.21 (1.15-1.26)	1.49 (1.43-1.56)	1.48 (1.41-1.55)	1.36 (1.30-1.42)	1.13 (1.08-1.18)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.65 (0.63-0.67)	–	–	–	0.73 (0.71-0.76)
Higher education	–	0.44 (0.42-0.46)	–	–	–	0.53 (0.51-0.55)
Information missing	–	1.22 (1.09-1.37)	–	–	–	1.24 (1.10-1.39)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.67 (0.65-0.69)	–	–	–	0.74 (0.72-0.77)
Higher education	–	0.42 (0.40-0.44)	–	–	–	0.50 (0.47-0.52)
Information missing	–	1.25 (1.16-1.34)	–	–	–	1.19 (1.10-1.28)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.73 (1.67-1.80)	–	–	1.41 (1.36-1.47)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.73 (1.66-1.80)	–	–	1.43 (1.37-1.49)

Appendix Table S14 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.01 (0.97-1.04)	–	1.03 (0.99-1.07)
2	–	–	–	1.02 (0.98-1.07)	–	1.07 (1.02-1.12)
3	–	–	–	1.06 (0.99-1.13)	–	1.09 (1.02-1.17)
4	–	–	–	1.25 (1.11-1.41)	–	1.25 (1.10-1.41)
5	–	–	–	1.44 (1.17-1.78)	–	1.47 (1.19-1.81)
6 or over	–	–	–	1.28 (0.97-1.69)	–	1.35 (1.02-1.79)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.87 (1.80-1.94)	–	1.57 (1.51-1.63)
2	–	–	–	2.02 (1.92-2.12)	–	1.69 (1.61-1.78)
3	–	–	–	2.42 (2.24-2.62)	–	1.96 (1.81-2.13)
4	–	–	–	2.51 (2.16-2.92)	–	2.00 (1.72-2.32)
5 or over	–	–	–	3.02 (2.40-3.80)	–	2.40 (1.90-3.03)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.60 (1.54-1.66)	–	1.47 (1.42-1.53)
2	–	–	–	1.55 (1.48-1.63)	–	1.46 (1.39-1.54)
3	–	–	–	1.64 (1.52-1.77)	–	1.51 (1.40-1.63)
4	–	–	–	1.69 (1.47-1.93)	–	1.55 (1.35-1.78)
5 or over	–	–	–	1.98 (1.64-2.40)	–	1.77 (1.46-2.15)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.34 (1.20-1.48)	1.12 (1.01-1.25)
21-24	–	–	–	–	1.23 (1.19-1.28)	1.12 (1.08-1.17)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.97 (0.93-1.00)	0.96 (0.92-0.99)
35-39	–	–	–	–	1.04 (0.99-1.10)	0.94 (0.89-0.99)
40-44	–	–	–	–	1.12 (1.03-1.21)	0.88 (0.81-0.95)
45 and over	–	–	–	–	1.28 (1.14-1.43)	0.88 (0.79-0.99)

Appendix Table S14 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	2.12 (1.99-2.26)	1.39 (1.30-1.48)
21-24	–	–	–	–	1.43 (1.38-1.48)	1.21 (1.17-1.25)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.81 (0.78-0.85)	0.85 (0.82-0.89)
35-39	–	–	–	–	0.68 (0.63-0.73)	0.69 (0.64-0.74)
40 and over	–	–	–	–	0.74 (0.63-0.87)	0.69 (0.59-0.80)

Appendix Table S15. Results of conditional logistic regression models for violent offending by parental income at age 10: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 10						
1	4.49 (4.29-4.70)	2.41 (2.29-2.53)	3.84 (3.67-4.02)	3.47 (3.32-3.64)	3.50 (3.34-3.67)	1.73 (1.64-1.82)
2	2.61 (2.49-2.73)	1.62 (1.54-1.70)	2.45 (2.33-2.56)	2.30 (2.20-2.42)	2.12 (2.02-2.23)	1.35 (1.29-1.42)
3	2.05 (1.96-2.16)	1.43 (1.36-1.50)	2.00 (1.90-2.09)	1.94 (1.85-2.03)	1.76 (1.67-1.84)	1.29 (1.23-1.36)
4	1.53 (1.46-1.61)	1.25 (1.19-1.31)	1.51 (1.44-1.59)	1.49 (1.42-1.57)	1.40 (1.33-1.47)	1.17 (1.12-1.23)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.66 (0.64-0.68)	–	–	–	0.74 (0.72-0.76)
Higher education	–	0.45 (0.43-0.47)	–	–	–	0.54 (0.52-0.57)
Information missing	–	1.21 (1.08-1.36)	–	–	–	1.23 (1.10-1.39)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.67 (0.65-0.69)	–	–	–	0.75 (0.73-0.77)
Higher education	–	0.44 (0.42-0.46)	–	–	–	0.51 (0.49-0.54)
Information missing	–	1.24 (1.15-1.33)	–	–	–	1.18 (1.10-1.27)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.69 (1.63-1.76)	–	–	1.40 (1.35-1.46)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.67 (1.60-1.73)	–	–	1.41 (1.36-1.47)

Appendix Table S15 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.02 (0.98-1.05)	–	1.04 (1.00-1.08)
2	–	–	–	1.05 (1.00-1.10)	–	1.08 (1.03-1.13)
3	–	–	–	1.09 (1.02-1.16)	–	1.11 (1.04-1.18)
4	–	–	–	1.27 (1.13-1.43)	–	1.27 (1.12-1.43)
5	–	–	–	1.42 (1.16-1.76)	–	1.48 (1.19-1.82)
6 or over	–	–	–	1.27 (0.96-1.67)	–	1.37 (1.03-1.81)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.83 (1.76-1.90)	–	1.55 (1.50-1.61)
2	–	–	–	1.99 (1.89-2.09)	–	1.69 (1.61-1.77)
3	–	–	–	2.37 (2.19-2.56)	–	1.96 (1.80-2.12)
4	–	–	–	2.39 (2.06-2.78)	–	1.97 (1.70-2.30)
5 or over	–	–	–	2.92 (2.32-3.67)	–	2.41 (1.91-3.04)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.58 (1.52-1.64)	–	1.47 (1.42-1.53)
2	–	–	–	1.53 (1.46-1.61)	–	1.46 (1.39-1.53)
3	–	–	–	1.61 (1.49-1.74)	–	1.51 (1.40-1.63)
4	–	–	–	1.64 (1.43-1.88)	–	1.55 (1.35-1.78)
5 or over	–	–	–	1.88 (1.55-2.27)	–	1.75 (1.44-2.12)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.38 (1.25-1.53)	1.15 (1.04-1.28)
21-24	–	–	–	–	1.25 (1.20-1.30)	1.13 (1.09-1.18)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.95 (0.92-0.99)	0.95 (0.92-0.98)
35-39	–	–	–	–	1.00 (0.95-1.06)	0.93 (0.88-0.98)
40-44	–	–	–	–	1.05 (0.97-1.13)	0.86 (0.79-0.93)
45 and over	–	–	–	–	1.16 (1.03-1.30)	0.86 (0.76-0.96)

Appendix Table S15 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	2.07 (1.94-2.20)	1.40 (1.31-1.49)
21-24	–	–	–	–	1.40 (1.35-1.45)	1.21 (1.17-1.25)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.81 (0.78-0.84)	0.85 (0.81-0.88)
35-39	–	–	–	–	0.67 (0.62-0.72)	0.68 (0.63-0.73)
40 and over	–	–	–	–	0.72 (0.62-0.84)	0.67 (0.58-0.79)

Appendix Table S16. Results of conditional logistic regression models for violent offending by parental income at age 15: inherent adjustment for age, sex and calendar year, additional adjustment for each covariate domain separately, and full adjustment

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Incidence rate ratios (95% CI)						
Parental income quintiles at age 15						
1	4.43 (4.23-4.63)	2.31 (2.20-2.43)	3.80 (3.63-3.98)	3.44 (3.28-3.60)	3.61 (3.45-3.78)	1.75 (1.66-1.84)
2	2.51 (2.39-2.63)	1.53 (1.45-1.61)	2.37 (2.25-2.48)	2.24 (2.13-2.35)	2.10 (2.00-2.20)	1.33 (1.27-1.40)
3	1.91 (1.82-2.01)	1.34 (1.27-1.41)	1.86 (1.77-1.96)	1.80 (1.72-1.90)	1.67 (1.59-1.75)	1.24 (1.17-1.30)
4	1.47 (1.40-1.55)	1.22 (1.16-1.29)	1.45 (1.38-1.53)	1.43 (1.36-1.51)	1.36 (1.30-1.44)	1.16 (1.10-1.23)
5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.66 (0.64-0.68)	–	–	–	0.75 (0.72-0.77)
Higher education	–	0.46 (0.44-0.48)	–	–	–	0.56 (0.53-0.58)
Information missing	–	1.18 (1.05-1.32)	–	–	–	1.22 (1.08-1.37)
Paternal education						
Primary school	–	1 (Ref)	–	–	–	1 (Ref)
High school/vocational training	–	0.67 (0.65-0.69)	–	–	–	0.75 (0.73-0.78)
Higher education	–	0.44 (0.42-0.46)	–	–	–	0.52 (0.50-0.55)
Information missing	–	1.20 (1.12-1.29)	–	–	–	1.16 (1.07-1.25)
Maternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.66 (1.60-1.73)	–	–	1.39 (1.34-1.45)
Paternal mental illness						
No history	–	–	1 (Ref)	–	–	1 (Ref)
With history	–	–	1.63 (1.56-1.69)	–	–	1.39 (1.34-1.45)

Appendix Table S16 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Number of full siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.02 (0.98-1.06)	–	1.04 (1.00-1.08)
2	–	–	–	1.06 (1.01-1.10)	–	1.08 (1.04-1.13)
3	–	–	–	1.09 (1.02-1.16)	–	1.11 (1.04-1.19)
4	–	–	–	1.27 (1.13-1.44)	–	1.27 (1.13-1.44)
5	–	–	–	1.41 (1.14-1.74)	–	1.47 (1.19-1.82)
6 or over	–	–	–	1.27 (0.96-1.68)	–	1.38 (1.04-1.83)
Number of maternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.82 (1.75-1.89)	–	1.55 (1.49-1.61)
2	–	–	–	1.97 (1.88-2.07)	–	1.68 (1.60-1.77)
3	–	–	–	2.36 (2.18-2.56)	–	1.96 (1.81-2.13)
4	–	–	–	2.35 (2.03-2.73)	–	1.97 (1.70-2.30)
5 or over	–	–	–	2.83 (2.25-3.56)	–	2.40 (1.90-3.02)
Number of paternal half-siblings						
0	–	–	–	1 (Ref)	–	1 (Ref)
1	–	–	–	1.57 (1.51-1.63)	–	1.47 (1.41-1.53)
2	–	–	–	1.52 (1.45-1.60)	–	1.46 (1.39-1.53)
3	–	–	–	1.60 (1.48-1.72)	–	1.51 (1.40-1.63)
4	–	–	–	1.61 (1.41-1.84)	–	1.55 (1.35-1.78)
5 or over	–	–	–	1.83 (1.51-2.21)	–	1.76 (1.45-2.13)
Paternal age at time of child's birth						
20 or under	–	–	–	–	1.42 (1.28-1.58)	1.17 (1.05-1.29)
21-24	–	–	–	–	1.25 (1.21-1.30)	1.14 (1.09-1.18)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.93 (0.90-0.97)	0.94 (0.91-0.98)
35-39	–	–	–	–	0.97 (0.92-1.02)	0.92 (0.87-0.96)
40-44	–	–	–	–	1.00 (0.92-1.08)	0.85 (0.78-0.92)
45 and over	–	–	–	–	1.06 (0.94-1.18)	0.83 (0.74-0.93)

Appendix Table S16 (cont.)

	Inherently adjusted for age, sex and calendar year	Inherently adjusted for age, sex and calendar year and also for maternal and paternal education	Inherently adjusted for age, sex and calendar year and also for maternal and paternal mental illness	Inherently adjusted for age, sex and calendar year and also for number of full and half-siblings	Inherently adjusted for age, sex and calendar year and also for maternal and paternal age	Full adjustment
Maternal age at time of child's birth						
20 or under	–	–	–	–	2.07 (1.94-2.20)	1.42 (1.33-1.51)
21-24	–	–	–	–	1.41 (1.36-1.46)	1.22 (1.18-1.26)
25-29	–	–	–	–	1 (Ref)	1 (Ref)
30-34	–	–	–	–	0.80 (0.77-0.84)	0.84 (0.81-0.88)
35-39	–	–	–	–	0.66 (0.61-0.71)	0.67 (0.62-0.72)
40 and over	–	–	–	–	0.70 (0.60-0.82)	0.67 (0.57-0.78)

Appendix Table S17. Results of conditional logistic regression models for self-harm and violent offending by cumulative parental income scale during childhood: inherently adjusted for age, sex and calendar year and fully adjusted

	Self-harm		Violent offending	
	Incidence rate ratios (95% CI)			
	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
Cumulative parental income scale				
4	7.19 (6.58-7.86)	2.17 (1.97-2.40)	13.0 (11.9-14.1)	2.85 (2.59-3.14)
5	5.42 (4.97-5.90)	2.03 (1.85-2.23)	8.60 (7.90-9.37)	2.36 (2.15-2.59)
6	4.85 (4.46-5.28)	2.06 (1.88-2.26)	6.86 (6.30-7.47)	2.17 (1.98-2.37)
7	3.93 (3.62-4.27)	1.88 (1.72-2.06)	5.55 (5.11-6.04)	2.01 (1.84-2.19)
8	3.47 (3.20-3.76)	1.83 (1.68-1.99)	4.82 (4.44-5.23)	1.91 (1.75-2.08)
9	2.95 (2.72-3.20)	1.67 (1.53-1.82)	4.27 (3.93-4.63)	1.84 (1.69-2.01)
10	2.72 (2.51-2.95)	1.64 (1.51-1.79)	3.55 (3.27-3.85)	1.63 (1.50-1.78)
11	2.40 (2.21-2.60)	1.53 (1.40-1.66)	3.25 (3.00-3.53)	1.62 (1.49-1.76)
12	2.21 (2.04-2.40)	1.48 (1.36-1.61)	3.01 (2.77-3.27)	1.60 (1.47-1.74)
13	2.16 (1.99-2.34)	1.52 (1.40-1.66)	2.70 (2.48-2.94)	1.52 (1.39-1.65)
14	1.95 (1.79-2.12)	1.44 (1.32-1.56)	2.45 (2.25-2.67)	1.48 (1.36-1.62)
15	1.75 (1.61-1.91)	1.35 (1.24-1.47)	2.20 (2.02-2.40)	1.40 (1.28-1.53)
16	1.54 (1.41-1.68)	1.26 (1.15-1.37)	1.85 (1.69-2.03)	1.30 (1.19-1.42)
17	1.46 (1.33-1.60)	1.23 (1.12-1.35)	1.80 (1.64-1.98)	1.31 (1.19-1.44)
18	1.31 (1.19-1.45)	1.15 (1.04-1.27)	1.54 (1.39-1.70)	1.21 (1.09-1.33)
19	1.22 (1.11-1.35)	1.12 (1.01-1.24)	1.36 (1.22-1.51)	1.15 (1.04-1.28)
20	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education				
Primary school	–	1 (Ref)	–	1 (Ref)
High school/vocational training	–	0.82 (0.79-0.84)	–	0.76 (0.74-0.79)
Higher education	–	0.71 (0.68-0.74)	–	0.57 (0.54-0.59)
Information missing	–	1.09 (0.95-1.25)	–	1.23 (1.09-1.38)
Paternal education				
Primary school	–	1 (Ref)	–	1 (Ref)
High school/vocational training	–	0.82 (0.79-0.85)	–	0.77 (0.75-0.79)
Higher education	–	0.73 (0.69-0.76)	–	0.54 (0.51-0.57)
Information missing	–	1.08 (0.99-1.18)	–	1.16 (1.08-1.25)

Appendix Table S17 (cont.)

	Self-harm		Violent offending	
	Incidence rate ratios (95% CI)			
	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
Maternal mental illness				
No history	–	1 (Ref)	–	1 (Ref)
With history	–	1.71 (1.65-1.78)	–	1.37 (1.32-1.43)
Paternal mental illness				
No history	–	1 (Ref)	–	1 (Ref)
With history	–	1.52 (1.46-1.59)	–	1.36 (1.30-1.41)
Number of full siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.02 (0.98-1.06)	–	1.04 (1.00-1.08)
2	–	1.08 (1.03-1.14)	–	1.08 (1.03-1.13)
3	–	1.18 (1.10-1.26)	–	1.10 (1.03-1.17)
4	–	1.17 (1.02-1.33)	–	1.24 (1.09-1.39)
5	–	1.22 (0.97-1.53)	–	1.42 (1.15-1.76)
6 or over	–	1.63 (1.24-2.13)	–	1.31 (0.99-1.73)
Number of maternal half-siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.46 (1.41-1.53)	–	1.54 (1.48-1.60)
2	–	1.60 (1.52-1.69)	–	1.66 (1.58-1.74)
3	–	1.85 (1.69-2.02)	–	1.91 (1.76-2.08)
4	–	1.94 (1.65-2.29)	–	1.92 (1.65-2.23)
5 or over	–	1.83 (1.41-2.39)	–	2.31 (1.83-2.91)
Number of paternal half-siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.28 (1.22-1.33)	–	1.47 (1.41-1.52)
2	–	1.28 (1.21-1.35)	–	1.46 (1.39-1.53)
3	–	1.33 (1.22-1.45)	–	1.50 (1.39-1.62)
4	–	1.50 (1.30-1.74)	–	1.51 (1.32-1.74)
5 or over	–	1.24 (0.99-1.56)	–	1.73 (1.42-2.10)

Appendix Table S17 (cont.)

	Self-harm		Violent offending	
	Incidence rate ratios (95% CI)			
	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
Paternal age at time of child's birth				
20 or under	–	1.13 (1.01-1.27)	–	1.09 (0.98-1.21)
21-24	–	1.06 (1.01-1.11)	–	1.11 (1.07-1.16)
25-29	–	1 (Ref)	–	1 (Ref)
30-34	–	0.98 (0.94-1.02)	–	0.96 (0.92-0.99)
35-39	–	0.95 (0.90-1.00)	–	0.93 (0.89-0.98)
40-44	–	0.96 (0.89-1.04)	–	0.86 (0.80-0.94)
45 and over	–	0.81 (0.72-0.92)	–	0.85 (0.76-0.96)
Maternal age at time of child's birth				
20 or under	–	1.32 (1.22-1.42)	–	1.32 (1.24-1.41)
21-24	–	1.19 (1.15-1.24)	–	1.18 (1.14-1.23)
25-29	–	1 (Ref)	–	1 (Ref)
30-34	–	0.95 (0.91-0.99)	–	0.86 (0.83-0.90)
35-39	–	0.91 (0.85-0.98)	–	0.69 (0.64-0.74)
40 and over	–	0.91 (0.78-1.05)	–	0.69 (0.59-0.81)

Appendix Table S18. Results of conditional logistic regression models for self-harm and violent offending in relation to trajectories in parental income levels between birth and age 15: inherently adjusted for age, sex and calendar year and fully adjusted

		Self-harm		Violent offending	
		Incidence rate ratios (95% CI)			
Parental income quintile at birth	Parental income quintile at age 15	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
1	1	6.02 (5.58-6.49)	2.02 (1.85-2.20)	9.90 (9.20-10.6)	2.42 (2.22-2.62)
1	2	3.89 (3.52-4.30)	1.71 (1.54-1.90)	5.65 (5.13-6.23)	1.83 (1.65-2.03)
1	3	2.86 (2.52-3.24)	1.54 (1.35-1.75)	3.63 (3.19-4.12)	1.51 (1.32-1.72)
1	4	2.61 (2.27-3.01)	1.69 (1.47-1.95)	2.80 (2.41-3.26)	1.50 (1.29-1.75)
1	5	1.63 (1.36-1.96)	1.26 (1.05-1.52)	1.63 (1.33-2.01)	1.18 (0.96-1.46)
2	1	4.55 (4.24-4.89)	1.94 (1.80-2.10)	6.26 (5.84-6.71)	2.02 (1.87-2.18)
2	2	3.20 (2.95-3.46)	1.73 (1.59-1.88)	4.08 (3.76-4.42)	1.67 (1.54-1.82)
2	3	2.46 (2.24-2.69)	1.52 (1.38-1.67)	3.10 (2.83-3.41)	1.49 (1.36-1.64)
2	4	2.07 (1.85-2.30)	1.44 (1.29-1.61)	2.61 (2.34-2.91)	1.50 (1.34-1.67)
2	5	1.47 (1.27-1.71)	1.16 (1.00-1.35)	2.00 (1.74-2.31)	1.44 (1.25-1.67)
3	1	3.58 (3.33-3.85)	1.84 (1.70-1.99)	4.61 (4.30-4.96)	1.81 (1.68-1.96)
3	2	2.33 (2.16-2.52)	1.44 (1.32-1.56)	2.89 (2.68-3.12)	1.38 (1.28-1.50)
3	3	2.08 (1.92-2.26)	1.41 (1.30-1.53)	2.58 (2.38-2.79)	1.40 (1.29-1.52)
3	4	1.83 (1.67-2.00)	1.35 (1.23-1.48)	2.18 (1.99-2.39)	1.34 (1.22-1.47)
3	5	1.42 (1.26-1.60)	1.14 (1.01-1.29)	1.69 (1.50-1.91)	1.20 (1.07-1.36)
4	1	2.78 (2.55-3.03)	1.63 (1.49-1.78)	3.70 (3.41-4.01)	1.74 (1.60-1.89)
4	2	1.95 (1.80-2.12)	1.34 (1.23-1.46)	2.49 (2.30-2.70)	1.38 (1.27-1.49)
4	3	1.73 (1.60-1.87)	1.30 (1.20-1.41)	2.05 (1.90-2.22)	1.27 (1.17-1.38)
4	4	1.57 (1.45-1.70)	1.30 (1.20-1.41)	1.77 (1.64-1.92)	1.26 (1.16-1.36)
4	5	1.16 (1.05-1.29)	1.01 (0.91-1.12)	1.45 (1.31-1.60)	1.12 (1.02-1.24)
5	1	2.31 (2.07-2.59)	1.58 (1.41-1.77)	2.87 (2.58-3.20)	1.65 (1.48-1.85)
5	2	1.82 (1.62-2.04)	1.36 (1.21-1.53)	2.16 (1.94-2.41)	1.36 (1.22-1.53)
5	3	1.49 (1.35-1.64)	1.22 (1.10-1.35)	1.90 (1.72-2.09)	1.35 (1.22-1.48)
5	4	1.34 (1.23-1.45)	1.21 (1.12-1.32)	1.37 (1.25-1.49)	1.15 (1.05-1.25)
5	5	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Maternal education					
Primary school		–	1 (Ref)	–	1 (Ref)
High school/vocational training		–	0.82 (0.79-0.84)	–	0.76 (0.74-0.78)
Higher education		–	0.71 (0.68-0.74)	–	0.56 (0.54-0.59)
Information missing		–	1.09 (0.95-1.24)	–	1.22 (1.08-1.37)

Appendix Table S18 (cont.)

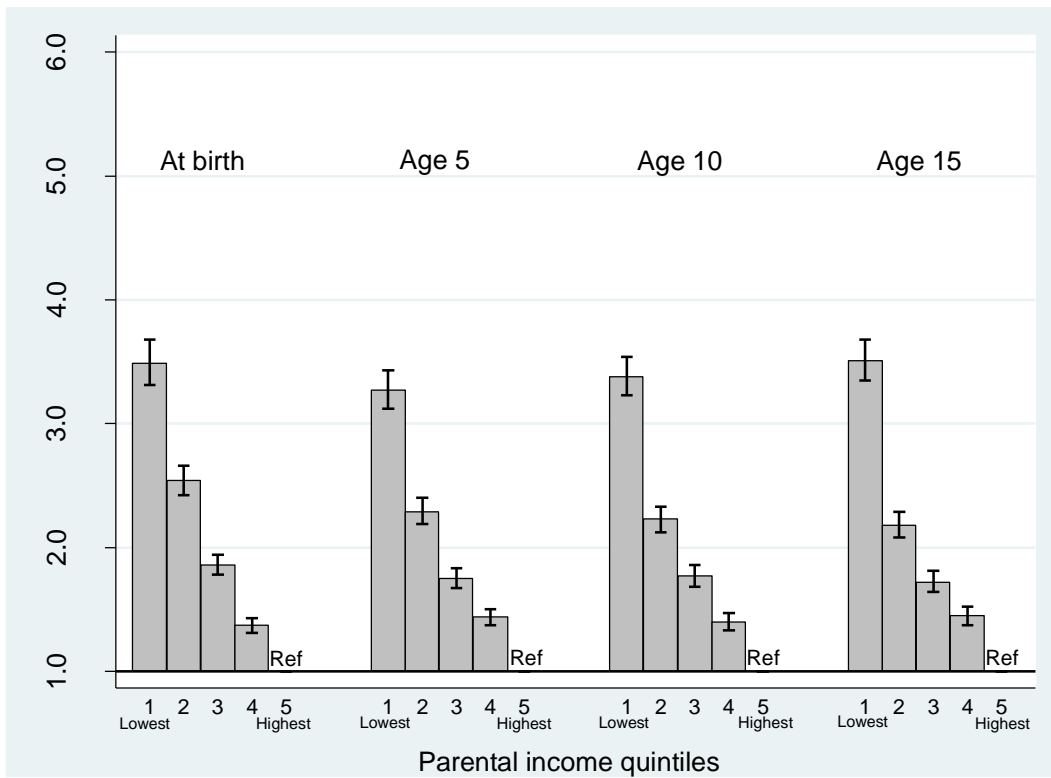
	Self-harm		Violent offending	
	Incidence rate ratios (95% CI)			
	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
Paternal education				
Primary school	–	1 (Ref)	–	1 (Ref)
High school/vocational training	–	0.82 (0.79-0.85)	–	0.76 (0.74-0.79)
Higher education	–	0.72 (0.68-0.76)	–	0.53 (0.50-0.56)
Information missing	–	1.07 (0.98-1.17)	–	1.15 (1.07-1.24)
Maternal mental illness				
No history	–	1 (Ref)	–	1 (Ref)
With history	–	1.71 (1.65-1.78)	–	1.38 (1.32-1.43)
Paternal mental illness				
No history	–	1 (Ref)	–	1 (Ref)
With history	–	1.52 (1.46-1.59)	–	1.37 (1.31-1.42)
Number of full siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.02 (0.98-1.06)	–	1.04 (1.00-1.08)
2	–	1.08 (1.04-1.14)	–	1.08 (1.03-1.13)
3	–	1.18 (1.10-1.26)	–	1.10 (1.03-1.18)
4	–	1.18 (1.03-1.34)	–	1.24 (1.10-1.40)
5	–	1.22 (0.97-1.53)	–	1.43 (1.15-1.76)
6 or over	–	1.64 (1.26-2.15)	–	1.32 (1.00-1.75)
Number of maternal half-siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.46 (1.40-1.52)	–	1.54 (1.48-1.60)
2	–	1.60 (1.52-1.69)	–	1.66 (1.58-1.75)
3	–	1.85 (1.69-2.02)	–	1.93 (1.77-2.09)
4	–	1.95 (1.65-2.30)	–	1.93 (1.66-2.24)
5 or over	–	1.84 (1.41-2.40)	–	2.33 (1.84-2.94)

Appendix Table S18 (cont.)

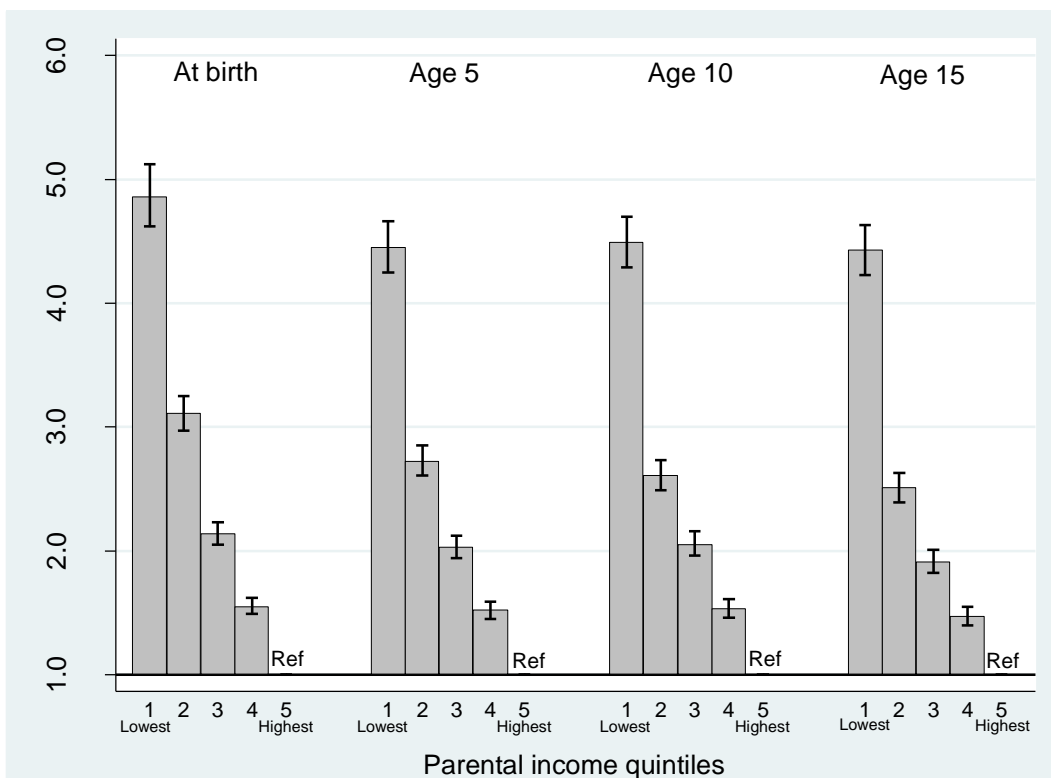
	Self-harm		Violent offending	
	Incidence rate ratios (95% CI)			
	Inherent adjustment for age, sex and calendar year	Full adjustment	Inherent adjustment for age, sex and calendar year	Full adjustment
Number of paternal half-siblings				
0	–	1 (Ref)	–	1 (Ref)
1	–	1.27 (1.22-1.33)	–	1.46 (1.41-1.52)
2	–	1.28 (1.21-1.34)	–	1.46 (1.39-1.53)
3	–	1.33 (1.22-1.45)	–	1.50 (1.38-1.62)
4	–	1.50 (1.30-1.74)	–	1.52 (1.33-1.75)
5 or over	–	1.25 (1.00-1.57)	–	1.73 (1.42-2.10)
Paternal age at time of child's birth				
20 or under	–	1.14 (1.01-1.27)	–	1.09 (0.98-1.21)
21-24	–	1.06 (1.02-1.11)	–	1.11 (1.07-1.16)
25-29	–	1 (Ref)	–	1 (Ref)
30-34	–	0.97 (0.94-1.01)	–	0.95 (0.92-0.99)
35-39	–	0.94 (0.89-0.99)	–	0.93 (0.88-0.98)
40-44	–	0.95 (0.88-1.03)	–	0.86 (0.80-0.93)
45 and over	–	0.80 (0.71-0.91)	–	0.84 (0.75-0.95)
Maternal age at time of child's birth				
20 or under	–	1.32 (1.23-1.42)	–	1.34 (1.26-1.43)
21-24	–	1.20 (1.15-1.24)	–	1.20 (1.15-1.24)
25-29	–	1 (Ref)	–	1 (Ref)
30-34	–	0.94 (0.90-0.98)	–	0.86 (0.82-0.89)
35-39	–	0.90 (0.85-0.97)	–	0.69 (0.64-0.74)
40 and over	–	0.90 (0.77-1.04)	–	0.68 (0.58-0.80)

Appendix Figure S1. Incidence rate ratios for later (a) self-harm and (b) violent offending by parental income quintiles measured during year of birth and at ages 5, 10 and 15 ¹

(a) Self-harm



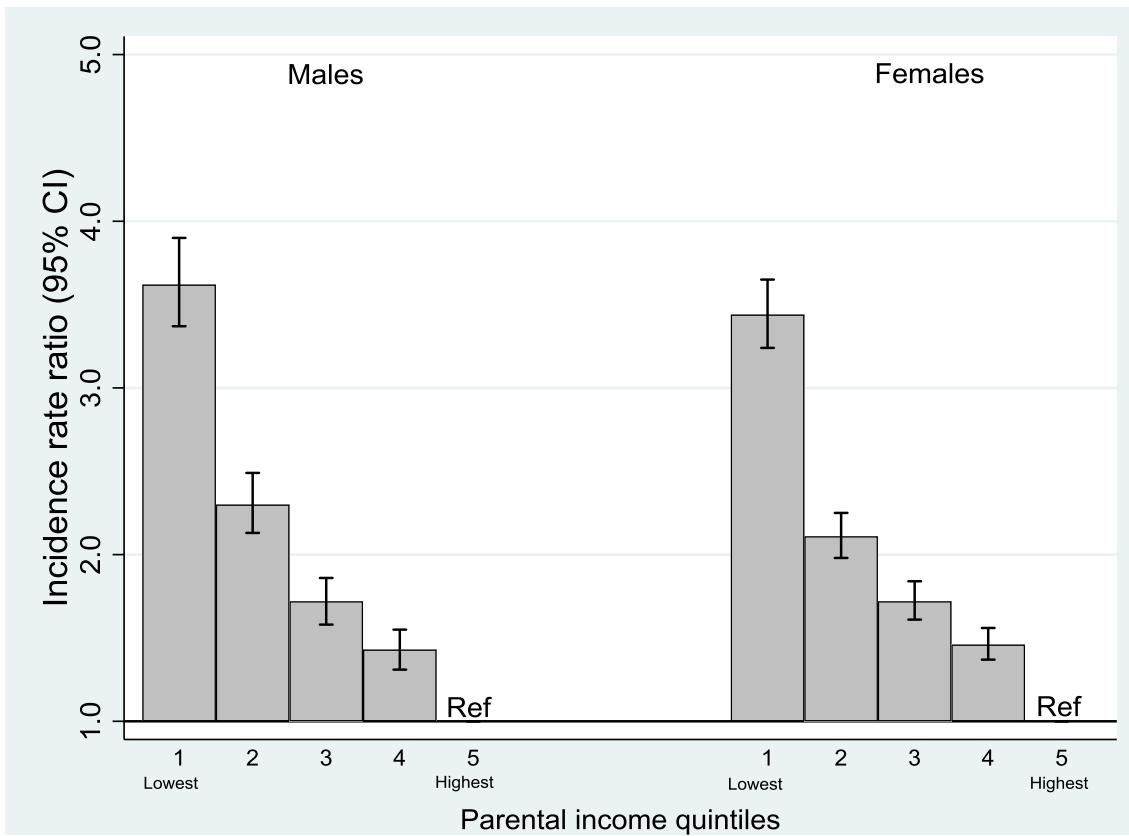
(b) Violent offending



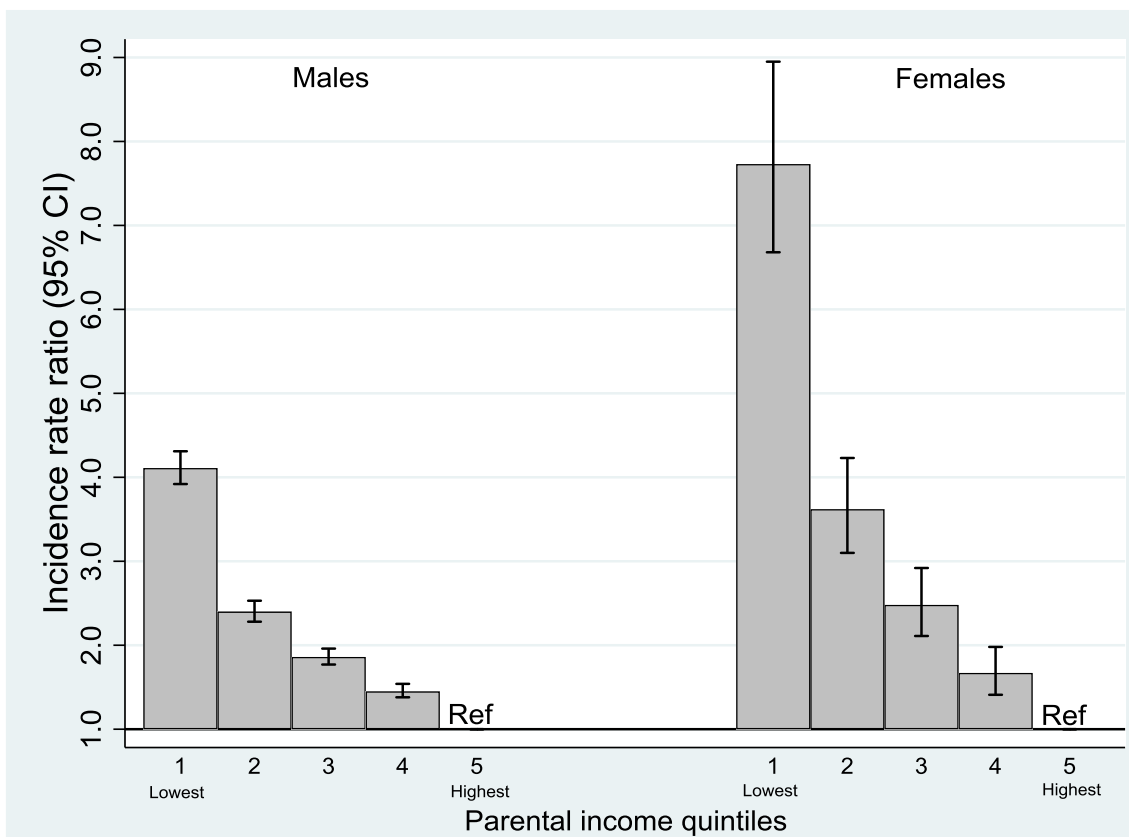
¹ Parental income quintiles: 1 = lowest income, 5 = highest income (IRR = 1, reference)

Appendix Figure S2. Gender-specific incidence rate ratios for later (a) self-harm and (b) violent offending by parental income quintiles measured at age 15¹

(a) Self-harm



(b) Violent offending



¹ Parental income quintiles: 1 = lowest income, 5 = highest income (IRR = 1, reference)