Supplementary Table A. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Block Design** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Block Design** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.003522 | 0.04103 | 0.9316 |
| Time | 0.004323 | 0.01485 | 0.7710 |
| Time2 | -0.00398 | 0.001375 | 0.0039 |
| Age | -0.1037 | 0.009313 | <.0001 |
| Sex  (ref: Male) | -0.05057 | 0.01778 | 0.0045 |
| HS Education  (ref: <HS) | 0.10300 | 0.02793 | 0.0002 |
| > HS  (ref: < HS) | 0.0957 | 0.02881 | 0.0009 |
| Low VA (ref: high) | -0.08474 | 0.04403 | 0.0545 |
| Average VA (ref: high) | -0.02125 | 0.0398 | 0.5935 |
| Low VA\*Time | 0.05715 | 0.02343 | 0.0148 |
| Average VA\*Time | -0.03751 | 0.02092 | 0.0733 |
| Low VA\*Time2 | -0.00530 | 0.00226 | 0.0192 |
| Average VA\*Time2 | 0.002276 | 0.00196 | 0.2449 |
| Hypertension | -0.01173 | 0.01900 | 0.5371 |
| Diabetes Mellitus | -0.05461 | 0.02128 | 0.0104 |
| mCESD | -0.05910 | 0.02748 | 0.0316 |
| Number of medications | 0.00853 | 0.01888 | 0.6514 |
| Baseline test score | 0.81780 | 0.00948 | <.0001 |

Supplementary Table B. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Boston Naming Test** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Boston Naming** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.02669 | 0.03362 | 0.4274 |
| Time | -0.03719 | 0.01271 | 0.0035 |
| Time2 | -0.00345 | 0.00098 | 0.0005 |
| Age | -0.02169 | 0.00797 | 0.0066 |
| Sex  (ref: Male) | -0.00677 | 0.01482 | 0.6481 |
| HS Education  (ref: <HS) | 0.07599 | 0.02335 | 0.0012 |
| > HS  (ref: < HS) | 0.06452 | 0.02413 | 0.0076 |
| Low VA (ref: high) | -0.01506 | 0.03432 | 0.6608 |
| Average VA (ref: high) | -0.01917 | 0.03160 | 0.5442 |
| Low VA\*Time | -0.00715 | 0.01904 | 0.7075 |
| Average VA\*Time | -0.00415 | 0.01753 | 0.8130 |
| Low VA\*Time2 | -0.00432 | 0.00153 | 0.0048 |
| Average VA\*Time2 | -0.00118 | 0.00137 | 0.3896 |
| Hypertension | -0.01514 | 0.01593 | 0.3421 |
| Diabetes Mellitus | -0.00183 | 0.01776 | 0.9178 |
| mCESD | -0.04494 | 0.02273 | 0.0482 |
| Number of medications | -0.00338 | 0.01572 | 0.8297 |
| Baseline test score | 0.8664 | 0.00790 | <.0001 |

Supplementary Table C. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Clock Drawing Test** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Clock Drawing** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.18060 | 0.04960 | 0.0003 |
| Time | 0.01004 | 0.01694 | 0.5534 |
| Time2 | -0.00430 | 0.00151 | 0.0046 |
| Age | -0.11850 | 0.01120 | <.0001 |
| Sex  (ref: Male) | 0.02540 | 0.02115 | 0.23 |
| HS Education  (ref: <HS) | 0.10600 | 0.03399 | 0.0018 |
| > HS  (ref: < HS) | 0.16350 | 0.03503 | <.0001 |
| Low VA (ref: high) | 0.12980 | 0.05183 | 0.0124 |
| Average VA (ref: high) | -0.02598 | 0.04775 | 0.5864 |
| Low VA\*Time | -0.01808 | 0.02538 | 0.4764 |
| Average VA\*Time | 0.11110 | 0.02341 | <.0001 |
| Low VA\*Time2 | -0.00113 | 0.00231 | 0.6245 |
| Average VA\*Time2 | -0.01144 | 0.00209 | <.0001 |
| Hypertension | 0.04504 | 0.02282 | 0.0486 |
| Diabetes Mellitus | -0.05303 | 0.02545 | 0.0373 |
| mCESD | -0.09662 | 0.03239 | 0.0029 |
| Number of medications | -0.00872 | 0.02250 | 0.6983 |
| Baseline test score | 0.75900 | 0.01180 | <.0001 |

Supplementary Table D. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Indiana University (IU) Token Test** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Indiana University (IU) Token Test** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.11790 | 0.04764 | 0.0134 |
| Time | 0.04127 | 0.01708 | 0.0158 |
| Time2 | -0.00502 | 0.00148 | 0.0007 |
| Age | -0.11990 | 0.01070 | <.0001 |
| Sex  (ref: Male) | 0.1278 | 0.02046 | <.0001 |
| HS Education  (ref: <HS) | 0.09404 | 0.03184 | 0.0032 |
| > HS  (ref: < HS) | 0.07737 | 0.03302 | 0.0193 |
| Low VA (ref: high) | -0.0186 | 0.05027 | 0.7115 |
| Average VA (ref: high) | 0.05182 | 0.04630 | 0.2633 |
| Low VA\*Time | -0.03638 | 0.02567 | 0.1566 |
| Average VA\*Time | -0.09281 | 0.02361 | <.0001 |
| Low VA\*Time2 | 0.000097 | 0.00229 | 0.9662 |
| Average VA\*Time2 | 0.005762 | 0.00206 | 0.0051 |
| Hypertension | -0.02590 | 0.02178 | 0.2346 |
| Diabetes Mellitus | -0.10080 | 0.02437 | <.0001 |
| mCESD | -0.00186 | 0.03101 | 0.9522 |
| Number of medications | -0.03435 | 0.02151 | 0.1104 |
| Baseline test score | 0.71730 | 0.01153 | <.0001 |

Supplementary Table E. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Trail Making Test Part A** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Trail Making Test Part A** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.007294 | 0.04508 | 0.8715 |
| Time | -0.01964 | 0.01535 | 0.2008 |
| Time2 | -0.00339 | 0.00139 | 0.0153 |
| Age | -0.13510 | 0.01050 | <.0001 |
| Sex  (ref: Male) | 0.04473 | 0.01940 | 0.0212 |
| HS Education  (ref: <HS) | 0.05387 | 0.02972 | 0.0701 |
| > HS  (ref: < HS) | 0.08595 | 0.03031 | 0.0046 |
| Low VA (ref: high) | -0.00017 | 0.04799 | 0.9972 |
| Average VA (ref: high) | -0.04350 | 0.04390 | 0.3219 |
| Low VA\*Time | -0.03079 | 0.02333 | 0.1872 |
| Average VA\*Time | -0.00363 | 0.02124 | 0.8641 |
| Low VA\*Time2 | 0.001799 | 0.00219 | 0.4128 |
| Average VA\*Time2 | 0.000283 | 0.00196 | 0.8853 |
| Hypertension | 0.00218 | 0.02073 | 0.9163 |
| Diabetes Mellitus | -0.02585 | 0.02316 | 0.2645 |
| mCESD | -0.08105 | 0.02965 | 0.0063 |
| Number of medications | -0.06747 | 0.02053 | 0.0010 |
| Baseline test score | 0.72910 | 0.01077 | <.0001 |

Supplementary Table F. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Trail Making Test Part B** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Trail Making Test Part B** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.11970 | 0.05114 | 0.0194 |
| Time | 0.09081 | 0.01809 | <.0001 |
| Time2 | -0.01450 | 0.00165 | <.0001 |
| Age | -0.14510 | 0.01124 | <.0001 |
| Sex  (ref: Male) | 0.05869 | 0.02063 | 0.0045 |
| HS Education  (ref: <HS) | 0.05049 | 0.03324 | 0.129 |
| > HS  (ref: < HS) | 0.1022 | 0.03411 | 0.0028 |
| Low VA (ref: high) | -0.01277 | 0.05659 | 0.8215 |
| Average VA (ref: high) | -0.07314 | 0.05117 | 0.1531 |
| Low VA\*Time | -0.02724 | 0.02779 | 0.3271 |
| Average VA\*Time | 0.004553 | 0.02499 | 0.8555 |
| Low VA\*Time2 | 0.003273 | 0.00264 | 0.2158 |
| Average VA\*Time2 | -0.00022 | 0.00233 | 0.9253 |
| Hypertension | -0.02206 | 0.02239 | 0.3247 |
| Diabetes Mellitus | -0.06176 | 0.02503 | 0.0137 |
| mCESD | -0.07648 | 0.03223 | 0.0178 |
| Number of medications | -0.00036 | 0.02210 | 0.9872 |
| Baseline test score | 0.74140 | 0.01108 | <.0001 |

Supplementary Table G. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in WMS-R **Visual Reproduction delayed recall** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Visual Reproduction Delayed Recall** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.00749 | 0.04093 | 0.8549 |
| Time | 0.09605 | 0.01466 | <.0001 |
| Time2 | -0.01215 | 0.00136 | <.0001 |
| Age | -0.09934 | 0.00989 | <.0001 |
| Sex  (ref: Male) | -0.01584 | 0.01809 | 0.3812 |
| HS Education  (ref: <HS) | -0.02572 | 0.02748 | 0.3496 |
| > HS  (ref: < HS) | -0.00509 | 0.02816 | 0.8566 |
| Low VA (ref: high) | -0.03545 | 0.0436 | 0.4162 |
| Average VA (ref: high) | -0.07567 | 0.03993 | 0.0583 |
| Low VA\*Time | -0.00564 | 0.02242 | 0.8013 |
| Average VA\*Time | 0.02298 | 0.02048 | 0.262 |
| Low VA\*Time2 | 0.00027 | 0.00214 | 0.8982 |
| Average VA\*Time2 | -0.00198 | 0.00192 | 0.3029 |
| Hypertension | 0.02070 | 0.01955 | 0.2897 |
| Diabetes Mellitus | 0.03071 | 0.02180 | 0.159 |
| mCESD | 0.02091 | 0.02814 | 0.4576 |
| Number of medications | -0.04529 | 0.01930 | 0.019 |
| Baseline test score | 0.79590 | 0.00960 | <.0001 |

Supplementary Table H. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **WMS-R Visual Reproduction immediate recall** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Visual Reproduction Immediate Recall** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.06663 | 0.04436 | 0.1333 |
| Time | -0.00058 | 0.01571 | 0.9707 |
| Time2 | -0.00609 | 0.00147 | <.0001 |
| Age | -0.10290 | 0.01011 | <.0001 |
| Sex  (ref: Male) | -0.03019 | 0.01896 | 0.1115 |
| HS Education  (ref: <HS) | -0.02347 | 0.03046 | 0.4411 |
| > HS  (ref: < HS) | 0.02170 | 0.03151 | 0.4911 |
| Low VA (ref: high) | -0.00073 | 0.04675 | 0.9875 |
| Average VA (ref: high) | -0.01479 | 0.04264 | 0.7287 |
| Low VA\*Time | -0.00492 | 0.02402 | 0.8378 |
| Average VA\*Time | 0.01075 | 0.02184 | 0.6226 |
| Low VA\*Time2 | -0.00026 | 0.00229 | 0.9091 |
| Average VA\*Time2 | -0.00063 | 0.00206 | 0.7603 |
| Hypertension | 0.02985 | 0.02036 | 0.1428 |
| Diabetes Mellitus | 0.00172 | 0.02275 | 0.9396 |
| mCESD | -0.05311 | 0.02929 | 0.07 |
| Number of medications | -0.02812 | 0.02019 | 0.1639 |
| Baseline test score | 0.74500 | 0.01025 | <.0001 |

Supplementary Table I. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **semantic verbal fluency** (categories: animals) trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Verbal Fluency (Categories: Animals)** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.08443 | 0.04663 | 0.0704 |
| Time | -0.00618 | 0.01559 | 0.6921 |
| Time2 | -0.00594 | 0.00139 | <.0001 |
| Age | -0.08216 | 0.01046 | <.0001 |
| Sex  (ref: Male) | 0.00764 | 0.01917 | 0.6904 |
| HS Education  (ref: <HS) | 0.07102 | 0.03134 | 0.0236 |
| > HS  (ref: < HS) | 0.13170 | 0.03236 | <.0001 |
| Low VA (ref: high) | -0.05192 | 0.04747 | 0.2742 |
| Average VA (ref: high) | 0.009934 | 0.04384 | 0.8208 |
| Low VA\*Time | 0.05687 | 0.02346 | 0.0155 |
| Average VA\*Time | -0.00316 | 0.02164 | 0.8841 |
| Low VA\*Time2 | -0.00592 | 0.00216 | 0.0061 |
| Average VA\*Time2 | 0.000086 | 0.00196 | 0.9649 |
| Hypertension | -0.00897 | 0.02075 | 0.6655 |
| Diabetes Mellitus | 0.01934 | 0.02315 | 0.4036 |
| mCESD | -0.04788 | 0.02972 | 0.1073 |
| Number of medications | 0.00339 | 0.02067 | 0.87 |
| Baseline test score | 0.74990 | 0.01013 | <.0001 |

Supplementary Table J. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Fuld Object Memory Evaluation (OME)** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Fuld Object Memory Evaluation (OME)** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.08810 | 0.04282 | 0.0398 |
| Time | 0.16110 | 0.01636 | <.0001 |
| Time2 | -0.01784 | 0.00133 | <.0001 |
| Age | -0.08340 | 0.00967 | <.0001 |
| Sex  (ref: Male) | 0.03814 | 0.01829 | 0.0372 |
| HS Education  (ref: <HS) | 0.002705 | 0.02828 | 0.9238 |
| > HS  (ref: < HS) | 0.04407 | 0.02909 | 0.1299 |
| Low VA (ref: high) | 0.10470 | 0.04567 | 0.022 |
| Average VA (ref: high) | 0.01533 | 0.04203 | 0.7153 |
| Low VA\*Time | -0.10730 | 0.02461 | <.0001 |
| Average VA\*Time | -0.03195 | 0.02258 | 0.1574 |
| Low VA\*Time2 | 0.002798 | 0.00207 | 0.177 |
| Average VA\*Time2 | 0.001997 | 0.00186 | 0.282 |
| Hypertension | -0.00239 | 0.01969 | 0.9034 |
| Diabetes Mellitus | 0.09574 | 0.02200 | <.0001 |
| mCESD | -0.01212 | 0.02798 | 0.665 |
| Number of medications | -0.01903 | 0.01945 | 0.3282 |
| Baseline test score | 0.84220 | 0.00971 | 0.0398 |

Supplementary Table K. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **Digit Span Forward** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Digit Span Forward** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | 0.00975 | . | . |
| Time | 0.04621 | 0.00554 | <.0001 |
| Time2 | -0.00660 | . | . |
| Age | -0.05965 | 0.01030 | <.0001 |
| Sex  (ref: Male) | -0.05529 | . | . |
| HS Education  (ref: <HS) | -0.03654 | 0.01975 | 0.0644 |
| > HS  (ref: < HS) | 0.01312 | 0.02006 | 0.5133 |
| Low VA (ref: high) | 0.05627 | 0.04521 | 0.2134 |
| Average VA (ref: high) | 0.02038 | 0.03962 | 0.607 |
| Low VA\*Time | -0.01484 | 0.02179 | 0.4959 |
| Average VA\*Time | 0.01593 | 0.01847 | 0.3884 |
| Low VA\*Time2 | 0.00083 | 0.00200 | 0.6797 |
| Average VA\*Time2 | -0.00170 | 0.00163 | 0.2919 |
| Hypertension | 0.03424 | 0.02203 | 0.1203 |
| Diabetes Mellitus | -0.02397 | 0.02525 | 0.3426 |
| mCESD | -0.01148 | 0.03231 | 0.7224 |
| Number of medications | -0.02715 | 0.02275 | 0.2329 |
| Baseline test score | 0.64640 | . | . |

\*standard errors are not estimated because the digit test score varies little for each cycle, thus highly correlated with the baseline test score.

Supplementary Table L. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **phonemic verbal fluency** (letters P & S) trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Verbal Fluency (Letters P & S)** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.06806 | 0.04037 | 0.092 |
| Time | 0.03910 | 0.01382 | 0.0047 |
| Time2 | -0.00492 | 0.00124 | <.0001 |
| Age | -0.05821 | 0.00899 | <.0001 |
| Sex  (ref: Male) | 0.03289 | 0.01751 | 0.0604 |
| HS Education  (ref: <HS) | 0.05344 | 0.02743 | 0.0516 |
| > HS  (ref: < HS) | 0.06474 | 0.02835 | 0.0225 |
| Low VA (ref: high) | -0.0928 | 0.04163 | 0.0259 |
| Average VA (ref: high) | 0.02197 | 0.03854 | 0.5686 |
| Low VA\*Time | 0.06726 | 0.02069 | 0.0012 |
| Average VA\*Time | -0.01967 | 0.01911 | 0.3035 |
| Low VA\*Time2 | -0.00764 | 0.00189 | <.0001 |
| Average VA\*Time2 | 0.000404 | 0.00173 | 0.8148 |
| Hypertension | 0.004479 | 0.01873 | 0.8111 |
| Diabetes Mellitus | 0.01231 | 0.02091 | 0.5563 |
| mCESD | -0.02331 | 0.02674 | 0.3836 |
| Number of medications | -0.06001 | 0.01849 | 0.0012 |
| Baseline test score | 0.82410 | 0.00885 | <.0001 |

Supplementary Table M. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **WMS-R Logical Memory delayed recall** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Logical Memory Delayed Recall** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.18900 | 0.04079 | <.0001 |
| Time | 0.18240 | 0.01519 | <.0001 |
| Time2 | -0.01773 | 0.00130 | <.0001 |
| Age | -0.06867 | 0.00921 | <.0001 |
| Sex  (ref: Male) | -0.00534 | 0.01722 | 0.7566 |
| HS Education  (ref: <HS) | 0.02381 | 0.02717 | 0.3809 |
| > HS  (ref: < HS) | 0.06407 | 0.02815 | 0.023 |
| Low VA (ref: high) | 0.009435 | 0.04295 | 0.8261 |
| Average VA (ref: high) | 0.02808 | 0.03965 | 0.479 |
| Low VA\*Time | -0.01397 | 0.02278 | 0.5398 |
| Average VA\*Time | -0.02403 | 0.02101 | 0.2529 |
| Low VA\*Time2 | 0.000605 | 0.00202 | 0.7639 |
| Average VA\*Time2 | 0.001532 | 0.00182 | 0.3996 |
| Hypertension | -0.02223 | 0.01853 | 0.2306 |
| Diabetes Mellitus | 0.00613 | 0.02064 | 0.7665 |
| mCESD | -0.01481 | 0.02643 | 0.5754 |
| Number of medications | 0.00573 | 0.01836 | 0.7549 |
| Baseline test score | 0.83170 | 0.00889 | <.0001 |

Supplementary Table N. Longitudinal sub-model results (unstandardized beta coefficients) indicating differences in **WMS-R Logical Memory immediate recall** trajectory by baseline visual acuity group

|  |  |  |  |
| --- | --- | --- | --- |
| **Standardized Logical Memory WMS-R Immediate Recall** | | | |
| **Parameter** | **Estimate** | **Standard Error** | **P-Value** |
| Intercept | -0.07010 | 0.03999 | 0.0798 |
| Time | 0.03010 | 0.01516 | 0.0473 |
| Time2 | -0.00437 | 0.00129 | 0.0007 |
| Age | -0.07001 | 0.00895 | <.0001 |
| Sex  (ref: Male) | 0.08577 | 0.01674 | <.0001 |
| HS Education  (ref: <HS) | 0.06355 | 0.02638 | 0.0161 |
| > HS  (ref: < HS) | 0.11890 | 0.02734 | <.0001 |
| Low VA (ref: high) | 0.00855 | 0.04243 | 0.8404 |
| Average VA (ref: high) | -0.1262 | 0.03934 | 0.0014 |
| Low VA\*Time | -0.0221 | 0.02268 | 0.3308 |
| Average VA\*Time | 0.04498 | 0.02097 | 0.0321 |
| Low VA\*Time2 | 0.00038 | 0.00198 | 0.8477 |
| Average VA\*Time2 | -0.00487 | 0.00179 | 0.0065 |
| Hypertension | -0.00641 | 0.01804 | 0.7223 |
| Diabetes Mellitus | 0.02553 | 0.02012 | 0.2046 |
| mCESD | -0.04974 | 0.02580 | 0.0541 |
| Number of medications | -0.00996 | 0.01787 | 0.5774 |
| Baseline test score | 0.81770 | 0.00876 | <.0001 |