**Table S1.** Sample sizes for analysis indicating the sample size for per-protocol (PP) and intention-to-treat (ITT) where missing data was replaced by pre-exercise (baseline values).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **HC** | | | | **ADHD** | | | | **Total** | |
|  | **Cycling** | | **Yoga** | | **Cycling** | | **Yoga** | |
|  | **PP** | **ITT** | **PP** | **ITT** | **PP** | **ITT** | **PP** | **ITT** | **PP** | **ITT** |
| Inattention |  |  |  |  |  |  |  |  |  |  |
| Omission Errors | 38 | 38 | 38 | 39 | 39 | 40 | 42 | 42 | 157 | 159 |
| Hit Reaction Time | 38 | 38 | 38 | 39 | 39 | 40 | 42 | 42 | 157 | 159 |
| d’ Prime | 37 | 38 | 38 | 39 | 40 | 40 | 42 | 42 | 157 | 159 |
| Motor impulsivity |  |  |  |  |  |  |  |  |  |  |
| Commission Errors | 37 | 37 | 38 | 39 | 39 | 40 | 42 | 42 | 156 | 158 |
| Cognitive Impulsivity |  |  |  |  |  |  |  |  |  |  |
| Net Score (40) | 37 | 38 | 37 | 39 | 38 | 40 | 40 | 42 | 152 | 159 |
| % Risky Decisions | 37 | 38 | 37 | 39 | 38 | 40 | 40 | 42 | 152 | 159 |
| Temporal Impulsivity |  |  |  |  |  |  |  |  |  |  |
| AUC | 35 | 36 | 37 | 39 | 33 | 34 | 40 | 42 | 145 | 151 |
| Hyperactivity |  |  |  |  |  |  |  |  |  |  |
| Motor frequency | 33 | 33 | 35 | 35 | 26 | 27 | 32 | 32 | 126 | 127 |
| Motor Intensity | 32 | 33 | 35 | 35 | 26 | 27 | 31 | 32 | 124 | 127 |

**Table S2.** Heart rate and Borg Rating of Perceived Exertion (RPE) for the different forms of exercise by participants group.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Measure** | **Aerobic Cycling Exercise** | | **Mind Body Hathe Yoga Exercise** | |
|  | **HC (*N* = 38)** | **ADHD (*N* = 40)** | **HC (*N* = 39)** | **ADHD (*N* = 40)** |
| Heart Rate M (SD) |  |  |  |  |
| Pre-exercise | 69.10 (8.12) | 74.83 (12.05) | 66.63 (8.92) | 74.35 (11.23) |
| Post-exercise | 103.45 (20.93) | 115.35 (20.08) | 66.55 (10.55) | 73.15 (11.55) |
| Within group comparison | <.001 | <.001 | .939 | .313 |
| ΔHR | 34.34 (19.39) | 40.52 (21.43) | -0.08 (6.33) | -1.20 (7.42) |
| Between group comparison |  | .186 |  | .476 |
| Percentage of Max HR M (SD) | 52.69 (10.25) | 59.40 (10.03) | 33.94 (5.25) | 38.09 (5.89) |
| Between group comparison |  | .002 |  | <.001 |
| RPE N (%) |  |  |  |  |
| No exertion  Extremely Light  Very Light  Light  Somewhat hard  Hard Heavy  Very Hard | 1 (2.6)  3 (7.9)  8 (21.1)  11 (28.9)  12 (31.6)  3 (7.9) | 1 (2.5)  2 (5.0)  4 (10)  4 (10)  11 (27.5)  10 (25.0)  6 (15) | 14 (43.6)  11 (28.2)  2 (5.1)  5 (12.8)  3 (7.7) | 19 (45.2)  5 (11.9)  6 (14.3)  6 (14.3)  1 (2.4) |
| RPE M (SD) | 13.1 (2.36) | 13.1 (2.97) | 7.80 (2.27) | 7.69 (2.10) |

**Table S3.** Correlation between ASRS measures and cognitive and behavioural measures prior to exercise in the HC group. \* p<.05, \*\* p<.01

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **ASRS Total** | **ASRS IA** | **ASRS HI** | **Omission Errors** | **Hit Reaction Time** | **d’ Prime** | **Commission Errors** | **Net Score (40)** | **% Risky Decisions** | **AUC** | **Motor frequency** | |
| ASRS IA | .909\*\* |  |  |  |  |  |  |  |  |  | |  |
| ASRS HI | .905\*\* | .647\*\* |  |  |  |  |  |  |  |  | |  |
| Omission Errors | -.102 | -.083 | -.099 |  |  |  |  |  |  |  | |  |
| Hit Reaction Time | .072 | .050 | .085 | .323\*\* |  |  |  |  |  |  | |  |
| d’ Prime | -.077 | -.092 | -.040 | .324\*\* | .146 |  |  |  |  |  | |  |
| Commission Errors | .123 | .032 | .193 | .122 | .224 | -.077 |  |  |  |  | |  |
| Net Score (40) | -.084 | -.121 | -.032 | .069 | .047 | .198 | .051 |  |  |  | |  |
| % Risky Decisions | .102 | .130 | .054 | -.064 | -.020 | -.173 | -.036 | -.947\*\* |  |  | |  |
| AUC | -.282\* | -.358\*\* | -.164 | -.057 | -.122 | -.119 | -.109 | .044 | -.027 |  | |  |
| Motor frequency | .057 | .062 | .043 | .076 | -.062 | -.079 | -.090 | .130 | -.089 | .051 | |  |
| Motor intensity | -.027 | -.019 | -.036 | .130 | -.063 | -.011 | -.139 | .230 | -.209 | .154 | | .793\*\* |

**Table S4.** Correlation between ASRS measures and cognitive and behavioural measures prior to exercise in the ADHD group. \* p<.05, \*\* p<.01

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **ASRS Total** | **ASRS IA** | **ASRS HI** | **Omission Errors** | **Hit Reaction Time** | **d’ Prime** | **Commission Errors** | **Net Score (40)** | **% Risky Decisions** | **AUC** | **Motor frequency** | |
| ASRS IA | .731\*\* |  |  |  |  |  |  |  |  |  | |  |
| ASRS HI | .878\*\* | .317\*\* |  |  |  |  |  |  |  |  | |  |
| Omission Errors | 0.018 | 0.003 | 0.021 |  |  |  |  |  |  |  | |  |
| Hit Reaction Time | 0.121 | 0.156 | 0.057 | 0.055 |  |  |  |  |  |  | |  |
| d’ Prime | -0.078 | 0.071 | -0.161 | .543\*\* | .285\*\* |  |  |  |  |  | |  |
| Commission Errors | 0.154 | 0.007 | 0.204 | -0.077 | -0.087 | -.242\* |  |  |  |  | |  |
| Net Score (40) | -0.114 | 0.044 | -0.181 | -.246\* | 0.026 | 0.035 | -.248\* |  |  |  | |  |
| % Risky Decisions | 0.114 | -0.044 | 0.181 | .246\* | -0.026 | -0.035 | .248\* | -1.000\*\* |  |  | |  |
| AUC | -0.024 | 0.030 | -0.052 | .290\* | -.376\*\* | -0.044 | 0.049 | -0.174 | 0.174 |  | |  |
| Motor frequency | .363\*\* | .388\*\* | 0.215 | -0.005 | 0.205 | -0.126 | 0.076 | 0.014 | -0.014 | 0.064 | |  |
| Motor intensity | .381\*\* | .380\*\* | 0.248 | -0.094 | 0.053 | -0.241 | 0.113 | 0.049 | -0.049 | 0.076 | | .773\*\* |