**Table S1. Cognitive assessments, clinical assessments and cardiorespiratory fitness (VO2max) comparing the medicated and unmedicated ADHD groups**

|  |  |  |
| --- | --- | --- |
|  | β (95% CI) | p |
| Digit span forward | -0.06 (-0.39, 0.27) | 0.72 |
| Digit span backward | 0.29 (-0.04, 0.62) | 0.09 |
| RAVLT trial 5 | 0.15 (-0.17, 0.47) | 0.35 |
| RAVLT List B | -0.07 (-0.39, 0.25) | 0.68 |
| RAVLT trial 6 | 0.48 (0.02, 0.93) | 0.039 |
| RAVLT trial 7 | 0.21 (-0.13, 0.54) | 0.22 |
| RAVLT recognition memory | -0.07 (-0.47, 0.34) | 0.74 |
| IQ | -0.01 (-0.31, 0.31) | 0.99 |
| IDS score | 0.21 (-0.12, 0.54) | 0.22 |
| ADHD Rating Scale total score | 0.04 (-0.29, 0.37) | 0.80 |
| ADHD Rating Scale inattention | 0.01 (-0.32, 0.34) | 0.94 |
| DIVA hyperactivity | 0.06 (-0.28, 0.40) | 0.72 |
| VO2max | 0.02 (-0.35, 0.38) | 0.94 |

Analyses adjust for age and study centre. RAVLT: Rey Auditory Verbal Learning Test; IQ: intelligence quotient, estimated by the vocabulary and matrix reasoning subtests of the Wechsler Abbreviated Scale of Intelligence; IDS: Inventory of Depressive Symptomatology; DIVA: Diagnostic Interview for ADHD in adults; CI: confidence interval

**Table S2. Hurdle model comparing performance on RAVLT trial 6, delayed memory and recognition memory between the ADHD and control group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Logistic model | | Linear model | |
|  | OR (95% CI) | *p* | b (95% CI) | *p* |
| RAVLT trial 6 | 0.88 (0.55, 1.41) | 0.60 | -2.15 (-5.19, 0.90) | 0.17 |
| RAVLT trial 7 | 0.98 (0.63, 1.53) | 0.92 | -3.63 (-6.44, -0.82) | **0.011** |
| RAVLT recognition memory | 0.93 (0.56, 1.64) | 0.77 | -6.72 (-14.77, 1.33) | 0.10 |

Logistic model predicts the chance of achieving the highest possible score on the task; linear model predicts performance on the task conditional on not having achieved the highest score.

**Tables S3. Hurdle models showing the association between IQ and RAVLT memory variables in the ADHD group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Logistic model | | Linear model | |
|  | OR (95% CI) | *p* | b (95% CI) | *p* |
| RAVLT trial 6 | 1.04 (1.02, 1.07) | **<0.001** | 0.07 (-0.02, 0.17) | 0.13 |
| RAVLT trial 7 | 1.05 (1.03, 1.08) | **<0.001** | 0.08 (-0.00, 0.17) | 0.06 |
| RAVLT recognition memory | 1.02 (1.00, 1.04) | 0.056 | 0.32 (0.07, 0.56) | **0.012** |

Logistic model predicts the chance of achieving the highest possible score on the task; linear model predicts performance on the task conditional on not having achieved the highest score.

**Tables S4. Hurdle models showing the association between Vo2max and RAVLT memory variables in the ADHD group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Logistic model | | Linear model | |
|  | OR (95% CI) | *p* | b (95% CI) | *p* |
| RAVLT trial 6 | 1.00 (0.97, 1.03) | 1.00 | -0.17 (-0.27, -0.09) | **<0.001** |
| RAVLT trial 7 | 0.99 (0.96, 1.01) | 0.30 | -0.19 (-0.29, -0.10) | **<0.001** |
| RAVLT recognition memory | 0.98 (0.95, 1.01) | 0.17 | -0.24 (-0.56, 0.08) | 0.14 |

Logistic model predicts the chance of achieving the highest possible score on the task; linear model predicts performance on the task conditional on not having achieved the highest score.