**Additional file 1. Supplementary Tables.**

**Supplementary Table 2. Representativity regarding female quote and age**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Total** | **Female** | **Age [yrs.]** |
| **[n]** | **[%]** | **[p]b** | **Average** | **LL** | **UL** |
|  | **N** |
| ***First Survey (T0)*** |  |  |  |  |  |  |  |
| Police officers (June 2015)a | 1583 | 513 | 32.4 | - | 40.7c | - | - |
| Valid questionnaires T0 | 1098 | 338 | 30.8 | 0.250 | 39.6d | 37.5 | 41.7 |
| ***Second Survey (T1)*** |  |  |  |  |  |  |  |
| Police officers (June 2016) | 1511 | 471 | 31.2 | - | 40.5c |  |  |
| Valid questionnaires T1 | 1063 | 332 | 31.2 | 0.966 |  |  |  |
| Matched sample (T0-T1) | 583 | 186 | 31.9 | 0.703 | 40.8d | 38.6 | 42.9 |
| ***Third Survey (T2)*** |  |  |  |  |  |  |  |
| Police officers (December 2020) | 1673 | 583 | 34.8 | - | 37.83c | - | - |
| Valid questionnaires T2 | 1023 | 377 | 36.9 | 0.311 | 37.08d | 34.9 | 39.2 |
| a Except PS 37; b Chi²-Test; c Mean, provided by human resources department of the police no upper or lower limits available; d weighted mean; LL: lower limit; UL: upper limit |

**Supplementary table 2. Participants’ sociodemographic and job characteristics (2015, 2016 and matched subgroup).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **T0 (05/2015)****(n=1151)** | **T1 (06/2016)****(n=1122)** | **Matched T0-T1****(n=583)** |
| **n** | **%** | **n** | **%** | **n** | **%** |
| Gender (female) | 338 | 30.8 | 349 | 31.6 | 186 | 32.2 |
| Age distribution |  |  |  |  |  |  |
| 20-24 yrs. | 31 | 2.7 | 30 | 2.7 | 10 | 1.7 |
| 25.29 yrs. | 121 | 10.6 | 142 | 12.7 | 57 | 9.8 |
| 30-34 yrs. | 234 | 20.5 | 196 | 17.5 | 95 | 16.3 |
| 35-39 yrs. | 226 | 19.8 | 238 | 21.2 | 121 | 20.8 |
| 40-44 yrs. | 149 | 13.0 | 149 | 13.3 | 83 | 14.2 |
| 45-49 yrs. | 176 | 15.4 | 151 | 13.5 | 89 | 15.3 |
| 50-54 yrs. | 173 | 15.1 | 162 | 14.4 | 97 | 16.6 |
| ≥55 yrs. | 34 | 3.0 | 45 | 4.0 | 27 | 4.6 |
| Age (weighted mean. CI in yrs.) | 39.6 | 37.5; 41.7 | 39.5 | 37.4; 41.6 | 40.8 | 38.6; 42.9 |
| Parenthood (yes) | 644 | 57.9 | 614 | 57.3 | 371 | 64.0 |
| Burden due to care (yes) | 79 | 7.9 | 64 | 6.6 | 44 | 7.7 |
| Experience with shift rotations (yrs.) |  |  |  |  |  |  |
| <5 yrs. | 167 | 14.6 | 198 | 17.8 | 61 | 10.5 |
| 5-10 yrs. | 196 | 17.1 | 152 | 13.7 | 82 | 14.1 |
| >10 yrs. | 784 | 68.1 | 763 | 68.6 | 440 | 75.5 |
| Mainly patrol duty | 824 | 71.8 | 791 | 71.1 | 381 | 65.4 |
| Full-time job | 1005 | 87.6 | 957 | 85.3 | 503 | 86.3 |

**Supplementary Table 3. Scores according to attitude regarding change to the remodelled shift schedule.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **T0 (05/2015)** | **T1 (06/2016)** | **Change (T1-T0)** |
|  | **against** | **for** |  | **against** | **for** |  | **against** | **for** |  |
|  | **mean** | **SD** | **mean** | **SD** | **p** | **mean** | **SD** | **mean** | **SD** | **p** | **mean** | **SD** | **mean** | **SD** | **p** |
| Work Ability Index (n=360)[Score 7-49] | 39.94 | 5.12 | 38.43 | 5.52 | 0.005 | 39.50 | 5.51 | 39.03 | 5.32 | 0.380 | -0.31 | 4.01 | 0.65 | 4.92 | 0.019 |
| WHOQOL-Bref Global (n=578)[Score 0-100] | 67.67 | 18.31 | 58.76 | 18.49 | <0.01 | 66.98 | 20.22 | 64.26 | 18.87 | 0.105 | -0.60 | 20.37 | 5.49 | 20.45 | 0.001 |
| Quality of life with shift schedule (n=567)[Score 0-10] | 6.60 | 1.69 | 4.71 | 1.72 | <0.01 | 6.25 | 1.82 | 5.65 | 2.12 | <0.01 | -0.32 | 1.76 | 0.93 | 2.22 | <0.01 |
| Self-rated health status score (n=576)[Score 0-10] | 7.19 | 1.64 | 6.68 | 1.82 | 0.001 | 7.24 | 1.67 | 6.90 | 1.68 | 0.020 | 0.04 | 1.46 | 0.22 | 1.82 | 0.187 |