**Supplementary Material**

**Attrition Analysis**

In the ELSA, participants without IADL/ADL data at follow-up were older (*t*(8313) = 18.47, *p* < .001), less educated (*t*(8313) = -12.39, *p* < .001), less extraverted (*t*(8313) = -6.10, *p* < .001), open (*t*(8313) = -4.70, *p* < .001), conscientious (*t*(8110) = -7.70, *p* < .001), and they presented more IADL/ADL limitations (*χ*²(1, 8314) = 134.49, *p* < .001). No differences were observed for sex, race, neuroticism and agreeableness.

In the HRS, participants without IADL/ADL data at follow-up were older (*t*(4730) = 16.26, *p* < .001), more likely to be female (*χ*²(1, 4731) = 27.06, *p* < .001) and white (*χ*²(1, 4731) = 11.66, *p* < .001), and presented lower neuroticism (*t*(4730) = -3.36, *p* < .001), extraversion (*t*(4730) = -2.33, *p* < .05), openness (*t*(4730) = -4.96, *p* < .001), agreeableness (*t*(4730) = -3.01, *p* < .01), conscientiousness (*t*(4730) = -3.85, *p* < .001), and they presented more IADL/ADL limitations (*χ*²(1, 4731) = 12.40, *p* < .001). No difference was observed for education.

In the MIDUS, participants without IADL/ADL data at follow-up were less educated (*t*(6172) = -12.67, *p* < .001), more likely to be male (*χ*²(1, 6173) = 10.59, *p* < .01), less likely to be white (*χ*²(1, 6173) = 70.48, *p* < .001), presented higher neuroticism (*t*(6172) = 1.99, *p* < .05), higher agreeableness (*t*(6172) = 1.96, *p* < .05), lower conscientiousness (*t*(6172) = -6.83, *p* < .001), and they presented more IADL/ADL limitations (*χ*²(1, 6173) = 9.64, *p* < .01). No differences were found for age, extraversion and openness.

In the MIDJA, participants without IADL/ADL data at follow-up were less agreeable (*t*(999) = -2.50, *p* < .05) and conscientious (*t*(999) = -2.64, *p* < .01). No differences were observed for sex, education, extraversion, neuroticism, openness, and IADL/ADL limitations.

In the NHATS, participants without IADL/ADL data at follow-up were older (*t*(1027) = 6.30, *p* < .001), less educated (*t*(1027) = -2.70, *p* < .01), less likely to be white (*χ*²(1, 1028) = 4.45, *p* < .05) and less open (*t*(1027) = -2.99, *p* < .01). No differences were observed for sex, neuroticism, extraversion, agreeableness, conscientiousness, and IADL/ADL limitations.

In the NSHAP, participants without IADL/ADL data at follow-up were older (*t*(1936) = 13.80, *p* < .001), less educated (*t*(1936) = -7.25, *p* < .001), more likely to be male (*χ*²(1, 1937) = 26.33, *p* < .001), and presented lower extraversion (*t*(1936) = -4.27, *p* < .05), openness (*t*(1936) = -3.88, *p* < .001), agreeableness (*t*(1936) = -2.90, *p* < .01), conscientiousness (*t*(1936) = -6.10, *p* < .001), and more IADL/ADL limitations (*χ*²(1, 1937) = 54.74, *p* < .001). No differences were observed for race and neuroticism.

No follow-up analyses were conduct for WLSG and WLSS. **Supplementary Table S1.** Summary of IADL/ADL in Each Sample

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ELSA | HRS | MIDJA | MIDUS | NHATS | NSHAP | WLSG | WLSS |
| *IADL* |  |  |  |  |  |  |  |  |
| Groceries shopping | + | + | + | + | + | + | + | + |
| Preparing hot meal | + | + |  |  | + | + | + | + |
| Managing money | + | + |  |  | + | + | + | + |
| Making phone calls | + | + |  |  |  | + | + | + |
| Taking medication | + | + |  |  |  | + | + | + |
| Using map | + | + |  |  |  |  | + | + |
| Doing housework |  |  |  |  |  | + | + | + |
| Doing laundry |  |  |  |  | + |  |  |  |
| Climbing several flights of stairs |  |  | + | + |  |  |  |  |
| Doing moderate activities  (e.g., vacuuming) |  |  | + | + |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *ADL* |  |  |  |  |  |  |  |  |
| Dressing | + | + | + | + | + | + | + | + |
| Bathing | + | + | + | + | + | + | + | + |
| Eating | + | + |  |  | + | + | + | + |
| Using toilet | + | + |  |  |  | + | + | + |
| Getting in/out of bed | + | + |  |  |  | + | + | + |
| Walking in a room | + | + |  |  |  | + | + | + |
| Walking one block |  |  | + | + |  | + |  |  |

Note. (+) = IADL/ADL included in the cohort.

**Table S2.** Summary of Logistic Regression Analysis Predicting Baseline IADL Limitations from Baseline Personality Traits

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSAa | 1.50\*\*\*  (1.41-1.60) | 0.57\*\*\*  (0.54-0.61) | 0.75\*\*\*  (0.71-0.80) | 0.87\*\*\*  (0.82-0.92) | 0.59\*\*\*  (0.56-0.63) |
| HRSa | 1.61 \*\*\*  (1.52-1.71) | 0.71\*\*\*  (0.67-0.75) | 0.72\*\*\*  (0.68-0.77) | 0.88\*\*\*  (0.83-0.93) | 0.65\*\*\*  (0.62-0.69) |
| MIDJAb | 1.33\*\*\*  (1.13-1.57) | 0.84\*  (0.72-0.98) | 0.97  (0.83-1.13) | 0.82\*  (0.70-0.96) | 0.77\*\*  (0.65-0.90) |
| MIDUSa | 1.38\*\*\*  (1.30-1.46) | 0.83\*\*\*  (0.79-0.88) | 0.93\*  (0.88-0.98) | 0.98  (0.92-1.03) | 0.78\*\*\*  (0.74-0.83) |
| NHATSa | 1.57\*\*\*  (1.33-1.84) | 0.86  (0.74-1.00) | 1.02  (0.87-1.20) | 0.96  (0.82-1.13) | 0.71\*\*\*  (0.61-0.83) |
| NSHAPa | 1.49\*\*\*  (1.33-1.66) | 0.62\*\*\*  (0.56-0.69) | 0.76\*\*\*  (0.69-0.85) | 0.81\*\*\*  (0.72-0.90) | 0.61\*\*\*  (0.55-0.68) |
| WLSGb | 1.41\*\*\*  (1.29-1.54) | 0.75\*\*\*  (0.69-0.83) | 0.90  (0.82-1.00) | 0.87\*\*  (0.79-0.95) | 0.67\*\*\*  (0.62-0.74) |
| WLSSb | 1.28\*\*\*  (1.12-1.45) | 0.81\*\*  (0.71-0.93) | 0.85\*\*\*  (0.78-0.93) | 0.86\*\*\*  (0.82-0.89) | 0.68\*\*\*  (0.60-0.77) |
|  |  |  |  |  |  |
| Random effect | 1.45\*\*\*  (1.37-1.53) | 0.74\*\*\*  (0.66-0.83) | 0.88\*  (0.79-0.98) | 0.87\*\*\*  (0.82-0.92) | 0.68\*\*\*  (0.62-0.74) |
| Heterogeneity  τ2 | 0.004 | 0.025 | 0.020 | 0.004 | 0.012 |

Notes. Coefficients are standardized coefficients.

ELSA: N = 8,315; HRS: N = 10,223; MIDJA: N = 1,002; MIDUS: N = 6,174; NHATS: N =1,033; NSHAP: N = 1,943; WLSG: N = 3,622; WLSS: N = 1,927.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p< .001.

**Table S3.** Summary of Logistic Regression Analysis Predicting Baseline ADL Limitations from Baseline Personality Traits

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSAa | 1.39\*\*\*  (1.31-1.48) | 0.61\*\*\*  (0.57-0.65) | 0.81\*\*\*  (0.76-0.86) | 0.95  (0.89-1.01) | 0.64\*\*\*  (0.61-0.68) |
| HRSa | 1.32\*\*\*  (1.24-1.39) | 0.80\*\*\*  (0.75-0.84) | 0.94\*  (0.89-0.99) | 0.93\*  (0.88-0.98) | 0.79\*\*\*  (0.75-0.84) |
| MIDJAb | 1.31\*\*  (1.07-1.60) | 0.80\*  (0.66-0.97) | 0.79\*  (0.65-0.96) | 0.79\*  (0.66-.96) | 0.79\*  (0.65-0.96) |
| MIDUSa | 1.46\*\*\*  (1.35-1.58) | 0.81\*\*\*  (0.75-0.87) | 0.91\*  (0.85-0.98) | 0.96  (0.88-1.04) | 0.74\*\*\*  (0.69-0.80) |
| NHATSa | 1.46\*\*\*  (1.32-1.61) | 0.82\*\*\*  (0.75-0.91) | 0.94  (0.85-1.04) | 0.91  (0.83-1.01) | 0.72\*\*\*  (0.66-0.80) |
| NSHAPa | 1.32\*\*\*  (1.20-1.46) | 0.72\*\*\*  (0.65-0.79) | 0.87\*\*  (0.79-0.96) | 0.92  (0.84-1.02) | 0.70\*\*\*  (0.63-0.77) |
| WLSGb | 1.26\*\*\*  (1.13-1.41) | 0.73\*\*\*  (0.65-0.82) | 0.97  (0.86-1.10) | 0.81\*\*\*  (0.72-0.90) | 0.69\*\*\*  (0.62-0.77) |
| WLSSb | 1.49\*\*\*  (1.28-1.74) | 0.71\*\*\*  (0.61-0.83) | 0.95  (0.81-1.12) | 0.76\*\*\*  (0.66-0.88) | 0.70\*\*\*  (0.60-0.81) |
|  |  |  |  |  |  |
| Random effect | 1.37\*\*\*  (1.32-1.43) | 0.74\*\*\*  (0.68-0.82) | 0.90\*\*\*  (0.85-0.95) | 0.90\*\*\*  (0.86-0.94) | 0.72\*\*\*  (0.67-0.77) |
| Heterogeneity  τ2 | 0.001 | 0.014 | 0.003 | 0.002 | 0.005 |

Notes. Coefficients are standardized coefficients.

ELSA: N = 8,315; HRS: N = 6,499; MIDJA: N = 1,003; MIDUS: N = 6,174; NHATS: N =2,541; NSHAP: N = 2,057; WLSG: N = 3,885; WLSS: N = 2,092.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p< .001.

**Table S4.** Summary of Logistic Regression Analysis Predicting Incident ADL Limitations at Follow-Up from Baseline Personality Traits Entered Simultaneously

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSAa | 1.24\*\*\*  (1.13-1.37) | 0.76\*\*\*  (0.67-0.85) | 1.04  (0.92-1.17) | 1.25\*\*\*  (1.11-1.41) | 0.93  (0.84-1.03) |
| HRSa | 1.05  (0.95-1.15) | 0.95  (0.84-1.07) | 0.99  (0.88-1.11) | 1.08  (0.96-1.22) | 0.92  (0.82-1.02) |
| MIDJAb | 1.05  (0.77-1.43) | 0.75  (0.49-1.13) | 0.91  (0.61-1.35) | 1.98\*\*  (1.32-2.99) | 0.61\*\*  (0.43-0.86) |
| MIDUSa | 1.29\*\*\*  (1.16-1.43) | 0.97  (0.85-1.10) | 1.06  (0.94-1.19) | 1.13  (0.99-1.28) | 0.78\*\*\*  (0.71-0.87) |
| NHATSa | 1.27\*\*  (1.09-1.46) | 0.97  (0.83-1.14) | 1.09  (0.93-1.29) | 1.03  (0.88-1.21) | 0.83\*  (0.71-0.96) |
| NSHAPa | 1.05  (0.91-1.22) | 0.86  (0.71-1.05) | 0.91  (0.76-1.08) | 1.16  (0.95-1.40) | 0.93  (0.78-1.10) |

Notes. Coefficients are standardized coefficients.

ELSA: N = 5,167; HRS: N = 2,287; MIDJA: N = 563; MIDUS: N = 2,401; NHATS: N =1,433; NSHAP: N = 1,117.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p< .001.

**Table S5.** Summary of Logistic Regression Analysis Predicting Incident IADL Limitations at Follow-Up from Baseline Personality Traits Entered Simultaneously

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSAa | 1.14\*\*  (1.04-1.25) | 0.65\*\*\*  (0.58-0.73) | 0.99  (0.89-0.11) | 1.38\*\*\*  (1.24-1.55) | 0.84\*\*  (0.77-0.93) |
| HRSa | 1.24\*\*\*  (1.14-1.34) | 0.81\*\*\*  (0.74-0.90) | 0.93  (0.84-1.02) | 1.22\*\*\*  (1.10-1.35) | 0.80\*\*\*  (0.73-0.87) |
| MIDJAb | 1.26  (0.90-1.78) | 0.76  (0.47-1.25) | 1.27  (0.82-1.99) | 1.21  (0.74-1.97) | 0.86  (0.58-1.27) |
| MIDUSa | 1.23\*\*\*  (1.10-1.37) | 0.95  (0.83-1.08) | 0.97  (0.85-1.09) | 1.13  (0.99-1.28) | 0.77\*\*\*  (0.69-0.86) |
| NHATSa | 1.10  (0.85-1.43) | 1.02  (0.76-1.35) | 0.91  (0.69-1.21) | 1.47\*  (1.07-2.02) | 0.64\*\*\*  (0.50-0.82) |
| NSHAPa | 1.09  (0.3-1.28) | 1.02  (0.83-1.25) | 0.98  (0.81-1.19) | 1.01  (0.82-1.23) | 0.86  (0.72-1.02) |

Notes. Coefficients are standardized coefficients.

ELSA: N = 5,132; HRS: N = 5,784; MIDJA: N = 477; MIDUS: N = 1,702; NHATS: N =501; NSHAP: N = 1,080.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p< .001.

**Table S6.** Summary of Logistic Regression Analysis Predicting Incident IADL Limitations at Follow-Up from Baseline Personality Traits Controlling for the Influence of ADL Incidence

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSAa | 1.15\*\*  (1.03-1.27) | 0.71\*\*\*  (0.64-0.78) | 0.81\*\*\*  (0.73-0.90) | 0.96  (086-1.06) | 0.80\*\*\*  (0.73-0.88) |
| HRSa | 1.16\*  (1.01-1.34) | 0.77\*\*\*  (0.67-0.88) | 0.75\*\*\*  (0.66-0.87) | 0.90  (0.78-1.03) | 0.81\*\*  (0.72-0.93) |
| MIDJAb | 1.23  (0.90-1.69) | 0.79  (0.58-1.08) | 1.05  (077-1.43) | 0.87  (0.64-1.19) | 0.96  (0.70-1.32) |
| MIDUSa | 1.22\*  (1.08-1.38) | 0.90  (0.80-1.01) | 0.87\*  (0.77-0.97) | 0.99  (0.88-1.12) | 0.80\*\*\*  (0.71-0.90) |
| NHATSa | 1.20  (0.92-1.57) | 1.08  (0.83-1.40) | 0.90  (0.69-1.17) | 1.32  (0.98-1.78) | 0.70\*\*  (0.55-0.89) |
| NSHAPa | 1.11  (0.91-1.36) | 1.07  (0.88-1.30) | 1.01  (0.84-1.22) | 0.93  (0.76-1.14) | 0.82\*  (0.68-0.99) |

Notes. Coefficients are standardized coefficients.

ELSA: N = 4,799; HRS: N = 1,338; MIDJA: N = 477; MIDUS: N = 1,690; NHATS: N =501; NSHAP: N = 1,080.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p< .001.

**Supplementary Table S7.** Summary of Logistic Regression Analysis Predicting Baseline IADL/ADL Limitations from Baseline Personality Traits

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSA | 1.49\*\*\*  (1.41-1.57) | 0.58\*\*\*  (0.55-0.62) | 0.77\*\*\*  (0.73.-0.81) | 0.91\*\*  (0.86-0.96) | 0.61\*\*\*  (0.58-0.64) |
| HRS | 1.38\*\*\*  (1.30-1.47) | 0.76\*\*\*  (0.72-0.81) | 0.85\*\*\*  (0.80-0.91) | 0.92\*  (0.86-0.98) | 0.75\*\*\*  (0.71-0.80) |
| MIDJA | 1.39\*\*\*  (1.18-1.63) | 0.81\*\*  (0.70-0.95) | 0.95  (0.81-1.11) | 0.81\*\*  (0.69-0.94) | 0.76\*\*\*  (0.64-0.89) |
| MIDUS | 1.39\*\*\*  (1.32-1.48) | 0.82\*\*\*  (0.78-0.87) | 0.93\*  (0.88-0.98) | 0.97  (0.92-1.03) | 0.78\*\*\*  (0.74-0.82) |
| NHATS | 1.47\*\*\*  (1.27-1.71) | 0.90  (0.78-1.04) | 1.02  (0.88-1.19) | 0.95  (0.82-1.10) | 0.72\*\*\*  (0.62-0.83) |
| NSHAP | 1.39\*\*\*  (1.26-1.53) | 0.67\*\*\*  (0.60-0.74) | 0.83\*\*\*  (0.75-0.91) | 0.87\*\*  (0.78-0.96) | 0.65\*\*\*  (0.59-0.72) |
| WLSG | 1.35\*\*\*  (1.24-1.47) | 0.79\*\*\*  (0.71-0.85) | 0.93  (0.85-1.02) | 0.85\*\*\*  (0.78-0.92) | 0.69\*\*\*  (0.64-0.75) |
| WLSS | 1.34\*\*\*  (1.18-1.51) | 0.77\*\*\*  (0.68-0.87) | 1.09  (0.96-1.24) | 0.73\*\*\*  (0.65-0.83) | 0.66\*\*\*  (0.58-0.74) |
|  |  |  |  |  |  |
| Random effect | 1.41\*\*\*  (1.37-1.45) | 0.75\*\*\*  (0.67-0.84) | 0.91\*  (0.84-0.98) | 0.88\*\*\*  (0.83-0.93) | 0.70\*\*\*  (0.65-0.76) |
| Heterogeneity  τ2 | 0.000 | 0.022 | 0.009 | 0.004 | 0.010 |

Notes. Coefficients are standardized coefficients.

ELSA: N = 8,315; HRS: N = 4,732; MIDJA: N = 1,002; MIDUS: N = 6,174; NHATS: N = 1,029; NSHAP = 1,938; WLSG: N = 3,619; WLSS: N = 1,925.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p<.001.

**Supplementary Table S8.** Summary of Logistic Regression Analysis Predicting Incident IADL/ADL Limitations at Follow-Up from Baseline Personality Traits

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Neuroticism | Extraversion | Openness | Agreeableness | Conscientiousness |
| ELSA | 1.23\*\*\*  (1.13-1.34) | 0.73\*\*\*  (0.67-0.79) | 0.84\*\*\*  (0.77-0.91) | 0.98  (0.91-1.07) | 0.85\*\*\*  (0.79-0.92) |
| HRS | 1.16\*\*  (1.04-1.31) | 0.88\*  (0.78-0.98) | 0.88\*  (0.78-0.98) | 0.98  (0.97-1.10) | 0.86\*  (0.77-0.97) |
| MIDJA | 1.15  (0.90-1.48) | 0.92  (0.72-1.17) | 1.03  (0.81-1.32) | 1.12  (0.88-1.32) | 0.89  (0.69-1.14) |
| MIDUS | 1.26\*\*\*  (1.14-1.40) | 0.92  (0.83-1.01) | 0.90  (0.82-1.00) | 1.01  (0.91-1.12) | 0.76\*\*\*  (0.69-0.85) |
| NHATS | 1.21  (0.96-1.53) | 0.92  (0.74-1.16) | 0.89  (0.71-1.13) | 1.35\*  (1.03-1.76) | 0.73\*\*  (0.58-0.91) |
| NSHAP | 1.09  (0.93-1.26) | 0.94  (0.81-1.10) | 0.88  (0.76-1.02) | 0.94  (0.80-1.10) | 0.91  (0.79-1.06) |
|  |  |  |  |  |  |
| Random effect | 1.20\*\*\*  (1.14-1.27) | 0.87\*  (0.78-0.97) | 0.87\*\*\*  (0.83-0.92) | 1.01  (0.95-1.07) | 0.83\*\*\*  (0.79-0.88) |
| Heterogeneity  τ2 | 0.000 | 0.011 | 0.000 | 0.001 | 0.001 |

Notes. Coefficients are standardized coefficients.

ELSA: N = 4,799; HRS: N = 1,338; MIDJA: N = 477; MIDUS: N = 1,690; NHATS: N = 470; NSHAP: N = 909.

a Adjusted for age, sex, education, and race.

b Adjusted for age, sex, and education.

\* p<.05*,* \*\* p<.01, *\*\*\** p<.001.