Comparison of the short and long versions of the COPSOQ II

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Aim

● to compare the results of the scales obtained by the short and long versions of the COPSOQ II
Methods (1)

- study population: public sector
  - administrative workers
  - library workers
  - teachers
  - social workers
  - technical personnel
  - kitchen personnel
  - cleaning personnel
  - cleaning at home
  - child care
  - nursing personnel
  - nursing at home
  - animation personnel
  - harbour personnel
  - police officers
  - professional fire fighters
  - monument watch specialists
Methods (2)

● cross-sectional questionnaire study
● target population: 1847
● 1457 subjects (78.9% response rate)

● 64.3 % women (n=937)
● mean age (yrs): 42.4 (SD 10.3)
● age range (yrs): 19 – 68
Methods (3)

- scales of short version
- corresponding scales of long version
- all scales 0-100
- means, standard deviation
- Wilcoxon matched-pairs signed rank test
- Spearman correlation coefficient
Considered scales

- quantitative demands
- tempo
- emotional demands
- influence at work
- possibilities for development
- meaning of work
- commitment to the workplace
- predictability
- rewards
- role clarity
- quality of leadership
- social support from supervisors
- vertical trust
- justice and respect
- job satisfaction
- work family conflict
- self-rated health
- burnout
- subjective stress
- degrees of freedom
- job insecurity
- social community at work
### Degrees of freedom

<table>
<thead>
<tr>
<th>Variable</th>
<th>COPSOQ I (n = 901) OR (95% CI)</th>
<th>COPSOQ II (n = 890) OR (95% CI)</th>
<th>COPSOQ II + ‘degrees of freedom’ (n = 890) OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative demands</td>
<td>1.50 (1.34–1.68)**</td>
<td>1.38 (1.25–1.52)***</td>
<td>1.38 (1.25–1.52)***</td>
</tr>
<tr>
<td>Demands for hiding emotions</td>
<td>1.10 (1.01–1.20)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional demands</td>
<td></td>
<td>1.11 (1.02–1.20)*</td>
<td>1.09 (1.00–1.19)*</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>0.89 (0.82–0.98)*</td>
<td></td>
<td>0.90 (0.83–0.99)*</td>
</tr>
<tr>
<td>Job insecurity</td>
<td>1.12 (1.06–1.20)**</td>
<td>1.14 (1.07–1.22)***</td>
<td>1.14 (1.07–1.22)***</td>
</tr>
<tr>
<td>Commitment to workplace</td>
<td></td>
<td>0.85 (0.77–0.94)**</td>
<td>0.86 (0.77–0.94)**</td>
</tr>
<tr>
<td>Correctly predicted percentage</td>
<td>78.7</td>
<td>78.6</td>
<td>78.9</td>
</tr>
<tr>
<td>−2 Log likelihood</td>
<td>840.83</td>
<td>826.48</td>
<td>821.63</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.246</td>
<td>0.266</td>
<td>0.273</td>
</tr>
</tbody>
</table>

Kiss P, De Meester M, Kruse A, Chavée B, Braeckman L. Comparison between the first and second versions of the Copenhagen Psychosocial Questionnaire: psychosocial risk factors for a high need for recovery after work. *Int Arch Occup Environ Health* 2013;86:17-24
Degrees of freedom

● long version

1. Can you decide when to take a break?
2. Can you take holidays more or less when you wish?
3. Can you leave your work to have a chat with a colleague?
4. If you have some private business, is it possible for you to leave your place of work for half an hour without special permission?
# Degrees of freedom

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>long version</td>
<td>41.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>short 1+2</td>
<td>52.39</td>
<td>0.000</td>
<td>0.91</td>
</tr>
<tr>
<td>short 1+3</td>
<td>42.91</td>
<td>0.000</td>
<td>0.91</td>
</tr>
<tr>
<td>short 1+4</td>
<td>29.13</td>
<td>0.000</td>
<td>0.90</td>
</tr>
<tr>
<td>short 2+3</td>
<td>54.08</td>
<td>0.000</td>
<td>0.83</td>
</tr>
<tr>
<td>short 2+4</td>
<td>40.25</td>
<td>0.000</td>
<td>0.83</td>
</tr>
<tr>
<td>short 3+4</td>
<td>30.79</td>
<td>0.000</td>
<td>0.82</td>
</tr>
</tbody>
</table>

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Job insecurity

● long version

1. Are you worried about becoming unemployed?
2. Are you worried about new technology making you redundant?
3. Are you worried about it being difficult for you to find another job if you became unemployed?
4. Are you worried about being transferred to another job against your will?
## Job insecurity

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>$p$</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>long version</td>
<td>19.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>short 1+2</td>
<td>11.54</td>
<td>0.000</td>
<td>0.72</td>
</tr>
<tr>
<td>short 1+3</td>
<td>19.37</td>
<td>0.290</td>
<td>0.84</td>
</tr>
<tr>
<td>short 1+4</td>
<td>22.57</td>
<td>0.000</td>
<td>0.89</td>
</tr>
<tr>
<td>short 2+3</td>
<td>16.74</td>
<td>0.000</td>
<td>0.82</td>
</tr>
<tr>
<td>short 2+4</td>
<td>20.03</td>
<td>0.290</td>
<td>0.85</td>
</tr>
<tr>
<td>short 3+4</td>
<td>27.80</td>
<td>0.000</td>
<td>0.94</td>
</tr>
</tbody>
</table>

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Social community at work

● part of “organizational social capital”

● long version

1. Is there a good atmosphere between you and your colleagues?
2. Is there good co-operation between the colleagues at work?
3. Do you feel part of a community at your place of work?
### Social community at work

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>long version</td>
<td>73.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>short 1+2</td>
<td>74.39</td>
<td>0.000</td>
<td>0.90</td>
</tr>
<tr>
<td>short 1+3</td>
<td>73.97</td>
<td>0.001</td>
<td>0.97</td>
</tr>
<tr>
<td>short 2+3</td>
<td>72.32</td>
<td>0.000</td>
<td>0.97</td>
</tr>
</tbody>
</table>
Correlations long and short version

- quantitative demands 0.93
- tempo 0.95
- emotional demands 0.89
- influence at work 0.85
- possibilities for development 0.92
- meaning of work 0.95
- commitment to workplace 0.88
- predictability 1.00
- rewards 0.97
- role clarity 0.96
- quality of leadership 0.96
- social support supervisors 0.95
- vertical trust 0.87
- justice and respect 0.90
- job satisfaction 0.73
- work family conflict 0.89
- self-rated health 1.00
- degrees of freedom 0.83
- job insecurity 0.84
- social community at work 0.97
Cut-off points: 45 and 55
Favourable: green
Unfavourable: red
In-between: yellow

Left bars: short version
Right bars: long version

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Social support supervisors

long version

1. How often is your nearest superior willing to listen to your problems at work?
2. How often do you get help and support from your nearest superior?
3. How often does your nearest superior talk with you about how well you carry out your work?
### Social support supervisors

<table>
<thead>
<tr>
<th>Combination</th>
<th>Mean</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>long version</td>
<td>54.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>short 1+2</td>
<td>60.74</td>
<td>0.000</td>
<td>0.95</td>
</tr>
<tr>
<td>short 1+3</td>
<td>54.45</td>
<td>0.253</td>
<td>0.95</td>
</tr>
<tr>
<td>short 2+3</td>
<td>48.54</td>
<td>0.000</td>
<td>0.95</td>
</tr>
</tbody>
</table>

**Current combination**

**Suggested combination**
cut-off points: 45 and 55
favourable: green
unfavourable: red
in-between: yellow

left bars: short version
right bars: long version

quantitative demands
emotional demands
influence at work
possibilities for development
commitment to the workplace
predictability
rewards
role clarity
quality of leadership
social support from supervisors
vertical trust
justice and respect
job satisfaction
work-family conflict
self-rated health
degrees of freedom
job insecurity
social community at work
organizational social capital
Conclusions

● scale values of short version correspond very well with the scale values of the long version

● suggestion to use other combination for the scale “social support supervisors”