A systematic review of the impact of work environment factors on changes in smoking

Karen Albertsen
Vilhelm Borg
Brian Oldenburg

National Institute of Occupational Health, Denmark
Queensland University of Technology, Australia.
Work environment and smoking

- Work environment might influence cessation
- Work environment might influence relapse
- Work environment might influence the amount smoked among smokers
Possible mechanisms

1. Stressors and job strain can contribute to increased smoking, difficulties with cessation and relapse

2. Resources in the work environment might strengthen the individual resources to quit

3. Social support to quit can make cessation easier. Smoking co-workers can contribute to increased smoking and counteract cessation
Selection criteria:

- Prospective design
- At least two assessments of smoking status
- Assessment of at least one work environment factor
- Studies of smoking policy not included

21 studies including 24 samples selected
Quality assessment:

14 criteria regarding:
- Design and statistics
- Sample size and response rate
- Measures of work environment
- Measures of smoking
- Other measures

11 studies were positively evaluated on >60% of the criteria
## Amount smoked

<table>
<thead>
<tr>
<th></th>
<th>High quality studies</th>
<th>Low quality studies</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demands</td>
<td>+ + + + + + + 0</td>
<td>+</td>
<td>Strong</td>
</tr>
<tr>
<td>Resources</td>
<td>+ + 0 0 0</td>
<td></td>
<td>Insufficient</td>
</tr>
<tr>
<td>Social support</td>
<td>+ 0 0 0 0</td>
<td>0</td>
<td>Insufficient</td>
</tr>
</tbody>
</table>
Smokers smoke more when exposed to:

- Stress
- Long working hours and increased working hours
- Noise
- Monotonous work
- Anxiety provoking work
## Cessation

<table>
<thead>
<tr>
<th></th>
<th>High quality studies</th>
<th>Low quality studies</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demands</td>
<td>- - 0 0 0 0</td>
<td>- 0 0</td>
<td>Insufficient</td>
</tr>
<tr>
<td>Resources</td>
<td>+ 0</td>
<td>0 0</td>
<td>Insufficient</td>
</tr>
<tr>
<td>Social support</td>
<td>+ 0 0 0</td>
<td>+ – 0 0 0</td>
<td>Insufficient</td>
</tr>
<tr>
<td></td>
<td>High quality studies</td>
<td>Low quality studies</td>
<td>Evidence</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------</td>
<td>---------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Demands</td>
<td>++ +</td>
<td>0</td>
<td>Strong</td>
</tr>
<tr>
<td>Resources</td>
<td>+</td>
<td></td>
<td>Insufficient</td>
</tr>
<tr>
<td>Social support</td>
<td>+</td>
<td>++ 0</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
The probability of relapse increase:

- With time pressure (high workload)
- Role ambiguity
- Daily hassles
- Smoking colleagues, friends and family
- Lack of social support
Future research:

- Large cohort studies with heterogeneous samples and long follow-up
- Intervention studies with combined work environment changes and health promotion
- Co-ordinated use of thoroughly validated measurement instruments
The end

This presentation is available on:
www.ami.dk/presentations