

# Social inequalities, working conditions, and health: evidence from cohort and intervention studies

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# Introduction

- Research of WP3 in DRIVERS focuses on the links between social inequalities, working conditions and health.
- We aim to contribute to an improved understanding of how these pathways interact in order to define entry points for successful interventions
- We conduct secondary data analyses and systematic reviews/ meta-analyses. This latter research concerns:
  - epidemiological studies testing these pathways
  - Worksite intervention studies with different occupational groups

# 1. Systematic review: working conditions, social inequalities and health

## Mediation hypothesis

- To what extent can adverse working conditions account for health differences of employees across different socioeconomic positions (SEP) (mediation)?

## Moderation hypothesis

- To what extent does SEP moderate the association of adverse working conditions with health?

## Methods

- This review was performed by observing the PRISMA criteria and was restricted to prospective cohort studies
- Screening of 7,264 initial records listed in PubMed and Scopus
- **17** studies testing the mediation hypothesis and **9** studies testing the moderation hypothesis finally fulfilled the established selection criteria

## Results

- Mediation
  - 11 studies: significant mediation effects, 2 studies: no evidence, and 4 studies: inconsistent results.
- Moderation
  - 5 studies: significant moderation effects, 3 studies: no evidence, and 1 study: inconsistent results.

# Discussion

- Difficulties of answering the research questions due to high amount of heterogeneity of concepts, measurements and methods across studies.
- Relatively consistent results of studies measuring adverse working conditions by combining physical/ chemical and psychosocial exposures.
- Future studies observing the recommendations given in the paper for improved standardisation are expected to provide more robust findings with potential policy implications for reducing work related health inequalities.

Source: Hoven H, Siegrist J (2013): *Occup Environ Med* 70:663-669

## 2. Meta-analysis of worksite intervention effects on health: Does social stratification matter?

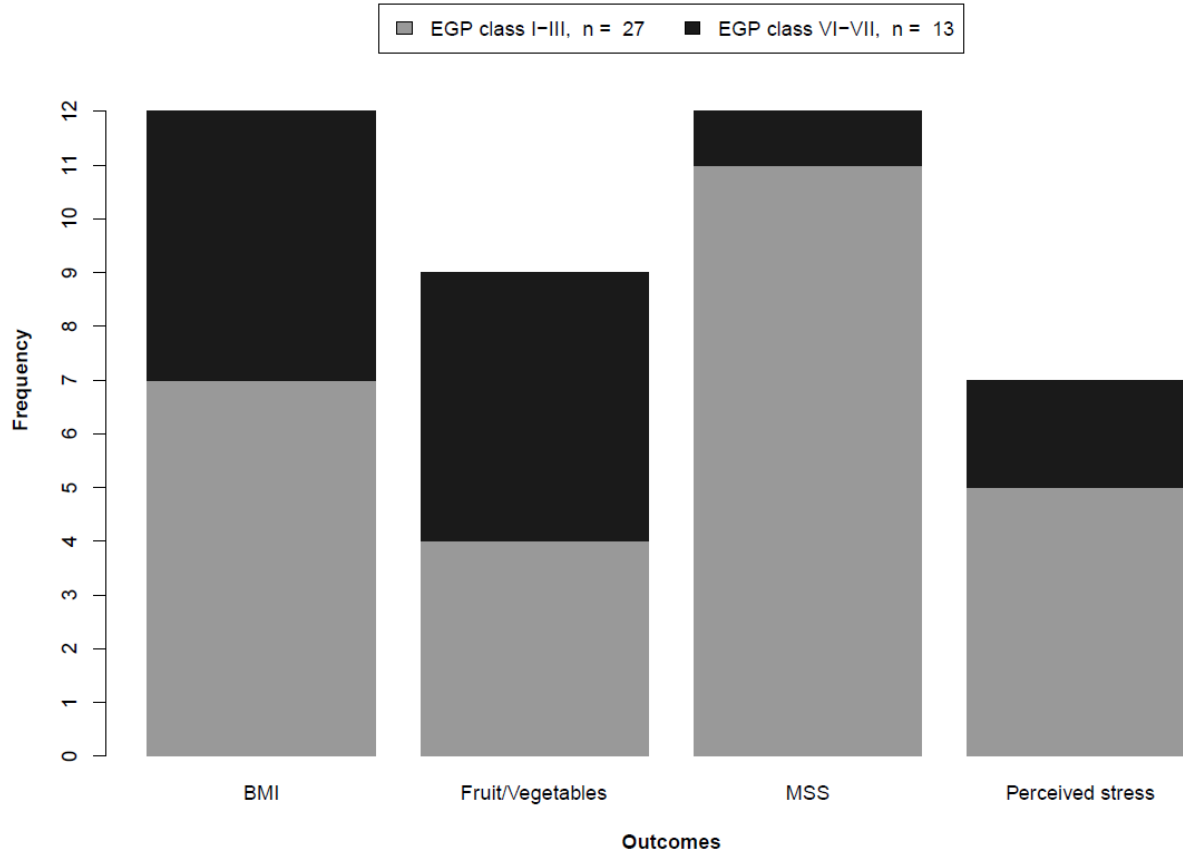
- What is the distribution of occupational classes in worksite RCTs?
- Do intervention effects on selected health outcomes differ between higher and lower occupational classes?

# Methods

- This review follows the GRADE approach and PRISMA statement and is restricted to randomised controlled interventions.
- Screening of 18,145 initial records listed in PubMed, Scopus and other data bases.
- 36 studies with 40 reported health outcomes fulfilled the selection criteria
- We classified samples according to the Erikson-Goldthorpe-Portocarrero (EGP) schema. We identified EGP classes I-III and VI-VII
- Health outcomes: BMI, Fruit/vegetable consumption, musculoskeletal symptoms, self-perceived stress

# Results: First question: Frequency of interventions by occupational class

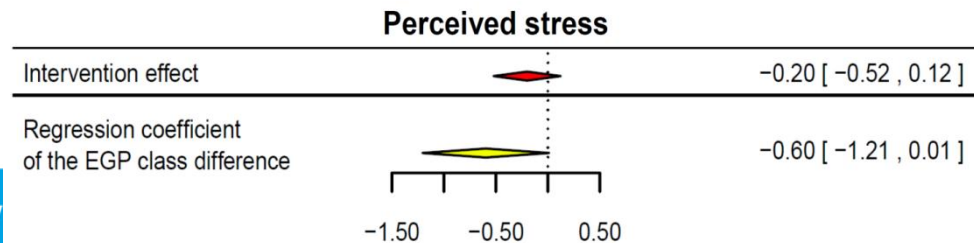
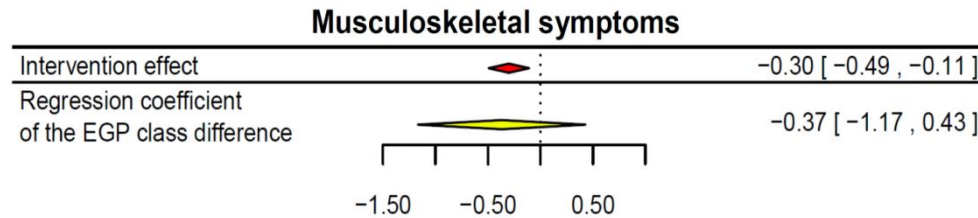
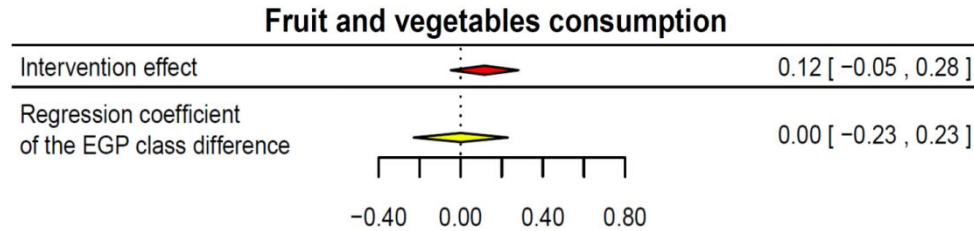
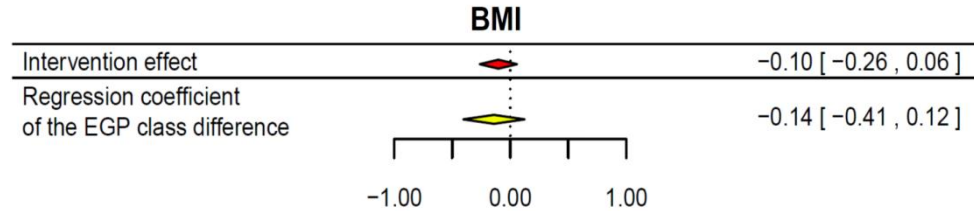
Number of outcomes reported within each EGP occupational class



➔ Need of prioritising worksite interventions among lower occupational positions given their exposure to hazardous working conditions.



# Results: Second Question: Moderation?



➡ Moderation effect of SEP needs to be confirmed; our results were inconclusive.

# Next steps

- ⇒ additional systematic review on intervention studies
- ⇒ additional secondary data analysis with special emphasis on the role of national labour and social policies
- ⇒ testing the policy relevance of new knowledge:  
selected case studies
- ⇒ final scientific report and recommendations



# Thank you!

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