Psychosocial work environment and the risk of severe depressive symptoms and burnout
Results from two longitudinal studies

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Symposium: Mental disorders, disability and sickness absence
IFPE International Congress Göteborg, May 4, 2007
Mental health and work ability

- General perception that mental health problems, especially affective disorders, are rising in modern societies

- Need for a better understanding how the psychosocial work environment contribute to mental health problems

- Need to better understand to what extent mental health problems contribute to long-term sickness absence and disability pensioning
Conceptual Model

Vulnerability
For example:
- Biological vulnerability
- Loss in childhood
- Cognitive styles
- Personality

Exposure to Stressors
For example:
- Death of a significant person
- Divorce
- Severe illness
- Adverse working conditions

Interaction

Onset of mental health problems

Interaction

Reduced work ability
- Long-term sickness absence
- Disability pensioning
- Early retirement
- Unemployment
Psychosocial Work Environment and Incidence of Severe Depressive Symptoms

Rugulies, R., Bültmann, U., Aust, B. & Burr, H.

American Journal of Epidemiology, 2006, 163(10), 877-887
Study Design and Methods

- 4,133 employees (49% women), aged 18-65, from the Danish Work Environment Cohort Study (DWECS) followed-up for 5 years
- Participants with severe depressive symptoms at baseline were excluded from the analysis
- All measures based on questionnaires and administered by telephone
- Psychosocial work characteristics measured in 1995
- Severe depressive symptoms measured in 1995 and 2000
Severe depressive symptoms were measured with the 5-item Mental Health Scale (MHI-5) from the SF-36.

- Scale is standardized from 0 to 100.
- Participants scoring 52 points or less were classified with severe depressive symptoms.
Results:
Participants with severe depressive symptoms at follow-up

- 105 out of 4,133 participants (2.5%)
- 68 out of 2,004 women (3.4%)
- 37 out of 2,129 men (1.7%)

Rugulies et al., American Journal of Epidemiology, 2006;163(10):877-887
Impact of psychosocial work characteristics on risk of severe depressive symptoms in 2,004 women

<table>
<thead>
<tr>
<th>Stressor</th>
<th>RR</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>High quantitative demands</td>
<td>0.83</td>
<td>0.48-1.44</td>
<td>0.51</td>
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<tr>
<td>Low influence</td>
<td>2.17</td>
<td>1.23-3.82</td>
<td>0.007</td>
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<td>Low poss. for development</td>
<td>1.11</td>
<td>0.66-1.87</td>
<td>0.69</td>
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<tr>
<td>Low supervisor support</td>
<td>2.03</td>
<td>1.20-3.43</td>
<td>0.008</td>
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<td>Low coworker support</td>
<td>1.05</td>
<td>0.50-2.23</td>
<td>0.90</td>
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<tr>
<td>High job insecurity</td>
<td>1.21</td>
<td>0.73-1.99</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Adjusted for age, cohabitation, having children at home, school education, smoking, alcohol consumption, leisure time physical activity, change in employment status during follow-up and depression score at baseline

Rugulies et al., American Journal of Epidemiology, 2006;163(10):877-887
# Impact of psychosocial work characteristics on risk of severe depressive symptoms in 2,129 men

<table>
<thead>
<tr>
<th>Exposure</th>
<th>RR</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>High quantitative demands</td>
<td>0.46</td>
<td>0.18-1.19</td>
<td>0.11</td>
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<tr>
<td>Low influence</td>
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<td>0.30-1.22</td>
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<td>Low poss. for development</td>
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<td>0.57-2.37</td>
<td>0.68</td>
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<tr>
<td>Low supervisor support</td>
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<td>0.58-2.35</td>
<td>0.65</td>
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<tr>
<td>Low coworker support</td>
<td>1.29</td>
<td>0.59-2.84</td>
<td>0.53</td>
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<tr>
<td>High job insecurity</td>
<td>2.04</td>
<td>1.02-4.07</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Adjusted for age, cohabitation, having children at home, school education, smoking, alcohol consumption, leisure time physical activity, change in employment status during follow-up and depression score at baseline

Rugulies et al., American Journal of Epidemiology, 2006;163(10):877-887
Strengths and Limitations of the Study

**Strengths**
- Prospective study with a representative sample of the general working population
- Adjustment for various non-work-related variables and for depression score at baseline

**Limitations**
- Depression not measured with gold-standard
- Low number of cases among men
- Limited measures for psychosocial work characteristics
Psychosocial Work Characteristics as Predictors for Burnout: Findings from a 3-Year Follow-up of the PUMA Study

Borritz, M., Bültmann, U., Rugulies, R., Christensen, K.B., Villadsen, E., Kristensen, T.S.

Journal of Occupational and Environmental Medicine, 2005, 47(10), 1015-1025
Study Design and Methods

- 952 human service work professionals from 7 different organizations (e.g., social security services, psychiatric prison, home care service)
- 16 psychosocial work characteristics and 3 different domains of burnout (personal, work-related, client-related) were measured
Results

The following psychosocial work characteristics predicted an increase on at least one burnout scale:

- **Client-specific work characteristics**
  - High emotional demands, high demands for hiding emotions

- **Demands at work**
  - High quantitative demands, high work pace

- **Work organization and job content**
  - Low possibilities for development, low meaning of work

- **Interpersonal relations and leadership**
  - Low predictability, low role clarity, high role conflicts

Psychosocial work characteristics were adjusted for each other and for age, gender, SES organization, family status, children below the age of 7 at home, smoking and exercise.

Borritz et al., Journal of Occupational and Environmental Medicine, 2005;47(10):1015-1025
Next steps …

- Comprehensive psychosocial work environment measures as predictors for depression
- Validated instruments for measuring clinical depression (MDI)
- Linkage with register data on prescription of antidepressiva
- Interaction of psychosocial work characteristics with variables on individual vulnerability and stressors outside the workplace
- Relation of burnout and depression
- Social consequences of mental health problems