

SUPPLEMENTARY MATERIAL

Supplementary Table 1. Relationships between times spent in sedentary behaviour/habitual PA at different intensity and eating behaviour traits.

Binge eating scale															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.004	0.033	0.033	-0.004	0.033	0.035	-0.006	0.123	0.012	-0.005	0.118	0.006	-0.004	0.117	0.026
LPA (min/day)	0.013	0.073	0.001	0.013	0.075	0.001	0.015	0.134	0.008	0.013	0.138	0.001	0.012	0.131	0.009
MPA (min/day)	0.014	0.101	0.000	0.014	0.101	0.000	0.018	0.239	0.000	0.014	0.170	0.000	0.012	0.147	0.003
VPA (min/day)	0.002	0.000	0.989	0.000	0.000	0.999	0.023	0.024	0.885	0.030	0.065	0.815	0.003	0.080	0.981
MVPA (min/day)	0.013	0.091	0.000	0.013	0.091	0.000	0.016	0.215	0.000	0.013	0.161	0.000	0.011	0.142	0.004
MVPA B ₁₀ (min/day)	0.098	0.028	0.050	0.097	0.028	0.052	0.133	0.079	0.063	0.105	0.096	0.033	0.060	0.090	0.246
Overall PA (ENMO, mG/5s)	0.045	0.076	0.001	0.046	0.076	0.001	0.052	0.157	0.003	0.049	0.152	0.000	0.042	0.141	0.004
Three Factor Eating Questionnaire - Cognitive Restraint															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.002	0.001	0.715	0.000	0.029	0.956	0.004	0.048	0.634	-0.002	0.042	0.686	0.000	0.029	0.965
LPA (min/day)	0.015	0.012	0.208	0.010	0.034	0.399	0.002	0.045	0.909	0.009	0.045	0.428	0.011	0.034	0.420
MPA (min/day)	0.012	0.009	0.268	0.010	0.034	0.375	0.004	0.046	0.783	0.009	0.046	0.405	0.005	0.030	0.657
VPA (min/day)	-0.005	0.000	0.989	-0.049	0.029	0.895	0.117	0.046	0.806	0.009	0.046	0.405	0.016	0.029	0.969
MVPA (min/day)	0.011	0.008	0.289	0.009	0.009	0.404	0.005	0.047	0.747	0.008	0.045	0.425	0.005	0.030	0.649
MVPA B ₁₀ (min/day)	0.255	0.023	0.075	0.239	0.049	0.092	0.280	0.071	0.197	0.237	0.061	0.096	0.159	0.037	0.303
Overall PA (ENMO, mG/5s)	0.028	0.003	0.492	0.016	0.030	0.689	0.004	0.045	0.938	0.019	0.042	0.641	0.010	0.029	0.819
Three Factor Eating Questionnaire - Uncontrolled Eating															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.024	0.081	0.001	-0.025	0.085	0.001	-0.033	0.172	0.001	-0.026	0.093	0.000	-0.025	0.103	0.001
LPA (min/day)	0.067	0.117	0.000	0.071	0.126	0.000	0.075	0.183	0.001	0.076	0.143	0.000	0.068	0.122	0.000
MPA (min/day)	0.065	0.127	0.000	0.066	0.133	0.000	0.075	0.218	0.000	0.070	0.146	0.000	0.060	0.123	0.000
VPA (min/day)	0.371	0.004	0.486	0.379	0.004	0.478	0.970	0.052	0.144	0.416	0.008	0.448	0.200	0.017	0.735
MVPA (min/day)	0.059	0.120	0.000	0.061	0.123	0.000	0.071	0.217	0.000	0.064	0.136	0.000	0.055	0.114	0.000
MVPA B ₁₀ (min/day)	0.338	0.020	0.099	0.342	0.020	0.097	0.515	0.064	0.090	0.343	0.023	0.106	0.218	0.024	0.323
Overall PA (ENMO, mG/5s)	0.216	0.103	0.000	0.223	0.108	0.000	0.270	0.215	0.000	0.233	0.118	0.000	0.207	0.104	0.001

Three Factor Eating Questionnaire - Emotional Eating															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.001	0.016	0.135	-0.001	0.031	0.208	-0.001	0.036	0.197	-0.026	0.093	0.000	-0.001	0.054	0.108
LPA (min/day)	0.003	0.047	0.010	0.003	0.056	0.023	0.005	0.124	0.007	0.076	0.143	0.000	0.003	0.072	0.027
MPA (min/day)	0.021	0.700	0.002	0.003	0.081	0.003	0.005	0.134	0.005	0.003	0.091	0.002	0.003	0.084	0.011
VPA (min/day)	-0.008	0.000	0.834	-0.012	0.020	0.758	0.014	0.010	0.782	-0.009	0.025	0.824	0.012	0.034	0.788
MVPA (min/day)	0.003	0.060	0.004	0.003	0.072	0.006	0.004	0.117	0.009	0.003	0.082	0.005	0.003	0.080	0.014
MVPA B ₁₀ (min/day)	0.032	0.033	0.034	0.031	0.049	0.041	0.014	0.014	0.553	0.032	0.056	0.039	0.027	0.056	0.088
Overall PA (ENMO, mG/5s)	0.010	0.042	0.016	0.009	0.054	0.028	0.012	0.077	0.039	0.010	0.064	0.021	0.011	0.076	0.019
Control of Eating Questionnaire - Craving Control															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	0.036	0.012	0.192	0.030	0.025	0.276	0.057	0.064	0.195	0.038	0.045	0.182	0.033	0.044	0.266
LPA (min/day)	-0.098	0.018	0.119	-0.081	0.028	0.207	-0.111	0.059	0.212	-0.075	0.042	0.248	-0.070	0.042	0.332
MPA (min/day)	-0.129	0.035	0.026	-0.120	0.046	0.039	-0.143	0.080	0.106	-0.126	0.066	0.032	-0.120	0.063	0.058
VPA (min/day)	1.767	0.006	0.381	1.950	0.023	0.332	2.801	0.055	0.310	2.175	0.041	0.281	1.657	0.038	0.460
MVPA (min/day)	-0.087	0.018	0.099	-0.102	0.040	0.066	-0.116	0.069	0.165	-0.107	0.059	0.055	-0.105	0.058	0.081
MVPA B ₁₀ (min/day)	-0.111	0.029	0.045	-0.438	0.018	0.574	-0.225	0.039	0.860	-0.622	0.037	0.428	-0.586	0.038	0.487
Overall PA (ENMO, mG/5s)	-0.505	0.003	0.518	-0.348	0.034	0.112	-0.301	0.053	0.350	-0.354	0.051	0.108	-0.384	0.054	0.110
Control of Eating Questionnaire - Craving for Sweet															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.003	0.005	0.390	-0.001	0.073	0.705	-0.003	0.135	0.465	-0.001	0.073	0.703	-0.001	0.096	0.732
LPA (min/day)	0.007	0.008	0.293	0.002	0.073	0.716	0.001	0.127	0.955	0.003	0.073	0.695	0.002	0.095	0.770
MPA (min/day)	0.009	0.013	0.177	0.006	0.079	0.312	0.009	0.141	0.329	0.007	0.080	0.291	0.005	0.100	0.423
VPA (min/day)	-0.154	0.004	0.478	-0.195	0.078	0.353	-0.209	0.135	0.456	-0.222	0.079	0.300	-0.242	0.103	0.305
MVPA (min/day)	0.007	0.011	0.219	0.005	0.078	0.378	0.007	0.138	0.392	0.005	0.077	0.363	0.004	0.098	0.480
MVPA B ₁₀ (min/day)	0.122	0.015	0.146	0.107	0.084	0.190	0.196	0.161	0.126	0.114	0.085	0.171	0.103	0.105	0.246
Overall PA (ENMO, mG/5s)	0.023	0.007	0.322	0.013	0.074	0.587	0.012	0.129	0.711	0.012	0.073	0.609	0.011	0.096	0.668
Control of Eating Questionnaire - Craving for Savoury															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P

Sedentary time (min/day)	-0.001	0.001	0.771	-0.001	0.016	0.602	-0.004	0.026	0.323	-0.001	0.014	0.665	0.000	0.041	0.853
LPA (min/day)	0.005	0.008	0.302	0.007	0.028	0.164	0.005	0.017	0.495	0.006	0.022	0.261	0.004	0.046	0.440
MPA (min/day)	0.007	0.015	0.155	0.007	0.033	0.108	0.008	0.030	0.261	0.007	0.029	0.141	0.005	0.050	0.280
VPA (min/day)	-0.095	0.003	0.555	-0.082	0.016	0.610	-0.149	0.017	0.509	-0.104	0.016	0.524	-0.063	0.042	0.721
MVPA (min/day)	0.006	0.012	0.202	0.006	0.030	0.143	0.007	0.025	0.332	0.006	0.026	0.184	0.005	0.050	0.304
MVPA B ₁₀ (min/day)	-0.010	0.000	0.866	-0.005	0.014	0.931	-0.041	0.012	0.693	0.001	0.013	0.983	-0.009	0.041	0.891
Overall PA (ENMO, mG/5s)	0.014	0.005	0.408	0.018	0.022	0.292	0.012	0.013	0.639	0.016	0.019	0.367	0.015	0.046	0.442

Control of Eating Questionnaire - Positive Mood															
	Model 0			Model 1			Model 2			Model 3			Model 4		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Sedentary time (min/day)	-0.013	0.005	0.404	-0.016	0.030	0.261	-0.007	0.009	0.731	-0.013	0.017	0.427	-0.10	0.028	0.542
LPA (min/day)	0.012	0.001	0.740	0.027	0.025	0.461	-0.004	0.007	0.940	0.013	0.013	0.729	0.018	0.027	0.640
MPA (min/day)	-0.028	0.005	0.409	-0.021	0.02	0.528	-0.010	0.008	0.817	-0.028	0.017	0.401	-0.040	0.036	0.239
VPA (min/day)	1.216	0.008	0.289	1.335	0.031	0.242	0.844	0.014	0.528	1.261	0.021	0.267	0.257	0.025	0.831
MVPA (min/day)	-0.022	0.003	0.491	-0.016	0.023	0.624	-0.005	0.007	0.904	-0.022	0.015	0.494	-0.036	0.035	0.261
MVPA B ₁₀ (min/day)	-0.476	0.008	0.284	-0.433	0.028	0.327	0.184	0.008	0.764	-0.326	0.016	0.461	-0.795	0.050	0.077
Overall PA (ENMO, mG/5s)	-0.022	0.000	0.857	0.009	0.021	0.940	-0.015	0.007	0.926	-0.015	0.012	0.907	-0.088	0.029	0.499

Linear regression analyses were performed without adjusting for any covariate (model 0), and adjusting for sex (model 1), for sex and energy intake (model 2), for sex and BMI (model 3), and for sex and lean mass (model 4). The unstandardized β coefficient, R² and P values are provided. PA physical activity, LPA light-PA, MPA moderate-PA, VPA vigorous-PA, MVPA moderate-to-vigorous-PA, MVPA B₁₀ moderate-to-vigorous PA in bouts of ten minutes, ENMO Euclidean norm minus one.

Supplementary Table 2. Bivariate correlations between eating behaviour traits and body composition in young adults.

		TFEQ				CoEQ		
	Binge Eating	Cognitive restraint	Uncontrolled eating	Emotional eating	Craving control	Craving for sweet	Craving for savoury	Positive Mood
BMI (kg/m ²)	0.259**	0.097	-0.052	0.084	-0.069	-0.098	0.085	0.072
Lean mass (kg)	0.186*	0.001	0.142	0.061	-0.010	-0.105	0.170	0.137
Fat mass (kg)	0.290***	0.174*	-0.073	0.107	-0.071	-0.023	0.046	0.006
Fat mass (%)	0.183*	0.189*	-0.159	0.071	-0.077	0.041	-0.046	-0.008
VAT mass (g)	0.228**	0.128	-0.043	0.057	-0.023	-0.156	0.102	0.110

Values are Pearson correlation coefficients (r); * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. TFEQ Three-Factor Eating Questionnaire; CoEQ Control of Eating Questionnaire; BMI body mass index; LM lean mass; FM fat mass; VAT visceral adipose tissue.

		TFEQ							
		Binge eating		Cognitive restraint		Uncontrolled eating		Emotional eating	
		MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
<i>n</i>		44	95	44	95	44	95	44	95
Sedentary time		-0.140	-0.210*	-0.138	0.074	-0.322*	-0.274**	-0.128	-0.097
LPA		0.262	0.280**	0.190	0.016	0.403**	0.325**	0.285	0.143
MPA		0.351*	0.303**	0.228	0.003	0.347*	0.375***	0.399**	0.170
VPA		0.096	-0.036	-0.064	0.008	0.181	0.008	0.098	-0.079
MVPA		0.334*	0.288**	0.208	0.007	0.346*	0.354***	0.379*	0.153
MVPA B ₁₀		0.206	0.148	0.285	0.084	0.067	0.181	0.230	0.146
Overall PA (ENMO, mG/5s)		0.247	0.291**	0.169	-0.028	0.329*	0.328**	0.268	0.144

		CoEQ							
		Craving control		Craving for sweet		Craving for savoury		Positive Mood	
		MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
<i>n</i>		44	95	44	95	44	95	44	95
Sedentary time		0.018	0.143	-0.082	-0.007	0.016	-0.087	-0.072	-0.117
LPA		-0.106	-0.11	0.179	-0.035	0.198	0.075	0.086	0.048
MPA		-0.133	-0.199	0.146	0.061	0.124	0.146	-0.118	-0.01
VPA		0.010	0.112	-0.063	-0.086	0.029	-0.075	0.178	0.063
MVPA		-0.117	-0.179	0.129	0.053	0.110	0.134	-0.100	-0.003
MVPA B ₁₀		0.086	-0.111	-0.014	0.164	-0.119	0.049	-0.219	-0.002

Overall PA (ENMO, mG/5s)	-0.082	-0.163	0.108	0.020	0.072	0.100	-0.007	0.015
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Supplementary Table 3. Bivariate correlations between eating behaviour traits and time spent in sedentary behaviour and habitual physical activity of different intensity in young men and women. Values are Pearson correlation coefficients (r); * $p < 0.05$; ** $p < 0.01$; *** $P < 0.001$. PA physical activity, LPA light-PA, MPA moderate-PA, VPA vigorous-PA, MVPA moderate-to-vigorous-PA, MVPA B₁₀ moderate-to-vigorous-PA in bouts of ten minutes, ENMO Euclidean norm minus one.