

Work-family conflicts and sickness absence due to mental disorders among female municipal employees – a register-linked study comparing health and social care employees to employees in other sectors<sup>1</sup>

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1. Supplementary material
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Supplementary table S1. The characteristics of the Helsinki Health Study variables among women and men stratified by employment sector.

|                          | Health and social care |            | Education  |           | Other      |           |
|--------------------------|------------------------|------------|------------|-----------|------------|-----------|
| <b>Women</b>             |                        |            |            |           |            |           |
| Total (n)                | 1296                   |            | 899        |           | 362        |           |
| n with SA-MD (%)         | 206 (15.9)             |            | 111 (12.3) |           | 41 (11.3)  |           |
|                          | n (%)                  | SA-MD      | n (%)      | SA-MD     | n (%)      | SA-MD     |
| Work-to-family conflicts |                        |            |            |           |            |           |
| Low                      | 969 (74.8)             | 130 (13.4) | 689 (76.6) | 77 (11.2) | 293 (80.9) | 25 (8.5)  |
| High                     | 327 (25.2)             | 76 (23.3)  | 210 (23.4) | 34 (16.2) | 69 (19.1)  | 16 (23.2) |
| Family-to-work conflicts |                        |            |            |           |            |           |
| Low                      | 994 (76.7)             | 139 (14.0) | 720 (80.1) | 77 (10.7) | 266 (73.5) | 25 (9.4)  |
| High                     | 302 (23.3)             | 67 (22.2)  | 179 (19.9) | 34 (19.0) | 96 (26.5)  | 16 (16.7) |
| <b>Men</b>               |                        |            |            |           |            |           |
| Total (n)                | 228                    |            | 154        |           | 344        |           |
| n with SA-MD (%)         | 35 (15.4)              |            | 10 (6.5)   |           | 22 (6.4)   |           |
|                          | n (%)                  | SA-MD      | n (%)      | SA-MD     | n (%)      | SA-MD     |
| Work-to-family conflicts |                        |            |            |           |            |           |
| Low                      | 187 (82.0)             | 24 (12.8)  | 125 (81.2) | 6 (4.8)   | 299 (86.9) | 18 (6.0)  |
| High                     | 41 (18.0)              | 11 (26.8)  | 29 (18.8)  | <5        | 45 (13.1)  | <5        |
| Family-to-work conflicts |                        |            |            |           |            |           |
| Low                      | 163 (71.5)             | 19 (11.7)  | 110 (71.4) | 9 (8.2)   | 258 (75.0) | 16 (6.2)  |
| High                     | 65 (28.5)              | 16 (24.6)  | 44 (28.6)  | <5        | 86 (25.0)  | 6 (7.0)   |

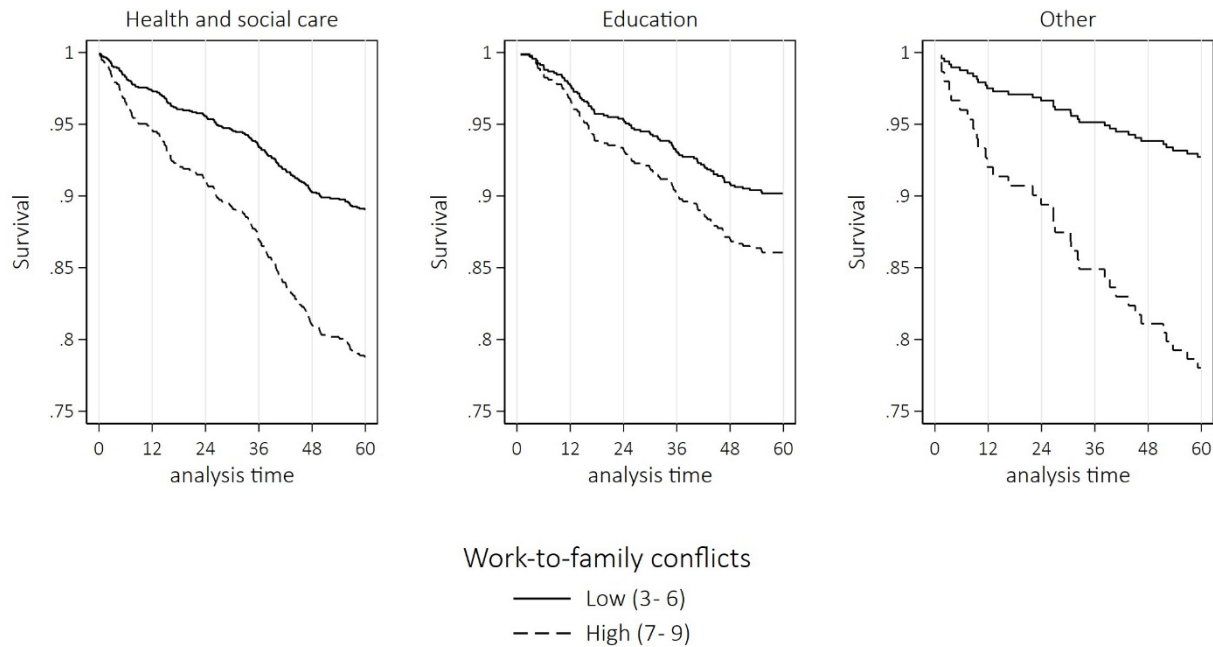
Supplementary table S2. Characteristics of the Helsinki Health Study participants with no prior long-term sickness absence due to mental disorders (n = 2212) by employment sector. The prevalence of sickness absence days due to mental disorders (> 11 calendar days) over a 5-year follow-up, n (%) by work–family conflicts and covariates stratified by employment sector.

|                                    | Health and social care |            | Education    |           | Other        |           |
|------------------------------------|------------------------|------------|--------------|-----------|--------------|-----------|
| <b>Total</b>                       | All                    | SA-MD      | All          | SA-MD     | All          | SA-MD     |
|                                    | 1099 (100.0)           | 130 (11.8) | 795 (100.0)  | 80 (10.1) | 318 (100.0)  | 27 (8.5)  |
| <b>Months at risk, N (average)</b> | 61853 (56.3)           |            | 44981 (56.6) |           | 18182 (57.2) |           |
|                                    | n (%)                  | SA-MD (%)  | n (%)        | SA-MD (%) | n (%)        | SA-MD (%) |
| <b>Work-family-conflicts</b>       |                        |            |              |           |              |           |
| Work-to-family conflicts           |                        |            |              |           |              |           |
| Low                                | 849 (77.3)             | 87 (10.2)  | 619 (77.9)   | 57 (9.2)  | 260 (81.8)   | 16 (6.2)  |
| High                               | 250 (22.7)             | 43 (17.2)  | 176 (22.1)   | 23 (13.1) | 58 (18.2)    | 11 (19.0) |
| Family-to-work conflicts           |                        |            |              |           |              |           |
| Low                                | 868 (79.0)             | 94 (10.8)  | 651 (81.9)   | 61 (9.4)  | 240 (75.5)   | 17 (7.1)  |
| High                               | 231 (21.0)             | 36 (15.6)  | 144 (18.1)   | 19 (13.2) | 78 (24.5)    | 10 (12.8) |
| <b>Covariates</b>                  |                        |            |              |           |              |           |
| Age                                |                        |            |              |           |              |           |
| 19–29                              | 423 (38.5)             | 58 (13.7)  | 273 (34.3)   | 27 (9.9)  | 82 (25.8)    | 9 (11.0)  |
| 30–34                              | 348 (31.7)             | 42 (12.1)  | 266 (33.5)   | 29 (10.9) | 119 (37.4)   | 7 (5.9)   |
| 35–39                              | 328 (29.8)             | 30 (9.1)   | 256 (32.3)   | 24 (9.4)  | 117 (36.8)   | 11 (9.4)  |
| Marital status                     |                        |            |              |           |              |           |
| Single                             | 382 (34.8)             | 57 (14.9)  | 266 (33.5)   | 30 (11.3) | 96 (30.2)    | 11 (11.5) |
| Married or cohabiting              | 717 (65.2)             | 73 (10.2)  | 529 (66.5)   | 50 (9.5)  | 222 (69.8)   | 16 (7.2)  |
| Children in the household          |                        |            |              |           |              |           |
| No                                 | 667 (60.7)             | 87 (13.0)  | 489 (61.5)   | 49 (10.0) | 185 (58.2)   | 15 (8.1)  |
| Yes                                | 432 (39.3)             | 43 (10.0)  | 306 (38.5)   | 31 (10.1) | 133 (41.8)   | 12 (9.0)  |
| Education                          |                        |            |              |           |              |           |
| Low                                | 270 (24.6)             | 43 (15.9)  | 263 (33.1)   | 26 (9.9)  | 102 (32.1)   | 11 (10.8) |
| Intermediate                       | 600 (54.6)             | 71 (11.8)  | 196 (24.7)   | 25 (12.8) | 89 (28.0)    | 6 (6.7)   |
| High                               | 229 (20.8)             | 16 (7.0)   | 336 (42.3)   | 29 (8.6)  | 127 (39.9)   | 10 (7.9)  |
| Mental strenuousness               |                        |            |              |           |              |           |
| Non–strenuous                      | 182 (16.6)             | 9 (4.9)    | 123 (15.5)   | 11 (8.9)  | 132 (41.5)   | 5 (3.8)   |
| Intermediate                       | 724 (65.9)             | 86 (11.9)  | 537 (67.5)   | 48 (8.9)  | 160 (50.3)   | 17 (10.6) |
| Strenuous                          | 193 (17.6)             | 35 (18.1)  | 135 (17.0)   | 21 (15.6) | 26 (8.2)     | 5 (19.2)  |
| Employment type                    |                        |            |              |           |              |           |
| Regular daytime                    | 631 (57.4)             | 73 (11.6)  | 770 (96.9)   | 77 (10.0) | 247 (77.7)   | 21 (8.5)  |
| Other                              | 468 (42.6)             | 57 (12.2)  | 25 (3.1)     | n<5       | 71 (22.3)    | 6 (8.5)   |
| General health                     |                        |            |              |           |              |           |

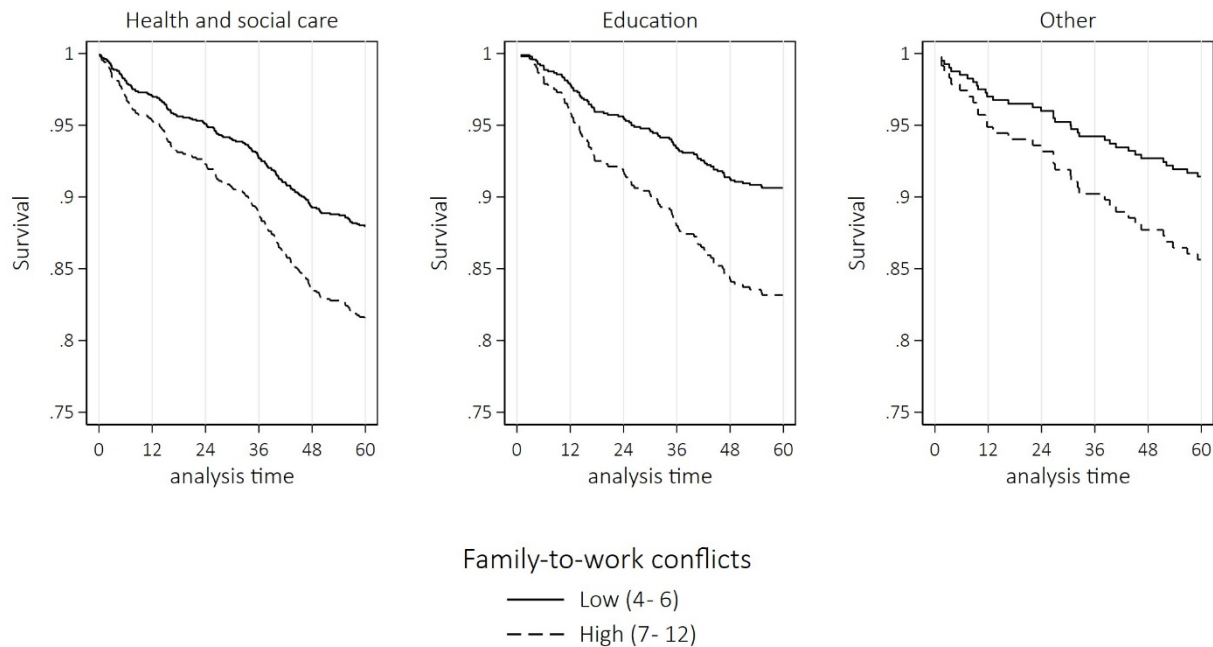
|                              |            |           |            |           |            |           |
|------------------------------|------------|-----------|------------|-----------|------------|-----------|
| Other                        | 823 (74.9) | 69 (8.4)  | 612 (77.0) | 53 (8.7)  | 232 (73.0) | 15 (6.5)  |
| Poor                         | 276 (25.1) | 61 (22.1) | 183 (23.0) | 27 (14.8) | 86 (27.0)  | 12 (14.0) |
| Prior short sickness absence |            |           |            |           |            |           |
| Low                          | 438 (39.9) | 29 (6.6)  | 327 (41.1) | 26 (8.0)  | 137 (43.1) | n<5       |
| Intermediate                 | 353 (32.1) | 43 (12.2) | 228 (28.7) | 25 (11.0) | 101 (31.8) | 10 (9.9)  |
| High                         | 308 (28.0) | 58 (18.8) | 240 (30.2) | 29 (12.1) | 80 (25.2)  | 13 (16.3) |

Supplemental Figure 1. Cumulative probability of long-term sickness absence due to mental disorders among Helsinki Health Study participants with no prior long-term sickness absence due to mental disorders by a) work-to-family and b) family-to-work conflicts stratified by employment sector.

a)



b)



analysis time (months)

Supplementary Table 3. The associations between work–family conflicts and sickness absence due to mental disorders over a 5-year follow-up stratified by employment sector among Helsinki Health Study participants with no prior long-term sickness absence due to mental disorders (n=2212). Hazard ratios and their 95% confidence intervals from Cox regression models.

| Employment sector             | Model 1          | Model 2          | Model 3          | Model 4          | Model 5          |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Health and social care</b> |                  |                  |                  |                  |                  |
| Work-to-family conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 1.72 (1.19-2.48) | 1.77 (1.22-2.55) | 1.60 (1.10-2.32) | 1.46 (0.98-2.17) | 1.35 (0.93-1.96) |
| Family-to-work conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 1.65 (1.11-2.44) | 1.94 (1.26-3.00) | 1.62 (1.10-2.40) | 1.65 (1.11-2.44) | 1.47 (0.99-2.17) |
| <b>Education</b>              |                  |                  |                  |                  |                  |
| Work-to-family conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 1.45 (0.89-2.35) | 1.48 (0.91-2.40) | 1.46 (0.90-2.38) | 1.22 (0.72-2.08) | 1.34 (0.82-2.19) |
| Family-to-work conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 1.50 (0.88-2.54) | 1.56 (0.89-2.75) | 1.53 (0.90-2.59) | 1.44 (0.85-2.45) | 1.48 (0.87-2.52) |
| <b>Other</b>                  |                  |                  |                  |                  |                  |
| Work-to-family conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 3.36 (1.56-7.27) | 3.61 (1.66-7.86) | 3.37 (1.56-7.27) | 2.76 (1.24-6.13) | 2.65 (1.20-5.84) |
| Family-to-work conflicts      |                  |                  |                  |                  |                  |
| Low                           | 1.00             | 1.00             | 1.00             | 1.00             | 1.00             |
| High                          | 2.09 (0.92-4.75) | 2.05 (0.87-4.85) | 2.16 (0.95-4.89) | 2.17 (0.95-4.93) | 1.96 (0.88-4.36) |

M1: Age

M2: M1 + Marital status, children in the household

M3: M1 + Education

M4: M1 + Employment type, mental strenuousness of work

M5: M1 + General health, prior sickness absence due to mental disorders, short sickness absence periods before baseline