**Table S7. Hierarchical Regression Analysis of Baseline Covariates Associated with Weight Loss after Bariatric Surgery**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Step 1** | **Step 2** | **Step 3** |
| **Covariates** | **Estimates** | **Std. Beta** | **CI** | ***P* value** | **Estimates** | **Std. Beta** | **CI** | ***P* value** | **Estimates** | **Std. Beta** | **CI** | ***P* value** |
| Age | -0.06 | -0.1 | -0.20 – 0.09 | .45 | -0.08 | -0.13 | -0.21 – 0.06 | .26 | -0.12 | -0.19 | -0.26 – 0.01 | .08 |
| Male gender | 4 | 0.63 | 0.81 – 7.18 | .02 | 4.35 | 0.68 | 1.47 – 7.23 | .004 | 4.2 | 0.6 | 1.26 – 7.13 | .006 |
| Non-white ethnicity | -0.86 | -0.14 | -4.29 – 2.56 | .62 | -0.51 | -0.08 | -3.60 – 2.58 | .74 |  |  |  |  |
| Non-diabetic | 4.28 | 0.67 | 1.12 – 7.45 | .009 | 3.87 | 0.61 | 1.02 – 6.73 | .009 | 5.1 | 0.72 | 2.10 – 8.10 | .001 |
| Current smoker | -4.14 | -0.65 | -9.15 – 0.86 | .10 | -3.97 | -0.62 | -8.48 – 0.54 | .08 | -6.16 | -0.87 | -10.79 – -1.53 | .01 |
| VSG surgery (*vs* RYGB) | -4.19 | -0.66 | -7.51 – -0.87 | .014 | -2.1 | -0.33 | -5.31 – 1.11 | .20 | -4.03 | -0.57 | -7.30 – -0.76 | .02 |
| Time to follow-up | 0.02 | 0.13 | -0.02 – 0.05 | .30 | 0.02 | 0.15 | -0.01 – 0.05 | .17 |  |  |  |  |
| Depression diagnosis (*vs* controls) | -0.8 | -0.12 | -5.68 – 4.09 | .75 | -2.22 | -0.35 | -6.40 – 1.95 | .29 |  |  |  |  |
| Not taking antidepressants | 0.18 | 0.16 | -0.12 – 0.49 | .24 | 0.07 | 0.01 | -4.35 – 4.50 | .97 |  |  |  |  |
| IPAQ total active days | -0.33 | -0.05 | -4.81 – 4.15 | .88 | 0.15 | 0.13 | -0.12 – 0.43 | .27 |  |  |  |  |
| Baseline hsCRP  |  |  |  |  | -0.25 | -0.42 | -0.39 – -0.11 | .001 | -0.19 | -0.28 | -0.34 – -0.04 | .011 |
| **Model statistics** |  |  |  |
| R2 adjusted | 0.221 | 0.368 | 0.359 |
| Sigma | 5.63 | 5.07 | 5.64 |
| AIC | 396 | 384 | 418 |
| BIC | 421 | 411 | 435 |
| *P* value | .01 | <.001 | < .001 |

RYGB, Roux-en-Y Gastric Bypass; VSG, Vertical Sleeve Gastrectomy Surgery; IPAQ, International Physical Activity Questionnaire; hsCRP, high-sensitivity C-Reactive Protein; AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion.

**Table S8. Hierarchical Regression Analysis of Baseline Covariates Associated with Depression Severity after Bariatric Surgery**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Step 1** | **Step 2** | **Step 3** |
| **Covariates** | **Estimates** | **Std. Beta** | **CI** | ***P* value** | **Estimates** | **Std. Beta** | **CI** | ***P* value** | **Estimates** | **Std. Beta** | **CI** | ***P* value** |
| Age | -0.05 | -0.06 | -0.26 – 0.16 | .65 | -0.09 | -0.12 | -0.27 – 0.09 | .32 |  |  |  |  |
| WLP | 0.19 | 0.14 | -0.22 – 0.60 | .35 | 0.16 | 0.12 | -0.23 – 0.55 | .41 |  |  |  |  |
| Male gender | -3.47 | -0.41 | -8.28 – 1.34 | .15 | 0.68 | 0.08 | -4.04 – 5.39 | .77 |  |  |  |  |
| Non-white ethnicity | 1.12 | 0.13 | -3.69 – 5.93 | .64 | -0.38 | -0.05 | -4.34 – 3.57 | .85 |  |  |  |  |
| Non-diabetic | -2.54 | -0.3 | -7.37 – 2.30 | .30 | -4.64 | -0.55 | -8.82 – -0.46 | .03 | -2.99 | -0.33 | -6.18 – 0.20 | .07 |
| Current smoker | 1.63 | 0.19 | -5.94 – 9.19 | .67 | -0.32 | -0.04 | -6.91 – 6.28 | .92 |  |  |  |  |
| VSG surgery (*vs* RYGB) | 0.37 | 0.04 | -4.62 – 5.37 | .88 | 0.93 | 0.11 | -3.34 – 5.20 | .66 |  |  |  |  |
| Time to follow-up | -0.01 | -0.06 | -0.06 – 0.04 | .67 | 0.03 | 0.15 | -0.02 – 0.07 | .25 |  |  |  |  |
| Not taking antidepressants | 4.47 | 0.52 | -1.02 – 9.96 | .11 | 0.7 | 0.08 | -5.49 – 6.88 | .82 |  |  |  |  |
| IPAQ total active days | -0.49 | -0.31 | -0.90 – -0.07 | .02 | -0.18 | -0.12 | -0.60 – 0.24 | .4 |  |  |  |  |
| Baseline HAM-D score |  |  |  |  | 0.74 | 0.71 | 0.21 – 1.26 | .007 | 0.82 | 0.81 | 0.55 – 1.09 | <.001 |
| Baseline Atypical score |  |  |  |  | -0.72 | -0.44 | -1.39 – -0.04 | .04 | -0.6 | -0.36 | -1.04 – -0.16 | .008 |
| Emotional abuse |  |  |  |  | 0.63 | 0.4 | 0.26 – 0.99 | .001 | 0.54 | 0.31 | 0.22 – 0.85 | .001 |
| Baseline hsCRP |  |  |  |  | -0.02 | -0.02 | -0.38 – 0.34 | .92 |  |  |  |  |
| Baseline IL-6/IL-10 ratio  |  |  |  |  | -0.15 | -0.08 | -0.88 – 0.58 | .69 |  |  |  |  |
| Baseline IL-6 |  |  |  |  | 0 | 0 | -3.28 – 3.28 | >0.9 |  |  |  |  |
| **Model statistics** |  |  |  |
| R2 adjusted | 0.059 | 0.415 | 0.539 |
| Sigma | 8.30 | 6.43 | 6.12 |
| AIC | 450 | 383 | 401 |
| BIC | 476 | 420 | 414 |
| *P* value | .22 | .001 | < .001 |

RYGB, Roux-en-Y Gastric Bypass; VSG, Vertical Sleeve Gastrectomy Surgery; IPAQ, International Physical Activity Questionnaire; HAM-D, Hamilton Depression Rating Scale 17 for depressive symptoms; hsCRP, high-sensitivity C-Reactive Protein; IL, interleukin; AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion.