

Educational expectations and adolescent health behaviour: an evolutionary approach

Ross Whitehead^a, Dorothy Currie, Jo Inchley and Candace Currie

International Journal of Public Health

Electronic Supplementary Material - Descriptive statistics for school-level control variables and full details of logistic regression models for 11 health-related behaviours

^a Correspondence concerning this article should be addressed to: Ross D. Whitehead, Child and Adolescent Health Research Unit, School of Medicine, Medical and Biological Sciences Building, University of St Andrews, St Andrews, Fife, KY16 9TF. Email: rw394@st-andrews.ac.uk.

Electronic Supplementary Material Table 1. Descriptive statistics for school-level control variables (113 schools) in a 2010 sample of Scottish school children.^a

	Mean proportion (%) / score (\pm SD)
Expecting university attendance	50.6 (17.8)
School-level family affluence	
High *** b	35.8 (14.9)
Medium ^b	30.2 (12.1)
Low *** c	34.0 (16.3)
Leavers attending higher education *** c	36.4 (12.5)
Achieve 5+ 'Standard Grade' awards at level 4 or higher *** b	78.6 (10.3)
Liking school a lot or a bit *** b	65.8 (13.6)
Peer support [*] b	7.8 (0.6)
Teacher support ^b	7.4 (0.7)

^a Associations with school-level university expectations were determined by ^b Pearson (r) or ^c Spearman (ρ) correlation *** $p < 0.001$ ** $p < 0.005$ * $p < 0.005$.

Electronic Supplementary Material Table 2 – Odds ratios (95% CI) from multi-level logistic regression models for daily fruit consumption ($N=1,828$) in a 2010 sample of Scottish school children.

	Model 1	Model 2	Model 3^a
University expectation			
No (ref)	1.00	1.00	1.00
Yes	2.22 (1.79, 2.76) ^{***}	1.69 (1.33, 2.15) ^{***}	1.71 (1.36, 2.16) ^{***}
Student-level Controls			
Pubertal Development (PDS)	-	1.14 (0.89, 1.46)	-
Family affluence			
High (ref)	-	1.00	-
Medium	-	0.82 (0.63, 1.08)	-
Low	-	0.95 (0.72, 1.25)	-
Father absence			
Father present (ref)	-	1.00	-
Father absent	-	0.81 (0.62, 1.04)	-
Age	-	0.94 (0.66, 1.32)	-
Gender			
Female (ref)	-	1.00	-
Male	-	0.81 (0.64, 1.01)	-
Perceived academic achievement			
Very good (ref)	-	1.00	1.00
Good	-	0.72 (0.55, 0.93) [*]	0.69 (0.53, 0.90) [*]
Average	-	0.48 (0.35, 0.66) ^{***}	0.46 (0.34, 0.62) ^{***}
Below average	-	0.58 (0.32, 1.06)	0.52 (0.29, 0.94) [*]
Father communication			
Difficult / very difficult (ref)	-	1.00	-
Very easy / easy	-	1.01 (0.80, 1.28)	-
Mother communication			
Difficult / very difficult (ref)	-	1.00	-
Very easy / easy	-	1.14 (0.87, 1.49)	-
Peer communication			
Difficult / very difficult (ref)	-	1.00	-
Very easy / easy	-	0.99 (0.66, 1.49)	-

School-level Controls

% expecting university attendance	-	0.64 (0.28, 1.46)	-
School-level family affluence			
% High (ref)	-	1.00	1.00
% Medium	-	5.55 (1.87, 16.48)**	4.65 (1.65, 13.09)**
% Low	-	2.02 (0.76, 5.35)	2.39 (1.01, 5.65)*
% leavers attending higher education	-	1.03 (1.02, 1.05)***	1.03 (1.02, 1.04)***
% achieving 5+ 'Standard Grade' awards at level 4	-	0.99 (0.97, 1.00)	-
% liking school a lot / a bit	-	1.01 (1.00, 1.02)	-
Peer support	-	1.06 (0.86, 1.31)	-
Teacher support	-	0.94 (0.78, 1.15)	-
Constant		0.26 (0.22, 0.32)***	0.26 (0.00, 87.79)
			0.08 (0.04, 0.17)***

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour.

*** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 3 – Odds ratios (95% CI) from multi-level logistic regression models for daily vegetable consumption ($N=1,827$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	1.97 (1.61, 2.43) ^{***}	1.50 (1.19, 1.89) ^{**}	1.51 (1.21, 1.89) ^{***}
Student-level Controls				
Pubertal Development (PDS)		-	0.99 (0.78, 1.25)	-
Family affluence				
	High (ref)	-	1.00	-
	Medium	-	0.91 (0.71, 1.17)	-
	Low	-	0.87 (0.67, 1.13)	-
Father absence				
	Father present (ref)	-	1.00	1.00
	Father absent	-	0.73 (0.57, 0.94) [*]	0.72 (0.57, 0.93) [*]
	Age	-	1.18 (0.84, 1.65)	-
Gender				
	Female (ref)	-	1.00	-
	Male	-	0.81 (0.65, 1.00)	-
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	0.68 (0.52, 0.88) ^{**}	0.67 (0.52, 0.87) ^{**}
	Average	-	0.48 (0.35, 0.65) ^{***}	0.48 (0.35, 0.65) ^{***}
	Below average	-	0.36 (0.19, 0.67) ^{**}	0.35 (0.19, 0.64) ^{**}
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.98 (0.78, 1.23)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.09 (0.84, 1.41)	-
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.20 (0.80, 1.79)	-

School-level Controls

% expecting university attendance	-	0.56 (0.24, 1.34)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	2.06 (0.66, 6.46)	-
% Low	-	0.65 (0.23, 1.83)	-
% leavers attending higher education	-	1.02 (1.00, 1.03) [*]	1.02 (1.01, 1.03) ^{**}
% achieving 5+ 'Standard Grade' awards at level 4	-	1.00 (0.98, 1.01)	-
% liking school a lot / a bit	-	1.00 (0.99, 1.01)	-
Peer support	-	1.13 (0.91, 1.41)	-
Teacher support	-	0.93 (0.76, 1.14)	-
Constant		0.34 (0.29, 0.40) ^{***}	0.37 (0.24, 0.57) ^{***}

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour.

^{***} $p < 0.001$, ^{**} $p < 0.005$, ^{*} $p < 0.050$.

Electronic Supplementary Material Table 4 – Odds ratios (95% CI) from multi-level logistic regression models for 2+ hours exercise per week ($N=1,805$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	1.48 (1.22, 1.80) ^{***}	1.31 (1.05, 1.64) [*]	1.39 (1.12, 1.71) ^{**}
Student-level Controls				
Pubertal Development (PDS)				
		-	1.22 (0.97, 1.53)	-
Family affluence				
	High (ref)	-	1.00	1.00
	Medium	-	0.78 (0.61, 1.00) [*]	0.77 (0.60, 0.98) [*]
	Low	-	0.64 (0.50, 0.82) ^{***}	0.60 (0.48, 0.77) ^{***}
Father absence				
	Father present (ref)	-	1.00	-
	Father absent	-	0.98 (0.78, 1.23)	-
	Age	-	0.83 (0.60, 1.14)	-
Gender				
	Female (ref)	-	1.00	1.00
	Male	-	1.69 (1.37, 2.09) ^{***}	1.57 (1.29, 1.92) ^{***}
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	0.91 (0.70, 1.19)	0.91 (0.70, 1.18)
	Average	-	0.73 (0.54, 0.98) [*]	0.73 (0.54, 0.99) [*]
	Below average	-	0.79 (0.47, 1.33)	0.79 (0.47, 1.32)
Father communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	1.37 (1.10, 1.70) [*]	1.37 (1.12, 1.68) ^{**}
Mother communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.96 (0.75, 1.22)	-
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.3 (0.90, 1.86)	-

School-level Controls

% expecting university attendance	-	1.17 (0.54, 2.53)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.25 (0.45, 3.51)	-
% Low	-	1.04 (0.42, 2.58)	-
% leavers attending higher education	-	1.01 (1.00, 1.02)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	1.00 (0.98, 1.01)	-
% liking school a lot / a bit	-	1.00 (0.99, 1.01)	-
Peer support	-	1.06 (0.87, 1.29)	-
Teacher support	-	0.98 (0.82, 1.17)	-
Constant	1.24 (1.07, 1.44)**	4.73 (0.02, 984.67)	1.28 (0.91, 1.81)

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour.

*** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 5 – Odds ratios (95% CI) from multi-level logistic regression models for twice daily tooth brushing ($N=1,827$) in a 2010 sample of Scottish school children.

	Model 1	Model 2	Model 3^a
University expectation			
No (ref)	1.00	1.00	1.00
Yes	1.75 (1.41, 2.17) ^{***}	1.34 (1.05, 1.72) [*]	1.56 (1.25, 1.95) ^{***}
Student-level Controls			
Pubertal Development (PDS)	-	1.29 (1.00, 1.65) [*]	1.33 (1.04, 1.69) [*]
Family affluence			
High (ref)	-	1.00	-
Medium	-	0.79 (0.59, 1.05)	-
Low	-	0.77 (0.58, 1.02)	-
Father absence			
Father present (ref)	-	1.00	-
Father absent	-	0.83 (0.64, 1.07)	-
Age	-	1.03 (0.71, 1.48)	1.04 (0.72, 1.49)
Gender			
Female (ref)	-	1.00	1.00
Male	-	0.37 (0.29, 0.47) ^{***}	0.37 (0.29, 0.47) ^{***}
Perceived academic achievement			
Very good (ref)	-	1.00	-
Good	-	0.99 (0.73, 1.35)	-
Average	-	0.85 (0.60, 1.20)	-
Below average	-	0.65 (0.38, 1.13)	-
Father communication			
Difficult / very difficult (ref)	-	1.00	1.00
Very easy / easy	-	1.43 (1.11, 1.83) [*]	1.56 (1.25, 1.95) ^{***}
Mother communication			
Difficult / very difficult (ref)	-	1.00	-
Very easy / easy	-	1.02 (0.78, 1.35)	-
Peer communication			
Difficult / very difficult (ref)	-	1.00	-
Very easy / easy	-	1.17 (0.79, 1.72)	-

School-level Controls

% expecting university attendance	-	0.95 (0.38, 2.39)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.14 (0.33, 3.91)	-
% Low	-	0.61 (0.21, 1.82)	-
% leavers attending higher education	-	1.01 (0.99, 1.02)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	1.00 (0.98, 1.02)	-
% liking school a lot / a bit	-	1.00 (0.99, 1.01)	-
Peer support	-	0.91 (0.72, 1.15)	-
Teacher support	-	1.09 (0.88, 1.34)	-
Constant	2.15 (1.84, 2.52)***	1.15 (0.00, 524.38)	0.74 (0.00, 195.69)

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 6 – Odds ratios (95% CI) from multi-level logistic regression models for daily crisps consumption ($N=1,806$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.72 (0.57, 0.91)*	0.76 (0.59, 0.99)*	0.72 (0.57, 0.91)*
Student-level Controls				
Pubertal Development (PDS)		-	0.98 (0.75, 1.28)	-
Family affluence				
	High (ref)	-	1.00	-
	Medium	-	1.03 (0.77, 1.39)	-
	Low	-	1.05 (0.78, 1.42)	-
Father absence				
	Father present (ref)	-	1.00	-
	Father absent	-	1.19 (0.91, 1.55)	-
	Age	-	0.83 (0.57, 1.22)	-
Gender				
	Female (ref)	-	1.00	-
	Male	-	0.95 (0.74, 1.22)	-
Perceived academic achievement				
	Very good (ref)	-	1.00	-
	Good	-	0.81 (0.59, 1.11)	-
	Average	-	0.82 (0.58, 1.18)	-
	Below average	-	1.10 (0.61, 1.97)	-
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.01 (0.78, 1.31)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.98 (0.73, 1.32)	-
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.06 (0.68, 1.65)	-

School-level Controls

% expecting university attendance	-	0.87 (0.33, 2.30)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	0.92 (0.25, 3.39)	-
% Low	-	2.19 (0.70, 6.82)	-
% leavers attending higher education	-	0.99 (0.97, 1.01)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	1.00 (0.98, 1.02)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.01)	-
Peer support	-	1.16 (0.91, 1.48)	-
Teacher support	-	1.12 (0.90, 1.41)	-
Constant	0.30 (0.25, 0.37)***	1.30 (0.00, 801.60)	0.30 (0.25, 0.37)***

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour.

*** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 7 – Odds ratios (95% CI) from multi-level logistic regression models for daily coke / sugary drinks consumption ($N=1,830$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.45 (0.36, 0.56) ^{***}	0.59 (0.46, 0.76) ^{***}	0.47 (0.38, 0.6) ^{***}
Student-level Controls				
Pubertal Development (PDS)		-	1.14 (0.88, 1.46)	-
Family affluence				
	High (ref)	-	1.00	-
	Medium	-	0.90 (0.68, 1.20)	-
	Low	-	1.1 (0.83, 1.46)	-
Father absence				
	Father present (ref)	-	1.00	-
	Father absent	-	1.15 (0.89, 1.48)	-
	Age	-	1.37 (0.95, 1.98)	-
Gender				
	Female (ref)	-	1.00	1.00
	Male	-	1.77 (1.39, 2.25) ^{***}	1.71 (1.37, 2.14) ^{***}
Perceived academic achievement				
	Very good (ref)	-	1.00	-
	Good	-	0.85 (0.62, 1.16)	-
	Average	-	1.23 (0.88, 1.73)	-
	Below average	-	1.71 (0.99, 2.95)	-
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.03 (0.80, 1.32)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.85 (0.65, 1.13)	-
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.03 (0.68, 1.54)	-

School-level Controls

% expecting university attendance	-	0.75 (0.31, 1.82)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	0.57 (0.17, 1.89)	-
% Low	-	2.25 (0.80, 6.29)	-
% leavers attending higher education	-	0.99 (0.98, 1.01)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	0.99 (0.97, 1.00)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.00)	-
Peer support	-	1.07 (0.86, 1.34)	-
Teacher support	-	1.22 (1, 1.49)	-
Constant	0.49 (0.42, 0.58)***	0.00 (0.00, 0.69)*	0.36 (0.29, 0.45)***

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour.

*** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 8 – Odds ratios (95% CI) from multi-level logistic regression models for weekly alcohol consumption ($N=1,736$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.41 (0.32, 0.51)***	0.52 (0.40, 0.67)***	0.50 (0.39, 0.64)***
Student-level Controls				
Pubertal Development (PDS)		-	1.39 (1.06, 1.81)*	1.31 (1.02, 1.69)*
Family affluence				
	High (ref)	-	1.00	1.00
	Medium	-	0.70 (0.52, 0.93)*	0.69 (0.52, 0.91)*
	Low	-	0.69 (0.51, 0.92)*	0.66 (0.50, 0.88)**
Father absence				
	Father present (ref)	-	1.00	1.00
	Father absent	-	1.40 (1.08, 1.81)*	1.39 (1.07, 1.79)*
	Age	-	1.36 (0.94, 1.98)	1.42 (0.98, 2.05)
Gender				
	Female (ref)	-	1.00	-
	Male	-	1.21 (0.94, 1.54)	-
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	1.28 (0.91, 1.80)	1.30 (0.93, 1.82)
	Average	-	1.93 (1.34, 2.77)***	2.00 (1.40, 2.87)***
	Below average	-	3.36 (1.90, 5.92)***	3.64 (2.08, 6.38)***
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.94 (0.73, 1.21)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	0.66 (0.5, 0.87)**	0.64 (0.49, 0.82)***
Peer communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	1.74 (1.1, 2.75)*	1.69 (1.07, 2.66)*

School-level Controls

% expecting university attendance	-	0.78 (0.33, 1.88)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	0.82 (0.25, 2.70)	-
% Low	-	0.74 (0.25, 2.15)	-
% leavers attending higher education	-	1.00 (0.99, 1.02)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	1.00 (0.98, 1.01)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.00)*	0.98 (0.98, 0.99)**
Peer support	-	1.11 (0.89, 1.39)	-
Teacher support	-	0.84 (0.69, 1.03)	-
Constant		0.54 (0.46, 0.64)***	0.01 (0.00, 2.55)
			0.00 (0.00, 0.55)*

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 9 – Odds ratios (95% CI) from multi-level logistic regression models for ever smoked tobacco ($N=1,831$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.42 (0.34, 0.51) ^{***}	0.49 (0.39, 0.62) ^{***}	0.50 (0.40, 0.62) ^{***}
Student-level Controls				
Pubertal Development (PDS)		-	1.58 (1.24, 2.03) ^{***}	1.61 (1.26, 2.06) ^{***}
Family affluence				
	High (ref)	-	1.00	1.00
	Medium	-	0.86 (0.67, 1.12)	-
	Low	-	0.79 (0.61, 1.04)	-
Father absence				
	Father present (ref)	-	1.00	1.00
	Father absent	-	1.72 (1.35, 2.19) ^{***}	1.66 (1.31, 2.11) ^{***}
	Age	-	1.73 (1.23, 2.45) ^{**}	1.73 (1.22, 2.44) ^{**}
Gender				
	Female (ref)	-	1.00	1.00
	Male	-	0.62 (0.49, 0.78) ^{***}	1.73 (1.22, 2.44) ^{***}
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	1.54 (1.14, 2.07) ^{**}	1.56 (1.16, 2.09) ^{**}
	Average	-	2.32 (1.68, 3.21) ^{***}	2.35 (1.70, 3.25) ^{***}
	Below average	-	7.07 (3.84, 13.00) ^{***}	7.37 (4.01, 13.54) ^{***}
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.86 (0.68, 1.08)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	0.61 (0.47, 0.79) ^{***}	0.58 (0.46, 0.74) ^{***}
Peer communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	1.68 (1.11, 2.55) [*]	1.67 (1.11, 2.53) [*]

School-level Controls

% expecting university attendance	-	0.70 (0.28, 1.72)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.28 (0.38, 4.33)	-
% Low	-	0.89 (0.30, 2.61)	-
% leavers attending higher education	-	1.01 (1.00, 1.03)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	0.99 (0.97, 1.01)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.01)	-
Peer support	-	0.99 (0.79, 1.25)	-
Teacher support	-	0.78 (0.64, 0.97)*	0.72 (0.60, 0.87)**
Constant	0.99 (0.84, 1.16)	0.00 (0.00, 0.13)*	0.00 (0.00, 0.07)**

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 10 – Odds ratios (95% CI) from multi-level logistic regression models for ever smoked cannabis ($N=1,821$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.43 (0.33, 0.55) ^{***}	0.56 (0.42, 0.75) ^{***}	0.58 (0.44, 0.77) ^{***}
Student-level Controls				
Pubertal Development (PDS)		-	1.66 (1.22, 2.25) ^{**}	1.70 (1.26, 2.30) ^{**}
Family affluence				
	High (ref)	-	1.00	-
	Medium	-	0.88 (0.64, 1.22)	-
	Low	-	0.93 (0.67, 1.28)	-
Father absence				
	Father present (ref)	-	1.00	1.00
	Father absent	-	1.65 (1.25, 2.19) ^{***}	1.62 (1.23, 2.14) ^{**}
	Age	-	1.50 (0.99, 2.29)	1.51 (0.99, 2.30)
Gender				
	Female (ref)	-	1.00	1.00
	Male	-	1.49 (1.13, 1.96) ^{**}	1.46 (1.12, 1.92) [*]
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	1.30 (0.88, 1.94)	1.29 (0.87, 1.92)
	Average	-	2.05 (1.35, 3.12) ^{**}	2.01 (1.33, 3.05) ^{**}
	Below average	-	5.75 (3.14, 10.53) ^{***}	5.73 (3.14, 10.43) ^{***}
Father communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.00 (0.75, 1.33)	-
Mother communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	0.68 (0.50, 0.92) [*]	0.70 (0.53, 0.92) [*]
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.52 (0.91, 2.53)	-

School-level Controls

% expecting university attendance	-	1.58 (0.54, 4.58)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.25 (0.30, 5.31)	-
% Low	-	1.33 (0.37, 4.79)	-
% leavers attending higher education	-	1.02 (1.00, 1.04)*	1.03 (1.01, 1.04)**
% achieving 5+ 'Standard Grade' awards at level 4	-	0.97 (0.95, 0.99)**	0.97 (0.95, 0.99)**
% liking school a lot / a bit	-	1.00 (0.99, 1.02)	-
Peer support	-	1.09 (0.83, 1.44)	-
Teacher support	-	0.73 (0.57, 0.94)*	0.78 (0.63, 0.96)*
Constant	0.32 (0.26, 0.38)***	0.00 (0.00, 0.82)*	0.00 (0.00, 1.37)

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 11 – Odds ratios (95% CI) from multi-level logistic regression models for one or more fights ($N=1,792$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation				
	No (ref)	1.00	1.00	1.00
	Yes	0.46 (0.37, 0.57) ^{***}	0.62 (0.48, 0.79) ^{***}	0.66 (0.52, 0.84) ^{**}
Student-level Controls				
Pubertal Development (PDS)		-	1.25 (0.97, 1.61)	-
Family affluence				
	High (ref)	-	1.00	1.00
	Medium	-	0.75 (0.56, 0.99) [*]	0.73 (0.56, 0.96) [*]
	Low	-	0.96 (0.72, 1.26)	0.90 (0.69, 1.17)
Father absence				
	Father present (ref)	-	1.00	1.00
	Father absent	-	1.45 (1.13, 1.86) ^{**}	1.42 (1.11, 1.82) ^{**}
	Age	-	1.10 (0.77, 1.57)	-
Gender				
	Female (ref)	-	1.00	1.00
	Male	-	2.50 (1.97, 3.17) ^{***}	2.33 (1.86, 2.92) ^{***}
Perceived academic achievement				
	Very good (ref)	-	1.00	1.00
	Good	-	1.36 (0.99, 1.86)	1.34 (0.98, 1.84)
	Average	-	2.00 (1.41, 2.83) ^{***}	2.02 (1.44, 2.85) ^{***}
	Below average	-	4.49 (2.56, 7.88) ^{***}	4.59 (2.64, 7.98) ^{***}
Father communication				
	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	0.78 (0.61, 1.00) [*]	0.74 (0.59, 0.92) [*]
Mother communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.80 (0.61, 1.04)	-
Peer communication				
	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	1.41 (0.93, 2.13)	-

School-level Controls

% expecting university attendance	-	1.37 (0.57, 3.29)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.27 (0.40, 4.09)	-
% Low	-	0.83 (0.29, 2.35)	-
% leavers attending higher education	-	1.01 (1.00, 1.03)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	0.99 (0.98, 1.01)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.00)*	0.99 (0.98, 1.00)*
Peer support	-	0.89 (0.71, 1.11)	-
Teacher support	-	1.10 (0.90, 1.34)	-
Constant	0.62 (0.53, 0.72)***	0.07 (0.00, 27.46)	0.49 (0.24, 1.01)

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.

Electronic Supplementary Material Table 12 – Odds ratios (95% CI) from multi-level logistic regression models for had sexual intercourse ($N=1,806$) in a 2010 sample of Scottish school children.

		Model 1	Model 2	Model 3^a
University expectation	No (ref)	1.00	1.00	1.00
	Yes	0.42 (0.34, 0.52)***	0.51 (0.40, 0.65)***	0.49 (0.39, 0.62)***
Student-level Controls				
Pubertal Development (PDS)		-	1.66 (1.28, 2.16)**	1.64 (1.26, 2.13)**
Family affluence	High (ref)	-	1.00	-
	Medium	-	0.92 (0.70, 1.22)	-
	Low	-	0.96 (0.72, 1.26)	-
Father absence	Father present (ref)	-	1.00	1.00
	Father absent	-	1.63 (1.28, 2.09)***	1.67 (1.31, 2.13)***
	Age	-	1.87 (1.31, 2.69)**	1.85 (1.29, 2.66)**
Gender	Female (ref)	-	1.00	1.00
	Male	-	0.59 (0.46, 0.74)***	0.57 (0.45, 0.72)***
Perceived academic achievement	Very good (ref)	-	1.00	1.00
	Good	-	1.26 (0.92, 1.72)	1.28 (0.94, 1.75)
	Average	-	1.86 (1.33, 2.62)***	1.93 (1.38, 2.71)***
	Below average	-	4.75 (2.70, 8.36)***	5.26 (3.01, 9.19)***
Father communication	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.90 (0.71, 1.14)	-
Mother communication	Difficult / very difficult (ref)	-	1.00	-
	Very easy / easy	-	0.77 (0.59, 1.01)	-
Peer communication	Difficult / very difficult (ref)	-	1.00	1.00
	Very easy / easy	-	2.14 (1.34, 3.42)**	1.94 (1.22, 3.08)*

School-level Controls

% expecting university attendance	-	0.56 (0.23, 1.35)	-
School-level family affluence			
% High (ref)	-	1.00	-
% Medium	-	1.51 (0.46, 4.91)	-
% Low	-	1.65 (0.59, 4.66)	-
% leavers attending higher education	-	1.01 (1.00, 1.03)	-
% achieving 5+ 'Standard Grade' awards at level 4	-	0.99 (0.97, 1.01)	-
% liking school a lot / a bit	-	0.99 (0.98, 1.00)*	0.98 (0.98, 0.99)**
Peer support	-	0.87 (0.70, 1.09)	-
Teacher support	-	0.98 (0.80, 1.21)	-
Constant	0.67 (0.58, 0.79)***	0.00 (0.00, 0.02)**	0.00 (0.00, 0.00)***

^a Model 3 removes from Model 2 all non-significant ($p > 0.050$) student- and school-level covariates per health behaviour, except age which is retained in all models featuring the pubertal development scale. *** $p < 0.001$, ** $p < 0.005$, * $p < 0.050$.