SUPPLEMENTAL MATERIALS

Materials and methods

Subjects: exclusion criteria and anthropometric measures

Exclusion criteria included chronic medical conditions, psychiatric disorders (DSM-IV criteria) including eating disorders such as Bulimia Nervosa and Anorexia Nervosa, neurological injuries or illnesses, taking medications for medical problems or psychiatric disorders, IQ<90, inability to read and write in English, and pregnancy. Weight and height was measured using a scale and stadiometer respectively. BMI was calculated using the formula weight (kg) $\div$ height (m)^2. The study was approved by the Yale Human Investigation Committee. All subjects provided signed informed consent.

Biochemical evaluation

On a separate day, subjects presented to the laboratory at 8:00am after an overnight fast for biochemical evaluation. At 8:15 am, fasting blood samples were obtained, immediately placed on ice, spun and separated by centrifugation; the plasma was separated and stored at -80°C. Fasting plasma glucose (FPG) levels were measured using Delta Scientific glucose reagent (Henry Schein). Insulin levels were measured with a double-antibody radioimmunoassay (Millipore, previously Linco). Each sample was processed in duplicate for verification. Homeostatic Model Assessment of insulin resistance (HOMA-IR) was calculated as [Glucose (mg/dL) x Insulin (µU/mL)] $\div$ 405.

Statistical Analyses

Statistical Analysis Software (SAS) was used to perform demographic statistics, correlations, and general linear model statistical analyses. Demographic measures were assessed using chi square. DEBQ total scores and subscales were assessed using ANOVA comparing sex and BMI groups. Multivariate multiple regressions were conducted to assess the effect of restrained eating, BMI, and sex and their interactions to HOMA-IR, insulin, and glucose. In the case of significant restrained eating and sex interactions, we conducted separate regression analysis to assess the effects of restrained eating on HOMA-IR, insulin, and glucose in each sex.

Supplemental Table 1. Demographics and metabolic measures by gender.

Demographics	Men (N=222) Mean± SD	Women (N=267) Mean± SD	p
Age (years)	29.9 ± 9.2	29.9 ± 9.7	NS
Race (Caucasian)	34.2 %	33.1 %	NS
Education (years)	15.2 ± 2.4	15.3 ± 2.3	NS
BMI (kg/m^2)	27.9 ± 5.6	27.6 ± 5.6	NS
Insulin (Uu/mL)	14.0 ± 8.3	14.5 ± 8.1	NS
Glucose (mg/dL)	95.5 ± 8.2	91.0 ± 7.7	<0.0001
HOMA	3.4 ± 2.1	3.3 ± 2.0	NS
Restrained Eating Score	21.8 ± 9.3	27.1 ± 8.9	<0.0001

Supplemental Table 2. Summary of interactions in men.

metabolic parameter	variable	t	p
HOMA-IR	Restrained Eating	-2.19	**0.03***
	BMI	1.06	0.29
	Gender	-1.81	0.07
	Restrained Eating x BMI	2.44	**0.02***
	Restrained Eating x Gender	2.25	**0.03***
	BMI x Gender	2.08	**0.04***
	Restrained Eating x BMI x Gender	-2.54	**0.01***
Insulin	Restrained Eating	-1.96	0.051
	BMI	1.40	0.16
	Gender	-1.47	0.14
	Restrained Eating x BMI	2.13	**0.03***
	Restrained Eating x Gender	1.93	0.054
	BMI x Gender	1.77	0.08
	Restrained Eating x BMI x Gender	-2.17	**0.03***
Glucose	Restrained Eating	-1.19	0.24
	BMI	-0.15	0.88
	Gender	-2.06	**0.04***
	Restrained Eating x BMI	1.51	0.13
	Restrained Eating x Gender	1.66	0.10
	BMI x Gender	1.90	0.058
	Restrained Eating x BMI x Gender	-1.96	0.051

* significant $p<0.05$; HOMA-IR, Homeostatic Model Assessment of insulin resistance; BMI, Body Mass Index