

# **Psychosocial factors of work ability among people with chronic cardiovascular diseases**

**- Preliminary findings**

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# Background

- Chronic diseases are one of the major cause of significant reduction in peoples work activity. Decline in general wellbeing related to health problems influences work abilities and changes psychosocial needs for satisfying work environment.
- Previous studies focused mainly on diseases factors: severity, duration, influence on physical wellbeing

# Aims

The aim of present investigation was the diagnosis of psychosocial job characteristics and individual factors related to work ability of employees with two cardiovascular conditions:

- chronic hypertension
- coronary heart disease

During the longitudinal study we will test the impact of particular psychosocial and physical work characteristics on work ability among employees with chronic diseases. We will test how this impact is moderated by individual factors like sense of coherence and coping strategies.

Here the preliminary findings are presented

# Disease characteristics

The project included populations with two chronic diseases of different symptoms and impact on everyday life

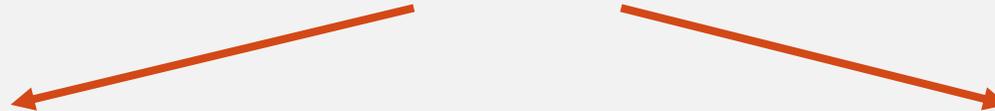
## **chronic hypertension** (I10, ICD-10)

- pathological increase in blood pressure ( $\geq 140/90$ )
- usually has no symptoms, but can cause serious problems such as stroke, heart failure, heart attack and kidney failure
- can be controlled through healthy lifestyle habits and medicines

## **coronary heart disease** (I25, ICD-10)

- also named coronary artery disease (CAD), ischemic heart disease (IHD)
- signs are usually noted in the advanced state of disease
- can cause chest pain or heart palpitations or breathlessness
- Often the first onset of symptoms, is a "sudden" heart attack
- Treated with lifestyle changes, medicine and, in some cases, surgery

# Variables taken into account



## Job characteristics:

- Job resources: support, autonomy, feedback, sense of community, ...
- Job demands: mental, emotional, cognitive, physical, ...

## Individual characteristics:

- Age, gender, type of disease
- Sense of coherence
- Stress coping strategies

# Method

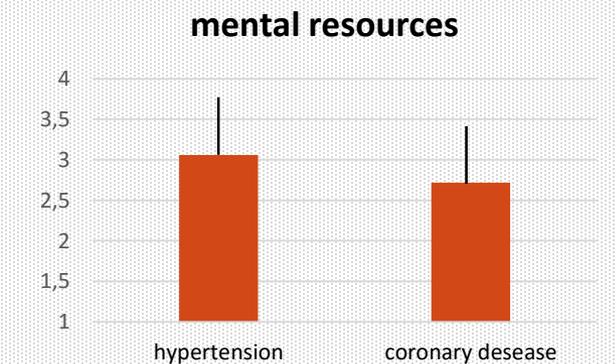
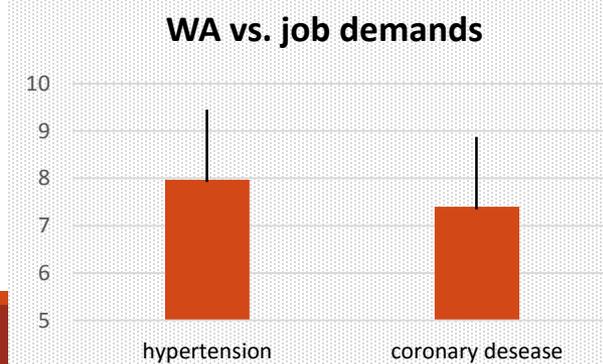
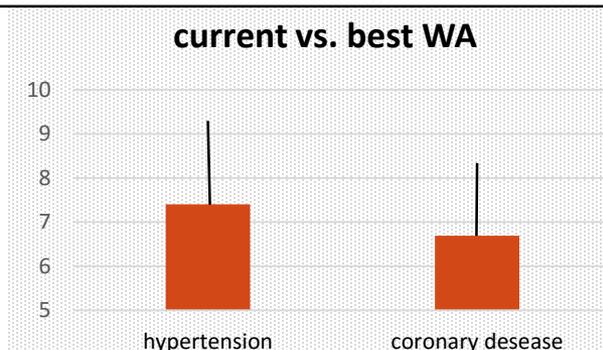
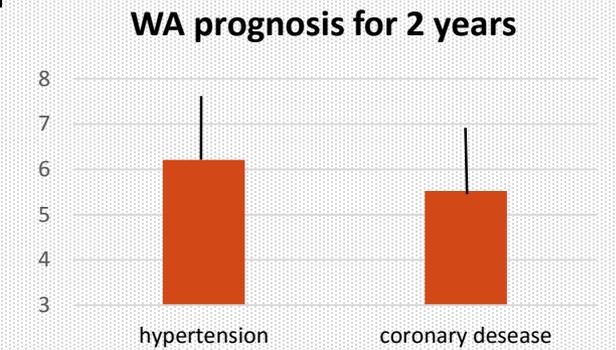
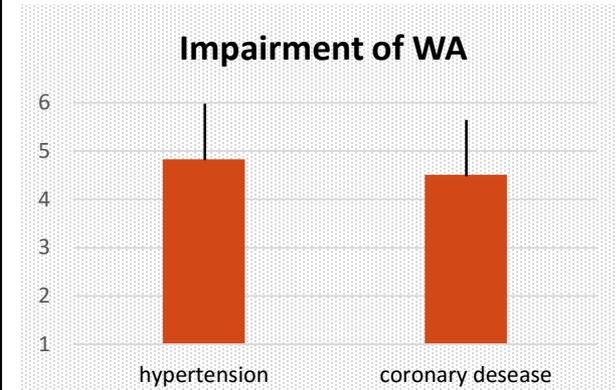
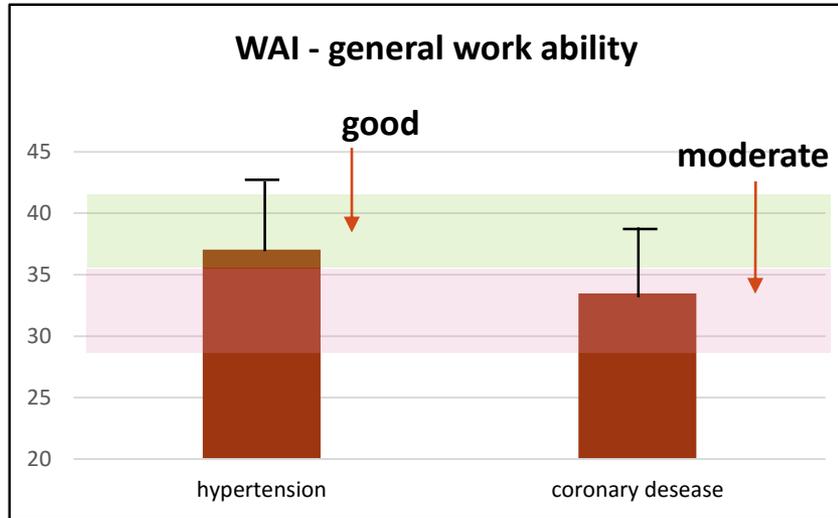
- **Participants:**

- 295 professionally active volunteers (man and woman, age range 22-78 years):
  - 200 with hypertension and 95 with coronary heart disease;
- Recruited by the personal physician
- Disease severity (WHO), duration, medications intake and associated conditions were controlled

- **Measures**

- Work Ability Index, WAI (Tuomi et al., 1998)
- Copenhagen Psychosocial Questionnaire, COPSQ (Kristensen et al., 2005)
- Sense of Coherence Scale, SOC (Antonovsky, 1995)
- Brief COPE (Stress Coping Strategy Questionair) (Carver et al., 1989)

# Results



## Work Ability Index

### Hypertension:

8% poor, 33% moderate, 45,5% good, 13,5% very good

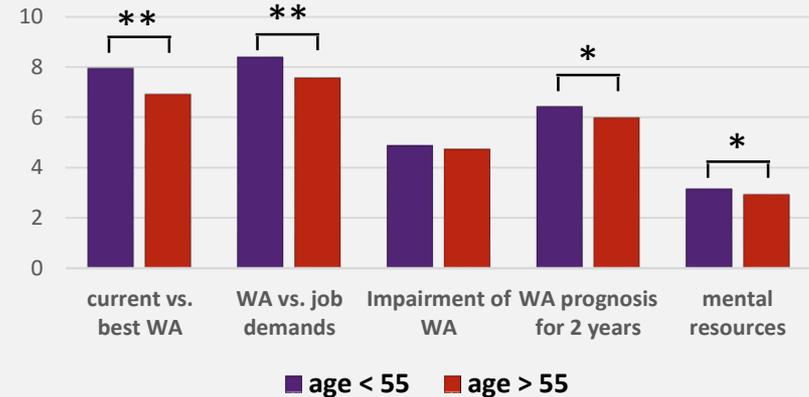
### CHD:

20% poor, 47,5% moderate, 25,5% good, 7% very good

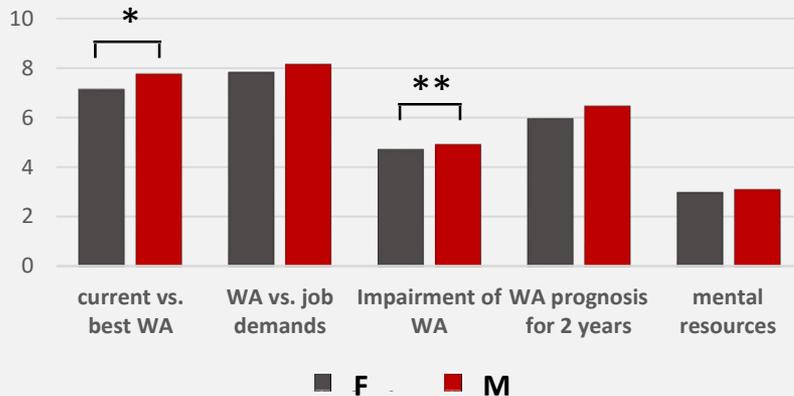
# Work Ability Index by age, gender and type of work

Significant differences were found for **hypertension**, NOT for CHD

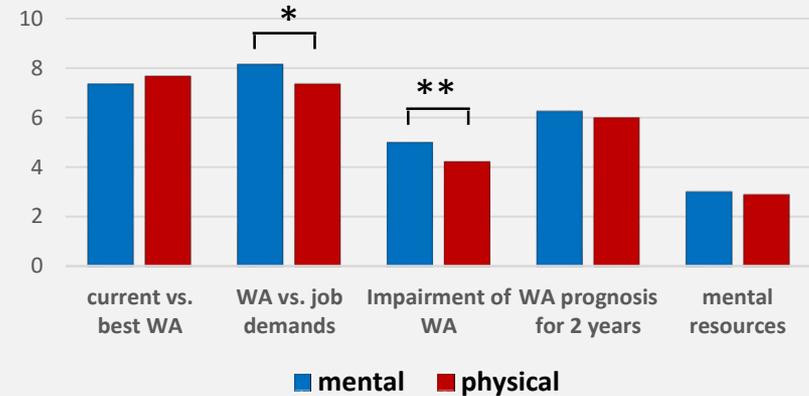
WAI by age



WAI by gender



WAI by type of work

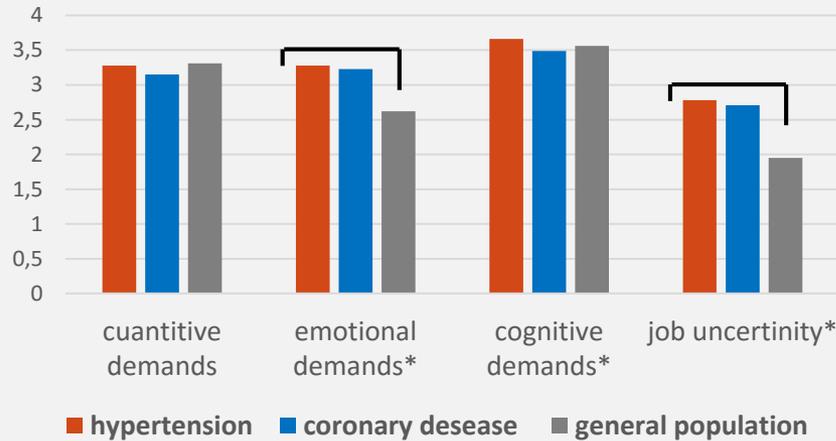


\* p < 0, 05; \*\* p < 0,001

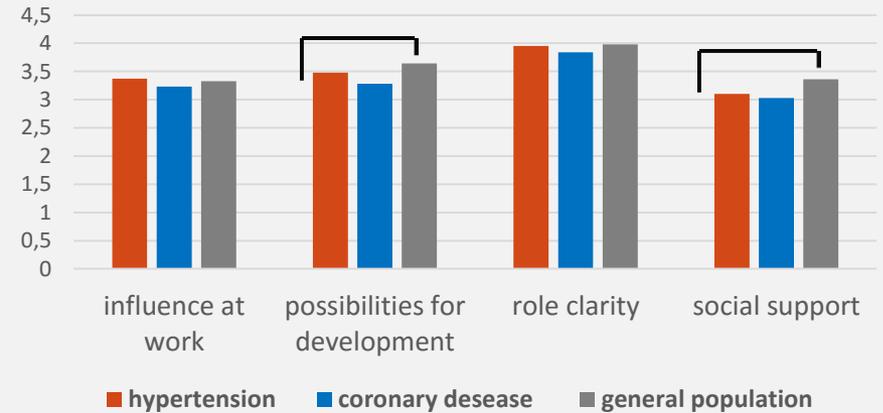
- Psychosocial job factors rated for hypertension and CHD in reference to a norm

## Copenhagen Psychosocial Questionnaire

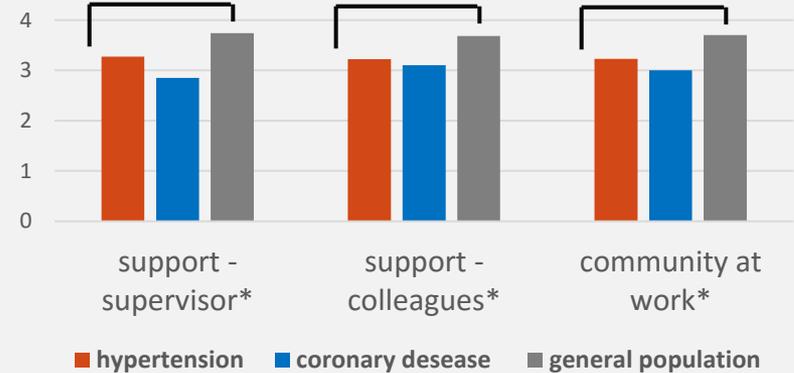
### job demands



### job resources



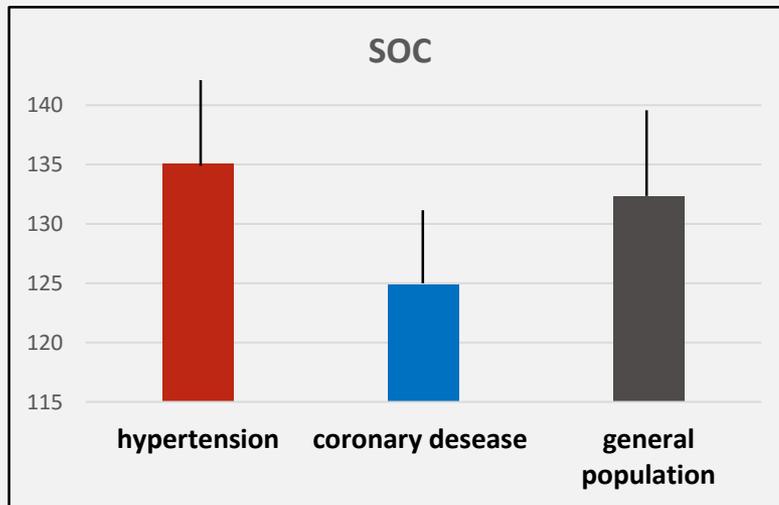
### social capital



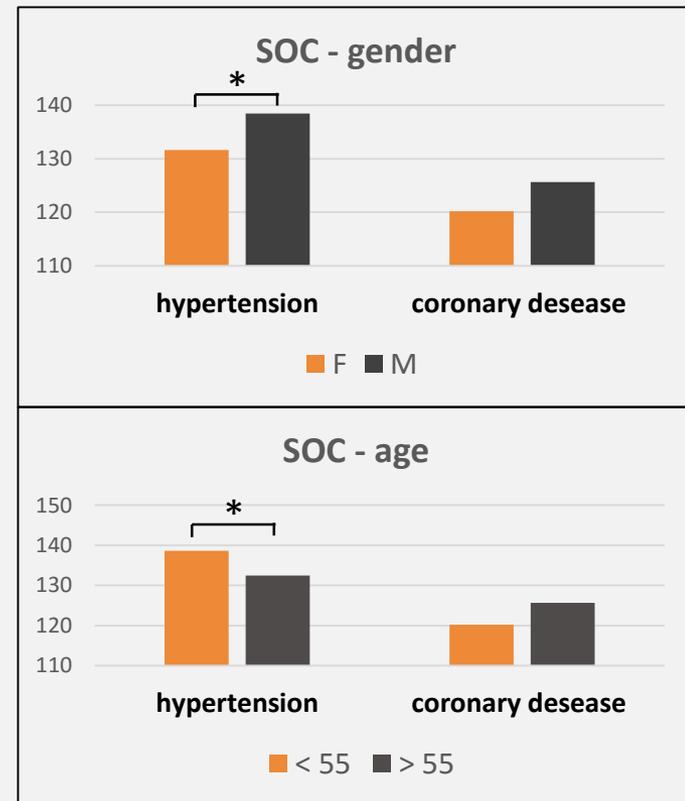
- Sense of Coherence

consists of three dimensions: comprehensibility, manageability and meaningfulness

The SOC refers to an enduring attitude and measures how people view life and, in stressful situations, identify and use their general resistance resources (GRRs) to maintain and develop their health.



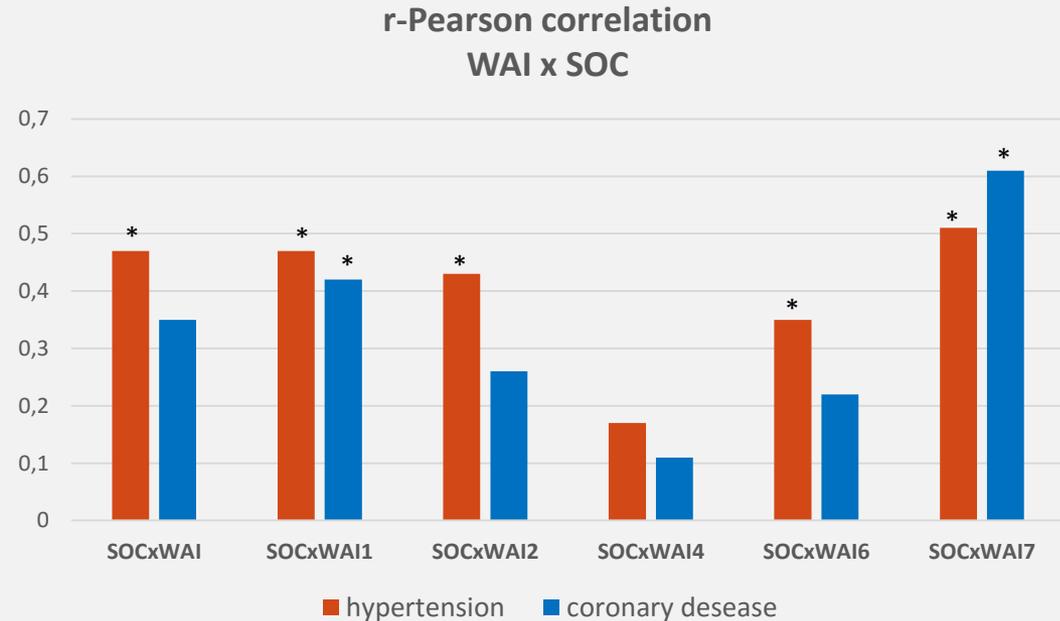
↑  
Sample from Pasikowski (2001)



\*  $p < 0,05$

- Correlation between work ability index and the sense of coherence

- In the case of employees with **hypertension** all tested work ability factors were positively correlated with the sense of coherence
- In the case of employees with **CHD** only mental resources and the comparison of current vs. best work ability correlated with the SOC



WAI 1 – current WA vs best WA

WAI 2 – WA vs current job demands

WAI 4 – impairment of WA related to illness

WAI 6 – WA subjective prognosis for 2 years

WAI 7 – mental resources

# Results summary

- Work ability index is significantly lower among people with CHD than among people with hypertension
- Most of the subjects with hypertension declare „good” or „very good” work ability (59%)
- Most often level of work ability among subjects with CHD was „moderate” (47%) or bad (20%)
  
- People with both cardiovascular diseases perceive their possibilities for development and social support at work as worse than people from general population
- Social capital including support and community at work are perceived worse by workers with cardiovascular diseases comparing to general population (Danish population)
  
- Results showed that sense of coherence is lower comparing to norms only among subjects with CHD and not with hypertension
- There is a positive correlation between sense of coherence and WAI (mainly mental resources)

# Conclusions

- Employees with two types of cardiovascular diseases differently rate their work ability – results showed good work ability of employees with hypertension and relatively lower in case of employees with CHD.
- Psychosocial work characteristics are rated less positively by people with chronic cardiovascular diseases. The main finding showed relatively low social capital.
- In the further longitudinal investigation we will test the impact of psychosocial job characteristic on work ability specific for particular chronic disease. The moderating factor of sense of coherence, coping strategies and other individual characteristics will be examined.

# Thank you for your attention

## Questions:

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