

## Supplement

Table S1

*Exploratory Models with Hyperactivity/Impulsivity and Inattention Predicting PSMU and PG*

| <b>Model and Mediators</b>       | <b>a</b> | <b>b</b> | <b>a*b</b> | <b>95% CI a*b</b> | <b>c'</b> | <b>c</b> | <b>R<sup>2</sup></b> |
|----------------------------------|----------|----------|------------|-------------------|-----------|----------|----------------------|
| Hyperactivity/Impulsivity → PSMU |          |          |            |                   | 0.257**   | 0.240*   | 0.096                |
| <b>Behavioural tasks:</b>        |          |          |            |                   |           |          |                      |
| Inhibitory Control               | -0.059   | 0.168    | -0.010     | [-0.084, 0.060]   |           |          |                      |
| Reward Sensitivity               | 0.113    | -0.080   | -0.010     | [-0.036, 0.021]   |           |          |                      |
| Temporal Processing              | 0.190*   | 0.011    | 0.002      | [-0.054, 0.046]   |           |          |                      |
| Hyperactivity/Impulsivity → PG   |          |          |            |                   | 0.372***  | 0.367*** | 0.171                |
| <b>Behavioural tasks:</b>        |          |          |            |                   |           |          |                      |
| Inhibitory Control               | 0.004    | -0.016   | -0.000     | [-0.041, 0.052]   |           |          |                      |
| Reward Sensitivity               | 0.109    | 0.141    | 0.015      | [-0.007, 0.088]   |           |          |                      |
| Temporal Processing              | 0.156    | -0.126   | -0.020     | [-0.100, 0.019]   |           |          |                      |
| Inattention → PSMU               |          |          |            |                   | 0.432***  | 0.439*** | 0.219                |
| <b>Behavioural tasks:</b>        |          |          |            |                   |           |          |                      |
| Inhibitory Control               | 0.018    | 0.138    | 0.003      | [-0.042, 0.049]   |           |          |                      |
| Reward Sensitivity               | -0.043   | -0.034   | 0.002      | [-0.016, 0.023]   |           |          |                      |
| Temporal Processing              | 0.057    | 0.046    | 0.003      | [-0.031, 0.031]   |           |          |                      |
| Inattention → PG                 |          |          |            |                   | 0.312**   | 0.284**  | 0.134                |
| <b>Behavioural tasks:</b>        |          |          |            |                   |           |          |                      |
| Inhibitory Control               | 0.092    | -0.064   | -0.006     | [-0.041, 0.047]   |           |          |                      |
| Reward Sensitivity               | -0.080   | 0.201    | -0.017     | [-0.105, 0.043]   |           |          |                      |
| Temporal Processing              | 0.065    | -0.066   | -0.004     | [-0.056, 0.026]   |           |          |                      |

\*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ .

**Table S2**

*Transdiagnostic Model of ADHD Symptoms and PSMU, With Behavioural Measures of Cognitive Deficits*

| Parameters            | <i>B</i> | <i>SE</i> | <i>z</i> | <i>p</i> | 95% CI          | $\beta$ |
|-----------------------|----------|-----------|----------|----------|-----------------|---------|
| Baseline Association  |          |           |          |          |                 |         |
| ADHD ↔ PSMU           | 8.71     | 2.34      | 3.73     | <.001    | [4.13, 13.29]   | 0.382   |
| Transdiagnostic Model |          |           |          |          |                 |         |
| ADHD ~                |          |           |          |          |                 |         |
| Inhibitory Control    | -0.01    | 0.01      | -0.89    | .374     | [-0.02, 0.01]   | -0.093  |
| Reward Sensitivity    | 5.13     | 24.25     | 0.21     | .833     | [-42.41, 52.66] | 0.02    |
| Temporal Processing   | 2.56     | 1.53      | 1.67     | .095     | [-0.45, 5.55]   | 0.174   |
| PSMU ~                |          |           |          |          |                 |         |
| Inhibitory Control    | 0.002    | 0.001     | 1.26     | .211     | [-.001, 0.004]  | 0.13    |
| Reward Sensitivity    | -2.47    | 4.11      | -0.60    | .548     | [-10.52, 5.59]  | -0.06   |
| Temporal Processing   | 0.19     | 0.26      | 0.72     | .474     | [-0.32, 0.69]   | 0.074   |
| Residual Association  |          |           |          |          |                 |         |
| ADHD ↔ PSMU           | 8.59     | 2.27      | 3.78     | <.001    | [4.14, 13.04]   | 0.389   |

**Table S3**

*Transdiagnostic Model of ADHD Symptoms and PG, With Behavioural Measures of Cognitive Deficits*

| Parameters            | <i>B</i> | <i>SE</i> | <i>z</i> | <i>p</i> | 95% CI          | $\beta$ |
|-----------------------|----------|-----------|----------|----------|-----------------|---------|
| Baseline Association  |          |           |          |          |                 |         |
| ADHD ↔ PG             | 7.48     | 2.36      | 3.17     | .002     | [2.86, 12.10]   | 0.361   |
| Transdiagnostic Model |          |           |          |          |                 |         |
| ADHD ~                |          |           |          |          |                 |         |
| Inhibitory Control    | -0.001   | 0.009     | -0.03    | .974     | [-0.02, 0.02]   | -0.004  |
| Reward Sensitivity    | 0.06     | 24.30     | 0.002    | .099     | [-47.57, 47.69] | <0.001  |
| Temporal Processing   | 1.73     | 1.71      | 1.01     | .313     | [-1.63, 5.09]   | 0.123   |
| PG ~                  |          |           |          |          |                 |         |
| Inhibitory Control    | -0.001   | 0.002     | -0.37    | .714     | [-0.004, 0.002] | -0.044  |
| Reward Sensitivity    | 6.43     | 3.88      | 1.66     | .097     | [-1.17, 14.03]  | 0.175   |
| Temporal Processing   | -0.12    | 0.27      | -0.45    | .651     | [-0.66, 0.41]   | -0.055  |
| Residual Association  |          |           |          |          |                 |         |
| ADHD ↔ PG             | 7.64     | 2.31      | 3.31     | .001     | [3.12, 12.17]   | 0.380   |