



Bundesanstalt für Arbeitsschutz und Arbeitsmedizin

Is the association between psychosocial factors at work and deterioration of self-rated health the same for older and for younger workers?

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Background

- Cross sectional indications of age modifying association social class with self rated health (SRH) (Burr, Kersten et al. 2013, Rauschenbach, Krumm et al. 2013)
- Almost no studies on age modifying the association working conditions with SRH (Bos et al. 2009; Bos et al. 2013; de Lange et al. 2006; Zoer et al. 2011)
- Hypotheses:
 - Psychosocial **job factors** more detrimental for **younger** workers' SRH
 - Psychosocial **relational factors** more detrimental for **older** workers' SRH

Method: Population

- **Employees with good SRH** observed in 2 five-year cohorts in the Danish Work Environment Cohort Study (DWECS) – follow up participation rate 71%
- Age: 18–59 years (men) or 18–54 years (women)
- 6,453 observations with good SRH at baseline from 5,182 employees

Method: Variables

- Psychosocial job factors (COPSOQ): Work pace, influence, opportunities for development
- Psychosocial relational factors (COPSOQ): Support from manager, Support from colleagues
- Self-rated health (SRH): Single item

Method: Analyses

- Log binomial regressions of Relative Risks (RR) of SRH
 - Effect modification: Deviation from additivity examined by calculating Relative Excess Risk due to Interaction (*RERI* – the absolute difference of observed RR from expected RR)
 - Reference group: Employees aged 18-32 with low exposure
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- Sensitivity analyses:
 - Including employees with poor SRH at baseline
 - Linear regressions

Results

- Risk factors for SRH:
 - High workplace (M), low influence at work (M), low possibilities for development
 - Low social support from colleagues (W), low social support from supervisors
- In 19 of 20 cases no significant major RERI
- Sensitivity analyses confirmed interaction results

Poor SRH by possibilities for development and age. Men

	RR*	95% CI	RERI**	95% CI
High poss. for developm., 18-32 years	1			
Low poss. for developm., 18-32 years	0.84	0.58 - 1.26		
High poss. for developm., 33-43 years	1.01	0.71 - 1.43		
Low poss. for developm., 33-43 years	1.45	1.05 - 1.99		

*Relative Risk

**Relative Excess Risk due to Interaction

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High poss. for developm., 44+ years	1.22	0.89 - 1.68		
Low poss. for developm., 44+years	1.44	1.06 - 1.96		

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Discussion

- Major effects of psychosocial factors on SRH independent of age among Danish employees
- Possible explanations: Life course, selection in occupation, life long learning, cognitive ability
- Analyses of more cohorts needed

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