

**Table S1.** Pearson's correlations between the four indicators of dietary habits

	LLDS-I	KCAL	SUGAR	FAT
LLDS-I	1			
KCAL	0.185	1		
SUGAR	0.409	0.135	1	
FAT	0.253	0.208	-0.254*	1

LLDS-I represents the inverted Lifelines Diet Score, higher LLDS-I means poor overall diet quality; KCAL, Energy intake ratio; FAT, Fat intake ratio; SUGAR, Free sugar intake ratio.

\* a negative correlation arises as both percentages are relative to total energy intake, i.e. they add up (together with percentage carbohydrates and percentage alcohol) to 100%.

**Table S2.** Gene-environment correlations between the PRS and diet/other lifestyles.

	Correlation r	P value
<b>Diet</b>		
Overall diet quality	0.015	0.006
Intake of energy	-0.031	$1.14 \times 10^{-8}$
Intake of sugar	0.022	$7.65 \times 10^{-5}$
Intake of fat	0.018	0.001
<b>Other lifestyle</b>		
MVPA	-0.002	0.740
Sleep hours	-0.014	0.012
Alcohol intake	0.007	0.189
Smoking	Beta	
Past	0.109	$< 2 \times 10^{-16}$
Current	0.202	$< 2 \times 10^{-16}$

MVPA indicates minutes per week spent in moderate-to-vigorous physical activity.

**Table S3.** Sensitivity analyses results of energy intake and its interaction with the PRS after including the interactions between energy intake and all four SES indices.

	B (95% CI)	P Value	Beta
<b>Intake of energy (KCAL) (ref=Q1)</b>			
KCAL Q2	0.075 (-0.038, 0.189)	0.194	0.036
KCAL Q3	0.148 (0.034, 0.263)	0.011	0.071
ADHD PRS	0.009 (-0.009, 0.026)	0.331	0.009
ADHD PRS×KCAL Q2	0.032 (0.008, 0.056)	0.010	0.018
ADHD PRS×KCAL Q3	0.036 (0.012, 0.061)	0.003	0.021

Q1 indicates tertile 1; Q2, tertile 2; Q3, tertile 3. ADHD PRS×variable represents the interaction term between ADHD PRS and the variable.