Supplementary material

**SM1. Prevalence of the different models of active ageing by country.**

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| **Variables within the models** | **Poland**  **n= 2910** | | **Spain**  **n= 3625** | | **Finland**  **n= 1452** | | **p value for difference among countries** | **Complete**  **n= 7987** | |
| **Prevalence of AA a** | n | % | n | % | n | % |  | n | % |
|  |  |  |  |  |  |  |  |  |  |
| Rowe & Kahn’s model | 112 | 3.2 | 303 | 9.3 | 182 | 8.7 | 0.000 | 597 | 7.7 |
| Biomedical model | 73 | 2.7 | 165 | 4.8 | 66 | 4.8 | 0.009 | 304 | 4.0 |
| Psychosocial model | 148 | 4.9 | 561 | 16.9 | 223 | 16.3 | 0.000 | 932 | 12.3 |
| Complete model | 3 | 0.0 | 12 | 0.5 | 8 | 0.7 | 0.009 | 23 | 0.4 |

a. The different models in this table were operationalised as dichotomous variables. Participants scored 1 if they reached all criteria for each of the models described in figure 1 (active agers). Those who did not fulfil all criteria were deemed non-active agers, scoring 0.

**SM2. Multiple linear regression showing associations with the different models of active ageing [coefficient, 95% confidence interval (95% CI)] by country.**

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| --- | --- | --- | --- |
|  | Rowe and Kahn’s model a, b | | |
|  | Poland  Range (0-5)  Mean (2.3), 95%CI (2.2; 2.4) | Spain  Range (0-5)  Mean (2.7), 95%CI (2.6; 2.8) | Finland  Range (0-5)  Mean (3.3), 95%CI (3.2; 3.3) |
|  | Coefficient  (95% CI) | Coefficient  (95% CI) | Coefficient  (95% CI) |
| Gender |  |  |  |
| Women (ref) | - | - | - |
| Men | -0.03 (-0.16; 0.95) | 0.23 (0.11; 0.36)\* | -0.04 (-0.14; 0.05) |
| Age | -0.04 (-0.05; -0.03)\* | -0.04 (-0.05; -0.04)\* | -0.04 (-0.04; -0.03)\* |
| Highest education level completed |  |  |  |
| College /  university/postgraduate  (ref) | - | - | - |
| High school | -0.22 (-0.37; -0.06)\* | -0.26 (-0.47; -0.05)\* | 0.03 (-0.17; 0.22) |
| Secondary school | -0.19 (-0.39; 0.01) | -0.32 (-0.55; -0.08)\* | -0.00 (-0.19; 0.18) |
| Primary school | -0.29(-0.50; -0.09)\* | -0.25 (-0.48; -0.02)\* | -0.03 (-0.26; 0.20) |
| Never/incomplete  primary school | -0.31 (-0.67; 0.04) | -0.53 (-0.73; -0.34)\* | 0.10 (-0.35; 0.55) |
| Occupation c |  |  |  |
| Skill level 1 (ref) | - | - | - |
| Skill level 2 | 0.06 (-0.14; 0.27) | 0.25 (0.10; 0.39)\* | -0.03 (-0.16; 0.10) |
| Skill level 3 | 0.22 (-0.02; 0.46) | 0.22 (-0.01; 0.45) | 0.17 (-0.02; 0.37) |
| Never worked | 0.29 (-0.03; 0.61) | -0.00 (-0.18; 0.18) | -0.36 (-0.72; 0.01) |
| Marital status |  |  |  |
| Married or in partnership  (ref) | - | - | - |
| Widowed | -0.13 (-0.28; 0.03) | -0.12 (-0.30; 0.05) | -0.12 (-0.32; 0.07) |
| Separated/divorced | -0.27 (-0.56; 0.02) | -0.01 (-0.19; 0.17) | -0.26 (-0.49; -0.03)\* |
| Never married | -0.22 (-0.46; 0.02) | 0.02 (-0.15; 0.20) | -0.23 (-0.42; -0.04)\* |
| Urbanicity |  |  |  |
| Rural (ref) | - | - | - |
| Urban | -0.00 (-0.15; 0.15) | 0.15 (-0.02; 0.32) | 0.10 (-0.08; 0.27) |
| Adjusted R-squared | 0.195 | 0.209 | 0.148 |

a. Adjusted for gender, age, education, occupation, marital status and urbanicity

b. Higher values indicate more active ageing.

c. ISCO 08 categories were categorised into 3 levels according to their skill level. Skill level 3 corresponds to technicians, and associate professionals, professionals and managers. Skill level 2 corresponds to occupations between plant and machine operators and assemblers and clerical support workers. Skill level 1 corresponds to elementary occupations.

\* p<0.05

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| --- | --- | --- | --- |
|  | Biomedical model a, b | | |
|  | Poland  Range (0-7)  Mean (4.1), 95%CI (4.0; 4.1) | Spain  Range (0-7)  Mean (4.4), 95%CI (4.3; 4.5) | Finland  Range (0-7)  Mean (4.7), 95%CI (4.6; 4.8) |
|  | Coefficient  (95% CI) | Coefficient  (95% CI) | Coefficient  (95% CI) |
| Gender |  |  |  |
| Women (ref) | - | - | - |
| Men | -0.43 (-0.59; -0.27)\* | -0.16 (-0.28; -0.04)\* | -0.26 (-0.42; -0.10)\* |
| Age | -0.03 (-0.03; -0.02)\* | -0.02 (-0.03; -0.02)\* | -0.01 (-0.02; -0.00)\* |
| Highest education level completed |  |  |  |
| College /  university/postgraduate  (ref) | - | - | - |
| High school | -0.07 (-0.24; 0.10) | -0.04 (-0.32; 0.22) | 0.04 (-0.15; 0.22) |
| Secondary school | -0.12 (-0.35; 0.12) | 0.03 (-0.31; 0.36) | 0.03 (-0.09; 0.15) |
| Primary school | -0.29(-0.57; -0.01)\* | 0.12 (-0.17; 0.42) | -0.11 (-0.44; 0.21) |
| Never/incomplete  primary school | -0.33 (-0.66; 0.01) | -0.20 (-0.43; 0.03) | -0.13 (-0.87; 0.61) |
| Occupation c |  |  |  |
| Skill level 1 (ref) | - | - | - |
| Skill level 2 | -0.07 (-0.25; 0.10) | 0.19 (0.04; 0.34)\* | -0.13 (-0.30; 0.04) |
| Skill level 3 | -0.07 (-0.32; 0.18) | 0.25 (0.03; 0.47)\* | -0.03 (-0.36; 0.29) |
| Never worked | 0.23 (-0.06; 0.51) | 0.09 (-0.11; 0.28) | -0.39 (-0.75; -0.04)\* |
| Marital status |  |  |  |
| Married or in partnership  (ref) | - | - | - |
| Widowed | -0.29 (-0.45; -0.13)\* | -0.20 (-0.38; -0.02)\* | -0.22 (-0.50-; 0.05) |
| Separated/divorced | -0.45 (-0.75; -0.15)\* | -0.25 (-0.55; 0.05) | -0.43 (-0.64; -0.22)\* |
| Never married | 0.23 (-0.50; 0.03) | 0.08 (-0.10; 0.26) | -0.30 (-0.49; -0.10)\* |
| Urbanicity |  |  |  |
| Rural (ref) | - | - | - |
| Urban | 0.04 (-0.11; 0.19) | 0.26 (0.08; 0.45)\* | 0.07 (-0.12; 0.26) |
| Adjusted R-squared | 0.123 | 0.075 | 0.049 |

a. Adjusted for gender, age, education, occupation, marital status and urbanicity

b. Higher values indicate more active ageing.

c. ISCO 08 categories were categorised into 3 levels according to their skill level. Skill level 3 corresponds to technicians, and associate professionals, professionals and managers. Skill level 2 corresponds to occupations between plant and machine operators and assemblers and clerical support workers. Skill level 1 corresponds to elementary occupations.

\* p<0.05

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| --- | --- | --- | --- |
|  | Psychosocial model a, b | | |
|  | Poland  Range (0-6)  Mean (3.2), 95%CI (3.1; 3.3) | Spain  Range (0-6)  Mean (4.0), 95%CI (3.9; 4.2) | Finland  Range (0-6)  Mean (4.5), 95%CI (4.4; 4.6) |
|  | Coefficient  (95% CI) | Coefficient  (95% CI) | Coefficient  (95% CI) |
| Gender |  |  |  |
| Women (ref) | - | - | - |
| Men | -0.07 (-0.24; 0.11) | 0.21 (0.06; 0.35)\* | 0.01 (-0.07; 0.09) |
| Age | -0.01 (-0.02; -0.00)\* | 0.00 (-0.00; 0.01) | -0.01 (-0.02; -0.00)\* |
| Highest education level completed |  |  |  |
| College /  university/postgraduate  (ref) | - | - | - |
| High school | -0.17 (-0.41; 0.07) | -0.31 (-0.55; -0.08)\* | -0.03 (-0.20; 0.13) |
| Secondary school | -0.01 (-0.29; 0.28) | -0.49 (-0.75; -0.23)\* | -0.12 (-0.34; 0.11) |
| Primary school | -0.33(-0.65; -0.02)\* | -0.44 (-0.74; -0.14)\* | -0.30 (-0.55; -0.04)\* |
| Never/incomplete  primary school | -0.78 (-1.39; -0.18)\* | -0.79 (-1.14; -0.45)\* | -0.20 (-0.87; 0.48) |
| Occupation c |  |  |  |
| Skill level 1 (ref) | - | - | - |
| Skill level 2 | 0.32 (0.04; 0.59)\* | 0.14 (-0.04; 0.33) | 0.22 (-0.07; 0.52) |
| Skill level 3 | 0.69 (0.37; 1.00)\* | 0.17 (-0.16; 0.50) | 0.45 (0.17; 0.73)\* |
| Never worked | 0.11 (-0.29; 0.52) | 0.13 (-0.09; 0.35) | -0.14 (-0.60; 0.31) |
| Marital status |  |  |  |
| Married or in partnership  (ref) | - | - | - |
| Widowed | -0.16 (-0.40; 0.07) | -0.15 (-0.32; 0.02) | -0.18 (-0.52; 0.16) |
| Separated/divorced | -0.55 (-0.83; -0.26)\* | -0.51 (-0.77; -0.26)\* | -0.25 (-0.46; -0.03)\* |
| Never married | -0.54 (-0.79; -0.29)\* | -0.22 (-0.45; 0.02) | -0.38 (-0.64; -0.12)\* |
| Urbanicity |  |  |  |
| Rural (ref) | - | - | - |
| Urban | -0.14 (-0.31; 0.03) | -0.00 (-0.24; 0.23) | 0.03 (-0.09; 0.14) |
| Adjusted R-squared | 0.083 | 0.052 | 0.073 |

a. Adjusted for gender, age, education, occupation, marital status and urbanicity

b. Higher values indicate more active ageing.

c. ISCO 08 categories were categorised into 3 levels according to their skill level. Skill level 3 corresponds to technicians, and associate professionals, professionals and managers. Skill level 2 corresponds to occupations between plant and machine operators and assemblers and clerical support workers. Skill level 1 corresponds to elementary occupations.

\* p<0.05

**SM3. Sensitivity analysis: Simple logistic regression showing associations [Odds Ratio, 95% confidence interval (95% CI)] with correlates of the samples with and without participants who were not able to respond due to cognitive problems, using Rowe and Kahn’s biomedical model.**

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| --- | --- | --- |
|  | Sample without participants with cognitive problems a  n (7987) | Sample with participants with cognitive problems a  n (8311) |
|  | OR  (95% CI) | OR  (95% CI) |
| Country |  |  |
| Poland (ref) | - | - |
| Spain | 3.12 (2.16; 4.50)\* | 3.01 (2.26; 4.03)\* |
| Finland | 4.66 (3.36; 6.47)\* | 4.96 (3.68; 6.67)\* |
| Gender |  |  |
| Women (ref) | - | - |
| Men | 1.30 (1.08; 1.56)\* | 1.31 (1.08; 1.60)\* |
| Age | 0.92 (0.91; 0.93)\* | 0.92 (0.91; 0.93)\* |
| Highest education level completed |  |  |
| College /  university/postgraduate (ref) | - | - |
| High school | 0.71 (0.54; 0.94)\* | 0.69 (0.54; 0.89)\* |
| Secondary school | 0.42(0.31; 0.59)\* | 0.40 (0.30; 0.55)\* |
| Primary school | 0.47 (0.32; 0.68)\* | 0.45 (0.33; 0.62)\* |
| Never/incomplete primary  school | 0.34 (0.23; 0.50)\* | 0.31 (0.22; 0.44)\* |
| Occupation (ISCO 08) b |  |  |
| Skill level 1 (ref) | - | - |
| Skill level 2 | 1.22 (0.86; 1.73) | 1.26 (0.91; 1.74) |
| Skill level 3 | 1.61 (1.07; 2.43)\* | 1.70 (1.23; 2.36)\* |
| Never worked | 0.40 (0.19; 0.84)\* | 0.45 (0.21; 0.96)\* |
| Marital status |  |  |
| Married or in partnership (ref) | - | - |
| Widowed | 0.37 (0.20; 0.38)\* | 0.28 (0.20; 0.39)\* |
| Separated/divorced | 1.33 (0.99; 1.80) | 1.29 (0.94; 1.76) |
| Never married | 0.94 (0.64; 1.39) | 0.87 (0.63; 1.21) |
| Urbanicity |  |  |
| Rural (ref) | - | - |
| Urban | 1.06 (0.77; 1.46) | 1.08 (0.85; 1.36) |

a. OR for actively ageing.

b. ISCO 08 categories were categorised into 3 levels according to their skill level. Skill level 3 corresponds to technicians, and associate professionals, professionals and managers. Skill level 2 corresponds to occupations between plant and machine operators and assemblers and clerical support workers. Skill level 1 corresponds to elementary occupations.

\* p<0.05