## Appendix 3.

# Trends in work disability due to mental diagnoses among social workers in Finland and Sweden in 2005­–2012

Epidemiology and Psychiatric Sciences

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## Sensitivity analyses in Finland

### In sensitivity analyses, we analyzed the risk of work disability with more specific diagnosis categories (see Appendix 1). In Finland, 621 work disability episodes were with mood and affective disorder diagnoses (F30–F39) and of these 597 (96.1%) were unipolar or recurrent depression diagnoses (F32–F34). A total of 425 work disability episodes were recorded with neurotic, stress-related and somatoform disorder diagnoses (F40–F48) and of these 417 (98.1%) were other anxiety disorder diagnoses or stress-related disorder diagnoses (F41, F43). In both categories we did the sensitivity analyses with the latter more accurate categories.

### The risk of work disability with depression diagnoses and stress-related disorder diagnoses in social workers compared with other occupations is presented in table A. Only one risk for each diagnosis category was significant due to a low number of cases. Social workers had a higher risk for work disability with depression diagnoses (F32–F34) in model 1 compared with special education teachers (RR 2.24, 95% CI 1.00–5.04) and a higher risk for stress-related disorder diagnoses (F41, F43) in model 2 compared with psychologists (RR 2.73, 95% CI 1.10–6.75).

**Table A.** *Associations between occupation and work disability with depression and stress-related diagnoses in Finland. Social workers are compared separately with each reference occupation*

RR = Rate ratio; CI = Confidence Interval

a Cumulative work disability days per cumulative person-years in 2005–2011.

b Model 1 adjusted for age and sex.

c Model 2 adjusted as model 1 and for area of residence and presence of chronic somatic disease and work disability due to mental diagnoses (ICD-10 codes F00–F99) in 2004.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Depression diagnoses (F32**–**F34)** | | |  |  | **Stress-related diagnoses (F41, F43)** | | |  | |
|  |  | **Unadjusted model** | **Model 1b** | **Model 2c** |  | **Unadjusted model** | | **Model 1b** | **Model 2c** | |
|  | **Cum. disab. daysa** | **RR (95% CI)** | **RR (95% CI)** | **RR (95% CI)** | **Cum. disab. daysa** | **RR (95% CI)** | | **RR (95% CI)** | **RR (95% CI)** | |
| **Social workers** | 5.54 |  |  |  | 0.77 |  | |  |  | |
| **Vs. preschool teachers** | 2.83 | 2.42 (1.31–4.47) | 1.51 (0.82–2.77) | 1.43 (0.78–2.63) | 0.57 | 1.35 (0.74–2.44) | | 1.37 (0.74–2.54) | 1.64 (0.90–2.99) | |
| **Vs. special education teachers** | 2.26 | 3.16 (1.45–6.88) | 2.24 (1.00–5.04) | 2.01 (0.86–4.72) | 0.55 | 1.47 (0.69–3.14) | | 1.45 (0.67–3.14) | 1.32 (0.62–2.82) | |
| **Vs. psychologists** | 2.64 | 2.81 (1.08–7.31) | 1.42 (0.55–3.70) | 1.46 (0.57–3.71) | 0.42 | 1.92 (0.76–4.87) | | 1.87 (0.74–4.74) | 2.73 (1.10–6.75) | |

The differences in probability of returning to work from work disability episodes with depression diagnoses and stress-related disorder diagnoses in Finland is presented in table B. The probability of RTW after work disability with depression diagnoses was 1.48 (95% CI: 1.11–1.97) times higher in special education teachers compared with social workers, after adjusting for age and sex. The association remained in the final model. The hazard ratio was much higher than the probability of RTW after work disability with any mental diagnoses. In special education teachers only 5.5% of the work disability episodes with depression diagnosis were over 240 days, whereas in other occupations the proportion was 14.5–18.8%. In Finland, few work disability spells with stress-related disorder diagnoses were registered. No significant differences in the probability of RTW after work disability with stress-related disorder diagnoses were found.

**Table B.** *Associations between occupation and probability of return to work after work disability with mental diagnoses in Finland*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Depression diagnoses (F32**–**F34)** | | | | **Stress-related diagnoses (F41, F43)** | | | |
|  |  | **Unadjusted model** | **Model 1a** | **Model 2b** |  | | **Unadjusted model** | **Model 1a** | **Model 2b** |
|  | **Number of spells** | **HR (95% CI)** | **HR (95% CI)** | **HR (95% CI)** | **Number of spells** | | **HR (95% CI)** | **HR (95% CI)** | **HR (95% CI)** |
| **Social workers** | 213 | **1 = Referent** | **1 = Referent** | **1 = Referent** | 140 | | **1 = Referent** | **1 = Referent** | **1 = Referent** |
| **Preschool teachers** | 257 | 1.14 (0.92–1.41) | 1.03 (0.83–1.29) | 1.03 (0.82–1.28) | 184 | | 1.13 (0.90–1.43) | 1.11 (0.89–1.36) | 1.09 (0.87–1.37) |
| **Special education teachers** | 86 | 1.41 (1.07–1.86) | 1.48 (1.11–1.97) | 1.46 (1.10–1.93) | 56 | | 0.94 (0.70–1.28) | 1.00 (0.73–1.37) | 0.95 (0.69–1.31) |
| **Psychologists** | 41 | 0.95 (0.66–1.37) | 0.91 (0.63–1.32) | 0.90 (0.62–1.30) | 37 | | 1.21 (0.88–1.67) | 1.25 (0.90–1.72) | 1.32 (0.95–1.84) |

HR = Hazard Ratio; CI = Confidence Interval

a Model 1 adjusted for age and sex.

b Model 2 adjusted as model 1 and for area of residence and either presence of chronic somatic disease and work disability due to mental disorder diagnoses (ICD-10 codes F00–F99) in 2004.

## Sensitivity analyses in Sweden

### In Sweden, 10,562 work disability episodes were recorded with mood and affective diagnoses and of these 19,873 (93.5%) were unipolar or recurrent depression diagnoses. 19,811 work disability episodes were recorded with neurotic, stress-related and somatoform disorder diagnoses (F40–F48) and of these 19,554 (98.7%) were other anxiety disorder diagnoses or stress-related disorder diagnoses (F41, F43).

### The risk of work disability with depression diagnoses and stress-related disorder diagnoses is presented in table C. In the final model, social workers had a higher risk for work disability with depression diagnoses compared with preschool teachers (RR 1.43, 95% CI 1.21–1.69), special education teachers (RR 1.50, 95% CI 1.19–1.90) and psychologists (RR 1.77, 95% CI 1.31–2.41). Similarly, in the final model for work disability with stress-related disorder diagnoses social workers had a higher risk compared with each occupation. The RRs were 1.49 (95% CI 1.33–1.67), 1.40 (95% CI 1.19–1.65) and 1.41 (95% CI 1.14–1.73), respectively.

**Table C.** *Associations between occupation and work disability with depression and stress-related diagnoses in Sweden. Social workers are compared separately with each reference occupation*

RR = Rate ratio; OR = Odds ratio; CI = Confidence Interval

a Cumulative work disability days per cumulative person-years in 2005–2011.

b Model 1 adjusted for age and sex.

c Model 2 adjusted as model 1 and area of residence, marital status, presence of chronic somatic diseases in 2000–2004.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Depression diagnoses (F32–F34)** | | |  |  | **Stress-related diagnoses (F41, F43)** |  |
|  |  | **Unadjusted model** | **Model 1b** | **Model 2c** |  | **Unadjusted model** | **Model 1b** | **Model 2c** |
|  | **Cum. disab. daysa** | **RR (95% CI)** | **RR (95% CI)** | **RR (95% CI)** | **Cum. disab. daysa** | **RR (95% CI)** | **RR (95% CI)** | **RR (95% CI)** |
| **Social workers** | 3.84 |  |  |  | 5.38 |  |  |  |
| **Vs. preschool teachers** | 2.61 | 1.47 (1.25–1.74) | 1.45 (1.23–1.72) | 1.43 (1.21–1.69) | 3.61 | 1.49 (1.33–1.66) | 1.52 (1.36–1.70) | 1.49 (1.33–1.67) |
| **Vs. special education teachers** | 2.75 | 1.42 (1.13–1.80) | 1.54 (1.22–1.96) | 1.50 (1.19–1.90) | 4.22 | 1.27 (1.08–1.49) | 1.43 (1.22–1.68) | 1.40 (1.19–1.65) |
| **Vs. psychologists** | 2.22 | 1.79 (1.32–2.43) | 1.75 (1.29–2.37) | 1.77 (1.31–2.41) | 3.92 | 1.38 (1.12–1.70) | 1.42 (1.16–1.75) | 1.41 (1.14–1.73) |

The differences in probability of returning to work from work disability episodes with depression diagnoses and stress-related disorder diagnoses in Sweden is presented in table D. The probability of RTW after work disability with depression diagnoses was 1.07 (95% CI 1.01–1.13) times higher in preschool teachers compared with social workers, after adjusting for age and sex. The association remained in the final model. The probability of RTW after work disability with stress-related disorder diagnoses was 1.09 (1.02–1.17) times higher in special education teachers compared with social workers, after adjusting for age and sex. The association remained in the final model.

**Table D.** *Associations between occupation and probability of return to work after work disability with mental diagnoses in Sweden*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Depression diagnoses (F32–F34)** | | | | **Stress-related diagnoses (F41, F43)** | | | |
|  |  | **Unadjusted model** | **Model 1a** | **Model 2b** |  | | **Unadjusted model** | **Model 1a** | **Model 2b** |
|  | **Number of spells** | **HR (95% CI)** | **HR (95% CI)** | **HR (95% CI)** | **Number of spells** | | **HR (95% CI)** | **HR (95% CI)** | **HR (95% CI)** |
| **Social workers** | 2,483 | **1 = Referent** | **1 = Referent** | **1 = Referent** | 4,972 | | **1 = Referent** | **1 = Referent** | **1 = Referent** |
| **Preschool teachers** | 6,087 | 1.09 (1.02–1.15) | 1.07 (1.01–1.13) | 1.06 (1.00–1.13) | 11,669 | | 1.04 (1.00–1.09) | 1.04 (0.99–1.08) | 1.03 (0.99–1.08) |
| **Special education teachers** | 882 | 1.00 (0.92–1.20) | 1.07 (0.97–1.18) | 1.07 (0.97–1.18) | 1,917 | | 1.02 (0.96–1.10) | 1.09 (1.02–1.17) | 1.09 (1.02–1.17) |
| **Psychologists** | 421 | 0.98 (0.86–1.20) | 0.99 (0.87–1.14) | 0.99 (0.87–1.14) | 996 | | 0.95 (0.88–1.04) | 0.99 (0.91–1.07) | 0.98 (0.90–1.06) |

HR = Hazard Ratio; CI = Confidence Interval

a Model 1 adjusted for age and sex.

b Model 2 adjusted as model 1 and area of residence, marital status, presence of chronic somatic diseases in 2000–2004.

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