

## Supplementary material

### Mental Health Variables Impact Weight Loss, especially in Patients with Obesity and Binge Eating: A Mediation Model on The Role of Eating Disorder Pathology

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Table S1. Mediation model (regression with EDE-Q, direct, and indirect paths) for the overall sample.

	Regressions with EDE-Q (a)		Indirect path (ab)		Direct path (c')	
	p-value	Standardized coefficient	p-value	Standardized coefficient	p-value	Standardized coefficient
<u>TFEQ</u> <u>cognitive</u> <u>restraint</u>	<b>0&lt;.001</b>	<b>0.272</b>	<b>0.029</b>	<b>-0.032</b>	0.895	0.005
TFEQ disinhibition	<b>&lt;0.001</b>	<b>0.161</b>	0.058	-0.019	<b>&lt;0.001</b>	<b>-0.185</b>
TFEQ hunger	<b>0.046</b>	<b>0.073</b>	0.131	-0.009	<b>&lt;0.001</b>	<b>0.253</b>
<u>BIS</u>	<b>0&lt;.001</b>	<b>0.211</b>	<b>0.030</b>	<b>-0.025</b>	<b>&lt;0.001</b>	<b>-0.216</b>
<u>PHQ-9</u>	<b>0&lt;.001</b>	<b>0.360</b>	<b>0.032</b>	<b>-0.042</b>	0.136	0.086
PSQ	0.084	0.082	0.173	-0.010	<b>0.003</b>	<b>-0.171</b>
GAD	0.091	0.083	0.251	-0.010	<b>0.003</b>	<b>0.207</b>

(a) Standardized coefficients for regressions between psychopathology/eating behavior variables and EDE-Q; (ab): standardized coefficients for the indirect path between psychopathology/eating behavior variables and admission-discharge BMI difference via EDE-Q, (c'): Standardized coefficients for the direct path between psychopathology/eating behavior variables and admission-discharge BMI difference, controlling for the mediating variable (EDE-Q).

**Notes:** Variables involved in the final mediation model are reported in bold and underlined. Statistically significant correlations and mediation paths are reported in bold.

Abbreviations: BIS: Barratt Impulsiveness Scale, total score; EDE-Q: Eating Disorder Examination Questionnaire, total score; GAD: Generalized Anxiety Disorder Scale, total score; PHQ-9: Patient Health Questionnaire; PSQ: Perceived Stress Questionnaire, total score; TFEQ: Three-Factor-Eating-Questionnaire.

Table S2. Mediation model (regression with EDE-Q, direct, and indirect paths) for patients with obesity and regular binge eating.

	Regressions with EDE-Q (a)		Indirect path (ab)		Direct path (c')	
	p-value	Standardized coefficient	p-value	Standardized coefficient	p-value	Standardized coefficient
<u>TFEQ cognitive restraint</u>	<0.001	<b>0.371</b>	<b>0.002</b>	<b>-0.075</b>	0.092	0.085
<u>TFEQ disinhibition</u>	<0.001	<b>0.296</b>	<b>0.002</b>	<b>-0.060</b>	<b>0.007</b>	<b>-0.140</b>
TFEQ hunger	.598	0.023	0.621	-0.005	<b>0&lt;.001</b>	<b>0.280</b>
<u>BIS</u>	<0.001	<b>0.185</b>	<b>0.005</b>	<b>-0.038</b>	0.984	-0.001
<u>PHQ-9</u>	<0.001	<b>0.394</b>	<b>0.002</b>	<b>-0.080</b>	0.544	0.047
<u>PSQ</u>	<b>0.005</b>	<b>0.146</b>	<b>0.044</b>	<b>-0.030</b>	0.328	-0.073
GAD	0.204	-0.069	0.261	0.014	0.979	0.002

(a) Standardized coefficients for regressions between psychopathology/eating behavior variables and EDE-Q; (ab): standardized coefficients for the indirect path between psychopathology/eating behavior variables and admission-discharge BMI difference via EDE-Q, (c'): Standardized coefficients for the direct path between psychopathology/eating behavior variables and admission-discharge BMI difference, controlling for the mediating variable (EDE-Q).

**Notes:** Variables involved in the final mediation model are reported in bold and underlined. Statistically significant correlations and mediation paths are reported in bold.

Abbreviations: BIS: Barratt Impulsiveness Scale, total score; EDE-Q: Eating Disorder Examination Questionnaire, total score; GAD: Generalized Anxiety Disorder Scale, total score; PHQ-9: Patient Health Questionnaire; PSQ: Perceived Stress Questionnaire, total score; TFEQ: Three-Factor-Eating-Questionnaire.

Table S3. Mediation model (regression with EDE-Q, direct, and indirect paths) for patients with obesity and without regular binge eating.

	Regressions with EDE-Q (a)		Indirect path (ab)		Direct path (c')	
	p-value	Standardized coefficient	p-value	Standardized coefficient	p-value	Standardized coefficient
TFEQ cognitive restraint	<b>&lt;0.001</b>	<b>0.190</b>	0.071	-0.014	0.143	0.057
TFEQ disinhibition	0.590	0.023	0.631	-0.002	<b>0.040</b>	<b>0.105</b>
TFEQ hunger	<b>&lt;0.001</b>	<b>0.147</b>	0.097	-0.011	0.786	-0.013
BIS	<b>&lt;0.001</b>	<b>0.147</b>	0.100	-0.011	<b>0.005</b>	<b>-0.107</b>
PHQ-9	<b>&lt;0.001</b>	<b>0.328</b>	0.081	-0.025	0.115	-0.103
PSQ	<b>&lt;0.001</b>	<b>0.261</b>	0.132	-0.019	0.089	-0.098
GAD	0.066	-0.110	0.241	0.008	<b>0.002</b>	<b>0.245</b>

(a) Standardized coefficients for regressions between psychopathology/eating behavior variables and EDE-Q; (ab): standardized coefficients for the indirect path between psychopathology/eating behavior variables and admission-discharge BMI difference via EDE-Q, (c'): Standardized coefficients for the direct path between psychopathology/eating behavior variables and admission-discharge BMI difference, controlling for the mediating variable (EDE-Q).

**Notes:** Variables involved in the final mediation model are reported in bold and underlined. Statistically significant correlations and mediation paths are reported in bold.

Abbreviations: BIS: Barratt Impulsiveness Scale, total score; EDE-Q: Eating Disorder Examination Questionnaire, total score; GAD: Generalized Anxiety Disorder Scale, total score; PHQ-9: Patient Health Questionnaire; PSQ: Perceived Stress Questionnaire, total score; TFEQ: Three-Factor-Eating-Questionnaire.