

Table 1*Descriptive demographic data*

	Healthy Control (<i>n</i> = 27)		BN/BED (<i>n</i> = 25)	
	Median	IQR	Median	IQR
Age	23.50	5.50	23.50	9.75
BMI	22.04	1.76	23.09	3.87
RQF Education Level	6	4	4.5	3

Note. BN = bulimia nervosa; BED = binge eating disorder; IQR = interquartile range; BMI = body mass index; RQF = Regulated Qualifications Framework.

Table 2

Descriptive statistics for calorie consumption data in the bogus taste test and 24-hour food diary

	Healthy Control (<i>n</i> = 27)				BN/BED (<i>n</i> = 25)			
	Placebo		Oxytocin		Placebo		Oxytocin	
	Median	IQR	Median	IQR	Median	IQR	Median	IQR
Grape consumption	94.38	77.88	93.72	80.52	60.06	85.63	57.22	91.41
Crisp consumption	136.76	147.28	147.28	117.04	68.38	168.06	52.60	148.86
Chocolate consumption	115.50	264.00	132.00	291.5	98.45	163.35	82.50	192.50
24-hour consumption	1617.63	650.19	1672.90	1119.29	1951.30	1542.66	1606.00	1086.05

Note. Data recorded as number of calories consumed. BN = bulimia nervosa; BED = binge eating disorder.

Table 3

Results from the negative binomial regression testing the effect of oxytocin and eating disorder status on 24-hour calorie consumption

	<i>Wald Chi-Square</i>	<i>df</i>	<i>p</i>	<i>Incidence Rate Ratio</i>
Drug Condition	1.11	1	.292	0.780
Eating Disorder Status	0.93	1	.336	0.770
Drug Condition*Eating Disorder Status	3.257	1	.071	1.369

* $p < .05$

Table 4

Results from the negative binomial regression testing the effect of oxytocin and eating disorder status on calorie consumption in the taste test

	<i>Wald Chi-Square</i>	<i>df</i>	<i>p</i>	<i>Incidence Rate Ratio</i>
Drug Condition	0.46	1	.498	1.040
Eating Disorder Status	1.40	1	.237	1.235
Drug Condition*Eating Disorder Status	0.04	1	.845	1.033

Table 5*Descriptive statistics for the raw salivary cortisol data*

	Healthy Control (<i>n</i> = 27)				BN/BED (<i>n</i> = 25)			
	Placebo		Oxytocin		Placebo		Oxytocin	
	Median	IQR	Median	IQR	Median	IQR	Median	IQR
Salivary Cortisol (nmol/L) Time Point 1	2.48	1.68-3.03	2.31	1.54-3.13	3.13	1.53-5.72	3.23	2.04-4.89
Salivary Cortisol (nmol/L) Time Point 2	1.06	0.63-1.76	1.09	0.54-1.66	1.31	0.63-3.00	1.59	0.92-2.10
Salivary Cortisol (nmol/L) Time Point 3	1.43	0.90-1.79	1.17	0.65-1.65	1.48	0.70-2.56	1.04	0.87-1.74

Note. BN = bulimia nervosa; BED = binge eating disorder.

Table 6

Results of the linear mixed effects analysis testing a full factorial model with fixed effects for eating disorder status, oxytocin, and experiment time point on the transformed salivary cortisol variable

Fixed Effects	Estimate	SE	df	t	p
Intercept	0.58***	0.050	217.14	11.47	2.16E-16
ED Status	0.12	0.074	226.92	1.67	.097
Drug Condition	-0.01	0.058	247.69	-0.19	.847
Experiment Time Point	-0.08***	0.019	248.30	-4.41	1.56E-5
ED Status * Drug Condition	0.06	0.084	247.44	0.77	.442
ED Status * Experiment Time Point	-0.02	0.028	247.53	-0.88	.379
Drug Condition * Experiment Time Point	-0.01	0.027	247.03	-0.21	.831
ED Status * Drug Condition * Experiment Time Point	-0.03	0.039	246.72	-0.66	.511
Random Effects	Variance				
Individual Participant	0.025				
Residuals	0.019				

Note. ED = Eating disorder.

*** $p < .001$

Table 7

Descriptive statistics for the visual analogue scale data for hunger and feeling fat

	Healthy Control (<i>n</i> = 27)				BN/BED (<i>n</i> = 25)			
	Placebo		Oxytocin		Placebo		Oxytocin	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hunger Time 1	2.91	2.127	3.29	2.313	4.04	2.626	2.72	2.313
Hunger Time 2	4.10	2.671	3.96	2.573	5.10	2.487	4.24	2.374
Hunger Time 3	4.95	2.312	5.14	2.553	6.11	2.066	5.02	2.652
Feel Fat Time 1	1.40	1.564	2.04	2.357	7.10	2.295	7.10	1.912
Feel Fat Time 2	1.39	2.033	1.48	2.219	6.44	2.608	6.19	2.308
Feel Fat Time 3	1.23	1.944	1.55	2.311	7.11	2.159	6.42	2.556
Log10 Stress Time 1	0.06	0.406	0.05	0.403	0.57	0.268	0.39	0.554
Log10 Stress Time 2	-0.10	0.437	-0.12	0.419	0.33	0.472	0.30	0.475
Log10 Stress Time 3	-0.26	0.369	-0.13	0.452	0.48	0.353	0.30	0.535

Note. BN = bulimia nervosa; BED = binge eating disorder.

Table 8

Descriptive statistics for the visual analogue scale data for stress

Healthy Control (<i>n</i> = 27)				BN/BED (<i>n</i> = 25)			
	Placebo	Oxytocin		Placebo	Oxytocin		
	Median	IQR	Median	Median	IQR	Median	IQR
Stress Time 1	1.05	1.83	1.33	1.29	3.36	4.03	3.32
Stress Time 2	0.52	1.22	0.56	1.45	2.53	4.74	1.55
Stress Time 3	0.40	0.65	0.40	1.37	3.33	4.42	2.41

Note. BN = bulimia nervosa; BED = binge eating disorder; IQR = interquartile range.

Table 9

Results of the linear mixed effects analysis testing a full factorial model with fixed effects for eating disorder status, oxytocin, and experiment time point on subjective hunger

Fixed Effects	Estimate	SE	df	t	p
Intercept	2.02**	0.636	289.27	3.18	.002
ED Status	1.25	0.916	289.06	1.37	.172
Drug Condition	0.26	0.793	256.02	0.33	.742
Experiment Time Point	1.02***	0.262	255.62	3.90	< .001
ED Status * Drug Condition	-1.64	1.143	256.00	-1.43	.153
ED Status * Experiment Time Point	-0.13	0.376	255.87	-0.34	.732
Drug Condition * Experiment Time Point	-0.10	0.367	255.62	-0.27	.790
ED Status * Drug Condition * Experiment Time Point	0.32	0.528	255.75	0.61	.541
Random Effects	Variance				
Individual Participant	2.262				
Residuals	3.561				

Note. ED = Eating disorder.

** $p < .01$.

*** $p < .001$.

Table 10

Results of the linear mixed effects analysis testing a full factorial model with fixed effects for eating disorder status, oxytocin, and experiment time point on feelings of fatness

Fixed Effects	Estimate	SE	df	t	p
Intercept	1.90***	0.479	101.87	3.98	< .001
ED Status	5.22***	0.683	98.386	7.64	< .001
Drug Condition	0.27	0.373	244.61	0.73	.465
Experiment Time Point	-0.12	0.127	243.90	-0.94	.346
ED Status * Drug Condition	-0.17	0.528	244.11	-0.32	.748
ED Status * Experiment Time Point	-0.004	0.177	243.77	-0.02	.981
Drug Condition * Experiment Time Point	-0.09	0.175	244.34	-0.53	.598
ED Status * Drug Condition * Experiment Time Point	-0.11	0.245	243.98	-0.45	.656
Random Effects	Variance				
Individual Participant	4.174				
Residuals	0.731				

Note. ED = Eating disorder.

*** $p < .001$.

Table 11

Results of the linear mixed effects analysis testing a full factorial model with fixed effects for eating disorder status, oxytocin, and experiment time point on the transformed stress variable

Fixed Effects	Estimate	SE	df	t	p
Intercept	0.42	0.061	220.94	6.99	< .001
ED Status	0.22*	0.087	220.57	2.51	.013
Drug Condition	-0.03	0.068	256.15	-0.51	.612
Experiment Time Point	-0.08***	0.022	255.91	-3.63	< .001
ED Status * Drug Condition	-0.04	0.098	256.13	-0.41	.681
ED Status * Experiment Time Point	0.05	0.032	256.04	1.67	.097
Drug Condition * Experiment Time Point	0.03	0.031	255.91	0.93	.354
ED Status * Drug Condition * Experiment Time Point	-0.03	0.045	255.98	-0.58	.565
Random Effects	Variance				
Individual Participant	0.036				
Residuals	0.026				

Note. ED = Eating disorder.

* $p < .05$.

*** $p < .001$.

Figure 1

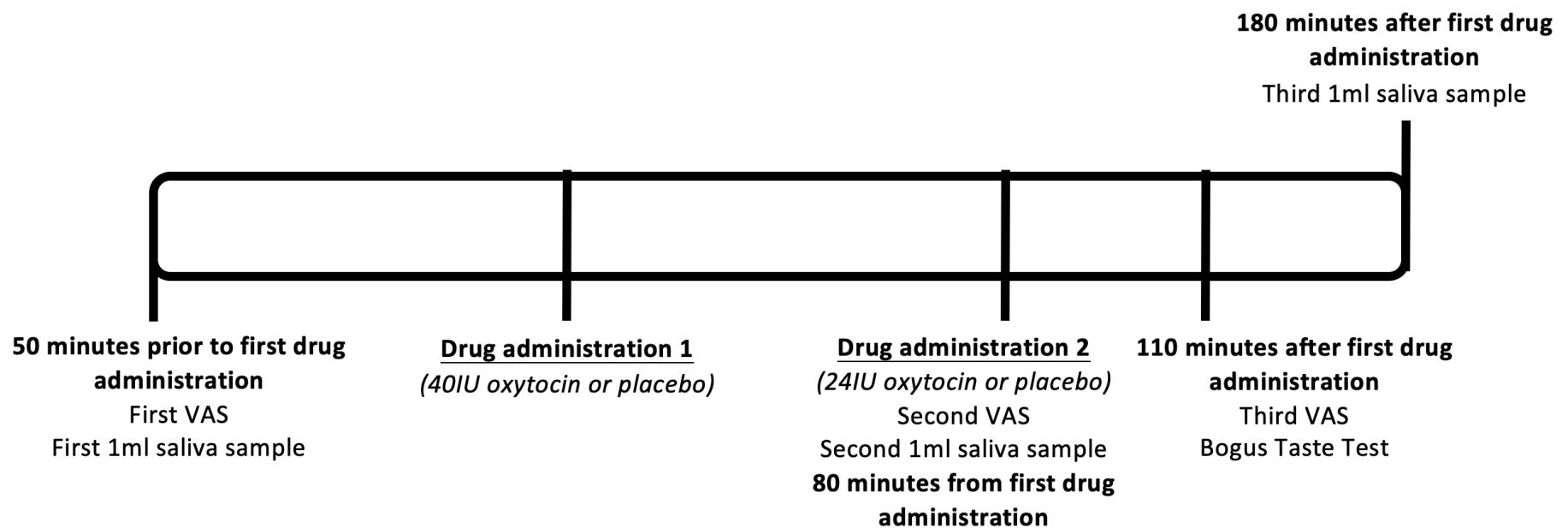


Figure 2

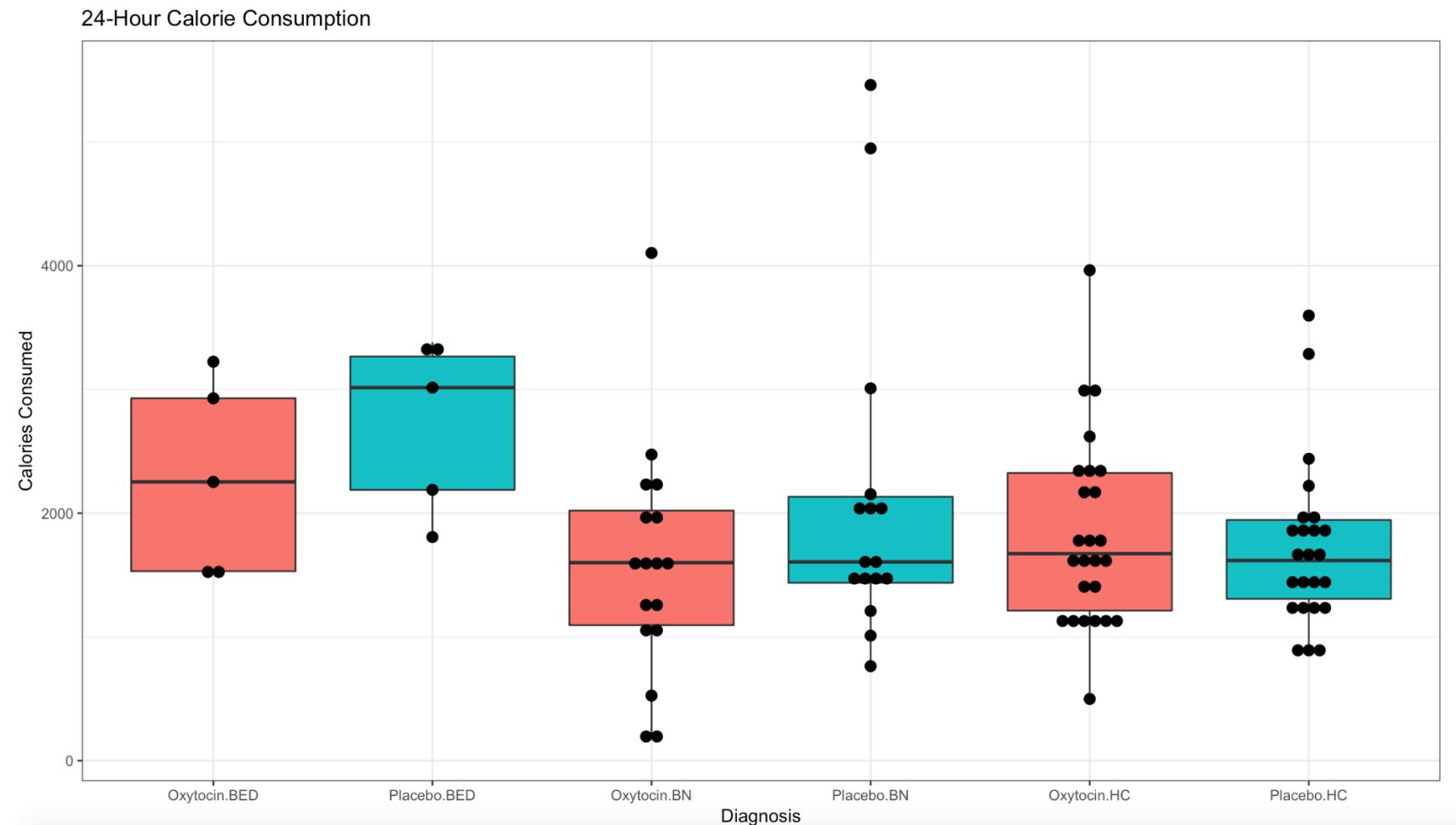


Figure 3

The effect of oxytocin on salivary cortisol

