

Additional file 4. Covariables of the longitudinal relationships between screen time, sleep duration, obesity, physical activity and cMetS.

			B	SE	95% CI
Intercept	→	ST (follow-up)	166.117	94.205	-29.072; 341.839
Skin color ^a					
Black <i>versus</i> white skin	→	ST (follow-up)	22.208	33.663	-35.373; 97.889
Brown <i>versus</i> white skin	→	ST (follow-up)	38.474	28.241	-15.066; 97.148
School type ^b					
Municipal <i>versus</i> state schools	→	ST (follow-up)	21.482	18.115	-12.949; 58.471
Private <i>versus</i> state schools	→	ST (follow-up)	-17.933	31.523	-78.710; 44.152
Sex ^c	→	ST (follow-up)	-13.542	16.825	-46.801; 18.882
Age (baseline)	→	ST (follow-up)	-4.038	4.021	-11.727; 4.163
Intercept	→	Sleep duration (follow-up)	568.095	39.999	492.751; 646.975
Skin color ^a					
Black <i>versus</i> white skin	→	Sleep duration (follow-up)	8.325	18.279	-26.055; 45.485
Brown <i>versus</i> white skin	→	Sleep duration (follow-up)	-11.525	15.055	-40.691; 18.135
School type ^b					
Municipal <i>versus</i> state schools	→	Sleep duration (follow-up)	10.541	8.302	-6.225; 26.808
Private <i>versus</i> state schools	→	Sleep duration (follow-up)	-15.303	9.356	-33.912; 3.052
Sex ^c	→	Sleep duration (follow-up)	-1.397	7.602	-16.011; 13.663
Age (baseline)	→	Sleep duration (follow-up)	-8.138	1.926	-12.101; -4.518
Intercept	→	Leisure PA (follow-up)	48.904	109.142	-179.636; 252.920
Skin color ^a					
Black <i>versus</i> white skin	→	Leisure PA (follow-up)	-68.783	35.988	-139.168; 0.076
Brown <i>versus</i> white skin	→	Leisure PA (follow-up)	-2.850	29.123	-61.322; 54.841
School type ^b					
Municipal <i>versus</i> state schools	→	Leisure PA (follow-up)	44.051	26.366	-5.807; 96.438

Private <i>versus</i> state schools	→	Leisure PA (follow-up)	87.621	50.042	7.382; 206.905
Sex ^c	→	Leisure PA (follow-up)	-46.848	22.309	-91.638; -4.452
Age (baseline)	→	Leisure PA (follow-up)	9.975	4.905	0.758; 20.142
Intercept	→	Z_BMI (follow-up)	0.405	0.246	-0.070; 0.906
Skin color ^a					
Black <i>versus</i> white skin	→	Z_BMI (follow-up)	-0.137	0.138	0.098; 0.264
Brown <i>versus</i> white skin	→	Z_BMI (follow-up)	-0.046	0.087	-0.215; 0.127
School type ^b					
Municipal <i>versus</i> state schools	→	Z_BMI (follow-up)	0.010	0.067	-0.127; 0.138
Private <i>versus</i> state schools	→	Z_BMI (follow-up)	-0.026	0.109	-0.238; 0.193
Intercept	→	cMetS (follow-up)	-0.415	0.260	-0.927; 0.081
Skin color ^a					
Black <i>versus</i> white skin	→	cMetS (follow-up)	-0.020	0.134	-0.282; 0.248
Brown <i>versus</i> white skin	→	cMetS (follow-up)	-0.052	0.088	-0.221; 0.127
School type ^b					
Municipal <i>versus</i> state schools	→	cMetS (follow-up)	0.134	0.067	0.004; 0.267
Private <i>versus</i> state schools	→	cMetS (follow-up)	-0.093	0.105	-0.298; 0.113

Note: Unstandardized regression coefficients (β), standard errors (SE), and 95% confidence intervals (CI) of

each pathway included within the model; SE and 95% CI computed using percentile bootstrapping methods;

^aWhite skin participants were considered as the reference group; ^bState school participants were considered as

the reference group; ^cboys were considered as the reference group; BMI: Body mass index; ST: Screen time;

PA: physical activity; cMetS: Clustered cardiometabolic risk score.