Association of neck and shoulder complaints with psychosocial factors measured by the COPSOQ

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Aim

- evaluation of the influence of occupational psychosocial factors on the presence of neck and shoulder complaints (NSC)
Methods (1)

- cross-sectional questionnaire study
- study population
  - public sector
    - administrative workers, library workers, professional fire fighters, teachers, technical personnel, cleaning personnel, social service, child care, cleaning at home, nursing personnel, nursing at home, kitchen personnel and harbour personnel
  - 1281 subjects (83.8% response rate)
  - 1143 at least 12 months seniority
  - 27 subjects excluded (earlier neck shoulder trauma)
  - final study population: 1116 (73.0%)
Methods (2)

- dependent outcome variable
  - NSC last 12 months (“Nordic” questionnaire)
- COPSOQ II + ‘degrees of freedom’
- physical workload
- full/part time work
- age, gender
- number of children at home, taking care of disabled people
- multivariate logistic regression analysis (COPSOQ scales 0 – 10)
Population characteristics

- 68.5 % women (n=765)
- mean age (yrs): 43.5 (SD 9.9)
- age range (yrs): 20 – 68

- 55.2 % neck shoulder complaints not due to an accident (n=616)
Mean values (SD) (1)

- quantitative demands: 42.0 (19.3)
- work pace: 61.5 (18.2)
- cognitive demands: 59.6 (20.0)
- emotional demands: 44.7 (23.2)
- demands for hiding emotions: 65.5 (18.2)
- role conflicts: 34.2 (19.4)
- job insecurity: 24.2 (26.4)
Mean values (SD) (2)

- degrees of freedom 40.6 (20.6)
- role clarity 76.4 (17.6)
- predictability 55.6 (23.5)
- meaning of work 81.6 (17.5)
- variation of work 57.6 (23.5)
- possibilities for development 64.6 (21.3)
- influence at work 42.2 (17.2)
Mean values (SD) (3)

- quality of leadership 56.8 (23.9)
- social support from supervisor 53.6 (21.4)
- social support from colleagues 57.6 (18.4)
- social community at work 72.8 (18.5)
- commitment to the workplace 64.4 (18.0)
- horizontal trust 67.6 (19.1)
- rewards 64.1 (23.8)
- vertical trust 65.5 (18.9)
- justice and respect 56.4 (21.3)
Multivariate logistic regression analysis
OR (95% CI) for the presence of NSC
in the past 12 months (n=1043)

- gender (F vs. M)        2.23 (1.69-2.93)
- quantitative demands    1.12 (1.04-1.20)
- emotional demands       1.07 (1.01-1.14)
- influence at work       0.92 (0.85-1.00)
- quality of leadership   0.91 (0.86-0.96)
Association of low back complaints with psychosocial factors measured by the COPSOQ

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Aim

● evaluation of the influence of occupational psychosocial factors on the presence of low back complaints (LBC)
Methods (1)

- cross-sectional questionnaire study
- study population
  - public sector
    - administrative workers, library workers, professional fire fighters, teachers, technical personnel, cleaning personnel, social service, child care, cleaning at home, nursing personnel, nursing at home, kitchen personnel and harbour personnel
  - 1277 subjects (83.5% response rate)
  - 1218 at least 12 months seniority
  - 114 subjects excluded (earlier low back trauma)
  - final study population: 1104 (72.2%)
Methods (2)

● dependent outcome variable
  ● LBC last 12 months ("Nordic" questionnaire)

● COPSOQ II + ‘degrees of freedom’

● physical workload

● full/part time work

● age, gender, BMI

● number of children at home, taking care of disabled people

● multivariate logistic regression analysis (COPSOQ scales 0 – 10)
Population characteristics

● 68.7% women (n=758)

● mean age (yrs): 43.5 (SD 9.9)

● age range (yrs): 20 – 68

● 53.9% low back complaints not due to an accident (n=595)
### Mean values (SD) (1)

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<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>quantitative demands</td>
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<td>work pace</td>
<td>61.4</td>
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<td>cognitive demands</td>
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<td>emotional demands</td>
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<td>demands for hiding emotions</td>
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<tr>
<td>role conflicts</td>
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<td>19.5</td>
</tr>
<tr>
<td>job insecurity</td>
<td>24.2</td>
<td>26.4</td>
</tr>
</tbody>
</table>
Mean values (SD) (2)

- degrees of freedom 40.3 (20.8)
- role clarity 76.3 (17.7)
- predictability 55.4 (23.5)
- meaning of work 81.3 (17.7)
- variation of work 57.7 (23.6)
- possibilities for development 64.7 (21.3)
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Mean values (SD) (3)

- quality of leadership 56.7 (24.0)
- social support from supervisor 53.5 (21.4)
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- social community at work 72.8 (18.3)
- commitment to the workplace 64.4 (17.9)
- horizontal trust 67.6 (19.2)
- rewards 63.8 (24.0)
- vertical trust 65.4 (18.9)
- justice and respect 56.2 (21.4)
COPSOQ - profile

- Quantitative demands: 42.2%
- Work pace: 61.7%
- Cognitive demands: 60.1%
- Emotional demands: 45.1%
- Demands for hiding emotions: 65.5%
- Role conflicts: 34.3%
- Job insecurity: 24.1%
- Degrees of freedom: 40.4%
- Role clarity: 76.5%
- Predictability: 55.7%
- Meaning of work: 81.4%
- Variation of work: 57.9%
- Possibilities for development: 64.9%
- Influence at work: 42.4%
- Quality of leadership: 56.9%
- Social support supervisor: 53.8%
- Social support colleagues: 57.7%
- Social community at work: 72.9%
- Commitment to the workplace: 64.4%
- Horizontal trust: 67.5%
- Rewards: 64.1%
- Vertical trust: 65.6%
- Justice and respect: 56.5%
Multivariate logistic regression analysis
OR (95% CI) for the presence of LBC
in the past 12 months (n=1002)

- gender (F vs. M) 1.50 (1.12-1.99)
- physical work load 1.15 (1.08-1.22)
- possibilities for development 1.11 (1.04-1.18)
- quality of leadership 0.88 (0.83-0.93)