

Figure S1. Flowchart for complete case analysis examining the association between overweight/obesity and diet-related behaviours in the Greek-arm of the International Health Behaviour in School-aged Children (HBSC) study during 2018.

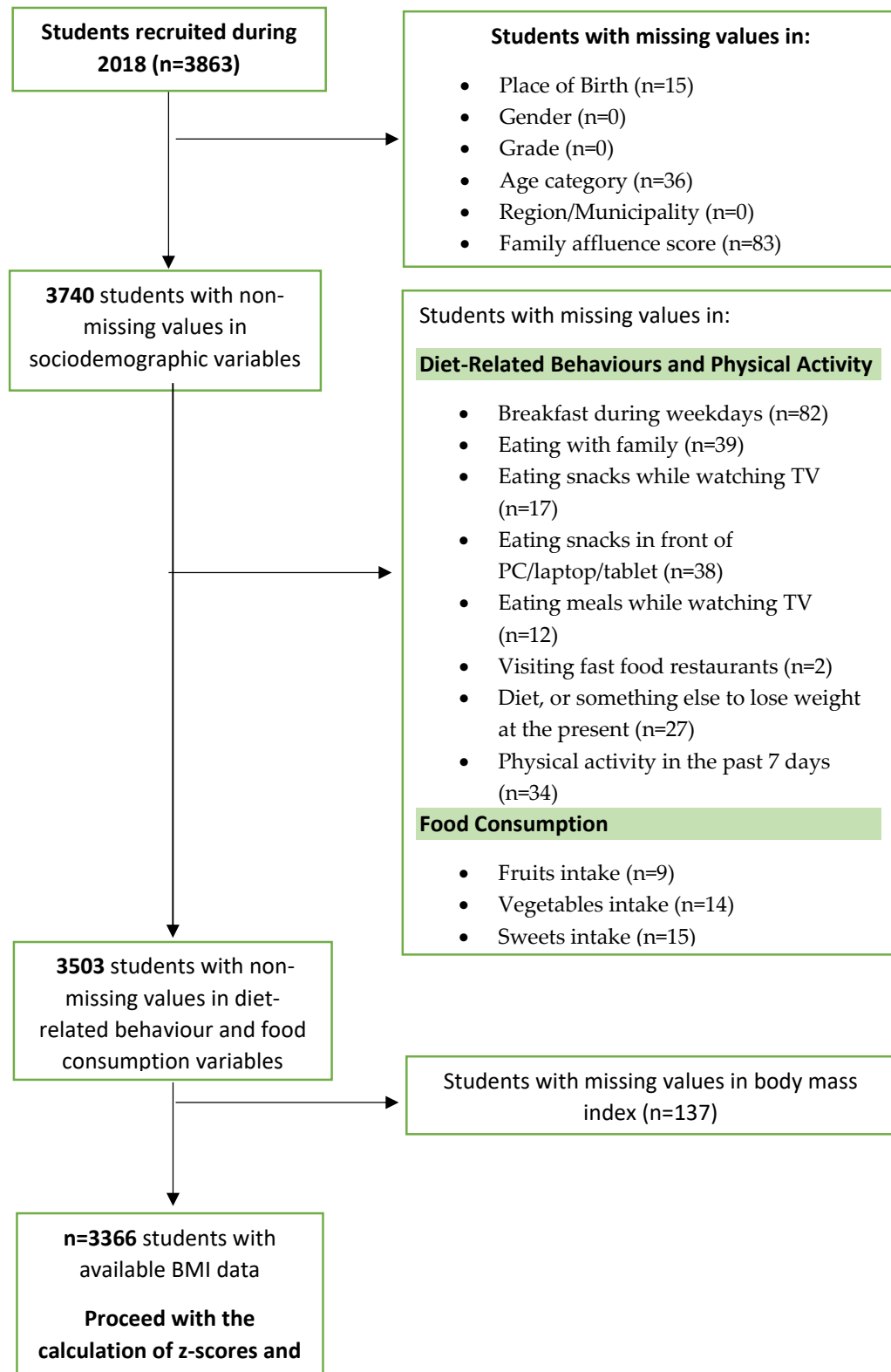
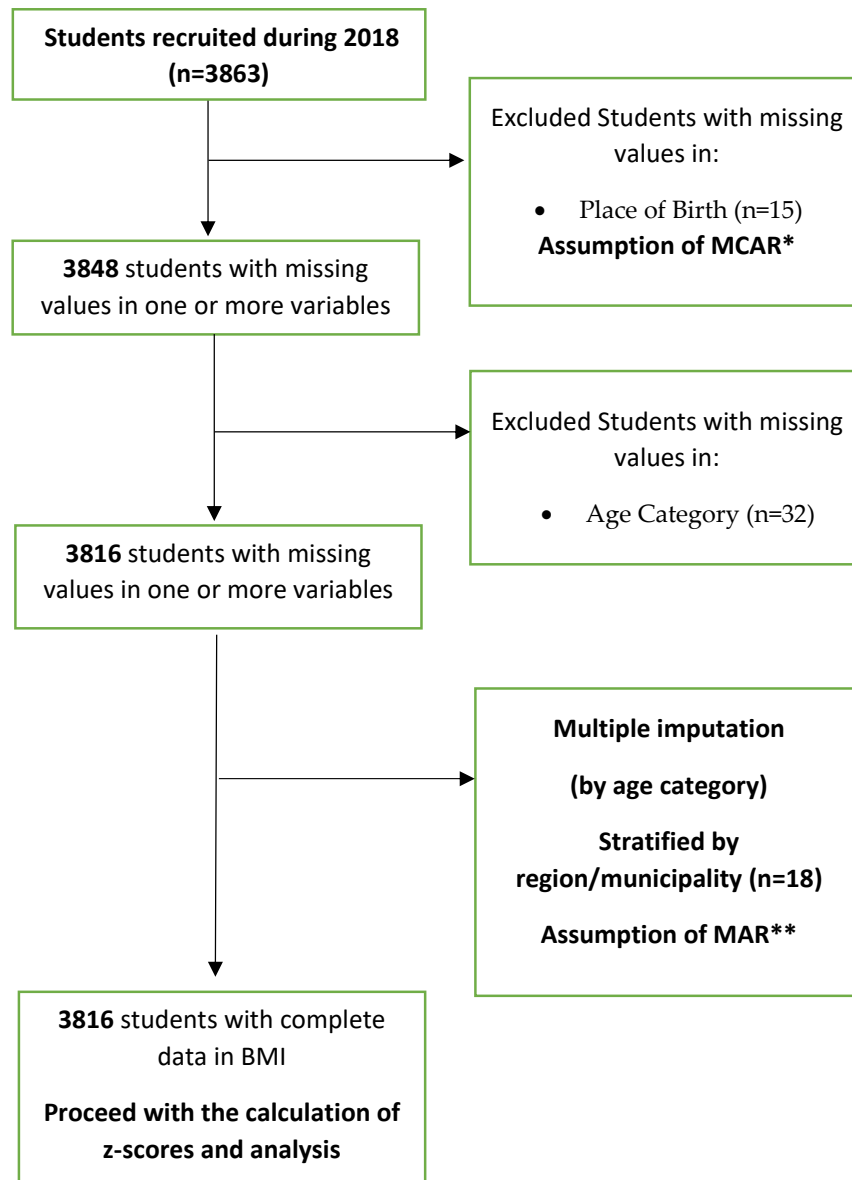


Figure S2. Flowchart for imputed data analysis examining the association between overweight/obesity and diet-related behaviours in the Greek-arm of the International Health Behaviour in School-aged Children (HBSC) study during 2018.



*MCAR: Missing completely at random

**MAR: Missing at random

Table S1. Multiple Imputation Procedure We created 10 copies of datasets in which missing values of bodyweight, bodyheight, breakfast consumption on weekdays, family meals, family affluence score, eating snacks while watching TV, eating snacks while working/playing on a computer, watching TV while having a meal, eating in fast food restaurants, being on a diet or something else to lose weight at the present, physical activity the past 7 days, eating fruits, eating vegetables, eating sweets, drinking coke/soft drinks were replaced by imputed values sampled from their predictive distribution, through multiple imputation by chained equations, which was applied separately in 3 age groups (11-, 13-, and 15-year-old), and we created multiple copies of datasets (n=10) with imputed values. Imputation was adjusted by region/municipality (18 categories). The imputation model in each age group included the following variables that were mutually adjusted (plus, the sociodemographic variables gender (sex), region/municipality, and place of birth that had no missing data):

Variables	Modelled through
Bodyweight	predictive mean matching
Bodyheight	linear regression
Breakfast consumption on weekdays	multinomial logistic regression
Family meals together	multinomial logistic regression
Family affluence score (FAS)	multinomial logistic regression
Eating snacks while watching TV	multinomial logistic regression
Eating snacks while work/play on computer	multinomial logistic regression
Watching TV while having a meal	multinomial logistic regression
Eating in fast food restaurants	multinomial logistic regression
Being on a diet or something else to lose weight at the present	multinomial logistic regression
Physical activity the past 7 days:	multinomial logistic regression
Eating fruits	multinomial logistic regression
Eating vegetables	multinomial logistic regression
Eating sweets	multinomial logistic regression
Drinking coke/soft drinks (SSBs)	multinomial logistic regression

Table S2. Underweight, Normal weight, Overweight and Obesity prevalence (%) by gender and age category from complete case analysis of 3366 participants and from the analysis performed after imputation with the total 3816 participants in the 2018 Greek arm of the HBSC* study.

	UNDERWEIGHT		NORMALWEIGHT		OVERWEIGHT		OBESE	
	Complete case	After imputation	Complete case	After imputation	Complete case	After imputation	Complete case	After imputation
ALL AGES	n=3366	n=3816	n=3366	n=3816	n=3366	n=3816	n=3366	n=3816
TOTAL N(%)	99 (2.9%)	3.5%	2446 (72.7%)	71.8%	647 (19.2%)	19.4%	174(5.2%)	5.3%
BOYS	42 (2.6%)	3.2%	1075 (66.3%)	65.4%	392 (24.2%)	24.1%	111 (6.9%)	7.3%
GIRLS	57 (3.3%)	3.7%	1371 (78.5%)	78.2%	255 (14.6%)	14.7%	63 (3.6%)	3.4%
11-YEAR-OLDS	n=1013	n=1216	n=1013	n=1216	n=1013	n=1216	n=1013	n=1216
TOTAL	43 (4.3%)	5.0%	695 (68.6%)	67.7%	218 (21.5%)	21.6%	57 (5.6%)	5.7%
BOYS	15 (3.1%)	3.7%	314 (64.3%)	63.0%	127 (26.0%)	26.1%	32 (6.6%)	7.2%
GIRLS	28 (5.3%)	6.4%	381 (72.6%)	72.3%	91 (17.3%)	17.1%	25 (4.8%)	4.2%
13-YEAR-OLDS	n=1173	n=1299	n=1173	n=1299	n=1173	n=1299	n=1173	n=1299
TOTAL	43 (3.6%)	3.9%	843 (71.9%)	71.3%	229 (19.5%)	19.9%	58 (5.0%)	4.9%
BOYS	20 (3.6%)	4.2%	373 (67.0%)	66.2%	127 (22.8%)	23.0%	37 (6.6%)	6.6%
GIRLS	23 (3.7%)	3.5%	470 (80.0%)	76.3%	102 (16.6%)	16.8%	21 (3.4%)	3.4%
15-YEAR-OLDS	n=1180	n=1301	n=1180	n=1301	n=1180	n=1301	n=1180	n=1301
TOTAL	13 (1.1%)	1.6%	908 (77.0%)	76.1%	200 (16.9%)	16.9%	59 (5.0%)	5.4%
BOYS	7 (1.2%)	1.8%	388 (67.5%)	66.7%	138 (24.0%)	23.4%	42 (7.3%)	8.1%
GIRLS	6 (1.0%)	1.4%	520 (85.9%)	85.6%	62 (10.3%)	10.4%	17 (2.8%)	2.6%

* HBSC: Health Behaviour in School-aged Children study

Table S3. Odds ratios (OR) and associated 95% confidence intervals (CI) from logistic regression models exploring the association of Overweight with diet-related behaviours and habits among 3816 participants in the 2018 Greek arm of the HBSC study*.

	Model 1		Model 2		Model 3	
Variables	OR (95% CI)	p-value	aOR ^a (95% CI)	p-value	aOR ^b (95% CI)	p-value
Eating breakfast on weekdays						
Never	1.35 (1.14-1.59)	0.001	1.31 (1.08-1.57)	0.005	1.30 (1.07-1.57)	0.007
1-4 days	1.06 (0.87-1.28)	0.565	1.09 (0.89-1.33)	0.417	1.04 (0.85-1.28)	0.701
Always (5 days)	Ref.		Ref.		Ref.	
Family meals						
Every day	Ref.		Ref.		Ref.	
Almost every day	0.90 (0.76-1.08)	0.257	1.02 (0.85-1.22)	0.807	0.97 (0.81-1.17)	0.765
Rarely	1.19 (0.96-1.48)	0.113	1.34 (1.07-1.67)	0.011	1.22 (0.96-1.54)	0.098
Total score for behaviour of eating snacks/meals in front of screens (TV/PC/tablet)						
	1.04 (0.99-1.10)	0.103	1.02 (0.97-1.08)	0.422	1.02 (0.96-1.08)	0.469
Eating in fast-food restaurants						
Never	Ref.		Ref.		Ref.	
Less than once/month	1.14 (0.82-1.60)	0.430	1.25 (0.87-1.80)	0.225	1.29 (0.87-1.89)	0.203
1-3 days/month	0.96 (0.69-1.35)	0.831	1.08 (0.75-1.56)	0.690	1.07 (0.72-1.59)	0.751
Weekly	0.96 (0.67-1.37)	0.826	1.04 (0.69-1.55)	0.861	1.02 (0.67-1.57)	0.918
Fruits intake						
Less than once/week	1.31 (0.96-1.78)	0.088	1.05 (0.75-1.46)	0.793	1.17 (0.83-1.65)	0.356
1-4 days/week	1.16 (0.98-1.37)	0.075	1.05 (0.86-1.27)	0.651	1.09 (0.89-1.33)	0.413
5-6 days/week	1.00 (0.81-1.24)	0.987	0.93 (0.74-1.16)	0.522	0.93 (0.74-1.18)	0.564
Every day	Ref.		Ref.		Ref.	
Vegetables intake						
Less than once/week	1.23 (0.95-1.59)	0.110	0.92 (0.70-1.22)	0.576	0.92 (0.69-1.22)	0.554
1-4 days/week	1.18 (0.90-1.31)	0.364	0.92 (0.75-1.12)	0.407	0.98 (0.80-1.21)	0.846
5-6 days/week	0.97 (0.79-1.20)	0.810	0.90 (0.73-1.12)	0.354	0.96 (0.77-1.19)	0.681
Every day	Ref.		Ref.		Ref.	Ref.
Sweets intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	0.89 (0.73-1.08)	0.245	0.98 (0.79-1.21)	0.826	1.02 (0.81-1.28)	0.873
5-6 days/week	0.86 (0.66-1.12)	0.270	0.92 (0.68-1.24)	0.580	1.12 (0.82-1.54)	0.473
Every day	0.68 (0.52-0.90)	0.008	0.69 (0.51-0.94)	0.017	0.84 (0.60-1.18)	0.312
Sugar-sweetened beverage intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	1.20 (1.03-1.41)	0.022	1.09 (0.91-1.29)	0.345	1.08 (0.90-1.29)	0.416
>5 days/week	1.29 (0.98-1.70)	0.071	1.17 (0.86-1.60)	0.323	1.18 (0.86-1.62)	0.316
Being on a diet or doing something else to lose weight						
No	Ref.				Ref.	<0.001
Yes	3.33 (2.77-4.00)	<0.001			4.47 (3.68-5.43)	
Gender						
Boys	Ref.		Ref.		Ref.	
Girls	0.48 (0.41-0.57)	<0.001	0.43 (0.36-0.51)	<0.001	0.35 (0.29-0.42)	<0.001
Age group						
11-year-olds	Ref.		Ref.		Ref.	
13-year-olds	0.88 (0.73-1.06)	0.186	0.84 (0.68-1.02)	0.075	0.78 (0.63-0.97)	0.024
15-year-olds	0.76 (0.62-0.94)	0.009	0.69 (0.57-0.85)	<0.001	0.62 (0.50-0.77)	<0.001

Family Affluence Scale (FAS)						
Low 20% affluence	Ref.		Ref.		Ref.	
Middle 60% affluence	0.61 (0.50-0.75)	<0.001	0.64 (0.51-0.79)	<0.001	0.61 (0.48-0.77)	<0.001
High 20% affluence	0.55 (0.42-0.71)	<0.001	0.59 (0.45-0.78)	<0.001	0.57 (0.43-0.76)	<0.001
Physical activity (past 7 days)						
0-1 days	1.83 (1.40-2.38)	<0.001	2.12 (1.61-2.81)	<0.001	2.53 (1.88-3.40)	<0.001
2-3 days	1.59 (1.29-1.97)	<0.001	1.89 (1.51-2.35)	<0.001	1.98 (1.58-2.49)	<0.001
4-5 days	1.24 (0.99-1.54)	0.057	1.33 (1.06-1.67)	0.014	1.37 (1.08-1.73)	0.010
6-7 days	Ref.		Ref.		Ref.	

Abbreviations: HBSC study: Health Behaviour in School-Aged Children study, aOR: adjusted odds ratio, CI: Confidence interval. *Based on imputed data, **Model 1:** unadjusted, **Model 2:** included all diet-related behaviours and dietary variables simultaneously adjusted for sociodemographic variables (sex, age category, family affluence score FAS), and physical activity (aOR^a) **Model 3:** Model 2 including the variable dieting (aOR^b).

Table S4. Odds ratios (OR) and associated 95% confidence intervals (CI) from logistic regression models exploring the association of Overweight with diet-related behaviours and habits among 1898 school-aged boys participants in the 2018 Greek arm of the HBSC study*.

	Model 1		Model 2		Model 3	
Variables	OR (95% CI)	p-value	aOR^a (95% CI)	p-value	aOR^b (95% CI)	p-value
Eating breakfast on weekdays						
Never	1.38 (1.09-1.76)	0.008	1.24 (0.95-1.61)	0.112	1.22 (0.93-1.59)	0.150
1-4 days	1.01 (0.78-1.30)	0.960	0.98 (0.75-1.27)	0.864	0.94 (0.72-1.23)	0.639
Always (5 days)	Ref.		Ref.		Ref.	
Family meals						
Every day	Ref.		Ref.		Ref.	
Almost every day	0.97 (0.77-1.22)	0.807	1.05 (0.83-1.33)	0.687	1.02 (0.80-1.30)	0.884
Rarely	1.49 (1.14-1.96)	0.004	1.54 (1.16-2.04)	0.003	1.42 (1.05-1.91)	0.023
Total score for behaviour of Eating snacks/meals in front of screens (TV/PC/tablet)						
	0.96 (0.90-1.03)	0.224	0.97 (0.90-1.04)	0.341	0.96 (0.89-1.03)	0.276
Eating in fast-food restaurants						
Never	Ref.		Ref.		Ref.	
Less than once/month	1.18 (0.75-1.86)	0.464	1.30 (0.80-2.11)	0.283	1.44 (0.87-2.39)	0.158
1-3 days/month	1.08 (0.69-1.67)	0.748	1.26 (0.77-2.05)	0.355	1.35 (0.81-2.25)	0.240
Weekly	0.96 (0.60-1.54)	0.871	1.14 (0.67-1.94)	0.628	1.23 (0.71-2.13)	0.457
Fruits intake						
Less than once/week	1.52 (1.03-2.26)	0.035	1.28 (0.80-2.03)	0.298	1.48 (0.93-2.35)	0.096
1-4 days/week	1.03 (0.81-1.30)	0.834	0.98 (0.75-1.29)	0.898	1.02 (0.77-1.35)	0.900
5-6 days/week	0.75 (0.57-0.99)	0.049	0.77 (0.57-1.04)	0.087	0.76 (0.56-1.05)	0.091
Every day	Ref.		Ref.		Ref.	
Vegetables intake						
Less than once/week	1.05 (0.75-1.46)	0.795	0.83 (0.56-1.21)	0.331	0.81 (0.55-1.20)	0.303
1-4 days/week	0.90 (0.71-1.15)	0.397	0.82 (0.63-1.08)	0.155	0.83 (0.62-1.10)	0.185
5-6 days/week	0.80 (0.61-1.04)	0.098	0.77 (0.58-1.02)	0.066	0.81 (0.61-1.08)	0.147
Every day	Ref.		Ref.		Ref.	
Sweets intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	0.92 (0.72-1.17)	0.476	0.95 (0.73-1.24)	0.694	0.99 (0.75-1.31)	0.945
5-6 days/week	0.78 (0.56-1.09)	0.149	0.83 (0.57-1.19)	0.300	0.98 (0.67-1.45)	0.933
Every day	0.72 (0.51-1.02)	0.068	0.67 (0.46-0.99)	0.046	0.77 (0.50-1.17)	0.221

Sugar-sweetened beverage intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	0.95 (0.77-1.18)	0.650	0.98 (0.78-1.23)	0.851	0.96 (0.76-1.21)	0.723
>5 days/week	1.08 (0.77-1.51)	0.648	1.19 (0.81-1.76)	0.374	1.18 (0.79-1.75)	0.423
Being on a diet or doing something else to lose weight						
No	Ref.				Ref.	
Yes	4.18 (3.18-5.48)	<0.001			4.32 (3.25-5.74)	<0.001
Age group						
11-year-olds	Ref.		Ref.		Ref.	
13-year-olds	0.84 (0.65-1.08)	0.170	0.83 (0.64-1.09)	0.186	0.85 (0.63-1.13)	0.255
15-year-olds	0.92 (0.69-1.21)	0.549	0.86 (0.64-1.16)	0.337	0.86 (0.63-1.18)	0.356
Family Affluence scale (FAS)						
Low 20% affluence	Ref.		Ref.		Ref.	
Middle 60% affluence	0.70 (0.54-0.92)	0.011	0.75 (0.56-1.01)	0.054	0.72 (0.54-0.98)	0.037
High 20% affluence	0.67 (0.49-0.91)	0.012	0.77 (0.55-1.08)	0.129	0.78 (0.55-1.11)	0.168
Physical activity (past 7 days)						
0-1 days	2.21 (1.59-3.05)	<0.001	2.08 (1.47-2.94)	<0.001	2.20 (1.53-3.16)	<0.001
2-3 days	2.06 (1.58-2.69)	<0.001	2.07 (1.58-2.72)	<0.001	2.11 (1.60-2.78)	<0.001
4-5 days	1.26 (0.95-1.68)	0.105	1.27 (0.96-1.68)	0.091	1.33 (1.00-1.78)	0.051
6-7 days	Ref.		Ref.		Ref.	

Abbreviations: HBSC study: Health Behaviour in School-Aged Children study, aOR: adjusted odds ratio, CI: Confidence interval. *Based on imputed data, **Model 1**: Crude, unadjusted, **Model 2**: included all diet-related behaviours and dietary variables simultaneously adjusted for sociodemographic variables (sex, age category, family affluence score FAS), and physical activity. **Model 3**: Model 2 including the variable dieting.

Table S5. Odds ratios (OR) and associated 95% confidence intervals (CI) from logistic regression models exploring the association of Overweight with diet-related behaviours and habits among 1918 school-aged girls participants in the 2018 Greek arm of the HBSC study*.

	Model 1		Model 2		Model 3	
Variables	OR (95% CI)	p-value	aOR ^a (95% CI)	p-value	aOR ^b (95% CI)	p-value
Eating breakfast on weekdays						
Never	1.48 (1.12-1.95)	0.006	1.45 (1.08-1.93)	0.013	1.47 (1.09-1.98)	0.011
1-4 days	1.30 (0.97-1.74)	0.083	1.27 (0.93-1.74)	0.124	1.22 (0.88-1.71)	0.235
Always (5 days)	Ref.		Ref.		Ref.	
Family meals						
Every day	Ref.		Ref.		Ref.	
Almost every day	0.93 (0.69-1.24)	0.602	0.97 (0.70-1.33)	0.833	0.89 (0.64-1.23)	0.464
Rarely	1.04 (0.76-1.43)	0.795	1.13 (0.81-1.59)	0.478	1.01 (0.71-1.44)	0.964
Total score for behaviour of eating snacks/meals in front of screens (TV/PC/tablet)	1.11 (1.04-1.20)	0.003	1.11 (1.03-1.21)	0.008	1.12 (1.03-1.22)	0.011
Eating in fast-food restaurants						
Never	Ref.		Ref.		Ref.	
Less than once/month	1.21 (0.67-2.17)	0.528	1.18 (0.63-2.20)	0.601	1.07 (0.56-2.03)	0.839
1-3 days/month	0.92 (0.53-1.61)	0.778	0.85 (0.47-1.55)	0.594	0.71 (0.38-1.32)	0.276
Weekly	0.91 (0.50-1.66)	0.764	0.87 (0.45-1.68)	0.671	0.71 (0.35-1.43)	0.340
Fruits intake						
Less than once/week	0.95 (0.53-1.69)	0.865	0.79 (0.43-1.45)	0.439	0.89 (0.48-1.65)	0.711

1-4 days/week	1.34 (1.02-1.75)	0.033	1.18 (0.88-1.59)	0.270	1.23 (0.90-1.68)	0.196
5-6 days/week	1.36 (0.95-1.94)	0.090	1.28 (0.89-1.85)	0.185	1.30 (0.89-1.90)	0.171
Every day	Ref.		Ref.		Ref.	
Vegetables intake						
Less than once/week	1.19 (0.75-1.89)	0.456	1.12 (0.68-1.85)	0.657	1.13 (0.67-1.90)	0.658
1-4 days/week	1.24 (0.92-1.66)	0.155	1.09 (0.78-1.51)	0.621	1.25 (0.89-1.77)	0.200
5-6 days/week	1.15 (0.81-1.64)	0.419	1.16 (0.81-1.66)	0.426	1.26 (0.87-1.82)	0.227
Every day	Ref.		Ref.		Ref.	
Sweets intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	1.04 (0.73-1.48)	0.832	1.10 (0.75-1.61)	0.636	1.20 (0.79-1.82)	0.386
5-6 days/week	1.11 (0.71-1.74)	0.640	1.16 (0.71-1.90)	0.562	1.52 (0.89-2.61)	0.126
Every day	0.77 (0.49-1.20)	0.252	0.72 (0.44-1.18)	0.194	1.04 (0.62-1.74)	0.881
Sugar-sweetened beverage intake						
Less than once/week	Ref.		Ref.		Ref.	
1-4 days/week	1.30 (1.01-1.66)	0.041	1.23 (0.94-1.61)	0.127	1.23 (0.93-1.64)	0.148
>5 days/week	1.20 (0.77-1.85)	0.415	1.05 (0.65-1.70)	0.826	1.07 (0.64-1.80)	0.784
Being on a diet or doing something else to lose weight						
No	Ref.				Ref.	
Yes	3.87 (2.94-5.09)	<0.001			5.39 (4.00-7.25)	<0.001
Age group						
11-year-olds	Ref.		Ref.		Ref.	
13-year-olds	0.93 (0.71-1.23)	0.623	0.89 (0.67-1.18)	0.428	0.73 (0.54-0.98)	0.039
15-year-olds	0.55 (0.40-0.76)	<0.001	0.50 (0.35-0.70)	<0.001	0.36 (0.26-0.52)	<0.001
Family Affluence scale (FAS)						
Low 20% affluence	Ref.		Ref.		Ref.	
Middle 60% affluence	0.51 (0.37-0.70)	<0.001	0.51 (0.37-0.71)	<0.001	0.50 (0.35-0.71)	<0.001
High 20% affluence	0.38 (0.25-0.58)	<0.001	0.39 (0.25-0.61)	<0.001	0.35 (0.22-0.56)	<0.001
Physical activity (past 7 days)						
0-1 days	2.02 (1.30-3.14)	0.002	2.14 (1.30-3.53)	0.003	3.14 (1.86-5.28)	<0.001
2-3 days	1.71 (1.19-2.46)	0.004	1.69 (1.15-2.47)	0.008	1.89 (1.28-2.81)	0.002
4-5 days	1.48 (1.00-2.19)	0.052	1.51 (1.01-2.26)	0.043	1.58 (1.05-2.37)	0.029
6-7 days	Ref.		Ref.		Ref.	

Abbreviations: HBSC study: Health Behaviour in School-Aged Children study, aOR: adjusted odds ratio, CI: Confidence interval. *Based on imputed data, **Model 1:** Crude, unadjusted, **Model 2:** included all diet-related behaviours and dietary variables simultaneously adjusted for sociodemographic variables (sex, age category, family affluence score FAS), and physical activity **Model 3:** Model 2 including the variable dieting.