

SUPPLEMENTARY MATERIAL

Table S1. Crude associations between adolescent's HRT–SE and factors included in the questionnaire (n = 1,658)

Factors	Total n (%)	Change (%) ^a , (95% CI)	p-value
<i>Category 1: Social relationships and interactions</i>			
Family relationship quality			
Good	1104 (66.63)	Ref.	
Stable	456 (27.52)	3.24 (–2.21, 8.68)	0.24
Bad	97 (5.85)	0.31 (–9.776, 10.37)	0.95
Classmates relationship quality			
Good	1557 (94.02)	Ref.	
Not very good	84 (5.07)	15.78 (3.51, 28.04)	0.01*
Bad	15 (0.91)	21.37 (–8.40, 51.16)	0.16
Bullying victimization			
No	1638 (98.97)	Ref.	
Yes	17 (1.03)	24.20 (–4.47, 52.86)	0.10
Peer and family conflict			
No	1164 (70.29)	Ref.	
Yes	492 (29.71)	8.80 (3.27, 14.33)	< 0.01*
Feelings of love			
No	864 (52.24)	Ref.	
Yes, but it doesn't affect me	602 (36.40)	6.70 (1.34, 12.06)	0.01*
Yes, and it affects me	188 (11.37)	8.54 (0.28, 16.81)	0.04*
<i>Category 2: Psychological and physical health</i>			
Self-rated health			
Good	1162 (70.30)	Ref.	
Regular	459 (27.77)	2.63 (–2.72, 7.98)	0.34
Bad	32 (1.94)	22.91 (2.07, 43.75)	0.03*
Medication intake			
No	1427 (86.38)	Ref.	
Yes	225 (13.62)	10.50 (3.00, 17.99)	0.01*
Medication effect			
No	189 (84.00)	Ref.	
Yes	36 (16.00)	8.98 (–10.37, 28.34)	0.36
Mental or physical effort			
No	1377 (83.25)	Ref.	
Yes	277 (16.75)	3.59 (–2.88, 10.06)	0.28
Significant life event			
No	1066 (64.45)	Ref.	
Yes	588 (35.55)	0.74 (–4.16, 5.64)	0.77
Period pain			
No	228 (13.85)	Ref.	
I am a boy	775 (47.08)	–0.29 (–7.39, 6.81)	0.94
Yes, but I don't have it today	535 (32.50)	10.91 (2.62, 19.20)	0.01*
Yes, and today I have it	108 (6.56)	7.68 (–4.20, 19.57)	0.21
Chronic pain			
No	1570 (95.21)	Ref.	
Yes	79 (4.79)	4.59 (–6.86, 16.04)	0.43
<i>Category 3 : Eating habits and addictive–substances consumption</i>			
Healthy diet			
No	271 (16.41)	Ref.	
Yes	1380 (83.59)	–5.44 (–11.38, 0.49)	0.07

Eating frequency				
Less than 4 times	349 (21.13)	Ref.		
4 times or more	1303 (78.87)	-6.68 (-12.00, -1.37)		0.01*
Breakfast				
No	347 (20.94)	Ref.		
Yes	1310 (79.06)	-6.98 (-12.30, -1.67)		0.01*
Tobacco smoking				
No	1370 (84.36)	Ref.		
Sometimes	166 (10.22)	8.84 (0.45, 17.22)		0.04*
Yes	88 (5.42)	29.52 (16.17, 42.87)		< 0.01*
Alcohol consumption				
No	1182 (72.60)	Ref.		
Sometimes	393 (24.14)	7.12 (1.28, 12.96)		0.02*
Yes	53 (3.26)	36.91 (18.90, 54.91)		< 0.01*
Marijuana use				
No	1487 (92.42)	Ref.		
Sometimes	87 (5.41)	17.70 (5.55, 29.85)		< 0.01*
Yes	35 (2.18)	36.32 (14.50, 58.13)		< 0.01*
Energy drinks consumption				
No	740 (45.04)	Ref.		
Sometimes	569 (34.63)	6.84 (1.21, 12.47)		0.02*
Yes	334 (20.33)	9.60 (2.77, 16.43)		0.01
Drugs use				
No	1544 (96.08)	Ref.		
Sometimes	43 (2.68)	7.29 (-8.34, 22.91)		0.36
Yes	20 (1.24)	27.29 (0.31, 54.27)		0.05

Category 4: Use of technology and other habits

Mobile phone use				
Every less than 30 m	639 (38.59)	Ref.		
Between 30 m–60 m	696 (42.03)	-11.69 (-16.25, -7.13)		< 0.01*
Every more than 60 m	307 (18.54)	-9.26 (-15.20, -3.32)		< 0.01*
I don't have mobile	14 (0.85)	-16.20 (-37.53, 5.13)		0.14
Mobile notification				
No	602 (36.37)	Ref.		
Yes	1053 (63.63)	7.62 (2.42, 12.82)		< 0.01*
Before-bed habits				
Relaxing activities	181 (10.95)	Ref.		
Read	162 (9.80)	-4.58 (-14.35, 5.18)		0.36
Homework	72 (4.36)	1.26 (-12.09, 14.62)		0.85
Mobile phone, computer or TV	1214 (73.44)	6.67 (-1.37, 14.72)		0.10
Stress-busting activities	24 (1.45)	2.88 (-18.27, 24.02)		0.79
Weekly exercise hours				
Less than 7 h	1099 (67.01)	Ref.		
7 h or more	541 (32.99)	-8.16 (-12.72, -3.61)		< 0.01*
Regular reader				
No	1144 (69.33)	Ref.		
Yes	506 (30.67)	-9.41 (-13.96, -4.85)		< 0.01*
Productive time of the day				
Morning	480 (28.99)	Ref.		
Noon	383 (23.13)	-2.48 (-8.82, 3.85)		0.44
Afternoon	528 (31.88)	0.11 (-5.88, 6.10)		0.97
Evening	265 (16.00)	-1.91 (-9.03, 5.21)		0.54

Category 5: Other personal conditions before and during the test

Hours of sleep				
Less than 8 h	940 (58.06)	Ref.		
Between 8 h and 10 h	669 (41.32)	-0.22 (-5.00, 4.57)		0.93
> 10 h	10 (0.62)	-0.69 (-30.63, 29.27)		0.97
Time without drinking water				
Less than 1	122 (7.36)	Ref.		
From 1 to 3	777 (46.86)	-9.21 (-17.58, -0.84)		0.03

More than 3	759 (45.78)	-9.82 (-18.15, -1.49)	0.02
Need to go to the toilet			
No	1406 (84.80)	Ref.	
Yes	252 (15.20)	7.64 (0.67, 14.61)	0.03*
Interest in the experiment			
No	166 (10.04)	Ref.	
Yes	1488 (89.96)	-12.55 (-19.32, -5.79)	< 0.01*
Exam			
No	1392 (83.96)	Ref.	
Yes	266 (16.04)	-5.06 (-11.08, 0.96)	0.10
Bad news received			
No	1166 (70.37)	Ref.	
Yes	491 (29.63)	8.33 (2.72, 13.72)	< 0.01*
Hours bad news received			
< 12 h	122 (25.79)	Ref.	
Between 12 h and 24 h	176 (37.21)	-6.89 (-17.57, 3.79)	0.21
> 24 h	175 (37.00)	-2.86 (-14.02, 8.30)	0.62
Category 6: Perceived classroom conditions during the test			
Noise in classroom			
No	817 (49.28)	Ref.	
Yes	841 (50.72)	-5.66 (-10.04, -1.27)	0.01*
Temperature in classroom			
OK	1136 (68.64)	Ref.	
Hot	199 (12.02)	-0.36 (-7.63, 6.90)	0.92
Cold	320 (19.34)	-0.01 (-6.02, 5.99)	1.00
Smelly classroom			
No	1531 (92.56)	Ref.	
Yes	123 (7.44)	1.23 (-7.76, 10.22)	0.79

Note: CI, confidence interval; HRT-SE, hit reaction time standard error (ms)

^a Associations are estimated using linear regression and reported as percent change in the median of the outcome. * statistical significance at the 0.05 level.

Table S2. Crude associations between secondary attention outcomes and factors included in the questionnaire (n = 1,658)

Factors	Impulsivity		Selective attention score		Alerting score		Orienting score		Executive attention	
	Change (count), (95% CI)	p-values	Change (count), (95% CI)	p-values	Change (ms), (95% CI)	p-value	Change (ms), (95% CI)	p-values	Change (ms), (95% CI)	p-values
<i>Category 1: Social relationships and interactions</i>										
Family relationship quality (ref. Good)										
Stable	0.23 (−0.19,0.65)	0.28	0.09 (−0.07, 0.26)	0.28	2.51 (−3.66, 8.69)	0.42	1.62 (−4.38, 7.61)	0.59	1.10 (−4.15, 6.35)	0.68
Bad	1.05 (0.26, 1.85)	0.01*	0.28 (−0.03, 0.60)	0.08	−4.34 (−16.08, 7.40)	0.47	0.23 (−11.18, 11.64)	0.97	5.46 (−4.53, 15.44)	0.28
Classmates relationship quality (ref. Good)										
Not very good	0.40 (−0.46, 1.26)	0.36	0.23 (−0.10, 0.56)	0.18	−2.47 (−14.89, 9.95)	0.70	9.12 (−2.94, 21.18)	0.14	0.03 (−10.44, 10.50)	1.00
Bad	2.90 (0.92, 4.89)	0.01*	1.29 (0.52, 2.06)	< 0.01*	37.50 (8.73, 66.26)	0.01*	−15.03 (−42.96, 12.90)	0.29	58.70 (34.44, 82.95)	< 0.01*
Bullying victimization (ref. No)										
Yes	1.33 (−0.54, 3.20)	0.16	0.65 (−0.07, 1.37)	0.08	17.51 (−9.56, 44.57)	0.21	4.71 (−21.56, 30.97)	0.73	25.26 (2.35, 48.16)	0.03*
Peer and family conflict (ref. No)										
Yes	0.32 (−0.10, 0.73)	0.12	0.08 (−0.08, 0.24)	0.30	6.73 (0.77, 12.70)	0.03*	1.41 (−4.39, 7.20)	0.63	2.00 (−3.07, 7.08)	0.44
Feelings of love (ref. No)										
Yes, but it doesn’t affect me	0.45 (0.04, 0.86)	0.03*	0.05 (−0.11, 0.21)	0.54	7.61 (1.72, 13.50)	0.01*	−0.21 (−5.51, 5.93)	0.94	5.67 (0.67, 10.68)	0.03*
Yes, and it affects me	0.64 (0.02, 1.25)	0.04*	0.17 (−0.06, 0.41)	0.15	0.82 (−8.10, 9.75)	0.86	6.24 (−2.44, 14.91)	0.16	3.54 (−4.04, 11.13)	0.36
<i>Category 2: Psychological and physical health</i>										
Self-rated health (ref. Good)										
Regular	0.03 (−0.39, 0.45)	0.90	0.05 (−0.11, 0.21)	0.56	0.27 (−5.84, 6.39)	0.93	0.82 (−5.12, 6.76)	0.79	−1.37 (−6.56, 3.83)	0.61
Bad	−0.27 (−1.64, 1.10)	0.70	0.37 (−0.16, 0.90)	0.18	13.62 (−6.25, 33.50)	0.18	−6.62 (−25.92, 12.69)	0.50	6.36 (−10.54, 23.26)	0.46
Medication intake (ref. No)										
Yes	0.32 (−0.23, 0.88)	0.25	0.36 (0.15, 0.57)	< 0.01*	4.65 (−3.31, 12.60)	0.25	1.30 (−6.43, 9.03)	0.74	−0.58 (−7.34, 6.19)	0.87
Medication effect (ref. No)										
Yes	0.01 (−1.46, 1.47)	0.99	−0.11 (−0.86, 0.64)	0.78	−5.71 (−28.86, 17.43)	0.63	2.01 (−19.16, 23.17)	0.85	1.42 (−17.54, 20.39)	0.88
Mental or physical effort (ref. No)										
Yes	0.32 (−0.19, 0.82)	0.22	0.12 (−0.08, 0.32)	0.23	−2.74 (−10.05, 4.57)	0.46	2.07 (−5.02, 9.17)	0.57	3.26 (−2.95, 9.48)	0.30
Significant life event (ref. No)										
Yes	−0.22 (−0.60, 0.17)	0.27	0.03 (−0.11, 0.18)	0.64	2.02 (−3.66, 7.70)	0.49	−2.91 (−8.40, 2.59)	0.30	−0.50 (−5.33, 4.33)	0.84
Period pain (ref. No)										
I am a boy	1.12 (0.55, 1.69)	< 0.01*	−0.05 (−0.27, 0.17)	0.66	−1.87 (−10.25, 6.51)	0.66	−2.52 (−10.64, 5.61)	0.54	2.63 (−4.50, 9.75)	0.47
Yes, but I don’t have it today	−0.18 (−0.78, 0.42)	0.55	0.13 (−0.11, 0.36)	0.29	2.34 (−6.46, 11.13)	0.60	−1.42 (−9.94, 7.11)	0.75	0.88 (−6.60, 8.36)	0.82
Yes, and today I have it	−0.28 (−1.17, 0.61)	0.54	−0.07 (−0.42, 0.28)	0.70	5.28 (−7.71, 18.27)	0.43	−2.23 (−14.83, 10.36)	0.73	2.13 (−8.91, 13.18)	0.71
Chronic pain (ref. No)										
Yes	0.91 (0.03, 1.80)	0.05	0.12 (−0.23, 0.46)	0.50	−4.00 (−16.81, 8.80)	0.46	11.40 (−1.01, 23.81)	0.07	−5.92 (−16.81, 4.97)	0.29
<i>Category 3 : Eating habits and addictive-substances consumption</i>										
Healthy diet (ref. No)										
Yes	0.04 (−0.47, 0.55)	0.88	−0.36 (−0.55, 0.17)	< 0.01*	−4.44 (−11.81, 2.94)	0.24	−5.14 (−12.27, 1.99)	0.16	1.29 (−4.98, 7.55)	0.69
Eating frequency (ref. Less than 4 times)										
4 times or more	−0.48 (−0.94, −0.02)	0.04*	−0.11 (−0.29, 0.07)	0.21	−1.28 (−7.96, 5.41)	0.71	3.19 (−3.30, 9.68)	0.34	−3.62 (−9.29, 2.05)	0.21
Breakfast (ref. No)										
Yes	−0.49 (−0.95, 0.03)	0.04*	−0.10 (−0.28, 0.08)	0.28	−4.24 (−10.94, 2.47)	0.22	−4.57 (−11.07, 1.93)	0.17	−2.40 (−8.10, 3.29)	0.41
Tobacco smoking (ref. No)										
Sometimes	−0.35 (−0.97, 0.26)	0.26	0.03 (−0.21, 0.27)	0.80	5.70 (−3.43, 14.84)	0.22	−0.75 (−9.62, 8.12)	0.87	−2.85 (−10.35, 4.66)	0.46
Yes	0.72 (−0.10, 1.54)	0.09	0.68 (0.36, 1.01)	< 0.01*	−5.15 (−17.37, 7.07)	0.41	0.01 (−11.86, 11.88)	1.00	8.01 (−2.03, 18.04)	0.12
Alcohol consumption (ref. No)										
Sometimes	0.09 (−0.35, 0.52)	0.69	0.22 (0.05, 0.39)	0.01*	3.78 (−2.67, 10.24)	0.25	6.97 (0.69, 13.24)	0.03*	4.24 (−1.10, 9.58)	0.12
Yes	1.68 (0.63, 2.72)	< 0.01*	0.80 (0.39, 1.22)	< 0.01*	−3.22 (−18.78, 12.34)	0.69	13.10 (−2.03, 28.23)	0.09	14.02 (1.14, 26.90)	0.03*
Marijuana use (ref. No)										
Sometimes	0.88 (0.06, 1.70)	0.04*	0.45 (0.12, 0.77)	0.01*	7.70 (−4.55, 19.95)	0.22	11.80 (−0.11, 23.71)	0.05	3.97 (−6.02, 13.96)	0.44
Yes	2.16 (0.88, 3.43)	< 0.01*	1.18 (0.68, 1.69)	< 0.01*	−4.82 (−23.81, 14.17)	0.62	11.30 (−7.16, 29.76)	0.23	19.85 (4.37, 35.33)	0.01*
Energy drinks consumption (ref. No)										
Sometimes	0.48 (0.06, 0.89)	0.03*	0.16 (−0.01, 0.33)	0.06	3.55 (−2.63, 9.73)	0.26	−1.29 (−7.31, 4.72)	0.67	3.22 (−2.05, 8.49)	0.23
Yes	0.85 (0.36, 1.35)	< 0.01*	0.28 (0.08, 0.48)	0.01*	2.50 (−4.81, 9.81)	0.50	2.28 (−4.83, 9.39)	0.53	−0.23 (−6.46, 5.99)	0.94
Drugs use (ref. No)										
Sometimes	0.98 (−0.18, 2.14)	0.09	0.13 (−0.33, 0.59)	0.57	12.05 (−5.10, 29.20)	0.17	−9.22 (−25.94, 7.50)	0.28	8.10 (−6.01, 22.21)	0.26

Yes	0.68 (−1.01, 2.36)	0.43	0.08 (−0.59, 0.75)	0.81	32.99 (8.03, 57.96)	0.01*	5.39 (−18.95, 29.73)	0.66	2.63 (−17.91, 23.16)	0.80
<i>Category 4: Use of technology and other habits</i>										
Mobile phone use (ref. Every 30 m or less)										
Between 30 m–60 m	−0.68 (−1.10, −0.27)	< 0.01*	−0.29 (−0.45, −0.12)	< 0.01*	−2.24 (−8.33, 3.84)	0.47	−0.67 (−6.57, 5.24)	0.83	−4.80 (−9.97, 0.36)	0.07
Every more than 60 m	−0.38 (−0.91, 0.15)	0.16	−0.21 (−0.41, −0.00)	0.05	−1.30 (−9.02, 6.41)	0.74	−1.72 (−9.20, 5.77)	0.65	−6.70 (−13.24, −0.15)	0.05
I don’t have mobile	−0.81 (−2.87, 1.25)	0.44	−0.26 (−1.06, 0.54)	0.52	14.94 (−15.06, 44.95)	0.33	11.94 (−17.18, 41.06)	0.42	3.50 (−21.97, 28.96)	0.79
Mobile notification (ref. No)										
Yes	−0.10 (−0.49, 0.30)	0.63	0.01 (−0.14, 0.16)	0.87	0.80 (−4.88, 6.48)	0.78	4.35 (−1.14, 9.85)	0.12	−0.19 (−5.01, 4.63)	0.94
Before–bed habits (ref. Relaxing activities)										
Read	−0.26 (−1.09, 0.57)	0.53	−0.24 (−0.56, 0.08)	0.14	−3.16 (−15.19, 8.86)	0.61	3.63 (−8.03, 15.29)	0.54	−1.63 (−11.84, 8.57)	0.75
Homework	−0.01 (−1.06, 1.08)	0.98	−0.21 (−0.62, 0.20)	0.32	−4.81 (−20.30, 10.69)	0.54	6.19 (−8.83, 21.21)	0.42	−2.42 (−15.57, 10.73)	0.72
Mobile phone, computer or TV	0.30 (−0.31, 0.91)	0.34	0.12 (−0.12, 0.35)	0.34	−2.53 (−11.39, 6.33)	0.58	4.53 (−4.06, 13.13)	0.30	5.05 (−2.47, 12.57)	0.19
Stress–busting activities	0.42 (−1.25, 2.08)	0.62	−0.36 (−1.01, 0.28)	0.27	−14.23 (−38.39, 9.92)	0.25	−2.92 (−26.34, 20.50)	0.81	7.17 (−13.33, 27.67)	0.49
Weekly exercise hours (ref. < 7 h)										
7 h or more	0.28 (−0.12, 0.68)	0.17	−0.19 (−0.35, −0.04)	0.02*	−4.76 (−10.57, 1.04)	0.11	3.12 (−2.54, 8.78)	0.28	−1.69 (−6.65, 3.27)	0.50
Regular reader (ref. No)										
Yes	−0.81 (−1.21, −0.40)	< 0.01*	−0.24 (−0.40, −0.08)	< 0.01*	−0.41 (−6.34, 5.52)	0.89	−2.69 (−8.43, 3.04)	0.36	−4.35 (−9.38, 0.68)	0.90
Productive time of the day (ref. Morning)										
Noon	0.16 (−0.37, 0.68)	0.56	0.09 (−0.11, 0.29)	0.39	2.94 (−4.65, 10.54)	0.43	−0.36 (−7.74, 7.01)	0.92	−2.03 (−8.49, 4.43)	0.54
Afternoon	−0.00 (−0.49, 0.48)	0.99	−0.02 (−0.21, 0.16)	0.80	1.88 (−5.11, 8.87)	0.60	1.12 (−5.67, 7.91)	0.75	−2.81 (−8.76, 3.13)	0.35
Evening	0.20 (−0.38, 0.79)	0.50	0.13 (−0.09, 0.36)	0.25	−2.39 (−10.87, 6.09)	0.58	3.39 (−4.86, 11.63)	0.42	−6.04 (−13.25, 1.18)	0.10
<i>Category 5: Other personal conditions before and during the test</i>										
Hours of sleep (ref. < 8 h)										
Between 8 hrs and 10 h	−0.24 (−0.63, 0.15)	0.23	−0.06 (−0.21, 0.09)	0.62	−1.98 (−7.61, 3.65)	0.49	0.35 (−5.06, 5.76)	0.90	−0.84 (−5.63, 3.95)	0.73
< 10 h	−1.14 (−3.59, 1.31)	0.36	−0.05 (−0.99, 0.89)	0.40	8.85 (−26.52, 44.22)	0.62	18.86 (−15.13, 52.86)	0.28	−4.41 (−34.52, 25.71)	0.77
Time without drinking water (ref. Less than 1)										
From 1 to 3	−0.42 (−1.16, 0.33)	0.27	−0.31 (−0.60, −0.02)	0.04*	−4.79 (−15.60, 6.02)	0.39	3.24 (−7.25, 13.73)	0.55	−9.11 (−18.29, 0.07)	0.05
More than 3	−0.51 (−1.26, 0.23)	0.18	−0.31 (−0.60, 0.02)	0.04*	−4.04 (−14.87, 6.79)	0.47	2.51 (−7.99, 13.02)	0.64	−8.43 (−17.62, 0.76)	0.07
Need to go to the toilet (ref. No)										
Yes	0.17 (−0.36, 0.69)	0.53	0.02 (−0.18, 0.23)	0.82	−3.00 (−10.59, 4.59)	0.44	1.38 (−5.98, 8.75)	0.71	0.45 (−6.01, 6.90)	0.89
Interest in the experiment (ref. No)										
Yes	−0.85 (−1.48, −0.23)	0.01*	−0.36 (−0.60, −0.12)	< 0.01*	1.83 (−10.92, 7.25)	0.69	−1.77 (−10.58, 7.05)	0.69	−0.88 (−8.60, 6.85)	0.82
Exam (ref. No)										
Yes	0.09 (−0.42, 0.60)	0.73	−0.20 (−0.40, −0.01)	0.04*	−5.93 (−13.36, 1.49)	0.12	−0.81 (−8.02, 6.40)	0.83	−6.92 (−13.22, −0.62)	0.03*
Bad news received (ref. No)										
Yes	0.35 (−0.06, 0.76)	0.09	0.26 (0.10, 0.41)	< 0.01*	0.99 (−4.97, 6.95)	0.74	0.81 (−4.98, 6.61)	0.78	0.60 (−4.47, 5.67)	0.82
Hours bad news received (ref. < 12 h)										
Between 12 h and 24 h	0.24 (−0.70, 1.18)	0.61	−0.61 (−1.05, −0.16)	0.01*	21.25 (7.07, 35.43)	< 0.01*	−9.65 (−23.79, 4.48)	0.18	5.76 (−5.12, 16.64)	0.30
> 24 h	−0.22 (−1.16, 0.72)	0.65	−0.64 (−1.09, −0.19)	0.01*	6.49 (−7.70, 20.69)	0.37	−14.37 (−28.52, −0.23)	0.05	1.08 (−9.81, 11.97)	0.85
<i>Category 6: Perceived classroom conditions during the test</i>										
Noise in classroom (ref. No)										
Yes	0.23 (−0.16, 0.60)	0.25	0.02 (−0.13, 0.16)	0.81	−4.26 (−9.71, 1.19)	0.13	0.30 (−4.99, 5.59)	0.91	−6.95 (−11.57, −2.33)	< 0.01*
Temperature in classroom (ref. Ok)										
Hot	0.38 (−0.21, 0.96)	0.21	−0.07 (−0.30, 0.16)	0.56	1.33 (−7.20, 9.85)	0.76	5.36 (−2.91, 13.63)	0.20	−2.11 (−9.36, 5.14)	0.57
Cold	0.06 (−0.42, 0.55)	0.80	0.03 (−0.16, 0.22)	0.83	6.08 (−0.94, 13.10)	0.09	4.88 (−1.93, 11.69)	0.16	−3.11 (−9.08, 2.86)	0.31
Smelly classroom (ref. No)										
Yes	0.91 (0.20, 1.64)	0.01*	0.10 (−0.18, 0.38)	0.47	6.09 (−4.31, 16.49)	0.25	−7.55 (−17.64, 2.54)	0.14	0.29 (−8.56, 9.13)	0.95

Associations are estimated using linear regression and reported as additive change in the mean of outcome. * statistical significance at the 0.05 level.

Table S3. Adjusted association between attentiveness (HRT–SE) and factors included in the questionnaire that showed a significant crude association (n = 1,658)

Variables	Change (%)	95% CI	p-values
<i>Category 1: Social relationships and interactions</i>			
Classmates relationship quality (ref. Good)			
Not very good	14.33	(3.37, 25.29)	0.01*
Bad	0.74	(–21.77, 23.25)	0.95
Peer and family conflict (ref. No)			
Yes	5.61	(0.67, 10.52)	0.03*
Feelings of love (ref. No)			
Yes, but it doesn't affect me	3.25	(–1.44, 7.94)	0.17
Yes, and it affects me	2.01	(–5.02, 9.04)	0.58
<i>Category 2: Psychological and physical health</i>			
Self-rated health (ref. Good)			
Regular	3.38	(–1.52, 8.29)	0.18
Bad	16.32	(–1.41, 34.05)	0.07
Medication intake (ref. No)			
Yes	9.98	(3.26, 16.69)	< 0.01*
Period pain (ref. No)			
I am a boy	0.10	(–14.44, 14.63)	0.99
Yes, but I don't have it today	8.12	(0.67, 15.57)	0.03*
Yes, and today I have it	5.08	(–5.38, 15.53)	0.34
<i>Category 3 : Eating habits and addictive-substances consumption</i>			
Eating frequency (ref. < 4 times)			
4 times or more	–0.54	(–5.75, 4.68)	0.84
Breakfast (ref. No)			
Yes	–2.78	(–7.85, 2.29)	0.28
Tobacco smoking (ref. No)			
Sometimes	5.74	(–1.70, 13.18)	0.13
Yes	16.19	(5.07, 27.32)	< 0.01*
Alcohol consumption (ref. No)			
Sometimes	3.40	(–1.79, 8.58)	0.20
Yes	17.22	(2.98, 31.46)	0.02*
Marijuana use (ref. No)			
Sometimes	10.09	(–0.26, 20.44)	0.06
Yes	21.54	(3.76, 39.32)	0.02*
Energy drinks consumption (ref. No)			
Sometimes	4.06	(–0.97, 9.09)	0.11
Yes	4.95	(–1.16, 11.07)	0.11
<i>Category 4: Use of technology and other habits</i>			
Mobile phone use (ref. Every 30 m or less)			
Between 30 m–60 m	–5.34	(–9.82, –0.87)	0.02*
Every more than 60 m	–5.30	(–10.92, 0.32)	0.07
I don't have a mobile	–22.94	(–40.86, –5.01)	0.01*
Mobile notification (ref. No)			
Yes	1.74	(–2.75, 6.23)	0.45
Weekly exercise hours (ref. < 7 h)			
7 h or more	–3.61	(–8.05, 0.83)	0.11
Regular reader (ref. No)			
Yes	–5.80	(–10.29, –1.31)	0.01*
<i>Category 5: Other personal conditions before and during the test</i>			
Need to go to the toilet (ref. No)			
Yes	4.78	(–1.40, 10.95)	0.13
Interest in the experiment (ref. No)			
Yes	–7.36	(–13.91, –0.82)	0.03*
Bad news received (ref. No)			
Yes	7.93	(2.94, 12.92)	< 0.01*
<i>Category 6: Perceived classroom conditions during the test</i>			
Noise in classroom (ref. No)			
Yes	–1.18	(–5.37, 3.02)	0.58
<i>Factors added by the researchers (Socio-demographic characteristics)</i>			
Gender (ref. Female)			
Male	–12.02	(–15.77, –8.27)	< 0.01*
Other	6.13	(–31.00, 43.27)	0.75
Age	7.66	(1.06, 14.26)	0.02*
Country of birth (ref. Spain)			
Other	–0.49	(–6.69, 5.71)	0.88
PMA–R score	–3.05	(–3.41, –2.69)	< 0.01*
Maternal occupational social class (ref. Highly skilled)			

Non-manual	5.84	(0.42, 11.26)	0.04*
Manual	11.42	(-0.19, 23.04)	0.05
Other	6.31	(0.10, 12.52)	0.05
Struggling to afford basic needs (poverty) (ref. No)			
Yes	13.37	(4.03, 22.71)	0.01*

Note: CI, confidence interval; HRT-SE, hit reaction time standard error. Model adjusted for: sex, age, country of birth, PMA-R, maternal occupational social class and poverty. Associations are estimated using conditional linear regression with school as strata. Association reported as percent change in the median of the outcome. * statistical significance at the 0.05 level.

Table S4. Adjusted association between attentiveness (HRT–SE) and factors included in the questionnaire that showed a significant crude association (n = 1,658) when using class group as strata.

Variables	Change (%)	95% CI	p-values
<i>Category 1: Social relationships and interactions</i>			
Classmates relationship quality (ref. Good)			
Not very good	14.80	(3.90, 25.71)	0.01*
Bad	0.65	(–21.64, 22.95)	0.95
Peer and family conflict (ref. No)			
Yes	5.44	(0.54, 10.33)	0.03*
Feelings of love (ref. No)			
Yes, but it doesn't affect me	3.65	(–1.01, 8.31)	0.13
Yes, and it affects me	1.94	(–5.03, 8.91)	0.59
<i>Category 2: Psychological and physical health</i>			
Self-rated health (ref. Good)			
Regular	3.15	(–1.72, 8.02)	0.20
Bad	17.76	(–0.04, 35.57)	0.05
Medication intake (ref. No)			
Yes	9.84	(3.20, 16.48)	< 0.01*
Period pain (ref. No)			
I am a boy	0.23	(–14.22, 14.68)	0.98
Yes, but I don't have it today	8.14	(0.76, 15.52)	0.03*
Yes, and today I have it	4.07	(–6.19, 14.32)	0.44
<i>Category 3 : Eating habits and addictive-substances consumption</i>			
Eating frequency (ref. < 4 times)			
4 times or more	–0.00	(–0.06, 0.05)	0.89
Breakfast (ref. No)			
Yes	–2.63	(–7.74, 2.49)	0.31
Tobacco smoking (ref. No)			
Sometimes	5.38	(–2.01, 12.77)	0.15
Yes	15.89	(4.91, 26.86)	0.01*
Alcohol consumption (ref. No)			
Sometimes	3.52	(–1.67, 8.70)	0.18
Yes	17.88	(3.70, 32.06)	0.01*
Marijuana use (ref. No)			
Sometimes	9.44	(–0.81, 19.70)	0.07
Yes	21.03	(3.47, 38.60)	0.02*
Energy drinks consumption (ref. No)			
Sometimes	4.19	(–0.82, 9.20)	0.10
Yes	4.92	(–1.16, 10.99)	0.11
<i>Category 4: Use of technology and other habits</i>			
Mobile phone use (ref. Every 30 m or less)			
Between 30 m–60 m	–5.60	(–10.04, –1.16)	0.01*
Every more than 60m	–5.31	(–10.90, 0.27)	0.06
I don't have mobile	–21.05	(–39.29, –2.80)	0.02*
Mobile notification (ref. No)			
No (ref.)			
Yes	2.16	(–2.30, 6.63)	0.34
Weekly exercise hours (ref. < 7 h)			
7 h or more	–3.65	(–8.10, 0.81)	0.11
Regular reader (ref. No)			
No (ref.)			
Yes	–5.84	(–10.29, –1.38)	0.01*
<i>Category 5: Other personal conditions before and during the test</i>			
Need to go to the toilet (ref. No)			
Yes	4.86	(–1.28, 11.00)	0.12
Interest in the experiment (ref. No)			
Yes	–7.62	(–14.09, –1.15)	0.02*
Bad news received (ref. No)			
Yes	8.04	(3.06, 13.01)	< 0.01*
<i>Category 6: Perceived classroom conditions during the test</i>			
Noise in classroom (ref. No)			
Yes	–1.13	(–5.36, 3.06)	0.60

Note: CI, confidence interval; HRT–SE, hit reaction time standard error. Model adjusted for: sex, age, country of birth, PMA–R, maternal occupational social class and poverty. Effects are calculated using conditional linear regression with class group as random effect. Association reported as percent change in the median of the outcome. * statistical significance at the 0.05 level.

Table S5. Adjusted association between attentiveness (HRT–SE) and factors included in the questionnaire that showed a significant crude association (n = 1,658) stratified by gender

Variables	FEMALE Change (%) 95% CI	p-value	MALE Change (%) 95% CI	p-value	P for interaction ^a
<i>Category 1: Social relationships and interactions</i>					
Classmates relationship quality (ref. Good)					
Not very good	17.43 (2.24, 32.63)	0.03*	10.38 (–5.61, 26.37)	0.20	0.77
Bad	–6.13 (–30.42, 18.16)	0.62	9.83 (–38.29, 57.96)	0.69	
Peer and family conflict (ref. No)					
Yes	7.47 (0.94, 13.99)	0.03*	3.95 (–3.73, 11.61)	0.31	0.64
Feelings of love (ref. No)					
Yes, but it doesn't affect me	4.31 (–2.42, 11.04)	0.21	2.83 (–3.82, 9.48)	0.40	0.94
Yes, and it affects me	2.39 (–7.00, 11.79)	0.62	1.37 (–9.38, 12.13)	0.80	
<i>Category 2: Psychological and physical health</i>					
Self-rated health (ref. Good)					
Regular	–0.08 (–6.26, 6.10)	0.98	7.62 (–0.37, 15.60)	0.06	0.21
Bad	13.44 (–10.05, 37.38)	0.26	18.80 (–7.94, 45.55)	0.17	
Medication intake (ref. No)					
Yes	6.45 (–2.16, 15.05)	0.14	17.05 (6.06, 28.04)	< 0.01*	0.11
Period pain (ref. No)					
I am a boy	Not applicable		Not applicable		
Yes, but I don't have it today	7.43 (0.06, 14.92)	0.05			
Yes, and today I have it	2.63 (–7.93, 13.19)	0.63			
<i>Category 3 : Eating habits and addictive-substances consumption</i>					
Eating frequency (ref. < 4 times)					
4 times or more	–0.03 (–0.11, 0.04)	0.39	0.01 (–0.07, 0.08)	0.89	0.20
Breakfast (ref. No)					
Yes	–5.44 (–12.43, 1.55)	0.13	0.04 (–7.42, 7.49)	0.99	0.22
Tobacco smoking (ref. No)					
Sometimes	4.84 (–4.66, 14.35)	0.32	7.60 (–4.43, 19.62)	0.13	0.32
Yes	10.68 (–2.95, 24.31)	0.12	24.70 (5.90, 43.49)	0.01*	
Alcohol consumption (ref. No)					
Sometimes	1.31 (–5.44, 8.06)	0.70	7.55 (–0.65, 15.76)	0.20	0.31
Yes	19.09 (0.67, 37.51)	0.04*	17.98 (–4.96, 40.92)	0.02*	
Marijuana use (ref. No)					
Sometimes	5.86 (–6.85, 18.57)	0.37	15.51 (–2.19, 33.22)	0.09	0.30
Yes	39.84 (7.96, 71.72)	0.01*	14.31 (–7.58, 36.19)	0.20	
Energy drinks consumption (ref. No)					
Sometimes	5.94 (–1.06, 12.94)	0.10	1.60 (–5.73, 8–93)	0.67	0.54
Yes	7.80 (–1.90, 17.50)	0.12	2.84 (–5.31, 10.99)	0.50	
<i>Category 4: Use of technology and other habits</i>					
Mobile phone use (ref. Every 30 m or less)					
Between 30 m–60 m	–6.07 (–12.17, 0.03)	0.05	–4.20 (–10.81, 2.43)	0.22	0.82
Every more than 60 m	–0.90 (–9.41, 7.61)	0.84	–8.64 (–16.27, –1.00)	0.03*	0.39
I don't have mobile	–18.67 (–43.27, 5.93)	0.12	–25.52 (–52.60, 1.57)	0.07	
Mobile notification (ref. No)					
Yes	–0.96 (–7.15, 5.24)	0.76	5.07 (–1.51, 11.65)	0.13	0.15
Weekly exercise hours (ref. < 7 h)					
7 h or more	–0.03 (–0.10, 0.04)	0.33	–0.03 (–0.09, 0.03)	0.38	
Regular reader (ref. No)					
Yes	–7.55 (–13.10, –1.99)	0.01*	–2.94 (–10.58, 4.70)	0.45	0.24
<i>Category 5: Other personal conditions before and during the test</i>					
Need to go to the toilet (ref. No)					
Yes	6.60 (–2.05, 15.25)	0.14	0.77 (–7.96, 9.50)	0.86	0.34
Interest in the experiment (ref. No)					
Yes	–10.66 (–20.42, –0.89)	0.03*	–5.05 (–13.99, 3.88)	0.27	0.28
Bad news received (ref. No)					
Yes	9.26 (2.53, 15.99)	0.01*	6.86 (–0.68, 14.40)	0.08	0.79
<i>Category 6: Perceived classroom conditions during the test</i>					
Noise in classroom (ref. No)					
Yes	–2.00 (–7.78, 3.77)	0.50	–0.02 (–6.14, 6.09)	0.99	0.40

Note: CI, confidence interval; HRT–SE, hit reaction time standard error. Model adjusted for: age, country of birth, PMA–R, maternal occupational social class and poverty. Effects are calculated using conditional linear regression with school as random effect. Association reported as percent change in the median of the outcome.

^a Excluding the participants having selected “Other” in gender group

* statistical significance at the 0.05 level.

Table S6. Adjusted association between attentiveness (HRT–SE) and factors included in the questionnaire that showed a significant crude association (n = 1,658) stratified by maternal occupational social class.

Factors	Maternal occupational social class									P for interaction
	Highly skilled Change (%) 95% CI	p-value	Non-manual Change (%) 95% CI	p-value	Manual Change (%) 95% CI	p-value	Other Change (%) 95% CI	p-value		
Category 1: Social relationships and interactions										
Classmates relationship quality (ref. Good)										
Not very good	−0.10 (−18.28, 18.08)	0.99	21.18 (1.88, 40.48)	0.03*	40.80 (−39.36, 120.96)	0.32	23.72 (3.24, 44.20)	0.02*	0.18	
Bad	−31.52 (−74.21, 11.17)	0.15	−3.32 (−51.66, 45.02)	0.89	−46.36 (−90.77, −1.96)	0.04*	14.31 (−18.09, 46.71)	0.39		
Peer and family conflict (ref. No)										
No (ref.)										
Yes	6.14 (−2.42, 14.71)	0.16	3.34 (−5.11, 11.79)	0.44	2.68 (−18.11, 23.46)	0.80	9.24 (−0.32, 18.81)	0.06	0.78	
Feelings of love (ref. No)										
Yes, but it doesn't affect me	14.23 (5.59, 22.88)	< 0.01*	−4.23 (−11.69, 3.20)	0.26	20.05 (−5.00, 45.10)	0.12	0.05 (−9.03, 9.12)	0.99	0.05	
Yes, and it affects me	1.70 (−10.90, 14.29)	0.79	−1.29 (−13.09, 10.51)	0.83	18.23 (−18.98, 55.44)	0.34	1.79 (−10.90, 14.47)	0.78		
Category 2: Psychological and physical health										
Self-rated health (ref. Good)										
Regular	−0.92 (−8.73, 6.89)	0.82	1.81 (−6.48, 10.11)	0.67	28.98 (−0.89, 58.85)	0.06	6.05 (−4.08, 16.17)	0.24	0.13	
Bad	21.23 (−18.83, 61.27)	0.30	38.02 (3.81, 72.24)	0.03*	−5.05 (−63.48, 53.38)	0.87	−0.92 (−26.52, 24.67)	0.94		
Medication intake (ref. No)										
Yes	14.86 (3.43, 26.29)	0.01*	5.18 (−6.04, 16.39)	0.37	0.40 (−30.68, 31.48)	0.98	10.20 (−3.28, 23.68)	0.14	0.64	
Period pain (ref. No)										
I am a boy	−4.41 (−31.73, 22.91)	0.75	7.36 (−20.08, 34.80)	0.60	−5.60 (−31.23, 20.02)	0.67	−6.61 (−28.78, 15.57)	0.56	0.17	
Yes, but I don't have it today	8.31 (−4.28, 20.90)	0.20	9.42 (−3.15, 22.00)	0.14	30.03 (−6.12, 66.18)	0.10	−1.93 (−16.45, 12.59)	0.79		
Yes, and today I have it	10.36 (−8.76, 29.47)	0.29	−1.12 (−17.22, 14.98)	0.89	50.55 (−19.38, 120.49)	0.16	−4.75 (−24.13, 14.63)	0.63		
Category 3 : Eating habits and addictive-substances consumption										
Eating frequency (ref. < 4 times)										
4 times or more	−0.06 (−0.16, 0.03)	0.21	0.07 (−0.03, 0.16)	0.16	0.10 (−0.12, 0.31)	0.38	−0.04 (−0.13, 0.05)	0.37	0.15	
Breakfast (ref. No)										
Yes	−5.64 (−14.83, 3.55)	0.23	−3.96 (−12.61, 4.68)	0.37	7.85 (−16.70, 32.40)	0.53	2.27 (−7.01, 11.54)	0.63	0.73	
Tobacco smoking (ref. No)										
Sometimes	9.75 (−2.48, 21.97)	0.12	−1.51 (−13.46, 10.45)	0.81	1.13 (−32.33, 34.60)	0.95	9.81 (−6.93, 26.45)	0.25	0.37	
Yes	11.36 (−6.44, 29.16)	0.21	7.79 (−11.05, 26.63)	0.42	−0.36 (−43.88, 43.16)	0.99	41.57 (17.73, 65.42)	< 0.01*		
Alcohol consumption (ref. No)										
Sometimes	3.41 (−5.14, 11.95)	0.44	8.31 (−0.99, 17.62)	0.08	7.38 (−16.52, 31.27)	0.55	−3.53 (−13.45, 6.38)	0.49	0.49	
Yes	13.05 (−9.72, 35.82)	0.26	21.48 (−9.02, 51.99)	0.17	−13.21 (−47.89, 21.48)	0.46	32.94 (4.82, 61.06)	0.02*		
Marijuana use (ref. No)										
Sometimes	15.94 (−4.89, 36.77)	0.13	5.39 (−9.88, 20.67)	0.49	39.92 (−19.86, 99.70)	0.19	10.28 (−9.91, 30.48)	0.32	0.17	
Yes	19.75 (−13.53, 53.04)	0.25	0.44 (−24.75, 25.63)	0.97	−33.78 (−81.77, 14.22)	0.17	60.81 (22.17, 99.44)	< 0.01*		
Energy drinks consumption (ref. No)										
Sometimes	0.51 (−7.56, 8.58)	0.90	5.69 (−3.07, 14.45)	0.20	22.13 (−3.81, 48.07)	0.10	4.17 (−5.91, 14.25)	0.42	0.85	
Yes	−1.02 (−11.31, 9.27)	0.85	11.82 (0.66, 22.97)	0.04*	21.71 (−6.71, 50.13)	0.13	3.47 (−7.76, 14.69)	0.55		
Category 4: Use of technology and other habits										
Mobile phone use (ref. Every 30 m or less)										
Between 30 m–60 m	−5.19 (−12.66, 2.28)	0.17	−3.67 (−11.50, 4.15)	0.36	−13.13 (−32.14, 5.88)	0.18	−6.19 (−15.12, 2.74)	0.17	0.88	
Every more than 60 m	−6.31 (−16.09, 3.47)	0.21	−7.50 (−17.47, 2.47)	0.14	−1.98 (−27.30, 23.34)	0.88	−2.03 (−12.45, 8.39)	0.70		
I don't have mobile	−29.18 (−57.52, −0.84)	0.04*	2.27 (−50.19, 54.72)	0.93	0	0	−23.37 (−50.10, 3.37)	0.09		
Mobile notification (ref. No)										
Yes	3.15 (−4.36, 10.67)	0.41	0.29 (−7.52, 8.10)	0.94	12.12 (−9.93, 34.17)	0.28	−0.47 (−9.03, 8.09)	0.92	0.42	

Weekly exercise hours (ref. < 7 h)									
> 7 h	0.03 (−0.04, 0.11)	0.37	−0.06 (−0.14, 0.03)	0.19	0.13 (−0.10, 0.36)	0.28	−0.12 (−0.21, −0.03)	0.01*	0.09
Regular reader (ref. No)									
Yes	−3.84 (−11.29, 3.60)	0.31	−8.27 (−15.85, −0.69)	0.03*	−11.24 (−32.48, 10.00)	0.30	−2.81 (−12.21, 6.59)	0.56	0.76
Category 5: Other personal conditions before and during the test									
Hours of sleep (ref. < 6 h)									
Between 6 h and 7 h	4.81 (−9.68, 19.31)	0.52	−3.43 (−17.26, 10.40)	0.63	−12.58 (−42.81, 17.65)	0.42	−12.89 (−23.87, −1.91)	0.02*	0.44
> 7 h	2.14 (−12.13, 16.42)	0.77	3.98 (−11.20, 19.16)	0.61	−9.89 (−40.51, 20.73)	0.53	−10.22 (−21.72, 1.29)	0.08	
Need to go to the toilet (ref. No)									
Yes	−3.40 (−13.53, 6.73)	0.51	11.00 (−0.34, 22.33)	0.06	−5.77 (−29.84, 18.31)	0.64	7.50 (−3.90, 18.90)	0.20	0.30
Interest in the experiment (ref. No)									
Yes	1.72 (−11.92, 15.37)	0.81	−6.86 (−18.07, 4.36)	0.23	−27.68 (−47.03, −8.33)	0.01*	−13.05 (−23.82, −2.28)	0.02*	0.22
Bad news received (ref. No)									
Yes	13.02 (4.42, 21.63)	< 0.01*	6.84 (−1.78, 15.45)	0.12	3.11 (−15.96, 23.19)	0.76	5.41 (−4.32, 15.14)	0.28	0.75
Category 6: Perceived classroom conditions during the test									
Noise in classroom (ref. No)									
Yes	−2.00 (−8.98, 4.98)	0.57	1.26 (−6.33, 8.86)	0.74	−1.49 (−20.47, 17.50)	0.88	−3.12 (−11.01, 4.77)	0.44	0.84

Note: CI, confidence interval; HRT–SE, hit reaction time standard error. Model adjusted for: age, sex, country of birth, PMA–R and poverty. Effects are calculated using conditional linear regression with school as random effect. Association reported as percent change in the median of the outcome. * statistical significance at the 0.05 level.

Table S7. Adjusted association between secondary attention outcomes and factors included in the questionnaire that showed a significant crude association (n = 1,658)

Variables	Impulsivity		Selective attention score		Alerting score		Orienting score		Executive attention	
	Change (count), 95% (CI)	p-value	Change (count), 95% (CI)	p-value	Change (ms), 95% (CI)	p-value	Change (ms), 95% (CI)	p-value	Change (ms), 95% (CI)	p-value
Category 1: Social relationships and interactions										
Classmates relationship quality (ref. Good)										
Not very good	0.41 (−0.43, 1.24)	0.34	0.22 (−0.10, 0.54)	0.18	−3.38 (−15.84, 9.08)	0.60	9.00 (−3.12, 21.12)	0.15	−0.29 (−10.58, 10.01)	0.96
Bad	2.73 (0.79, 4.68)	0.01*	0.93 (0.18, 1.68)	0.02*	34.41 (5.39, 63.44)	0.02*	−15.56 (−43.81, 12.69)	0.28	51.65 (27.71, 75.60)	< 0.01*
Peer and family conflict (ref. No)										
Yes	0.49 (0.08, 0.90)	0.02*	0.03 (−0.13, 0.19)	0.71	6.24 (0.16, 12.32)	0.04*	1.25 (−4.67, 7.17)	0.68	1.86 (−3.20, 6.92)	0.47
Feelings of love (ref. No)										
Yes, but it doesn’t affect me	0.27 (−0.12, 0.66)	0.18	−0.03 (−0.18, 0.12)	0.68	6.97 (1.07, 12.87)	0.02*	−0.43 (−6.18, 5.32)	0.88	3.83 (−1.09, 8.75)	0.13
Yes, and it affects me	0.53 (−0.07, 1.13)	0.09	0.05 (−0.18, 0.28)	0.69	−0.84 (−9.80, 8.11)	0.85	6.01 (−2.72, 14.74)	0.18	1.37 (−6.10, 8.84)	0.72
Category 2: Psychological and physical health										
Self-rated health (ref. Good)										
Regular	0.28 (−0.13, 0.69)	0.19	0.07 (−0.09, 0.23)	0.39	0.43 (−5.73, 6.60)	0.89	0.65 (−5.36, 6.65)	0.83	−0.12 (−5.26, 5.02)	0.96
Bad	−0.23 (−1.56, 1.10)	0.73	0.26 (−0.25, 0.78)	0.31	13.18 (−6.63, 32.98)	0.19	−7.07 (−26.37, 12.22)	0.47	4.03 (−12.50, 20.56)	0.63
Medication intake (ref. No)										
Yes	0.46 (−0.07, 0.99)	0.09	0.35 (0.14, 0.55)	< 0.01*	4.40 (−3.56, 12.35)	0.28	0.88 (−6.87, 8.63)	0.82	−0.36 (−7.00, 6.27)	0.91
Period pain (ref. No)										
I am a boy	0.70 (−0.57, 1.96)	0.28	0.09 (−0.40, 0.57)	0.73	−3.84 (−22.77, 15.09)	0.69	−18.05 (−36.43, 0.33)	0.05	−2.12 (−17.89, 13.66)	0.79
Yes, but I don’t have it today	−0.24 (−0.85, 0.36)	0.43	0.08 (−0.15, 0.31)	0.51	1.93 (−7.05, 10.90)	0.67	0.24 (−8.47, 8.96)	0.96	0.60 (−6.88, 8.08)	0.88
Yes, and today I have it	−0.43 (−1.30, 0.43)	0.33	−0.11 (−0.44, 0.23)	0.53	4.58 (−8.38, 17.55)	0.49	−1.78 (−14.36, 10.81)	0.78	1.14 (−9.67, 11.94)	0.84
Category 3 : Eating habits and addictive-substances consumption										
Eating frequency (ref. < 4 times)										
4 times or more	−0.31 (−0.77, 0.14)	0.18	−0.21 (−0.36, −0.07)	< 0.01*	0.30 (−6.51, 7.10)	0.93	3.51 (−3.11, 10.13)	0.30	−0.21 (−5.86, 5.44)	0.94
Breakfast (ref. No)										
Yes	−0.37 (−0.82, 0.08)	0.11	−0.02 (−0.19, 0.16)	0.83	−2.94 (−0.71, 3.84)	0.40	−4.55 (−11.13, 2.03)	0.18	0.08 (−5.55, 5.71)	0.98
Tobacco smoking (ref. No)										
Sometimes	−0.26 (−0.86, 0.33)	0.39	−0.03 (−0.26, 0.21)	0.84	5.44 (−3.76, 14.63)	0.25	−1.53 (−10.49, 7.42)	0.74	−4.33 (−11.73, 3.07)	0.25
Yes	0.64 (−0.17, 1.46)	0.12	0.47 (0.15, 0.79)	< 0.01*	−7.24 (−19.69, 5.21)	0.26	−0.96 (−13.08, 11.17)	0.88	3.64 (−6.33, 13.61)	0.47
Alcohol consumption (ref. No)										
Sometimes	0.12 (−0.30, 0.55)	0.57	0.16 (−0.01, 0.32)	0.07	3.02 (−3.49, 9.54)	0.36	6.42 (0.07, 12.78)	0.05	3.25 (−2.04, 8.55)	0.23
Yes	1.56 (0.53, 2.59)	< 0.01*	0.52 (0.11, 0.92)	0.01*	−6.29 (−22.07, 9.50)	0.44	13.48 (−1.90, 28.86)	0.09	8.35 (−4.45, 21.16)	0.20
Marijuana use (ref. No)										
Sometimes	0.89 (0.08, 1.69)	0.03*	0.32 (0.00, 0.64)	0.05	5.77 (−6.54, 18.08)	0.36	10.79 (−1.21, 22.78)	0.08	0.94 (−8.90, 10.78)	0.85
Yes	1.84 (0.59, 3.09)	< 0.01*	0.95 (0.46, 1.46)	< 0.01*	−6.32 (−25.44, 12.79)	0.52	10.42 (−8.23, 29.08)	0.27	14.84 (−0.42, 30.10)	0.06
Energy drinks consumption (ref. No)										
Sometimes	0.13 (−0.29, 0.54)	0.55	0.10 (−0.06, 0.26)	0.23	3.11 (−3.16, 9.39)	0.33	−1.50 (−7.62, 4.63)	0.63	0.69 (−4.54, 5.93)	0.80
Yes	0.34 (−0.16, 0.83)	0.18	0.19 (−0.01, 0.38)	0.06	2.21 (−5.36, 9.77)	0.57	2.13 (−5.25, 9.51)	0.57	−4.87 (−11.18, 1.43)	0.13
Category 4: Use of technology and other habits										
Mobile phone use (ref. Every 30 m or less)										
Between 30 m–60 m	−0.55 (−0.96, −0.14)	0.01*	−0.15 (−0.31, 0.01)	0.06	−0.47 (−6.63, 5.69)	0.88	−0.81 (−6.80, 5.19)	0.79	−1.64 (−6.77, 3.48)	0.53
Every more than 60m	−0.46 (−0.97, 0.06)	0.08	−0.13 (−0.33, 0.07)	0.21	−0.12 (−7.87, 7.62)	0.98	−1.19 (−8.73, 6.35)	0.76	−4.63 (−11.08, 1.82)	0.16
I don’t have mobile	−0.88 (−2.90, 1.14)	0.39	−0.44 (−1.22, 0.34)	0.27	11.15 (−19.15, 41.44)	0.47	10.15 (−19.33, 39.63)	0.50	1.80 (−23.38, 26.98)	0.89
Mobile notification (ref. No)										
Yes	−0.16 (−0.55, 0.22)	0.41	−0.09 (−0.24, 0.06)	0.22	−0.67 (−6.40, 5.07)	0.82	4.29 (−1.28, 9.85)	0.13	−2.40 (−7.16, 2.35)	0.32
Weekly exercise hours (ref. < 7 h)										
7 h or more	0.11 (−0.29, 0.51)	0.59	−0.10 (−0.26, 0.05)	0.19	−3.35 (−9.31, 2.60)	0.21	3.37 (−2.45, 9.19)	0.26	−0.52 (−5.50, 4.46)	0.84
Regular reader (ref. No)										
Yes	−0.25 (−0.67, 0.16)	0.23	−0.15 (−0.31, 0.01)	0.06	−0.06 (−6.27, 6.15)	0.98	−2.53 (−8.55, 3.49)	0.41	−0.43 (−5.58, 4.73)	0.87
Category 5: Other personal conditions before and during the test										
Need to go to the toilet (ref. No)										
Yes	0.11 (−0.40, 0.63)	0.67	−0.03 (−0.23, 0.17)	0.77	−4.09 (−11.74, 3.55)	0.29	1.16 (−6.28, 8.60)	0.76	−0.81 (−7.15, 5.53)	0.80
Interest in the experiment (ref. No)										
Yes	−0.47 (−1.09, 0.14)	0.13	0.26 (0.02, 0.49)	0.03	0.89 (−8.29, 10.06)	0.85	1.53 (−7.40, 10.46)	0.74	−2.00 (−9.62, 5.62)	0.61
Bad news received (ref. No)										
Yes	0.55 (0.15, 0.96)	0.01*	0.25 (0.10, 0.41)	< 0.01*	0.78 (−5.23, 6.79)	0.80	0.68 (−5.17, 6.54)	0.82	1.63 (−3.37, 6.62)	0.52
Category 6: Perceived classroom conditions during the test										
Noise in classroom (ref. No)										
Yes	−0.01 (−0.05, 0.03)	0.58	0.11 (−0.03, 0.25)	0.12	−3.32 (−8.82, 2.19)	0.24	0.95 (−4.41, 6.31)	0.73	−4.83 (−9.40, −0.26)	0.04*

Note: CI, confidence interval; HRT–SE, hit reaction time standard error. Model adjusted for: sex, age, country of birth, PMA–R, maternal occupational social class and poverty. Associations are estimated using conditional linear regression with school as strata. Association reported as additive change in the mean of outcome. * statistical significance at the 0.05 level.