**Supplementary Material**

This supplementary material contains tests of the assumptions of our statistical model. We tested fit of linear and quadratic trends, the random effects for the unconditional model, constancy of the residuals across groups, and the decomposition of variability using the intraclass correlation coefficient (ICC).

Supplementary Table 1. Because our measurement occasions were relatively evenly spaced, we specified a linear trend model. In order to verify the adequacy of this specification, we compared the linear and quadratic model for the entire sample. The linear model revealed a better fit than the quadratic model.

Supplementary Table 2. The unconditional model revealed significant random effects for intercept and slope for the entire sample and all subgroups in the multiple-group model, except for the slope in the low education group. This confirms that the sample data has significant variability and justifies the examination of predictors of intercept and slope.

Supplementary Table 3. ICC was calculated by fitting the unconditional model with constant residuals across the entire sample and multiple-group model. Results revealed that most of the total variance is explained by differences among participants (between-person variability). This finding supports our use of between-person predictors in our model.

**Supplementary table 1.** Linear versus quadratic models for the entire sample

|  |  |  |  |
| --- | --- | --- | --- |
| **Model** | **AIC** | **BIC** | **aBIC** |
| Linear | 16127.82 | 16186.07 | 16154.29 |
| Quadratic | 16398.79 | 16462.86 | 16427.91 |

**Supplementary table 2.** Random Effects for unconditional models and residuals over time

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** |  | **Estimate** | **S.E.** | **95% CI** | **P-value** |
| Entire Sample | Intercept | 0.363 | 0.012 | 0.339, 0.387 | <.001 |
| Slope | 0.003 | 0.000 | 0.002, 0.004 | <.001 |
| Multiple-Group |  |
| Low Education | Intercept | 0.223 | 0.021 | 0.182, 0.264 | <.001 |
| Slope | 0.002 | 0.001 | 0.000, 0.003 | 0.035 |
| Memory 1 | 0.158 | 0.021 | 0.116, 0.199 | <.001 |
| Memory 2 | 0.252 | 0.020 | 0.214, 0.291 | <.001 |
| Memory 3 | 0.226 | 0.022 | 0.183, 0.269 | <.001 |
| Memory 4 | 0.199 | 0.023 | 0.153, 0.245 | <.001 |
| Memory 5 | 0.221 | 0.039 | 0.144, 0.297 | <.001 |
| MediumEducation | Intercept | 0.258 | 0.019 | 0.223, 0.293 | <.001 |
| Slope | 0.004 | 0.001 | 0.002, 0.005 | <.001 |
| Memory 1 | 0.130 | 0.015 | 0.100, 0.159 | <.001 |
| Memory 2 | 0.222 | 0.018 | 0.188, 0.257 | <.001 |
| Memory 3 | 0.189 | 0.016 | 0.157, 0.221 | <.001 |
| Memory 4 | 0.176 | 0.021 | 0.135, 0.216 | <.001 |
| Memory 5 | 0.181 | 0.032 | 0.119, 0.243 | <.001 |
| High Eduction | Intercept | 0.377 | 0.020 | 0.339, 0.416 | <.001 |
| Slope | 0.003 | 0.001 | 0.002, 0.004 | <.001 |
| Memory 1 | 0.107 | 0.010 | 0.088, 0.126 | <.001 |
| Memory 2 | 0.159 | 0.011 | 0.137, 0.180 | <.001 |
| Memory 3 | 0.148 | 0.011 | 0.126, 0.170 | <.001 |
| Memory 4 | 0.192 | 0.019 | 0.154, 0.230 | <.001 |
| Memory 5 | 0.154 | 0.030 | 0.094, 0.213 | <.001 |

**Supplementary table 3.** Intraclass correlation coefficient for the entire sample and multiple-group

|  |  |  |  |
| --- | --- | --- | --- |
| **Model** | **BP** | **WP** | **ICC** |
| Entire Sample | 0.360 | 0.173 | 0.675 |
| Multiple-Group |  |
|  Low Education | 0.226 | 0.210 | 0.518 |
|  Medium Education | 0.251 | 0.182 | 0.579 |
|  High Education | 0.368 | 0.149 | 0.712 |

Note: BP = between-person variance; WP = within-person variance; ICC = intraclass correlation coefficient.