

Table S1. Correlations between behavioral performance and demographics and PSG characteristics

|                      |   | age               | BMI           | BMI<br>z-score | OAHl   | TST    | ArI    | SpO <sub>2</sub><br>nadir | Emotional<br>symptoms | Conduct<br>problems | Hyperactivity | Peer<br>problems | Prosocial<br>behaviors |
|----------------------|---|-------------------|---------------|----------------|--------|--------|--------|---------------------------|-----------------------|---------------------|---------------|------------------|------------------------|
| RT <sub>Happy</sub>  | r | <b>-0.669</b>     | <b>-0.246</b> | -0.059         | -0.027 | 0.152  | 0.047  | -0.031                    | -0.002                | 0.098               | 0.047         | 0.012            | -0.089                 |
|                      | P | <b>&lt; 0.001</b> | <b>0.004</b>  | 0.496          | 0.756  | 0.078  | 0.587  | 0.716                     | 0.985                 | 0.259               | 0.590         | 0.889            | 0.301                  |
| RT <sub>Sad</sub>    | r | <b>-0.612</b>     | <b>-0.249</b> | -0.096         | -0.007 | 0.136  | 0.040  | -0.047                    | 0.057                 | 0.136               | 0.047         | 0.012            | -0.132                 |
|                      | P | <b>&lt; 0.001</b> | <b>0.003</b>  | 0.264          | 0.938  | 0.116  | 0.642  | 0.591                     | 0.512                 | 0.115               | 0.587         | 0.886            | 0.124                  |
| ACC <sub>Happy</sub> | r | 0.141             | 0.031         | 0.088          | -0.004 | -0.080 | 0.011  | 0.023                     | -0.016                | -0.106              | -0.036        | 0.037            | -0.038                 |
|                      | P | 0.102             | 0.717         | 0.309          | 0.966  | 0.352  | 0.903  | 0.792                     | 0.850                 | 0.220               | 0.676         | 0.668            | 0.662                  |
| ACC <sub>Sad</sub>   | r | 0.067             | 0.020         | 0.094          | 0.013  | 0.081  | -0.002 | -0.047                    | -0.012                | <b>-0.191</b>       | -0.089        | -0.001           | 0.128                  |
|                      | P | 0.440             | 0.816         | 0.276          | 0.883  | 0.348  | 0.985  | 0.587                     | 0.887                 | <b>0.026</b>        | 0.302         | 0.987            | 0.137                  |

Significant correlation coefficients ( $P < 0.05$ ) are bolded.

Table S2. Correlations between PSG characteristics and psychosocial and behavioral problems

|                        |   | Emotional<br>symptoms | Conduct<br>problems | Hyperactivity | Peer problems | Prosocial<br>behaviors |
|------------------------|---|-----------------------|---------------------|---------------|---------------|------------------------|
| OAHl                   | r | <b>0.188</b>          | 0.095               | 0.068         | 0.083         | -0.094                 |
|                        | P | <b>0.028</b>          | 0.271               | 0.433         | 0.338         | 0.274                  |
| TST                    | r | -0.030                | 0.053               | 0.128         | -0.010        | 0.028                  |
|                        | P | 0.727                 | 0.538               | 0.137         | 0.905         | 0.747                  |
| ArI                    | r | 0.145                 | 0.069               | 0.020         | 0.031         | -0.128                 |
|                        | P | 0.091                 | 0.425               | 0.819         | 0.721         | 0.139                  |
| SpO <sub>2</sub> nadir | r | -0.135                | -0.125              | -0.080        | -0.041        | 0.019                  |
|                        | P | 0.118                 | 0.146               | 0.357         | 0.635         | 0.823                  |

Significant correlation coefficients ( $P < 0.05$ ) are bolded.