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| **Supplemental Content 2. Baseline and follow-up appetitive and metabolic variables during dietary energy intake (EI) restriction or aerobic exercise (AEX) intervention**  *Purcell et al. 2022; Diet versus Exercise in Obesity* | | | | | | | | | |
| **Parameter** | **Diet, N=20\*** | | ***P*, within DIET group** | **Exercise, N=24\*\*** | | ***P*, within AEX group** | ***P,* between groups, baseline** | ***P,* between groups, follow-up** | ***P*, group x time** |
| **Baseline** | **Follow-up** | **Baseline** | **Follow-up** |
| **Body weight and composition** | | | | | | | | | |
| Body weight, kg | 86.3 ± 11.5 | 82.8 ± 11.8 | **<0.001** | 85.2 ± 13.8 | 83.5 ± 14.2 | **0.001** | 0.715 | 0.962 | 0.058 |
| Fat mass, kg | 35.5 ± 7.6 | 33.1 ± 7.9 | **<0.001** | 32.8 ± 7.3 | 31.5 ± 6.6 | **0.004** | 0.224 | 0.392 | 0.215 |
| Fat-free mass, kg | 50.8 ± 8.5 | 49.7 ± 8.2 | **0.002** | 52.4 ± 12.9 | 52.0 ± 12.3 | 0.193 | 0.626 | 0.465 | 0.103 |
| **Appetite hormones** | | | | | | | | | |
| Fasting PYY, pg/ml | 105 ± 40 | 100 ± 41 | 0.601 | 97.39 ± 34.87 | 103.2 ± 38.3 | 0.336 | 0.535 | 0.868 | 0.302 |
| AUC PYY, pg/mL x 180 min | 19700 ± 6194 | 19280 ± 6334 | 0.937 | 21150 ± 6232 | 20170 ± 5799 | 0.220 | 0.444 | 0.776 | 0.440 |
| Fasting ghrelin, pg/mL | 869 ± 344 | 931 ± 430 | 0.080 | 916.2 ± 362.7 | 914.1 ± 311.2 | 0.954 | 0.669 | 0.809 | 0.179 |
| AUC ghrelin, pg/mL x 180 min | 145900 ± 54800 | 154200 ± 56590 | 0.086 | 144300 ± 48250 | 151900 ± 50920 | 0.100 | 0.920 | 0.864 | 0.867 |
| Fasting GLP-1, pmol/L | 3.5 ± 2.4 | 3.6 ± 2.9 | 0.336 | 4.6 ± 6.364 | 4.4 ± 4.6 | 0.288 | 0.836 | 0.394 | 0.156 |
| AUC GLP-1, pmol/L x 180 min | 943 ± 579 | 1033 ± 876 | 0.227 | 1182 ± 1092 | 1044 ± 671 | 0.326 | 0.337 | 0.738 | 0.123 |
| **Appetite - Visual analog scales** | | | | | | | | | |
| Fasting hunger, mm | 67 ± 17 | 64 ± 19 | 0.452 | 67 ± 19 | 64 ± 24 | 0.452 | 0.983 | 0.945 | 0.961 |
| AUC hunger, mm x 180 min | 5449 ± 2630 | 5771 ± 2339 | 0.409 | 5640 ± 2584 | 5692 ± 2682 | 0.902 | 0.808 | 0.919 | 0.668 |
| Fasting satiety, mm | 19 ± 21 | 12 ± 10 | 0.110 | 13 ± 16 | 13 ± 17 | 0.974 | 0.223 | 0.783 | 0.226 |
| AUC satiety, mm x 180 min | 9242 ± 2512 | 9573 ± 2351 | 0.537 | 8790 ± 2881 | 8833 ± 2739 | 0.930 | 0.575 | 0.360 | 0.691 |
| Fasting PFC, mm | 60 ± 19 | 60 ± 14 | 0.834 | 66 ± 15 | 62 ± 18 | 0.268 | 0.280 | 0.584 | 0.551 |
| AUC PFC, mm x 180 min | 5726 ± 2426 | 5850 ± 2306 | 0.747 | 6331 ± 2856 | 6405 ± 2779 | 0.833 | 0.450 | 0.488 | 0.924 |
| **Appetite – Three Factor Eating Questionnaire** | | | | | | | | | |
| Restraint | 9.6 ± 5.3 | 14.5 ± 3.2 | **<0.001** | 8.6 ± 3.8 | 11.4 ± 4.7 | **0.003** | 0.441 | 0.021 | 0.112 |
| Disinhibition | 7.7 ± 3.8 | 6.6 ± 3.4 | 0.113 | 7.8 ± 3.8 | 6.3 ± 3.1 | **<0.001** | 0.897 | 0.577 | 0.227 |
| Hunger | 5.5 ± 3.3 | 3.8 ± 2.9 | **0.005** | 4.4 ± 3.0 | 3.6 ± 3.4 | 0.104 | 0.271 | 0.723 | 0.288 |
| ***Ad libitum* EI** | | | | | | | | | |
| Lunch, kcal | 650 ± 307 | 705 ± 392 | 0.538 | 730 ± 254 | 776 ± 387 | 0.841 | 0.333 | 0.217 | 0.743 |
| Lunch, kcal/kg weight | 7.6 ± 3.8 | 8.7 ± 5.0 | 0.794 | 8.6 ± 2.8 | 9.2 ± 3.8 | 0.999 | 0.288 | 0.223 | 0.844 |
| 3-day EI, kcal/day | 2170 ± 522 | 1975 ± 444 | 0.161 | 2269 ± 873 | 2214 ± 834 | 0.537 | 0.748 | 0.467 | 0.513 |
| 3-day EI, kcal/kg weight/day | 25.3 ± 6.5 | 24.1 ± 6.2 | 0.394 | 26.0 ± 6.9 | 26.2 ± 6.7 | 0.937 | 0.733 | 0.419 | 0.551 |
| **RMR** | | | | | | | | | |
| RMR, kcal/day | 1588 ± 193 | 1529 ± 202 | **0.042** | 1595 ± 266 | 1602 ± 286 | 0.753 | 0.927 | 0.354 | 0.832 |
| RMR residuals | 12 ± 99 | -22 ± 114 | 0.250 | -6 ± 108 | 12 ± 138 | 0.417 | 0.615 | 0.406 | 0.164 |

Differences determined via linear mixed effects models. Data are presented as mean ± standard deviation. Significant p-values are bolded. AUC: area under the curve; EI: energy intake; GLP-1: glucagon like peptide-1; PFC: prospective food consumption; PYY: peptide-YY; RMR: resting metabolic rate.

\*Diet group: N=19 in the diet group with follow-up body weight, fat mass, fat-free mass, and RMR values; N=19 in the diet group with follow-up PYY, ghrelin, and GLP-1 values. N=17 in the diet group with follow-up lunch and 3-day EI

\*\*Aerobic exercise group: N=23 with baseline and follow-up PYY, ghrelin, and GLP-1 values. N=23 with baseline lunch and 3-day EI.