**Supplementary Material for the Manuscript “Wishing for an end?: Longitudinal analysis of suicidal ideation among informal caregivers inside and outside their household in different welfare systems of Europe”**

**Full tables of the regression analyses**

**Table A1**

Results of Fixed Effects Regression analyses with informal caregiving inside the household as main predictor

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VARIABLES | Main model (caregiving yes/no) | Moderator model (gender) | Moderator model (age) | Model caregiving relationship | Model Southern welfare system | Model Bismarckian welfare system | Model Scandinavian welfare system1 | Moderator models (welfare system) 1 |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Caregiving inside the household (ref. No caregiving) | 1.36\*\*\* | 1.56\*\*\* | 1.79 |  | 1.53\*\*\* | 1.24\* | 1.56 | 1.58 | 1.25\* |
|  | (1.18 - 1.58) | (1.23 - 1.99) | (0.73 - 4.43) |  | (1.22 - 1.91) | (1.02 - 1.51) | (0.85 - 2.87) | (0.86 - 2.90) | (1.02 - 1.51) |
| Caregiving inside the household – relationship (ref. No caregiving) |  |  |  |  |  |  |  |  |  |
| * Caregiving for (ex-)partner
 |  |  |  | 1.36\*\*\* |  |  |  |  |  |
|  |  |  |  | (1.15 - 1.62) |  |  |  |  |  |
| * Caregiving for step-/parents/-in-law
 |  |  |  | 1.67\* |  |  |  |  |  |
|  |  |  |  | (1.11 - 2.50) |  |  |  |  |  |
| * Caregiving for other relatives
 |  |  |  | 1.06 |  |  |  |  |  |
|  |  |  |  | (0.71 - 1.60) |  |  |  |  |  |
| * Caregiving for non-relatives (e.g. friends)
 |  |  |  | 2.00 |  |  |  |  |  |
|  |  |  |  | (0.42 - 9.43) |  |  |  |  |  |
| Age at interview (in years) | 1.02\*\* | 1.02\*\* | 1.02\*\* | 1.02\*\* | 0.98 | 1.04\*\*\* | 1.04 | 1.02\*\* | 1.02\*\* |
|  | (1.01 - 1.03) | (1.01 - 1.03) | (1.01 - 1.03) | (1.01 - 1.03) | (0.96 - 1.00) | (1.02 - 1.06) | (0.99 - 1.09) | (1.01 - 1.03) | (1.01 - 1.03) |
| Caregiving inside the household (ref. No) x Age at interview (in years) |  |  | 1.00 |  |  |  |  |  |  |
|  |  |  | (0.98 - 1.01) |  |  |  |  |  |  |
| Gender (ref. male)  |  | [omitted] |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Gender (ref. male) |  | 0.81 |  |  |  |  |  |  |  |
|  |  | (0.60 - 1.09) |  |  |  |  |  |  |  |
| Welfare system  |  |  |  |  |  |  |  | [omitted] | [omitted] |
| * Southern welfare system
 |  |  |  |  |  |  |  | [omitted] |  |
| * Bismarckian welfare system
 |  |  |  |  |  |  |  |  |  |
| * Scandinavian welfare system
 |  |  |  |  |  |  |  |  | [omitted] |
|  |  |  |  |  |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Southern welfare system (ref. Scandinavian welfare system) |  |  |  |  |  |  |  | 0.94 |  |
|  |  |  |  |  |  |  |  | (0.49 - 1.80) |  |
| Caregiving inside the household (ref. No) x Bismarckian welfare system (ref. Scandinavian welfare system) |  |  |  |  |  |  |  | 0.79 |  |
|  |  |  |  |  |  |  |  | (0.42 - 1.48) |  |
|  |  |  |  |  |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Southern welfare system (ref. Bismarckian welfare system) |  |  |  |  |  |  |  |  | 1.20 |
|  |  |  |  |  |  |  |  |  | (0.89 - 1.61) |
| Caregiving inside the household (ref. No) x Scandinavian welfare system (ref. Bismarckian welfare system) |  |  |  |  |  |  |  |  | 1.27 |
|  |  |  |  |  |  |  |  |  | (0.67 - 2.40) |
| Marital status (ref. married, living together with spouse) |  |  |  |  |  |  |  |  |  |
| * Registered partnership
 | 2.23 | 2.22 | 2.25 | 2.34 | 5.98 | 3.00 |  |  |  |
|  | (0.77 - 6.49) | (0.76 - 6.47) | (0.77 - 6.52) | (0.80 - 6.81) | (0.62 - 57.75) | (0.68 - 13.30) |  |  |  |
| * Married, living separated from spouse
 | 0.57 | 0.56 | 0.57 | 0.66 | 0.98 | 0.44 |  |  |  |
|  | (0.18 - 1.78) | (0.18 - 1.77) | (0.18 - 1.78) | (0.20 - 2.15) | (0.13 - 7.49) | (0.10 - 1.86) |  |  |  |
| * Never married
 | 1.33 | 1.37 | 1.34 | 1.33 | - | 1.38 |  |  |  |
|  | (0.18 - 9.62) | (0.19 - 9.95) | (0.18 - 9.66) | (0.18 - 9.60) |  | (0.19 - 9.93) |  |  |  |
| * Divorced
 | 0.99 | 1.00 | 0.99 | 1.10 | 7.20+ | 0.82 |  |  |  |
|  | (0.43 - 2.29) | (0.43 - 2.31) | (0.43 - 2.29) | (0.47 - 2.60) | (0.71 - 72.66) | (0.28 - 2.42) |  |  |  |
| * Widowed
 | 2.02\*\* | 2.02\*\* | 2.02\*\* | 2.22\*\*\* | 1.83\* | 3.36\*\* |  |  |  |
|  | (1.29 - 3.17) | (1.29 - 3.17) | (1.29 - 3.16) | (1.40 - 3.53) | (1.03 - 3.25) | (1.50 - 7.55) |  |  |  |
| Marital status – married or registered relationship (ref. not married, divorced or widowed) 1 |  |  |  |  |  |  | 0.55 | 1.68\*\* | 1.68\*\* |
|  |  |  |  |  |  |  | (0.09 - 3.26) | (1.15 - 2.46) | (1.15 - 2.46) |
| Current employment status (Ref. retired) |  |  |  |  |  |  |  |  |  |
| * Employed or self-employed
 | 0.96 | 0.95 | 0.96 | 0.95 | 0.81 | 1.13 |  |  |  |
|  | (0.78 - 1.17) | (0.78 - 1.17) | (0.78 - 1.17) | (0.78 - 1.17) | (0.54 - 1.21) | (0.87 - 1.45) |  |  |  |
| * Unemployed
 | 1.24 | 1.24 | 1.25 | 1.22 | 0.98 | 1.43+ |  |  |  |
|  | (0.94 - 1.65) | (0.93 - 1.65) | (0.94 - 1.66) | (0.92 - 1.63) | (0.59 - 1.62) | (0.99 - 2.06) |  |  |  |
| * Permanently sick or disabled
 | 1.23+ | 1.23+ | 1.23+ | 1.24+ | 1.14 | 1.47\* |  |  |  |
|  | (0.97 - 1.56) | (0.97 - 1.56) | (0.97 - 1.56) | (0.98 - 1.58) | (0.79 - 1.63) | (1.04 - 2.09) |  |  |  |
| * Homemaker
 | 1.14 | 1.14 | 1.14 | 1.15 | 1.10 | 1.20 |  |  |  |
|  | (0.94 - 1.38) | (0.94 - 1.38) | (0.94 - 1.38) | (0.95 - 1.40) | (0.82 - 1.47) | (0.92 - 1.56) |  |  |  |
| * Other
 | 1.06 | 1.06 | 1.06 | 1.07 | 1.01 | 1.34 |  |  |  |
|  | (0.73 - 1.53) | (0.73 - 1.52) | (0.73 - 1.53) | (0.74 - 1.56) | (0.55 - 1.85) | (0.81 - 2.21) |  |  |  |
| Employment status (ref. retired) 1 |  |  |  |  |  |  |  |  |  |
| * Employed
 |  |  |  |  |  |  | 0.80 | 0.95 | 0.95 |
|  |  |  |  |  |  |  | (0.41 - 1.58) | (0.78 - 1.16) | (0.78 - 1.16) |
| * Unemployed
 |  |  |  |  |  |  | 1.03 | 1.18\* | 1.18\* |
|  |  |  |  |  |  |  | (0.53 - 2.02) | (1.01 - 1.37) | (1.01 - 1.37) |
| Self-perceived health  | 1.60\*\*\* | 1.60\*\*\* | 1.60\*\*\* | 1.61\*\*\* | 1.53\*\*\* | 1.64\*\*\* | 1.55\*\*\* | 1.60\*\*\* | 1.60\*\*\* |
|  | (1.51 - 1.70) | (1.50 - 1.70) | (1.50 - 1.70) | (1.51 - 1.71) | (1.38 - 1.70) | (1.51 - 1.78) | (1.26 - 1.90) | (1.50 - 1.70) | (1.50 - 1.70) |
| Number of chronic diseases  | 1.11\*\*\* | 1.11\*\*\* | 1.11\*\*\* | 1.11\*\*\* | 1.14\*\*\* | 1.09\*\* | 1.08 | 1.11\*\*\* | 1.11\*\*\* |
|  | (1.06 - 1.16) | (1.06 - 1.16) | (1.06 - 1.16) | (1.06 - 1.16) | (1.06 - 1.23) | (1.03 - 1.17) | (0.90 - 1.28) | (1.06 - 1.16) | (1.06 - 1.16) |
| Observations | 11,933 | 11,933 | 11,933 | 11,742 | 3,863 | 7,086 | 984 | 11,933 | 11,933 |
| N | 3,828 | 3,828 | 3,828 | 3,786 | 1,206 | 2,300 | 322 | 3,828 | 3,828 |

*Note*. Odds ratio and 95% confidence intervals are provided in the table. Main effects of gender and welfare systems were omitted due to lack of transitions. Levels of significance: \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

1 Model 7,8 and 9 included a dichotomized variable of marital (married or in a registered relationship vs. not married, widowed or divorced) and a trichotomized variable of employment status (retired, employed or unemployed) to account for the small sample and the low number of transitions in the Scandinavian welfare system.

**Table A2**

Results of Fixed Effects Regression analyses with informal caregiving outside the household as main predictor

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VARIABLES | Main model II (caregiving yes/no) | Moderator model (gender) | Moderator model (age) | Model (Caregiving relationship) | Model (Southern welfare system) | Model (Bismarckian welfare system)  | Model (Scandinavian welfare system) 1 | Moderator model (welfare system)1 |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Caregiving outside the household (ref. No) | 1.09+ | 0.95 | 2.16\* |  | 1.32\* | 1.06 | 0.98 | 1.39\*\* | 1.03 |
|  | (0.99 - 1.20) | (0.80 - 1.12) | (1.18 - 3.97) |  | (1.07 - 1.64) | (0.94 - 1.18) | (0.76 - 1.27) | (1.12 - 1.73) | (0.92 - 1.16) |
| Caregiving outside the household – relationship (ref. No caregiving) |  |  |  |  |  |  |  |  |  |
| Caregiving for (ex-)partner |  |  |  | 1.11 |  |  |  |  |  |
|  |  |  |  | (0.75 - 1.64) |  |  |  |  |  |
| Caregiving for step-/parents/-in-law |  |  |  | 1.16 |  |  |  |  |  |
|  |  |  |  | (0.97 - 1.40) |  |  |  |  |  |
| Caregiving for other relatives |  |  |  | 0.97 |  |  |  |  |  |
|  |  |  |  | (0.85 - 1.12) |  |  |  |  |  |
| Caregiving for non-relatives (e.g. friends) |  |  |  | 1.16\* |  |  |  |  |  |
|  |  |  |  | (1.02 - 1.31) |  |  |  |  |  |
| Welfare system  |  |  |  |  |  |  |  |  |  |
| * Southern welfare system
 |  |  |  |  |  |  |  |  | [omitted] |
| * Bismarckian welfare system
 |  |  |  |  |  |  |  | [omitted] |  |
| * Scandinavian welfare system
 |  |  |  |  |  |  |  | [omitted] | [omitted] |
| Caregiving inside the household (ref. No) x Bismarckian welfare system (ref. Southern welfare system) |  |  |  |  |  |  |  | 0.74\* |  |
|  |  |  |  |  |  |  |  | (0.58 - 0.95) |  |
| Caregiving inside the household (ref. No) x Scandinavian welfare system (ref. Southern welfare system) |  |  |  |  |  |  |  | 0.70\* |  |
|  |  |  |  |  |  |  |  | (0.50 - 0.98) |  |
| Caregiving inside the household (ref. No) x Southern (ref. Bismarckian welfare system) |  |  |  |  |  |  |  |  | 1.35\* |
|  |  |  |  |  |  |  |  |  | (1.06 - 1.72) |
| Caregiving inside the household (ref. No) x Scandinavian (ref. Bismarckian welfare system) |  |  |  |  |  |  |  |  | 0.95 |
|  |  |  |  |  |  |  |  |  | (0.72 - 1.25) |
| Gender (ref. male) |  | [omitted] |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Caregiving outside the household (ref. no) x gender (ref. male) |  | 1.23\* |  |  |  |  |  |  |  |
|  |  | (1.00 - 1.50) |  |  |  |  |  |  |  |
| Age at interview (in years) | 1.01\* | 1.01\* | 1.02\*\* | 1.01\* | 0.99 | 1.03\*\*\* | 1.02 | 1.02\*\* | 1.02\*\* |
|  | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (0.97 - 1.01) | (1.01 - 1.04) | (0.99 - 1.06) | (1.00 - 1.03) | (1.00 - 1.03) |
| Caregiving outside the household (ref. no) x Age at interview  |  |  | 0.99\* |  |  |  |  |  |  |
|  |  |  | (0.98 - 1.00) |  |  |  |  |  |  |
| Marital status (ref. married, living together with spouse) |  |  |  |  |  |  |  |  |  |
| * Registered partnership
 | 0.92 | 0.93 | 0.92 | 0.91 | 0.46 | 1.20 |  |  |  |
|  | (0.34 - 2.45) | (0.35 - 2.48) | (0.34 - 2.44) | (0.34 - 2.43) | (0.08 - 2.57) | (0.30 - 4.76) |  |  |  |
| * Married, living separated from spouse
 | 1.19 | 1.21 | 1.18 | 1.18 | 0.81 | 1.79 |  |  |  |
|  | (0.62 - 2.28) | (0.63 - 2.32) | (0.61 - 2.26) | (0.61 - 2.26) | (0.10 - 6.23) | (0.83 - 3.88) |  |  |  |
| * Never married
 | 0.97 | 0.98 | 0.96 | 0.97 | 0.00 | 1.37 |  |  |  |
|  | (0.32 - 2.96) | (0.32 - 2.98) | (0.31 - 2.92) | (0.32 - 2.94) | (0.00 - .) | (0.40 - 4.71) |  |  |  |
| * Divorced
 | 0.91 | 0.91 | 0.90 | 0.90 | 0.97 | 1.30 |  |  |  |
|  | (0.56 - 1.47) | (0.56 - 1.48) | (0.56 - 1.46) | (0.56 - 1.46) | (0.32 - 2.93) | (0.68 - 2.46) |  |  |  |
| * Widowed
 | 2.41\*\*\* | 2.40\*\*\* | 2.40\*\*\* | 2.40\*\*\* | 1.76\*\* | 2.93\*\*\* |  |  |  |
|  | (1.94 - 2.99) | (1.93 - 2.98) | (1.93 - 2.98) | (1.94 - 2.99) | (1.22 - 2.55) | (2.15 - 3.98) |  |  |  |
| Marital status – married or registered relationship (ref. not married, divorced or widowed) 1 |  |  |  |  |  |  | 1.93\*\* | 2.05\*\*\* | 2.05\*\*\* |
|  |  |  |  |  |  |  | (1.18 - 3.16) | (1.68 - 2.49) | (1.68 - 2.49) |
| Current employment status (Ref. retired) |  |  |  |  |  |  |  |  |  |
| * Employed or self-employed
 | 1.05 | 1.05 | 1.04 | 1.04 | 0.92 | 1.15 |  |  |  |
|  | (0.88 - 1.27) | (0.88 - 1.27) | (0.86 - 1.25) | (0.87 - 1.26) | (0.60 - 1.41) | (0.92 - 1.44) |  |  |  |
| * Unemployed
 | 1.24 | 1.24 | 1.23 | 1.24 | 1.25 | 1.35+ |  |  |  |
|  | (0.95 - 1.62) | (0.95 - 1.62) | (0.95 - 1.61) | (0.95 - 1.61) | (0.71 - 2.19) | (0.97 - 1.87) |  |  |  |
| * Permanently sick or disabled
 | 1.27\* | 1.26\* | 1.27\* | 1.27\* | 1.33 | 1.38\* |  |  |  |
|  | (1.02 - 1.57) | (1.02 - 1.57) | (1.02 - 1.57) | (1.02 - 1.58) | (0.92 - 1.92) | (1.01 - 1.86) |  |  |  |
| * Homemaker
 | 1.13 | 1.12 | 1.12 | 1.13 | 1.18 | 1.11 |  |  |  |
|  | (0.95 - 1.33) | (0.95 - 1.33) | (0.95 - 1.33) | (0.95 - 1.34) | (0.90 - 1.55) | (0.88 - 1.39) |  |  |  |
| * Other
 | 0.89 | 0.88 | 0.88 | 0.88 | 0.74 | 1.03 |  |  |  |
|  | (0.65 - 1.20) | (0.65 - 1.20) | (0.65 - 1.19) | (0.65 - 1.19) | (0.42 - 1.28) | (0.69 - 1.53) |  |  |  |
| Employment status (ref. retired) 1 |  |  |  |  |  |  |  |  |  |
| * Employed
 |  |  |  |  |  |  | 1.11 | 1.05 | 1.05 |
|  |  |  |  |  |  |  | (0.66 - 1.87) | (0.88 - 1.26) | (0.88 - 1.26) |
| * Unemployed
 |  |  |  |  |  |  | 1.05 | 1.15\* | 1.15\* |
|  |  |  |  |  |  |  | (0.67 - 1.66) | (1.01 - 1.32) | (1.01 - 1.32) |
| Self-perceived health  | 1.66\*\*\* | 1.66\*\*\* | 1.66\*\*\* | 1.66\*\*\* | 1.53\*\*\* | 1.75\*\*\* | 1.52\*\*\* | 1.66\*\*\* | 1.66\*\*\* |
|  | (1.57 - 1.76) | (1.57 - 1.75) | (1.57 - 1.75) | (1.57 - 1.76) | (1.38 - 1.70) | (1.63 - 1.88) | (1.32 - 1.76) | (1.57 - 1.75) | (1.58 - 1.76) |
| Number of chronic diseases  | 1.09\*\*\* | 1.09\*\*\* | 1.09\*\*\* | 1.09\*\*\* | 1.12\*\* | 1.10\*\*\* | 1.02 | 1.09\*\*\* | 1.09\*\*\* |
|  | (1.05 - 1.14) | (1.05 - 1.14) | (1.05 - 1.14) | (1.05 - 1.14) | (1.04 - 1.20) | (1.04 - 1.16) | (0.91 - 1.15) | (1.05 - 1.14) | (1.05 - 1.14) |
| Observations | 15,195 | 15,195 | 15,195 | 15,189 | 3,871 | 9,603 | 1,721 | 15,195 | 15,195 |
| N | 4,852 | 4,852 | 4,852 | 4,850 | 1,230 | 3,093 | 529 | 4,852 | 4,852 |

Notes. Odds ratio and 95% confidence intervals are provided in the table. Main effects of gender and welfare systems were omitted due to lack of transitions. Levels of significance: \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

1 Model 7, 8 and 9 included a dichotomized variable of marital (married or in a registered relationship vs. not married, widowed or divorced) and a trichotomized variable of employment status (retired, employed or unemployed) to account for the small sample and the low number of transitions in the Scandinavian welfare system.

**Results of sensitivity analyses**

Sensitivity analyses including an adapted depression measure showed that mental health is significantly associated with suicide ideation (OR=1.57, CI[1.53; 1.62]) in models including caregiving inside the household (Table A3). The association between caregiving inside the house and suicide ideation was smaller but remained significant (OR=1.17, CI[1.00; 1.38]). The interaction effects between caregiving and age and gender remained non-significant. The associations between caregiving for specific care recipients were all non-significant. In the stratified models, the associations between caregiving inside and suicide ideation were also all non-significant.

Depressive symptoms were significantly associated with suicide ideation in the models including caregiving outside the household as well (OR=1.6, CI[1.56; 1.65]; Table A4). Caregiving outside was not associated with suicide ideation and the interaction effects with age and gender were not significant. However, the interaction between caregiving outside and welfare system indicate a significant difference between Bismarckian and Southern system (model 4: OR=1.40, CI[1.06; 1.84]; model 5: OR=0.71, CI[.54; .94]). In stratified analyses a significant association between caregiving outside and suicide ideation (OR=1.30, CI[1.02;1.66]) was found, and depressive symptoms were also significantly associated with suicide ideation in this model (1.60, CI[1.56; 1.65])

Table A3

Results of Fixed Effects Regression analyses with informal caregiving inside the household as main predictor and depressive symptoms as covariate

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Main model (caregiving yes/no) | Moderator model (gender) | Moderator model (age) | Moderator models (welfare system) 1 | Moderator models (welfare system) 1 | Model Southern welfare system | Model Bismarckian welfare system | Model Scandinavian welfare system1 |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (6) | (7) | (8) |
| Caregiving inside the household (ref. No caregiving) | 1.17\* | 1.41\* | 1.75 | 1.32 | 1.21 |  | 1.26+ | 1.13 | 1.32 |
|  | (1.00 - 1.38) | (1.07 - 1.85) | (0.64 - 4.80) | (0.69 - 2.55) | (0.94 - 1.57) |  | (0.98 - 1.62) | (0.90 - 1.41) | (0.67 - 2.58) |
| Caregiving outside the household – relationship (ref. No caregiving) |  |  |  |  |  |  |  |  |  |
| Caregiving for (ex-)partner |  |  |  |  |  | 1.18+ |  |  |  |
|  |  |  |  |  |  | (0.97 - 1.44) |  |  |  |
| Caregiving for step-/parents/-in-law |  |  |  |  |  | 1.28 |  |  |  |
|  |  |  |  |  |  | (0.81 - 2.03) |  |  |  |
| Caregiving for other relatives |  |  |  |  |  | 0.88 |  |  |  |
|  |  |  |  |  |  | (0.56 - 1.39) |  |  |  |
| Caregiving for non-relatives (e.g. friends) |  |  |  |  |  | 1.53 |  |  |  |
|  |  |  |  |  |  | (0.26 - 9.11) |  |  |  |
| Caregiving inside the household (ref. No) x Southern welfare system (ref. Scandinavian welfare system) |  |  |  | 0.92 |  |  |  |  |  |
|  |  |  |  | (0.45 - 1.85) |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Bismarckian welfare system (ref. Scandinavian welfare system) |  |  |  | 0.85 | 0.93 |  |  |  |  |
|  |  |  |  | (0.43 - 1.70) | (0.67 - 1.31) |  |  |  |  |
| Depressive symptoms (adapted) | 1.57\*\*\* | 1.57\*\*\* | 1.57\*\*\* | 1.57\*\*\* | 1.57\*\*\* | 1.57\*\*\* | 1.48\*\*\* | 1.63\*\*\* | 1.67\*\*\* |
|  | (1.53 - 1.62) | (1.53 - 1.62) | (1.53 - 1.62) | (1.53 - 1.62) | (1.53 - 1.62) | (1.53 - 1.62) | (1.42 - 1.55) | (1.57 - 1.70) | (1.49 - 1.88) |
| Age at interview (in years) | 1.01\* | 1.01+ | 1.02\* | 1.02\* | 1.02\* | 1.01+ | 0.98+ | 1.03\*\* | 1.05\* |
|  | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (0.96 - 1.00) | (1.01 - 1.05) | (1.00 - 1.11) |
| Caregiving inside the household (ref. No) x Gender (ref. male) |  | 0.76 |  |  |  |  |  |  |  |
|  |  | (0.54 - 1.06) |  |  |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Age at interview (in years) |  |  | 0.99 |  |  |  |  |  |  |
|  |  |  | (0.98 - 1.01) |  |  |  |  |  |  |
| Caregiving inside the household (ref. No) x Bismarckian welfare system (ref. Southern welfare system) |  |  |  |  | 0.93 |  |  |  |  |
|  |  |  |  |  | (0.67 - 1.31) |  |  |  |  |
| Caregiving inside the household (ref. No) x Scandinavian welfare system (ref. Southern welfare system) |  |  |  |  | 1.09 |  |  |  |  |
|  |  |  |  |  | (0.54 - 2.20) |  |  |  |  |
| Observations | 11,728 | 11,728 | 11,728 | 11,728 | 11,728 | 11,542 | 3,789 | 6,984 | 955 |
| N | 3,765 | 3,765 | 3,765 | 3,765 | 3,765 | 3,724 | 1,184 | 2,269 | 312 |

*Note*. Odds ratio and 95% confidence intervals are provided in the table. All models were adjusted for age, marital status, employment status, self-perceived health and number of chronic diseases; the moderator analyses including the moderator gender and welfare system were also adjusted for these variables. Main effects of gender and welfare systems were omitted due to lack of transitions. Levels of significance: \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

1 Model 7, 8 and 9 included a dichotomized variable of marital (married or in a registered relationship vs. not married, widowed or divorced) and a trichotomized variable of employment status (retired, employed or unemployed) to account for the small sample and the low number of transitions in the Scandinavian welfare system.

Table A4

Results of Fixed Effects Regression analyses with informal caregiving outside the household as main predictor and depressive symptoms as covariate

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VARIABLES | Main model (caregiving yes/no) | Moderator model (gender) | Moderator model (age) | Moderator models (welfare system) 1 | Model caregiving relationship | Model Southern welfare system | Model Bismarckian welfare system | Model Scandinavian welfare system1 |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (6) | (7) | (8) |
| Caregiving outside the household (ref. No) | 1.03 | 0.95 | 1.63 | 0.99 | 1.39\*\* |  | 1.30\* | 1.01 | 0.84 |
|  | (0.93 - 1.15) | (0.79 - 1.14) | (0.83 - 3.22) | (0.88 - 1.12) | (1.08 - 1.78) |  | (1.02 - 1.66) | (0.89 - 1.15) | (0.62 - 1.14) |
| Caregiving outside the household – relationship (ref. No caregiving) |  |  |  |  |  |  |  |  |  |
| * Caregiving for (ex-)partner
 |  |  |  |  |  | 1.05 |  |  |  |
|  |  |  |  |  |  | (0.69 - 1.62) |  |  |  |
| * Caregiving for step-/parents/-in-law
 |  |  |  |  |  | 0.99 |  |  |  |
|  |  |  |  |  |  | (0.80 - 1.22) |  |  |  |
| * Caregiving for other relatives
 |  |  |  |  |  | 0.92 |  |  |  |
|  |  |  |  |  |  | (0.79 - 1.07) |  |  |  |
| * Caregiving for non-relatives (e.g. friends)
 |  |  |  |  |  | 1.15+ |  |  |  |
|  |  |  |  |  |  | (1.00 - 1.32) |  |  |  |
| Depressive symptoms (adapted) | 1.60\*\*\* | 1.60\*\*\* | 1.60\*\*\* | 1.60\*\*\* | 1.60\*\*\* | 1.60\*\*\* | 1.52\*\*\* | 1.65\*\*\* | 1.68\*\*\* |
|  | (1.56 - 1.65) | (1.56 - 1.65) | (1.56 - 1.65) | (1.56 - 1.65) | (1.56 - 1.65) | (1.56 - 1.65) | (1.46 - 1.59) | (1.59 - 1.71) | (1.54 - 1.82) |
| Age  | 1.02\* | 1.02\* | 1.02\*\* | 1.02\* | 1.02\* | 1.02\* | 0.99 | 1.03\*\* | 1.02 |
|  | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (1.00 - 1.03) | (0.97 - 1.01) | (1.01 - 1.05) | (0.98 - 1.06) |
| Caregiving outside the household (ref. No) x Gender (ref. male) |  | 1.13 |  |  |  |  |  |  |  |
|  |  | (0.91 - 1.41) |  |  |  |  |  |  |  |
| Caregiving outside the household (ref. No) x Age at interview (in years) |  |  | 0.99 |  |  |  |  |  |  |
|  |  |  | (0.98 - 1.00) |  |  |  |  |  |  |
| Caregiving outside the household (ref. No) x Scandinavian welfare system (ref. Southern welfare system) |  |  |  |  | 0.63\* |  |  |  |  |
|  |  |  |  |  | (0.43 - 0.91) |  |  |  |  |
| Caregiving outside the household (ref. No) x Bismarckian welfare system (ref. Southern welfare system) |  |  |  |  | 0.71\* |  |  |  |  |
|  |  |  |  |  | (0.54 - 0.94) |  |  |  |  |
| Caregiving outside the household (ref. No) x Southern welfare system (ref. Bismarckian welfare system) |  |  |  | 1.40\* |  |  |  |  |  |
|  |  |  |  | (1.06 - 1.84) |  |  |  |  |  |
| Caregiving outside the household (ref. No) x Scandinavian welfare system (ref. Bismarckian welfare system) |  |  |  | 0.88 |  |  |  |  |  |
|  |  |  |  | (0.64 - 1.20) |  |  |  |  |  |
| Observations | 14,929 | 14,929 | 14,929 | 14,929 | 14,929 | 14,924 | 3,804 | 9,451 | 1,674 |
| N | 4,771 | 4,771 | 4,771 | 4,771 | 4,771 | 4,769 | 1,211 | 3,046 | 514 |

*Note*. Odds ratio and 95% confidence intervals are provided in the table. All models were adjusted for age, marital status, employment status, self-perceived health and number of chronic diseases; the moderator analyses including the moderator gender and welfare system were also adjusted for these variables. Main effects of gender and welfare systems were omitted due to lack of transitions. Levels of significance: \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

1 Model 7, 8 and 9 included a dichotomized variable of marital (married or in a registered relationship vs. not married, widowed or divorced) and a trichotomized variable of employment status (retired, employed or unemployed) to account for the small sample and the low number of transitions in the Scandinavian welfare system.

Table A5.

Missing values for the complete sample and both caregiving samples

|  |  |  |  |
| --- | --- | --- | --- |
| N(%) | Complete Sample | Caregivers inside the household1 | Caregivers outside the household |
| *N* | 171,848 | 10,148 | 44,998 |
| Age | 8 (0.00) | 1 (0.01) | 1 (0.00) |
| Gender | - | - | - |
| Education (ISCED 1997) | 2,319 (1.35) | 149 (1.47) | 335 (0.74) |
| Marital status | 1,212 (0.70) | 66 (0.65) | 168 (0.38) |
| Current employment status | 2,388 (1.39) | 26 (0.26) | 134 (0.30) |
| Welfare system | - | - | - |
| Self-rated health | 578 (0.34) | 3 (0.03) | 6 (0.01) |
| Number of chronic diseases | 663 (0.39) | 11 (0.11) | 24 (0.05) |
| Suicidal ideation | 4034 (2.34) | 279 (2.75) | 229 (0.51) |

1 only those who were not living alone were asked if they were providing care inside the house

2 10.28% of the complete sample had missing information regarding caregiving because they were living alone and therefore not asked about care provision inside their household

Table A6.

Transitions into informal caregiving inside and outside the household

|  |  |  |
| --- | --- | --- |
| Transitions into… (Freq. (%)) | Caregivers inside the household1 | Caregivers outside the household |
| General sample | 4,165 (6.06) | 9,667 (20.65) |
| Care relationship |  |  |
| * Partner/spouse
 | 2,897 (4.23) | 364 (0.78) |
| * Parents/ Stepparents/ Parents-in-law
 | 469 (0.69)  | 1,826 (3.90) |
| * Other relatives
 | 436 (0.64) | 3,494 (7.47) |
| * Non-relatives
 | 76 (0.11) | 3,974 (8.49) |
| Welfare system |  |  |
| * Southern welfare system
 | 1,400 (8.21) | 1,408 (11.67) |
| * Bismarckian welfare system
 | 2,268 (5.82) | 6,145 (22.47) |
| * Scandinavian welfare system
 | 497 (3.91) | 2,114 (28.57) |

1 only those who were not living alone were asked if they were providing care inside the house