

SUPPLEMENTAL MATERIAL

Table 1. Mediterranean Diet Score items specified in g/day displayed in sex-specific median intake in HELENA participants with dietary information available.

	Male	Female	
	n=293	n=312	p-Value
Vegetables (g/day)	82.50 (50.62–130.45)	87.43 (52.51–124.06)	0.773
Fruits and nuts (g/day)	95.73 (44.16–177.92)	112.03 (45.48–179.73)	0.648
Cereal roots (g/day)	316.98 (265.39–414.40)	262.01 (205.93–303.98)	≤0.001
Pulses (g/day)	1.90 (0.87–3.52)	1.38 (0.68–3.39)	0.036
Fish (g/day)	12.14 (0–29.30)	12.69 (5.99–25.91)	0.901
Dairy products (g/day)	210.08 (95.16–366.19)	148.72 (65.28–260.00)	≤0.001
Meat (g/day)	157.38 (112.26–207.29)	121.04 (77.77–165.84)	≤0.001
Alcohol (g/day)	0.53 (0.21–0.98)	0.27 (0.02–0.46)	≤0.001
FU/FS ratio	0.85 (0.77–0.99)	0.86 (0.77–0.98)	0.989
MDS	4 (0–8)	4 (0–8)	0.495
High adherence (N, %)	128 (43.7%)	139 (56.3%)	0.894

Median values (p25–p75) displayed. FU/FS ratio: unsaturated to saturated fatty acids ratio. Boldface values indicate sig p–value Sig p–value <0.05.

Table 2. Main characteristics of the 21 single nucleotide polymorphisms (SNPs) included in the obesity genetic risk score (Obesity-GRS).

rs code	Nearest Gene	Alleles (Major/Minor)	MAF	<i>p</i>	Genotyping success rate	HWE
rs2010899	<i>AMPD1</i>	A/C	0.44	0.012	99.8	0.349
rs4135275	<i>PPARG</i>	A/G	0.19	0.024	99.9	0.655
rs4912905	<i>NR3C1</i>	C/G	0.23	0.004	100.0	0.665
rs7701443	<i>NR3C1</i>	A/G	0.40	<0.001	100.0	0.127
rs13182800	<i>NR3C1</i>	C/A	0.24	<0.001	99.9	0.183
rs9355296	<i>LPA</i>	G/A	0.13	0.013	100.0	0.216
rs1524107	<i>IL-6</i>	G/A	0.07	0.006	100.0	0.879
rs3211867	<i>CD36</i>	C/A	0.07	0.033	100.0	0.728
rs2183013	<i>CNTFR</i>	C/G	0.17	0.001	100.0	0.934
rs2515362	<i>CNTF</i>	A/G	0.44	0.024	99.9	0.184
rs1800497	<i>DRD2</i>	G/A	0.18	0.049	99.8	0.763
rs1019731	<i>IGF1</i>	C/A	0.11	0.005	100.0	0.744
rs9939609	<i>FTO</i>	T/A	0.40	<0.001	100.0	0.322
rs4783961	<i>CETP</i>	A/G	0.50	0.014	100.0	0.558
rs8068149	<i>NOS2A</i>	G/A	0.46	0.010	100.0	0.136
rs7502966	<i>THRA</i>	A/G	0.44	0.025	99.7	0.264
rs1568400	<i>THRA</i>	A/G	0.26	0.023	100.0	0.349
rs4246444	<i>FASN</i>	C/A	0.27	0.008	94.7	0.461
rs1044250	<i>ANGPTL4</i>	G/A	0.29	0.005	99.6	0.051
rs17373080	<i>LXRβ</i>	G/C	0.32	0.005	99.7	0.523
rs2143511	<i>PTPN1</i>	A/G	0.43	0.004	99.9	0.337

Table S3. Comparative analysis of the 21 single nucleotide polymorphisms (SNPs) included in the obesity genetic risk score (Obesity-GRS) by sex.

Allele distribution (0, 1, 2)						
rs code	Male		Female		<i>p</i>	
rs2010899	94 (32.1), 132 (45.1), 67 (22.9)		82 (26.3), 169 (54.2), 61 (19.6)		0.079	
rs4135275	198 (67.6), 85 (29.0), 10 (3.4)		198 (63.5), 105 (33.7), 9 (2.9)		0.458	
rs4912905	157 (53.6), 116 (39.6), 20 (6.8)		176 (56.4), 113 (36.2), 23 (7.4)		0.692	
rs7701443	95 (32.5), 150 (51.2), 48 (16.4)		118 (37.8), 151 (48.4), 43 (13.8)		0.338	
rs13182800	165 (56.3), 105 (35.8), 23 (7.8)		193 (61.9), 101 (32.4), 18 (5.8)		0.319	
rs9355296	232 (79.2), 58 (19.8), 3 (1.0)		223 (71.5), 85 (27.2), 4 (1.3)		0.089	
rs1524107	258 (88.1), 34 (11.6), 1 (0.3)		278 (89.1), 33 (10.6), 1 (0.3)		0.921	
rs3211867	260 (88.7), 31 (10.6), 2 (0.7)		264 (84.6), 47 (15.1), 1 (0.3)		0.217	
rs2183013	213 (72.7), 70 (23.9), 10 (3.4)		214 (68.6), 89 (28.5), 9 (2.9)		0.421	
rs2515362	101 (34.5), 139 (47.3), 53 (18.1)		92 (29.5), 151 (48.4), 69 (22.1)		0.298	
rs1800497	191 (65.2), 95 (32.4), 7 (2.4)		222 (71.2), 79 (25.3), 11 (3.5)		0.129	
rs1019731	229 (78.2), 62 (21.2), 2 (0.7)		246 (78.8), 63 (20.2), 3 (1.0)		0.402	
rs9939609	117 (39.9), 132 (45.1), 44 (15.0)		113 (36.2), 145 (46.5), 54 (17.3)		0.575	
rs4783961	71 (24.2), 147 (50.2), 75 (25.6)		82 (26.3), 155 (49.7), 75 (24.0)		0.816	
rs8068149	91 (31.1), 135 (46.1), 67 (22.9)		87 (27.9), 148 (47.4), 77 (24.7)		0.675	
rs7502966	91 (31.1), 140 (47.8), 62 (21.2)		113 (36.2), 148 (47.4), 51 (16.3)		0.215	
rs1568400	160 (54.6), 116 (39.6), 17 (5.8)		161 (51.6), 124 (39.7), 27 (8.7)		0.377	
rs4246444	159 (54.3), 116 (39.6), 18 (6.1)		177 (56.7), 109 (39.4), 26 (8.3)		0.360	
rs1044250	149 (50.9), 109 (37.2), 35 (11.9)		173 (55.4), 107 (34.3), 32 (10.3)		0.510	
rs17373080	133 (45.4), 132 (45.1), 28 (9.6)		146 (46.8), 133 (42.6), 33 (10.6)		0.809	
rs2143511	96 (32.8), 136 (46.4), 61 (20.8)		103 (33.0), 145 (46.5), 64 (20.5)		0.662	

Legend: Allele distribution according to number of risk alleles: 0=no risk alleles; 1=one risk allele and 2=two risk alleles. Relative frequency (%) values shown in brackets.

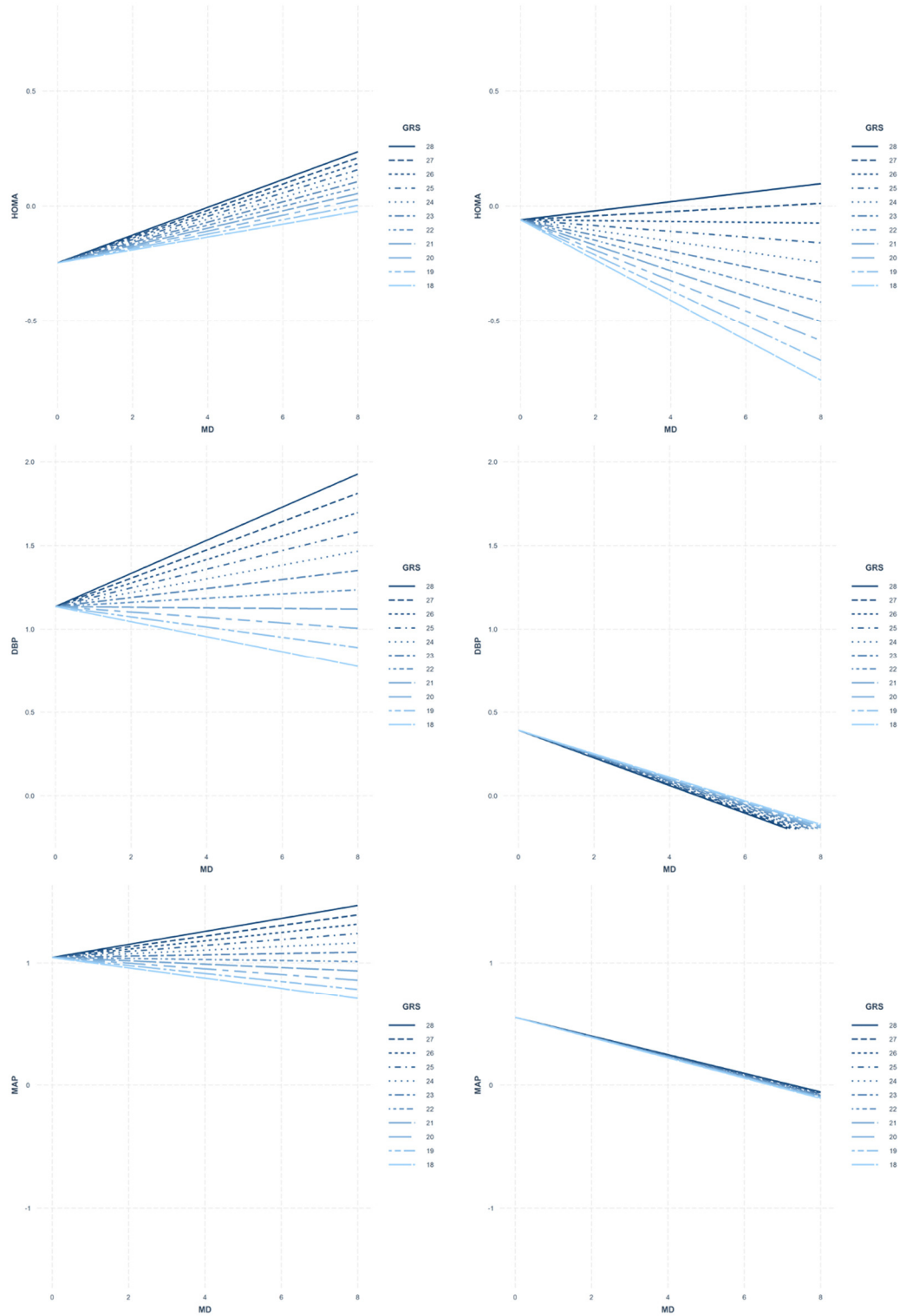


Figure 1. Interaction models between HOMA, diastolic blood pressure (DBP) and mean arterial pressure (MAP) and Mediterranean Diet (MD) according to the Obesity Genetic Risk Score (Obesity-GRS) modulation in box sex. Obesity-GRS values (18–28) displayed according to our population distribution (males left panel, females right panel). Obesity-GRS values (18–28) displayed according to our population distribution. Legend: When designing the population distribution representation, different lines were drawn as reference points to observe the trend of the studied population according to the genetic predisposition to obesity. When analyzing the results represented in these figures, a positive gradient shows the MD acting as risk factor whereas a negative gradient indicates the protective role of MD.