

Supplementary material

Supplementary Table 1 CFA model fit evaluation (models without local dependence).

RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), CFI: close fit index ($CFI \geq 0.95$ indicates good fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data), MI: largest modification index. One line for each of the 16 strata.

| χ^2 | df | P | RMSEA | 95% CI | CFI | TLI | item pair | MI |
|----------|----|--------|-------|----------------|-------|-------|----------------|------|
| 120.9 | 35 | <.0001 | 0.111 | 0.090 to 0.133 | 0.951 | 0.937 | MDI4 and MDI5 | 24.3 |
| 115.6 | 35 | <.0001 | 0.108 | 0.086 to 0.130 | 0.945 | 0.929 | MDI4 and MDI5 | 37.7 |
| 91.8 | 35 | <.0001 | 0.090 | 0.068 to 0.113 | 0.966 | 0.956 | MDI2 and MDI3 | 20.2 |
| 58.1 | 35 | 0.0083 | 0.058 | 0.029 to 0.083 | 0.989 | 0.985 | MDI7 and MDI9 | 3.7 |
| 53.4 | 35 | 0.0240 | 0.051 | 0.019 to 0.078 | 0.983 | 0.979 | MDI6 and MDI10 | 5.7 |
| 82.4 | 35 | <.0001 | 0.082 | 0.060 to 0.106 | 0.984 | 0.979 | MDI4 and MDI5 | 8.5 |
| 91.8 | 35 | <.0001 | 0.090 | 0.068 to 0.113 | 0.972 | 0.964 | MDI2 and MDI3 | 19.6 |
| 91.1 | 35 | <.0001 | 0.090 | 0.067 to 0.113 | 0.983 | 0.979 | MDI1 and MDI6 | 11.3 |
| 34.2 | 35 | 0.5056 | 0.000 | 0.000 to 0.049 | 1.000 | 1.001 | MDI5 and MDI7 | 3.6 |
| 63.6 | 35 | 0.0022 | 0.064 | 0.038 to 0.089 | 0.985 | 0.981 | MDI1 and MDI3 | 6.0 |
| 52.6 | 35 | 0.0283 | 0.050 | 0.017 to 0.077 | 0.992 | 0.990 | MDI2 and MDI3 | 3.5 |
| 101.2 | 35 | <.0001 | 0.098 | 0.076 to 0.120 | 0.962 | 0.951 | MDI2 and MDI3 | 24.8 |
| 103.1 | 35 | <.0001 | 0.099 | 0.077 to 0.121 | 0.938 | 0.920 | MDI7 and MDI9 | 8.5 |
| 103.6 | 35 | <.0001 | 0.099 | 0.077 to 0.122 | 0.969 | 0.960 | MDI2 and MDI3 | 12.6 |
| 76.9 | 35 | <.0001 | 0.078 | 0.054 to 0.101 | 0.974 | 0.967 | MDI2 and MDI3 | 20.5 |
| 75.9 | 35 | <.0001 | 0.077 | 0.053 to 0.100 | 0.983 | 0.978 | MDI9 and MDI10 | 7.7 |

Supplementary Table 2 CFA bifactor model fit evaluation (models with local dependence). RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), CFI: close fit index ($CFI \geq 0.95$ indicates good fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data). One line for each of the 16 strata.

| χ^2 | df | P | RMSEA | 95% CI | CFI | TLI |
|----------|----|--------|-------|----------------|-------|-------|
| 86.5 | 33 | <.0001 | 0.090 | 0.067 to 0.114 | 0.969 | 0.958 |
| 49.9 | 33 | 0.0297 | 0.051 | 0.016 to 0.078 | 0.988 | 0.984 |
| 63.5 | 33 | 0.0011 | 0.068 | 0.042 to 0.093 | 0.982 | 0.975 |
| 53.3 | 33 | 0.0140 | 0.056 | 0.025 to 0.082 | 0.990 | 0.986 |
| 47.7 | 33 | 0.0468 | 0.047 | 0.006 to 0.075 | 0.987 | 0.982 |
| 67.0 | 33 | 0.0004 | 0.072 | 0.047 to 0.097 | 0.988 | 0.984 |
| 58.8 | 33 | 0.0037 | 0.063 | 0.035 to 0.088 | 0.987 | 0.983 |
| 75.2 | 33 | <.0001 | 0.080 | 0.056 to 0.104 | 0.987 | 0.983 |
| 31.2 | 33 | 0.5574 | 0.000 | 0.000 to 0.048 | 1.000 | 1.000 |
| 55.3 | 33 | 0.0088 | 0.058 | 0.029 to 0.084 | 0.989 | 0.984 |
| 43.0 | 33 | 0.1149 | 0.039 | 0.000 to 0.069 | 0.995 | 0.994 |
| 57.8 | 33 | 0.0048 | 0.061 | 0.034 to 0.087 | 0.986 | 0.981 |
| 90.5 | 33 | <.0001 | 0.094 | 0.071 to 0.117 | 0.947 | 0.928 |
| 78.1 | 33 | <.0001 | 0.083 | 0.059 to 0.107 | 0.979 | 0.972 |
| 49.8 | 33 | 0.0304 | 0.051 | 0.016 to 0.078 | 0.990 | 0.986 |
| 68.1 | 33 | 0.0003 | 0.073 | 0.048 to 0.098 | 0.985 | 0.980 |

Supplementary Table 3 Evaluation of measurement invariance across gender groups. RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data). We only report TLI, since the CFI is greater than the TLI whenever the CFI and TLI are less than one. The eight lines in the table correspond to the eight strata defined by age, education and chronic disease.

Configural invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|--------|-------|----------------|-------|
| 86.2 | 62 | 0.0230 | 0.044 | 0.017 to 0.065 | 0.987 |
| 53.9 | 62 | 0.7599 | 0.000 | 0.000 to 0.031 | 1.004 |
| 57.2 | 62 | 0.6476 | 0.000 | 0.000 to 0.037 | 1.002 |
| 57.5 | 62 | 0.6381 | 0.000 | 0.000 to 0.037 | 1.002 |
| 89.5 | 62 | 0.0128 | 0.047 | 0.023 to 0.068 | 0.976 |
| 63.1 | 62 | 0.4388 | 0.009 | 0.000 to 0.044 | 1.000 |
| 55.8 | 62 | 0.6959 | 0.000 | 0.000 to 0.034 | 1.003 |
| 62.1 | 62 | 0.4733 | 0.003 | 0.000 to 0.043 | 1.000 |

Metric invariance

| χ^2 | df | P | RMSEA | 95%CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 153.0 | 73 | < 0.0001 | 0.074 | 0.058 to 0.091 | 0.964 |
| 96.3 | 73 | 0.0351 | 0.040 | 0.011 to 0.060 | 0.989 |
| 144.2 | 73 | < 0.0001 | 0.070 | 0.053 to 0.087 | 0.968 |
| 121.3 | 73 | 0.0003 | 0.058 | 0.039 to 0.075 | 0.984 |
| 118.7 | 73 | 0.0006 | 0.056 | 0.037 to 0.074 | 0.966 |
| 115.3 | 73 | 0.0012 | 0.054 | 0.034 to 0.072 | 0.987 |
| 101.1 | 73 | 0.0164 | 0.044 | 0.020 to 0.064 | 0.989 |
| 130.6 | 73 | < 0.0001 | 0.063 | 0.045 to 0.080 | 0.984 |

Scalar invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 144.9 | 83 | < 0.0001 | 0.061 | 0.044 to 0.078 | 0.976 |
| 115.1 | 82 | 0.0094 | 0.045 | 0.023 to 0.063 | 0.987 |
| 140.9 | 83 | < 0.0001 | 0.059 | 0.042 to 0.076 | 0.977 |
| 117.0 | 83 | 0.0083 | 0.045 | 0.024 to 0.064 | 0.989 |
| 136.8 | 82 | 0.0001 | 0.058 | 0.040 to 0.075 | 0.964 |
| 140.6 | 83 | < 0.0001 | 0.059 | 0.042 to 0.076 | 0.984 |
| 111.8 | 82 | 0.0160 | 0.043 | 0.019 to 0.061 | 0.990 |
| 126.2 | 83 | 0.0016 | 0.051 | 0.032 to 0.068 | 0.989 |

Supplementary Table 4 Evaluation of measurement invariance across age groups. RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data). We only report TLI, since the CFI is greater than the TLI whenever the CFI and TLI are less than one. The eight lines in the table correspond to the eight strata defined by gender, education and chronic disease.

Configural invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|--------|-------|----------------|-------|
| 74.1 | 62 | 0.1405 | 0.031 | 0.000 to 0.055 | 0.992 |
| 51.3 | 62 | 0.8325 | 0.000 | 0.000 to 0.026 | 1.000 |
| 67.5 | 62 | 0.2945 | 0.021 | 0.000 to 0.049 | 0.997 |
| 51.4 | 62 | 0.8282 | 0.000 | 0.000 to 0.027 | 1.000 |
| 86.3 | 62 | 0.0223 | 0.044 | 0.018 to 0.065 | 0.984 |
| 65.5 | 62 | 0.3577 | 0.017 | 0.000 to 0.047 | 0.998 |
| 45.6 | 62 | 0.9418 | 0.000 | 0.000 to 0.009 | 1.000 |
| 65.5 | 62 | 0.3576 | 0.017 | 0.000 to 0.047 | 0.999 |

Metric invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 115.5 | 73 | 0.0011 | 0.054 | 0.034 to 0.072 | 0.976 |
| 86.0 | 73 | 0.1425 | 0.030 | 0.000 to 0.053 | 0.996 |
| 101.7 | 73 | 0.0147 | 0.044 | 0.021 to 0.064 | 0.989 |
| 96.2 | 73 | 0.0356 | 0.040 | 0.011 to 0.060 | 0.993 |
| 139.7 | 73 | < 0.0001 | 0.068 | 0.051 to 0.085 | 0.962 |
| 104.5 | 73 | 0.0092 | 0.047 | 0.024 to 0.066 | 0.987 |
| 102.9 | 73 | 0.0121 | 0.045 | 0.022 to 0.065 | 0.988 |
| 121.0 | 73 | 0.0004 | 0.058 | 0.039 to 0.075 | 0.983 |

Scalar invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 135.5 | 82 | 0.0002 | 0.057 | 0.039 to 0.074 | 0.974 |
| 101.6 | 82 | 0.0705 | 0.035 | 0.000 to 0.055 | 0.994 |
| 121.1 | 82 | 0.0032 | 0.049 | 0.029 to 0.067 | 0.986 |
| 120.1 | 82 | 0.0039 | 0.048 | 0.028 to 0.066 | 0.990 |
| 146.6 | 82 | < 0.0001 | 0.063 | 0.046 to 0.079 | 0.967 |
| 147.7 | 82 | < 0.0001 | 0.063 | 0.047 to 0.080 | 0.977 |
| 126.6 | 82 | 0.0011 | 0.052 | 0.033 to 0.070 | 0.985 |
| 126.5 | 82 | 0.0012 | 0.052 | 0.033 to 0.070 | 0.986 |

Supplementary Table 5 Evaluation of measurement invariance across education groups. RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data). We only report TLI, since the CFI is greater than the TLI whenever the CFI and TLI are less than one. The eight lines in the table correspond to the eight strata defined by gender, education and chronic disease.

Configural invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|--------|-------|----------------|-------|
| 86.4 | 62 | 0.0221 | 0.044 | 0.018 to 0.066 | 0.987 |
| 86.2 | 73 | 0.1386 | 0.030 | 0.000 to 0.053 | 0.995 |
| 55.2 | 62 | 0.7177 | 0.000 | 0.000 to 0.033 | 1.000 |
| 49.6 | 62 | 0.8713 | 0.000 | 0.000 to 0.023 | 1.000 |
| 37.1 | 62 | 0.9950 | 0.000 | 0.000 to 0.000 | 1.000 |
| 57.0 | 62 | 0.6573 | 0.000 | 0.000 to 0.036 | 1.000 |
| 94.8 | 62 | 0.0046 | 0.052 | 0.029 to 0.072 | 0.979 |
| 74.0 | 62 | 0.1421 | 0.031 | 0.000 to 0.055 | 0.995 |

Metric invariance

| χ^2 | df | P | RMSEA | 95%CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 126.5 | 73 | 0.0001 | 0.061 | 0.042 to 0.078 | 0.975 |
| 53.1 | 62 | 0.7831 | 0.000 | 0.000 to 0.030 | 1.000 |
| 90.7 | 73 | 0.0791 | 0.035 | 0.000 to 0.056 | 0.992 |
| 108.8 | 73 | 0.0042 | 0.050 | 0.028 to 0.068 | 0.990 |
| 70.7 | 73 | 0.5538 | 0.000 | 0.000 to 0.038 | 1.000 |
| 128.8 | 73 | < 0.0001 | 0.062 | 0.044 to 0.079 | 0.977 |
| 119.1 | 73 | 0.0005 | 0.056 | 0.037 to 0.074 | 0.975 |
| 153.6 | 73 | < 0.0001 | 0.075 | 0.058 to 0.091 | 0.973 |

Scalar invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 145.7 | 82 | < 0.0001 | 0.062 | 0.046 to 0.079 | 0.974 |
| 98.7 | 82 | 0.1016 | 0.032 | 0.000 to 0.053 | 0.994 |
| 106.0 | 82 | 0.0385 | 0.038 | 0.010 to 0.058 | 0.990 |
| 108.6 | 82 | 0.0262 | 0.040 | 0.015 to 0.060 | 0.994 |
| 80.7 | 82 | 0.5186 | 0.000 | 0.000 to 0.038 | 1.000 |
| 135.0 | 82 | 0.0002 | 0.057 | 0.039 to 0.074 | 0.980 |
| 146.8 | 82 | < 0.0001 | 0.063 | 0.046 to 0.079 | 0.969 |
| 157.0 | 82 | < 0.0001 | 0.068 | 0.052 to 0.084 | 0.978 |

Supplementary Table 6 Evaluation of measurement invariance across chronic disease groups. RMSEA: root mean square error of approximation ($RMSEA < 0.05$ indicates good fit to data, and $0.05 < RMSEA < 0.08$ indicates a satisfactory fit to data), TLI: Tucker-Lewis index ($TLI \geq 0.95$ indicates good fit to data). We only report TLI, since the CFI is greater than the TLI whenever the CFI and TLI are less than one. The eight lines in the table correspond to the eight strata defined by gender, education and chronic disease.

Configural invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|--------|-------|----------------|-------|
| 74.4 | 62 | 0.1351 | 0.032 | 0.000 to 0.056 | 0.993 |
| 65.1 | 62 | 0.3693 | 0.016 | 0.000 to 0.046 | 0.999 |
| 51.0 | 62 | 0.8402 | 0.000 | 0.000 to 0.026 | 1.000 |
| 53.9 | 62 | 0.7599 | 0.000 | 0.000 to 0.031 | 1.000 |
| 45.7 | 62 | 0.9398 | 0.000 | 0.000 to 0.010 | 1.000 |
| 48.3 | 62 | 0.8982 | 0.000 | 0.000 to 0.019 | 1.000 |
| 106.1 | 62 | 0.0004 | 0.060 | 0.040 to 0.079 | 0.976 |
| 62.7 | 62 | 0.4511 | 0.008 | 0.000 to 0.044 | 1.000 |

Metric invariance

| χ^2 | df | P | RMSEA | 95%CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 114.9 | 73 | 0.0013 | 0.054 | 0.034 to 0.072 | 0.981 |
| 116.3 | 73 | 0.0010 | 0.055 | 0.035 to 0.073 | 0.983 |
| 92.4 | 73 | 0.0624 | 0.037 | 0.000 to 0.058 | 0.992 |
| 94.0 | 73 | 0.0497 | 0.038 | 0.001 to 0.059 | 0.994 |
| 113.8 | 73 | 0.0016 | 0.053 | 0.033 to 0.071 | 0.981 |
| 94.4 | 73 | 0.0471 | 0.038 | 0.005 to 0.059 | 0.992 |
| 145.6 | 73 | < 0.0001 | 0.071 | 0.054 to 0.087 | 0.966 |
| 120.2 | 73 | 0.0004 | 0.057 | 0.038 to 0.075 | 0.983 |

Scalar invariance

| χ^2 | df | P | RMSEA | 95% CI | TLI |
|----------|----|----------|-------|----------------|-------|
| 136.5 | 82 | 0.0001 | 0.058 | 0.040 to 0.075 | 0.978 |
| 120.8 | 82 | 0.0034 | 0.049 | 0.029 to 0.067 | 0.987 |
| 106.6 | 82 | 0.0351 | 0.039 | 0.011 to 0.058 | 0.991 |
| 110.8 | 82 | 0.0189 | 0.042 | 0.018 to 0.061 | 0.992 |
| 112.9 | 82 | 0.0134 | 0.044 | 0.021 to 0.062 | 0.987 |
| 104.9 | 82 | 0.0447 | 0.037 | 0.006 to 0.057 | 0.993 |
| 179.9 | 82 | < 0.0001 | 0.077 | 0.062 to 0.093 | 0.959 |
| 121.2 | 82 | 0.0032 | 0.049 | 0.029 to 0.067 | 0.987 |