**ONLINE SUPPLEMENT**

**eTable 1** Model adequacy tests for the 4 group model and two next best fitting models

**eTable 2** Missing data pattern for child behavior, IQ and family adversity at baseline

**eTable 3** Bivariate associations between child behavior, IQ and family adversity at baseline

**eTable 1** Model adequacy tests for the 4 group model and two next best fitting models (n=2960)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Model**  **BIC / AIC** | **Group** | **%** | **Posterior probability of group membership** | **Odds of correct classification** | **Probability observed** | **Probability**  **expected** |
| **3 Group** | **1** | 81.2% | 99.0 | 23.1 | 81.4 | 81.2 |
| BIC= -7851.49 | **2** | 12.2% | 92.4 | 88.4 | 12.1 | 12.2 |
| AIC= -7824.53 | **3** | 6.6% | 95.4 | 297.1 | 6.6 | 6.6 |
| **4 Group** | **1** | 80.3% | 90.3 | 97.8 | 8.7 | 8.8 |
| BIC= -7526.94 | **2** | 8.8% | 99.2 | 27.6 | 80.9 | 80.8 |
| AIC= -7482.01 | **3** | 5.2% | 90.8 | 186.3 | 5 | 5.1 |
|  | **4** | 5.4% | 93.7 | 264.1 | 5.3 | 5.3 |
| **5 Group** | **1** | 5.6% | 90.4 | 160.7 | 5.5 | 5.6 |
| BIC= -7388.77 | **2** | 79.9% | 98.8 | 20.5 | 80.4 | 79.9 |
| AIC= -7337.84 | **3** | 6.3% | 89.2 | 130.9 | 6 | 6.3 |
|  | **4** | 4.6% | 89.2 | 180.4 | 4.4 | 4.6 |
|  | **5** | 3.7% | 92.5 | 318.6 | 3.7 | 3.7 |

**eTABLE 2** Missing data pattern for child behavior, IQ and family adversity at baseline

|  |  |  |
| --- | --- | --- |
| Characteristic | **Study sample (n=2960)** | |
| Inattention, mean (SD) | 0 | 0% |
| Hyperactivity, mean (SD) | 10 | <1% |
| Aggression, mean (SD) | 0 | 0% |
| Opposition, mean (SD) | 0 | 0% |
| Anxiety, mean (SD) | 0 | 0% |
| Prosociality, mean (SD) | 0 | 0% |
| Child IQ, mean (SD) | 1290 | (42.9%) |
| Family adversity index, mean (SD) | 150 | (5.2%) |

Displayed counts are rounded to base 10 and percentages to one decimal point in accordance with Statistics Canada data protection (non-disclosure) agreements. Missing data were handled using multiple imputations by chained equations. Models were estimated across 80 datasets and the results pooled. Due to missing data in the IQ variable, we conducted a sensitivity analysis in which teacher-ratings of the child’s academic performance in reading, writing, and maths at age 8 years replaced the IQ variable in the model. To derive the academic performance measure, the child’s performance in each subject was ranked on a five-point scale (very below, slightly below, average, slightly above, very above) and then averaged across the three subjects, which were highly correlated (r=.83, r=72, r=.72). The results from this analysis did not significantly differ from the main analysis.

**eTable 3** Correlations between child baseline family and characteristics

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Trajectory Group | Sex (m) | Inattention | Hyperactivity | Aggression-opposition | Anxiety | Prosociality | Child IQ |
| Sex (m) | 0.02 | 1 |  |  |  |  |  |  |
| Inattention | 0.18\*\* | 0.20\*\* | 1 |  |  |  |  |  |
| Hyperactivity | 0.14\*\* | 0.26\*\* | 0.49\*\* | 1 |  |  |  |  |
| Aggression-opposition | 0.21\*\* | 0.24\*\* | 0.42\*\* | 0.60\*\* | 1 |  |  |  |
| Anxiety | 0.07\*\* | 0.09\*\* | 0.39\*\* | 0.17\*\* | 0.14\*\* | 1 |  |  |
| Prosociality | -0.12\*\* | -0.20\*\* | -0.25\*\* | -0.16\*\* | -0.27\*\* | -0.07\*\* | 1 |  |
| Child IQ | -0.16\*\* | 0.03 | -0.18\*\* | -0.07\*\* | -0.05\* | -0.05 | 0.09\*\* | 1 |
| Family adversity | 0.24\*\* | -0.01 | 0.14\*\* | 0.09\*\* | 0.13\*\* | 0.001 | -0.07\*\* | -0.13\*\* |

Trajectory groups coded 0 to 3 reflecting low, declining, rising, chronic groups respectively.

Sex coded as males=1, females=0. \*\* Significant at the .01 level.