**Table S2** Fixed and random effects for the linear mixed models – secondary outcomes

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Random Effects** | | | | | | | | | | | | | | | | |
| **Level** | | **Parameter estimate** | | ***SE*** | | | | ***P*** | | **95% Confidence intervals** | | | | | | |
|  | |  | |  | | | |  | | *Lower* | | | *Upper* | | | |
| **Nonverbal intelligence – TONI-4*a*** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 74.30 | | 16.78 | | | | < 0.0005 | | 40.60 | | | 108.00 | | | |
| AR1 rho | | −0.05 | | 0.22 | | | | 0.820 | | −0.50 | | | 0.40 | | | |
| Intercept | | 58.26 | | 20.02 | | | | 0.004 | | 18.58 | | | 97.94 | | | |
| **Planning – KABC-II: Rover*b*** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 4.62 | | 2.06 | | | | 0.029 | | 0.50 | | | 8.74 | | | |
| AR1 rho | | 0.30 | | 0.28 | | | | 0.284 | | −0.26 | | | 0.85 | | | |
| Intercept | | 1.97 | | 2.08 | | | | 0.348 | | −2.19 | | | 6.13 | | | |
| **Verbal working memory – KABC-II: Number Recall, Word Order*b*** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 2.76 | | 1.37 | | | | 0.047 | | 0.04 | | | 5.48 | | | |
| AR1 rho | | 0.27 | | 0.30 | | | | 0.367 | | −0.34 | | | 0.88 | | | |
| Intercept | | 2.23 | | 1.51 | | | | 0.143 | | −0.77 | | | 5.24 | | | |
| **Verbal memory – KABC-II: Atlantis; Atlantis recall*b*** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 4.28 | | 2.27 | | | | 0.061 | | −0.20 | | | 8.76 | | | |
| AR1 rho | | 0.37 | | 0.29 | | | | 0.212 | | −0.21 | | | 0.95 | | | |
| Intercept | | 2.89 | | 2.40 | | | | 0.229 | | −1.83 | | | 7.61 | | | |
| **Selective attention – WISC-IV: Cancellation*b,﻿e*** | | | | | | | |  | |
| AR1 diagonal | | 10.54 | | 1.33 | | | | < 0.0005 | | 7.93 | | | 13.15 | | | |
| AR1 rho | | 0.59 | | 0.08 | | | | < 0.0005 | | 0.43 | | | 0.74 | | | |
| **Processing speed – WISC-IV: Coding; Symbol Search*b,e*** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 7.19 | | 0.99 | | | | < 0.0005 | | 5.24 | | | 9.13 | | | |
| AR1 rho | | 0.73 | | 0.06 | | | | < 0.0005 | | 0.62 | | | 0.85 | | | |
| **Parent rating of behavioral regulation – BRIEF: Inhibition, Shifting, Emotional Controld** | | | | | | | | | | | | | | | | |
| AR1 diagonal | | 25.78 | | 9.22 | | | | 0.01 | | 7.32 | | | 44.24 | | | |
| AR1 rho | | 0.18 | | 0.26 | | | | 0.49 | | -0.34 | | | 0.70 | | | |
| Intercept | | 67.79 | | 15.69 | | | | < 0.0005 | | 36.99 | | | 98.59 | | | |
| **Parent rating of working memory – BRIEF: Working Memoryd** | | | | | | | | | | | | | | | | |
| AR1 diagonal | | 64.53 | | 45.72 | | | | 0.16 | | -26.98 | | | 156.03 | | | |
| AR1 rho | | 0.22 | | 0.33 | | | | 0.50 | | -0.45 | | | 0.90 | | | |
| Intercept | | 106.85 | | 48.75 | | | | 0.03 | | 10.16 | | | 203.54 | | | |
| **Motor abilities – DMT 6-18c** | | | | | | | | | |  | | |  | | | |
| AR1 diagonal | | 25.08 | | 9.61 | | | | 0.011 | | 5.90 | | | 44.25 | | | |
| AR1 rho | | 0.20 | | 0.26 | | | | 0.434 | | −0.31 | | | 0.72 | | | |
| Intercept | | 29.47 | | 11.01 | | | | 0.008 | | 7.73 | | | 51.21 | | | |
| **Fixed Effects** | | | | | | | | | | | | | | | | |
| **Effects** | **Parameter Estimate** | | ***SE*** | | ***t* ratio** | | ***p*** | | | | **95% Confidence intervals** | | | | | |
|  |  | |  | |  | |  | | | | *Lower* | | | *Upper* | | |
| **Nonverbal intelligence – TONI-4*a*** | | | | | | |  | | | |  | | |  | | |
| Intercept | 106.19 | | 1.37 | | 77.53 | | < 0.0005 | | | | 103.50 | | | 108.87 | | |
| Months | 0.52 | | 0.60 | | 0.86 | | 0.388 | | | | −0.66 | | | 1.70 | | |
| Cogmed × months | 1.40 | | 0.80 | | 1.75 | | 0.080 | | | | −0.17 | | | 2.98 | | |
| Exergaming × months | 0.90 | | 0.82 | | 1.09 | | 0.274 | | | | −0.71 | | | 2.51 | | |
| Control × months | 0.00 | | . | | . | | . | | | | . | | | . | | |
| **Planning – KABC-II: Rover*b*** | | | | | | | | | | | | | |  | | |
| Intercept | 12.21 | | 0.31 | | 39.02 | | < 0.0005 | | | | 11.59 | | | 12.82 | | |
| Months | 0.45 | | 0.13 | | 3.38 | | 0.001 | | | | 0.19 | | | 0.72 | | |
| Cogmed × months | −0.04 | | 0.18 | | −0.26 | | 0.798 | | | | −0.39 | | | 0.30 | | |
| Exergaming × months | −0.02 | | 0.17 | | −0.12 | | 0.904 | | | | −0.36 | | | 0.32 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Verbal working memory – KABC-II: Number Recall; Word Order*b*** | | | | | | | | | | | | | |  | |
| Intercept | 9.39 | | 0.27 | | 35.07 | | < 0.0005 | | | | 8.87 | | | 9.92 | | |
| Months | 0.09 | | 0.11 | | 0.88 | | 0.382 | | | | −0.11 | | | 0.30 | | |
| Cogmed × months | 0.06 | | 0.15 | | 0.38 | | 0.707 | | | | −0.24 | | | 0.35 | | |
| Exergaming × months | 0.17 | | 0.14 | | 1.23 | | 0.218 | | | | −0.10 | | | 0.45 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Verbal memory – KABC-II: Atlantis; Atlantis recall*b*** | | | | | | |  | | | |  | | |  | | |
| Intercept | 11.76 | | 0.32 | | 36.84 | | < 0.0005 | | | | 11.13 | | | 12.38 | | |
| Months | 0.16 | | 0.13 | | 1.30 | | 0.195 | | | | −0.08 | | | 0.41 | | |
| Cogmed × months | 0.15 | | 0.17 | | 0.92 | | 0.358 | | | | −0.17 | | | 0.48 | | |
| Exergaming × months | 0.27 | | 0.17 | | 1.57 | | 0.116 | | | | −0.07 | | | 0.61 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Selective attention – WISC-IV: Cancellation*b*** | | | | | | | | | | | | | | | | |
| Intercept | 10.26 | | 0.38 | | 27.11 | | < 0.0005 | | | | 9.52 | | | 11.00 | | |
| Months | 0.29 | | 0.17 | | 1.75 | | 0.080 | | | | −0.04 | | | 0.62 | | |
| Cogmed × months | −0.04 | | 0.24 | | −0.16 | | 0.877 | | | | −0.51 | | | 0.43 | | |
| Exergaming × months | −0.02 | | 0.23 | | −0.07 | | 0.948 | | | | −0.47 | | | 0.44 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Processing speed – WISC-IV: Coding; Symbol Search*b*** | | | | | | |  | | | |  | | |  | | |
| Intercept | 10.56 | | 0.31 | | 33.61 | | < 0.0005 | | | | 9.95 | | | 11.18 | | |
| Months | 0.18 | | 0.11 | | 1.54 | | 0.124 | | | | −0.05 | | | 0.40 | | |
| Cogmed × months | −0.24 | | 0.16 | | −1.56 | | 0.119 | | | | −0.55 | | | 0.06 | | |
| Exergaming × months | −0.15 | | 0.16 | | −0.93 | | 0.354 | | | | −0.47 | | | 0.17 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Parent rating of behavioral regulation – BRIEF: Inhibition, Shifting, Emotional Controld** | | | | | | | | | | | | | | | | |
| Intercept | 49.47 | | 1.18 | | 41.79 | | < 0.0005 | | | | 47.15 | | | 51.79 | | |
| Months | 0.06 | | 0.39 | | 0.16 | | 0.88 | | | | -0.71 | | | 0.83 | | |
| Cogmed × months | -0.03 | | 0.52 | | -0.05 | | 0.96 | | | | -1.05 | | | 0.99 | | |
| Exergaming × months | -0.48 | | 0.58 | | -0.83 | | 0.41 | | | | -1.62 | | | 0.66 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Parent rating of working memory – BRIEF: Working Memoryd** | | | | | | | | | | | | | | | | |
| Intercept | 53.46 | | 1.58 | | 33.89 | | < 0.0005 | | | | 50.37 | | | 56.55 | | |
| Months | -0.40 | | 0.55 | | -0.73 | | 0.47 | | | | -1.47 | | | 0.68 | | |
| Cogmed × months | 0.81 | | 0.81 | | 1.01 | | 0.32 | | | | -0.78 | | | 2.40 | | |
| Exergaming × months | -0.07 | | 0.78 | | -0.10 | | 0.92 | | | | -1.61 | | | 1.46 | | |
| Control × months | 0.00 | | – | | – | | – | | | | – | | | – | | |
| **Motor abilities – DMT 6–18*c*** | | | | |  |  | | |  | | |  | | |
| Intercept | 95.87 | | 0.89 | | 108.29 | | < 0.0005 | | | | 94.14 | | | 97.61 | | |
| Months | 0.58 | | 0.33 | | 1.75 | | 0.080 | | | | −0.07 | | | 1.23 | | |
| Cogmed × months | −0.01 | | 0.46 | | −0.02 | | 0.984 | | | | −0.90 | | | 0.88 | | |
| Exergaming × months | −0.22 | | 0.48 | | −0.47 | | 0.639 | | | | −1.16 | | | 0.71 | | |
| Control × months | 0.00 | | . | | . | | . | | | | . | | | . | | |

*Note*. WMTB = Working Memory Test Battery; D-KEFS = Delis–Kaplan Executive Function System; TONI-4 = Test of Nonverbal Intelligence Fourth Edition; WISC-IV = Wechsler Intelligence Scale for Children Fourth Edition; DMT = German Motor Performance Test.

a Age-normed score: mean = 100; standard deviation = 15; a higher score is better.

b Age-normed score: mean = 10; standard deviation = 3; a higher score is better.

c Age-normed score: mean = 100; standard deviation = 10; a higher score is better.

d Age-normed score: mean = 50; standard deviation = 10; a higher score is better.

﻿e No random intercept parameters were estimated as model fit was better without them.