## **Table S1**

*EAS cognitive battery of tests*

|  |  |  |
| --- | --- | --- |
| **Test** | **Domain(s)** | **Reference** |
| Blessed Information Memory Concentration Test (BIMC) | Global cognitive status | Blessed et al., 1968 |
| WAIS Vocabulary | Verbal Intelligence | Wechsler, 1955 |
| WAIS Information | Verbal Intelligence |  |
| WAIS Block Design | Visuospatial |  |
| WAIS Digit Span | Attention |  |
| WAIS DS Coding | Processing speed |  |
| WRAT Reading | Premorbid Verbal Intelligence | Snelbaker et al., 2001 |
| Trail Making Test (TMT A & B) | Processing speed & Executive Function | Reitan, 1958 |
| Stroop Test | Processing Speed & Executive Function | Stroop, 1935 |
| Free and Cued Selective Reminding Test (FCSRT) | Memory | Buschke, 1984 |
| WMS Logical Memory  | Memory | Wechsler, 1987 |
| RBANS Complex Figure  | Memory & Visuospatial | Randolph et al., 1998 |
| Letter Fluency | Language | Benton et al., 1994 |
| Category Fluency | Language |  Monsch et al., 1992 |
| Boston Naming Test (BNT) | Language | Goodglass et al., 1983 |

**Table S2**

*Means, standard deviations and ranges for sample demographic, clinical, personality, and cognitive variables.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **N** | **Mean (SD) or %** | **Range** |
| **Demographics:** |  |  |  |
| Age | 562 | 78.90 (5.21) | 69-96 |
| Sex (%F) |  |  |  |
| Ethnicity (%white) |  |  |  |
| Education (y) | 562 | 14.64 (3.30) | 3-20 |
| **Physical/Mental Health:** |  |  |  |
| MMI | 549 | 1.28 (1.05) | 0-5 |
| BAI | 465 | 3.83 (4.88) | 0-35 |
| GDS | 562 | 1.75 (1.87) | 0-12 |
| **Personality Traits:** |  |  |  |
| Openness | 518 | 37.15 (6.38) | 18-50 |
| Conscientiousness | 533 | 38.41 (6.44) | 10-50 |
| Extraversion | 538 | 33.68 (6.22) | 12-49 |
| Agreeableness | 533 | 40.80 (5.17) | 21-50 |
| Neuroticism | 532 | 20.64 (6.22) | 10-42 |
| **Cognitive Battery:** |  |  |  |
| ***Verbal Intelligence*** |  |  |  |
| WAIS Vocabulary† | 558 | 12.46 (3.17) | 3-19 |
| WAIS Information† | 368 | 12.77 (3.26) | 5-19 |
| ***Premorbid Verbal Intelligence*** |  |  |  |
| WRAT Reading‡a | 68 | 84.53 (10.31) | 44-99 |
| ***Attention/Processing Speed*** |  |  |  |
| WAIS Digit Span† | 558 | 10.56 (2.84) | 5-19 |
| WAIS DS Coding† | 558 | 10.79 (2.79) | 3-19 |
| TMT A☨ | 556 | 0.35 (0.79) | -2.26-2.10 |
| Stroop Word☦ | 420 | 47.12 (7.72) | 21-77 |
| Stroop Colour☦ | 420 | 42.61 (7.62) | 20-65 |
| ***Memory*** |  |  |  |
| FCSRT Total Immediate Recall | 560 | 47.87 (0.53) | 42-48 |
| FCSRT Delayed Recall | 562 | 5.26 (7.51) | 0-16 |
| WMS LM Immediate† | 558 | 10.62 (3.04) | 2-18 |
| WMS LM Delayed† | 190 | 10.36 (2.89) | 4-18 |
| RBANS CF Recall☨ | 431 | -0.16 (0.87) | -2.26-2.10 |
| ***Visuospatial*** |  |  |  |
| RBANS CF Copy☨ | 433 | -0.07 (1.20) | -5.65-1.35 |
| WAIS BD† | 558 | 9.79 (3.12) | 3-19 |
| ***Language*** |  |  |  |
| Letter Fluency☨ | 558 | 0.22 (0.99) | -2.24-2.96 |
| Category Fluency☨ | 557 | 0.21 (1.18) | -2.52-4.29 |
| BNT | 562 | 12.42 (2.13) | 4-15 |
| ***Executive Function*** |  |  |  |
| TMT B☨ | 556 | 0.20 (1.09) | 3.90-1.70 |
| Stroop CW☦ | 420 | 47.82 (9.19) | 20-75 |

*Note.* WAIS=Wechsler Adult Intelligence Test; WRAT=Wide Range Achievement Test; DS=Digit Symbol; TMT=Trail Making Test; FCSRT=Free & Cued Selective Reminding Test; RBANS=Repeatable Battery for Neuropsychological Status; CF=Complex Figure; BD=Block Design; BNT Boston Naming Test; CW=Colour-Word.
†Scaled score; ‡Standard score; ☨z-score; ☦T-score.
aOnly collected during EAS baseline.

**Table S3**

*Supplemental Spearman correlations matrix among participant demographic, clinical, and personality variables.*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **1** Age | 1.00 |  |  |  |  |  |  |  |  |  |
| **2** Education (y) | -0.07 | 1.00 |  |  |  |  |  |  |  |  |
| **3** MMI | -0.13\*\* | -0.05 | 1.00 |  |  |  |  |  |  |  |
| **4** BAI | 0.04 | 0.05 | 0.11\* | 1.00 |  |  |  |  |  |  |
| **5** GDS | 0.10\* | -0.17\*\* | 0.18\*\* | 0.22\*\* | 1.00 |  |  |  |  |  |
| **6** Openness | -0.03 | 0.52\*\* | -0.03 | -0.10\* | -0.16\*\* | 1.00 |  |  |  |  |
| **7** Conscientiousness | -0.04 | 0.17\*\* | -0.13\*\* | -0.22\*\* | -0.35\*\* | 0.28\*\* | 1.00 |  |  |  |
| **8** Extraversion | -0.06 | 0.14\*\* | -0.01 | -0.13\*\* | -0.29\*\* | 0.32\*\* | 0.35\*\* | 1.00 |  |  |
| **9** Agreeableness | 0.10\* | 0.04 | -006 | -0.24\*\* | -0.14\*\* | 0.21\*\* | 0.30\*\* | 0.23\*\* | 1.00 |  |
| **10** Neuroticism | 0.07 | -0.21\*\* | 0.06 | 0.33\*\* | 0.44\*\* | -0.27 | -0.41\*\* | -0.33\*\* | -0.48\*\* | 1.00 |

*Note.* MMI=Multimorbidity index; BAI=Beck Anxiety Inventory; GDS=Geriatric Depression Scale.
\**p* < 0.05; \*\**p* < 0.01

**Table S4**

*Supplemental Spearman correlations between FFM personality traits and EAS cognitive battery.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Openness** | **Conscientiousness** | **Extraversion** | **Agreeableness** | **Neuroticism** |
| **Verbal Intelligence** |  |  |  |  |  |
| WAIS Vocabulary† | 0.43\*\* | 0.06 | 0.07 | 0.03 | -0.12\*\* |
| WAIS Information† | 0.39\*\* | -0.03 | -0.01 | -0.04 | -0.05 |
|  |  |  |  |  |  |
| **Premorbid Verbal Intelligence** |  |  |  |  |  |
| WRAT Reading‡ | 0.42\*\* | -0.02 | -0.09 | 0.05 | -0.03 |
|  |  |  |  |  |  |
| **Attention/Processing Speed** |  |  |  |  |  |
| WAIS Digit Span† | 0.20\*\* | 0.01 | 0.03 | -0.02 | -0.12\*\* |
| WAIS DS Coding† | 0.26\*\* | 0.08 | 0.10\* | -0.05 | -0.09 |
| TMT A☨ | 0.16\*\* | 0.03 | 0.06 | 0.01 | -0.09 |
| Stroop Word☦ | 0.21\*\* | 0.14\*\* | 0.13\*\* | -0.10 | -0.03 |
| Stroop Colour☦ | 0.13\*\* | 0.15\*\* | <0.01 | -0.08 | -0.11\* |
|  |  |  |  |  |  |
| **Memory** |  |  |  |  |  |
| FCSRT Total Immediate Recall | 0.10\* | 0.05 | 0.04 | 0.08 | -0.08 |
| FCSRT Delayed Recall | 0.04 | 0.05 | 0.02 | -0.03 | -0.02 |
| WMS LM Immediate† | 0.17\*\* | -0.02 | -0.03 | 0.06 | -0.11\*\* |
| WMS LM Delayed† | 0.32\*\* | <0.01 | <0.01 | 0.05 | -0.08 |
| RBANS CF Recall☨ | 0.08 | 0.01 | <0.01 | 0.14\*\* | -0.15\*\* |
|  |  |  |  |  |  |
| **Visuospatial** |  |  |  |  |  |
| RBANS CF Copy☨ | 0.16\*\* | 0.10\* | -0.02 | 0.12\* | -0.18\*\* |
| WAIS BD† | 0.21\*\* | 0.03 | 0.02 | 0.01 | -0.14\*\* |
|  |  |  |  |  |  |
| **Language** |  |  |  |  |  |
| Letter Fluency☨ | 0.39\*\* | 0.06 | 0.08 | -0.04 | -0.05 |
| Category Fluency☨ | 0.33\*\* | 0.05 | 0.04 | -0.01 | -0.10\* |
| BNT | 0.27\*\* | 0.01 | 0.05 | 0.03 | -0.12\*\* |
|  |  |  |  |  |  |
| **Executive Function** |  |  |  |  |  |
| TMT B☨ | 0.20\*\* | 0.04 | 0.03 | -0.05 | -0.09\* |
| Stroop CW☦ | 0.24\*\* | 0.06 | <0.01 | 0.03 | -0.09 |

## *Note.* WAIS=Wechsler Adult Intelligence Test; WRAT=Wide Range Achievement Test; DS=Digit Symbol; TMT=Trail Making Test; FCSRT=Free & Cued Selective Reminding Test; RBANS=Repeatable Battery for Neuropsychological Status; CF=Complex Figure; BD=Block Design; BNT Boston Naming Test; CW=Colour-Word.†Scaled score; ‡Standard score; ☨z-score; ☦T-score. \**p* < 0.05; \*\**p* < 0.01

## **Table S5**

## *Spearman Correlations Between Baseline FFM Personality Traits and Neuropsychological Test Battery for CH and SCD Participants*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **CH (N=483)** |  | **SCD (N=79)** |
|  | **O** | **C** | **E** | **A** | **N** |  | **O** | **C** | **E** | **A** | **N** |
| **Verbal Intelligence** |  |  |  |  |  |  |  |  |  |  |  |
| WAIS Vocabulary† | 0.44\*\* | 0.07 | 0.08 | 0.01 | -0.16 |  | 0.40\*\* | 0.03 | 0.07 | 0.17 | 0.08 |
| WAIS Information† | 0.41\*\* | -0.01 | -0.01 | -0.04 | -0.57 |  | 0.32\* | -0.15 | 0.11 | 0.04 | -0.04 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Premorbid Verbal Intelligence** |  |  |  |  |  |  |  |  |  |  |  |
| WRAT Reading‡ | 0.37\*\* | -0.03 | -0.06 | 0.05 | -0.22 |  | 0.51 | -0.12 | -0.30 | -0.01 | 0.30 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Attention/Processing Speed** |  |  |  |  |  |  |  |  |  |  |  |
| WAIS Digit Span† | 0.20\*\* | 0.02 | 0.01 | -0.01 | -0.13\*\* |  | 0.17 | 0.0 | 0.25\* | -0.03 | -0.11 |
| WAIS DS Coding† | 0.25\*\* | 0.12\* | 0.08 | -0.04 | -0.11\* |  | 0.29\* | 0.07 | 0.30\*\* | -0.11 | -0.03 |
| TMT A☨ | 0.14\*\* | 0.05 | 0.02 | 0.02 | -0.10\* |  | 0.25\* | -0.01 | 0.37\*\* | 0.03 | -0.12 |
| Stroop Word☦ | 0.22\*\* | 0.14\*\* | 0.11\* | -0.10 | -0.04 |  | 0.11 | 0.27 | 0.35\* | 0.02 | 0.01 |
| Stroop Colour☦ | 0.16\*\* | 0.16\*\* | 0.02 | -0.06 | -0.13\* |  | <0.01 | 0.22 | -0.01 | -0.05 | 0.04 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Memory** |  |  |  |  |  |  |  |  |  |  |  |
| FCSRT Total Immediate Recall | 0.10\* | 0.05 | 0.04 | 0.11\* | -0.08 |  | 0.08 | 0.05 | 0.05 | -0.09 | -008 |
| FCSRT Delayed Recall | 0.02 | 0.03 | -0.01 | -0.04 | 0.03 |  | 0.12 | 0.19 | 0.20 | 0.02 | -0.28\* |
| WMS LM Immediate† | 0.17\*\* | -0.01 | -0.01 | 0.05 | -0.13\*\* |  | 0.15 | -0.18 | -0.18 | 0.07 | 0.01 |
| WMS LM Delayed† | 0.36\*\* | 0.01 | 0.04 | 0.07 | -0.12 |  | -0.01 | -0.26 | -0.44 | -0.04 | 0.44 |
| RBANS CF Recall☨ | 0.10 | 0.01 | -0.02 | 0.15\*\* | -0.16\*\* |  | -0.09 | -0.02 | 0.09 | 0.02 | 0.05 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Visuospatial** |  |  |  |  |  |  |  |  |  |  |  |
| RBANS CF Copy☨ | 0.14\*\* | 0.10 | -0.03 | 0.10 | -0.18\*\* |  | 0.27 | 0.06 | 0.09 | 0.35\* | -0.11 |
| WAIS BD† | 0.21\*\* | 0.08 | 0.03 | 0.04 | -0.19\*\* |  | 0.22 | -0.23 | 0.01 | -0.14 | 0.06 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Language** |  |  |  |  |  |  |  |  |  |  |  |
| Letter Fluency☨ | 0.33\*\* | 0.07 | 0.05 | -0.03 | -0.09 |  | 0.34\*\* | 0.04 | 0.26\* | -0.05 | 0.24\* |
| Category Fluency☨ | 0.32\*\* | 0.08 | 0.05 | <0.01 | -0.13\*\* |  | 0.22 | -0.06 | 0.05 | -0.04 | 0.10 |
| BNT | 0.30\*\* | 0.04 | 0.05 | 0.05 | -0.15\*\* |  | 0.21 | -0.13 | 0.10 | -0.11 | 0.04 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Executive Function** |  |  |  |  |  |  |  |  |  |  |  |
| TMT B☨ | 0.24\*\* | 0.08 | 0.01 | -0.04 | -0.11\* |  | 0.32\*\* | -0.20 | 0.27\* | 0.01 | -0.44 |
| Stroop CW☦ | 0.22\* | 0.08 | 0.02 | 0.04 | -0.12\* |  | 0.03 | -0.06 | -0.06 | -0.01 | 0.20 |

*Note.* CH=Cognitively Healthy; SCD=Subjective Cognitive Decline; O=Openness; C=Conscientiousness; E=Extraversion; A=Agreeableness; N=Neuroticism; WAIS=Wechsler Adult Intelligence Test; WRAT=Wide Range Achievement Test; DS=Digit Symbol; TMT=Trail Making Test; FCSRT=Free & Cued Selective Reminding Test; RBANS=Repeatable Battery for Neuropsychological Status; CF=Complex Figure; BD=Block Design; BNT Boston Naming Test; CW=Colour-Word.
†Scaled score; ‡Standard score; ☨z-score; ☦T-score
\**p* < 0.05; \*\**p* < 0.01