UNIVERSITEIT GENT

FACULTY OF MEDICINE AND HEALTH SCIENCES

The association of social capital with need for recovery and sick leave in a public sector ageing workforce

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Introduction

Economic & demographic evolutions

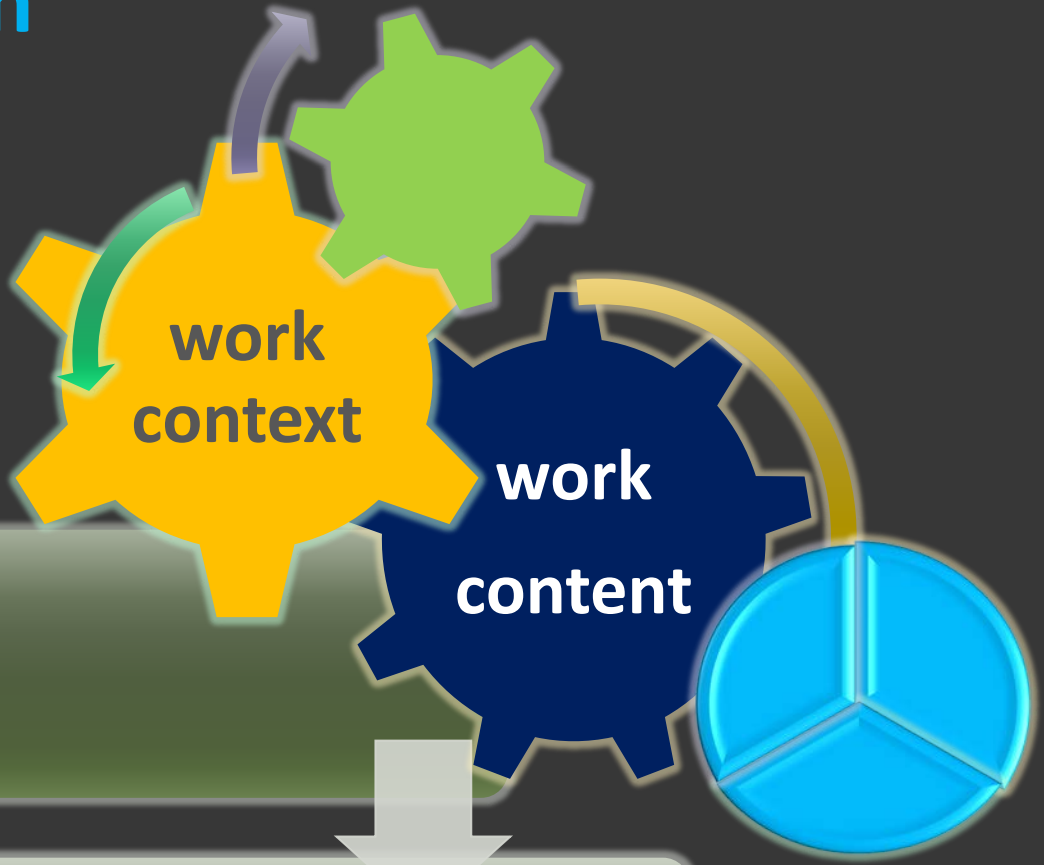
→ **Sustainable employability** = major challenge

Relevant indicators within an ageing workforce:

- need for recovery
- sickness absence

→ What are possible antecedents in the psychosocial work environment?

Introduction



Workplace psychosocial exposures

Health

Introduction

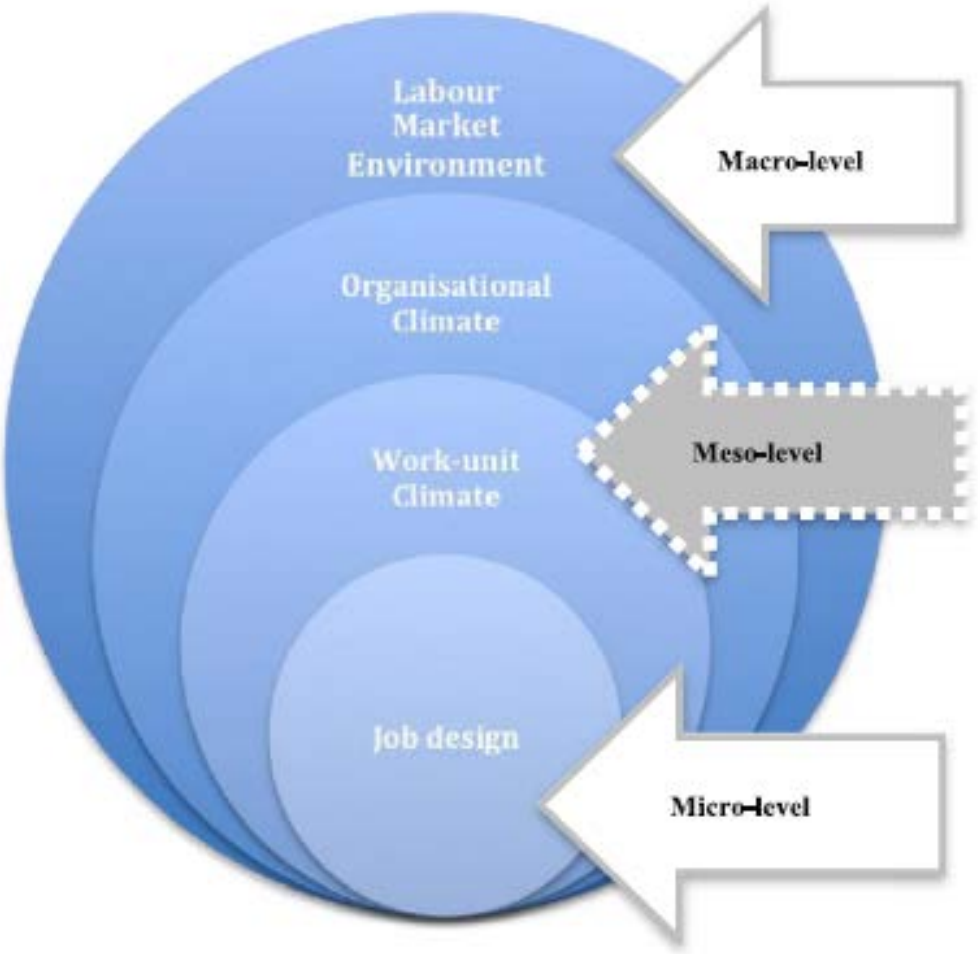


Figure 1 Levels of psychosocial work environment related to employee mental health

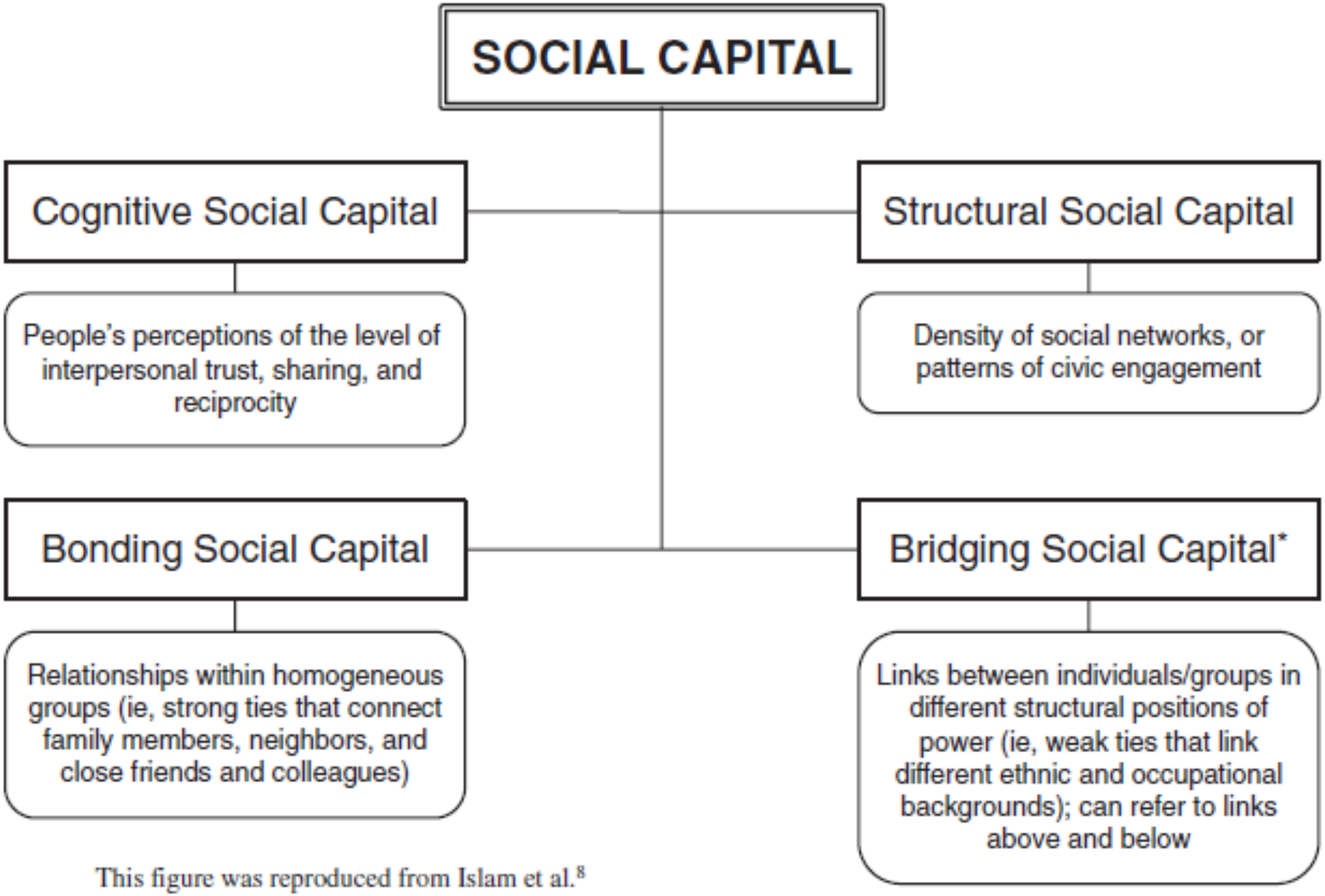
Martin et al., Employee Mental Health: A Multilevel Approach. Stress & Health 2014

Introduction

Social capital commonly defined as

"features of social structures, such as levels of interpersonal trust and norms of reciprocity and mutual aid, which act as resources for individuals and facilitate collective action"

(Putnam, 1993; Kawachi et al., 1997)



This figure was reproduced from Islam et al.[8]

* We regard linking social capital that refers to connections between individuals/groups who interact across explicit power or authority gradients in society as a special case of bridging social capital.

Figure 1. Conceptual arrangement of social capital

Murayama H, Fujiwara Y, Kawachi I. Social Capital and Health: A Review of Prospective Multilevel Studies. J Epidemiol 2012;22(3):179-187

Introduction

Social capital assessed through the COPSOQ:

- social community (*3 items*)
- vertical trust (*4 items*)
- justice & respect (*4 items*)

Aim

To investigate the relation of social capital – both at individual and at work unit level – with indicators of sustainable employability in a public sector ageing workforce

Methods

- Cross-sectional questionnaire study design

- N = 1457 (79% from target population)
  - Recruited from 7 public administrations
  - 64.3% female
  - Mean age 42.4 yr (sd 10.3); 48% ≥ 45 yr

- Present analyses: **N = 1268**
  - Exclusion of supervisors
  - Exclusion of work units with <5 workers
  - **78 work units** including 5-80 workers / unit (median 11.5)

Methods

- Outcome variables
  - high need for recovery (25%)
  - high sick leave duration (retrospective 12-month; ≥10 days) (12%)

- Social capital: individual level + aggregated at work unit level (ICC = 15%)

- Confounding variables:

Gender, age, occupation, shift work, poor contacts with relatives/friends, quantitative demands, emotional demands, degrees of freedom, job insecurity, physical strain

Results

Stepwise Generalized Linear Mixed models

- Null model: ICC for NFR clustering within work units = **10.6 %**

  [Intercept variance 0.389 (0.130)** - 2 log pseudo likelihood 5706.275]

- Null model: ICC for sickness absence clustering within work units = **5.3 %**

  [Intercept variance 0.183 (0.118) - 2 log pseudo likelihood 6022.629]

Outcome: high NFR	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 4 OR (95% CI)
Gender: male	0.92 (0.63-1.36)	0.92 (0.62-1.37)	0.93 (0.63-1.38)
Age	1.00 (0.99-1.02)	1.003 (0.99-1.02)	1.003 (0.99-1.02)
Occupation (Blue-collar = ref)			
White-collar	2.21 (1.31-3.74)**	2.26 (1.33-3.83)**	2.27 (1.33-3.87)**
Executive	2.54 (1.37-4.72)**	2.69 (1.44-5.01)**	2.67 (1.43-5.00)**
Shift work: yes	1.06 (0.68-1.64)	1.07 (0.69-1.66)	1.08 (0.69-1.68)
Contacts score: good	0.36 (0.26-0.51)***	0.38 (0.27-0.53)***	0.38 (0.27-0.53)***
Quantitative demands	1.36 (1.23-1.49)***	1.32 (1.20-1.45)***	1.32 (1.20-1.45)***
Emotional demands	1.08 (0.99-1.17)#	1.08 (1.00-1.18)#	1.08 (0.99-1.18)#
Degrees of freedom	0.92 (0.83-1.01)#	0.91 (0.83-1.01)#	0.92 (0.83-1.01)#
Physical strain	1.28 (1.18-1.38)***	1.28 (1.17-1.38)***	1.28 (1.17-1.38)***
Job insecurity	1.15 (1.08-1.22)***	1.14 (1.07-1.21)***	1.14 (1.07-1.21)***
Individual social capital		0.89 (0.80-0.99)*	0.88 (0.78-0.98)*
Work unit social capital			1.10 (0.81-1.51)

	Estimate (S.E.)	Estimate (S.E.)	Estimate (S.E.)
Intercept variance	0.228 (0.128)#	0.235 (0.134)#	0.250 (0.137)#

	-2 log pseudo likelihood	-2 log pseudo likelihood	-2 log pseudo likelihood
Model fit	5808.312	5804.937	5816.919

* p<0.05; ** p<0.01; *** p<0.001; # borderline significant p<0.10

Outcome: high sick leave duration	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 4 OR (95% CI)
Gender: male	0.78 (0.52-1.17)	0.78 (0.52-1.17)	0.74 (0.49-1.12)
Age	1.02 (0.99-1.03)#	1.02 (1.00-1.03)#	1.01 (0.99-1.03)
Occupation (Blue-collar = ref)			
White-collar	1.11 (0.68-1.81)	1.10 (0.68-1.78)	1.08 (0.67-1.75)
Executive	0.62 (0.32-1.18)	0.63 (0.33-1.19)	0.63 (0.33-1.19)
Shift work: yes	0.94 (0.61-1.44)	0.93 (0.60-1.43)	0.89 (0.58-1.37)
Contacts score: good	0.98 (0.67-1.43)	1.00 (0.69-1.47)	0.99 (0.68-1.46)
Quantitative demands	0.90 (0.82-0.99)*	0.88 (0.79-0.98)*	0.88 (0.79-0.98)*
Emotional demands	1.06 (0.97-1.15)#	1.07 (0.98-1.16)#	1.08 (0.99-1.18)#
Degrees of freedom	0.98 (0.89-1.08)	0.99 (0.90-1.08)	0.99 (0.90-1.08)
Physical strain	1.12 (1.03-1.21)*	1.12 (1.03-1.21)*	1.10 (1.02-1.21)*
Job insecurity	1.01 (0.95-1.07)	1.01 (0.95-1.08)	1.01 (0.95-1.07)
Individual social capital		0.94 (0.84-1.05)	0.98 (0.87-1.10)
Work unit social capital			0.73 (0.54-0.98)*

	Estimate (S.E.)	Estimate (S.E.)	Estimate (S.E.)
Intercept variance	0.160 (0.119)	0.148 (0.118)	0.133 (0.113)

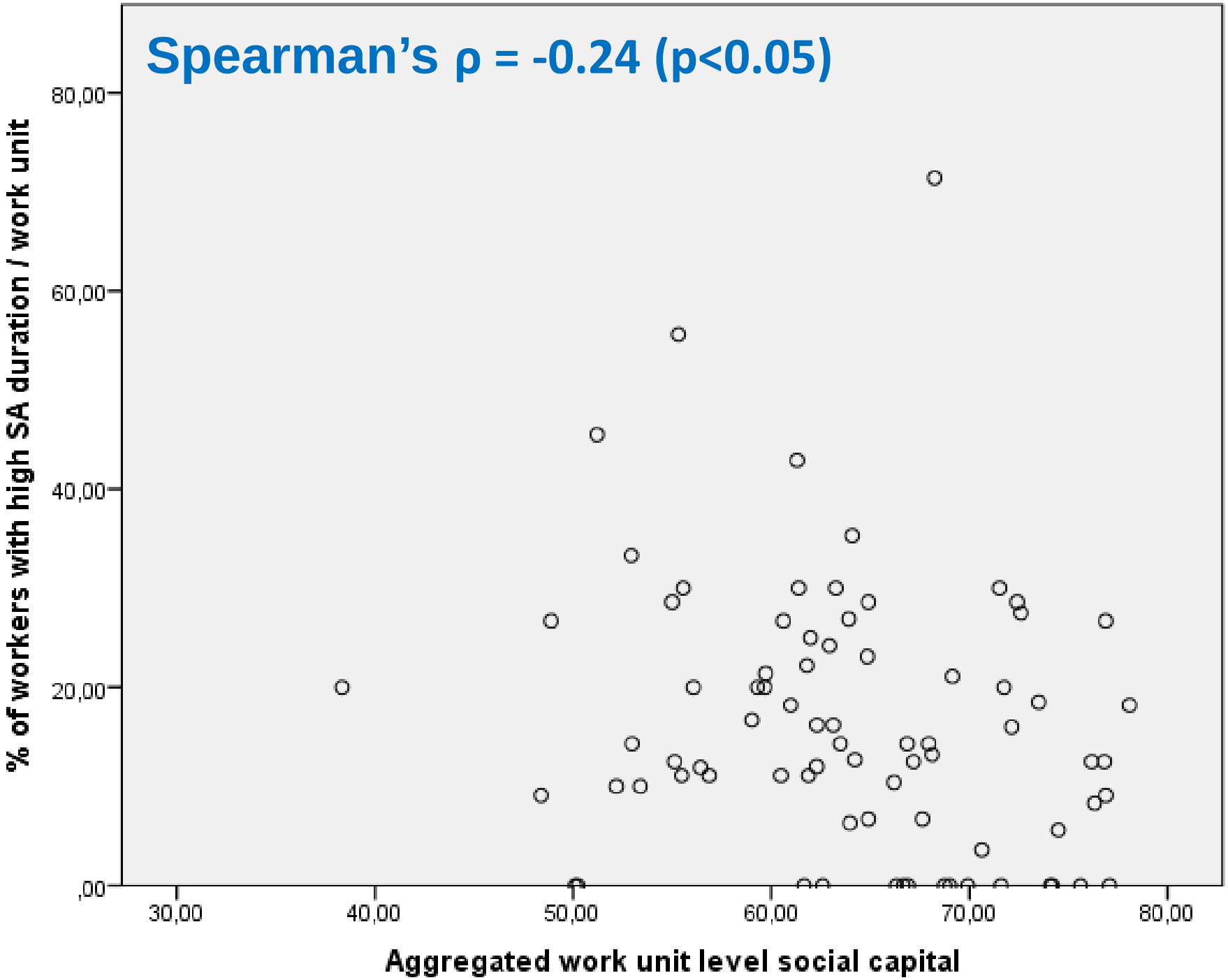
	-2 log pseudo likelihood	-2 log pseudo likelihood	-2 log pseudo likelihood
Model fit	5718.345	5677.174	5688.866

* p<0.05; ** p<0.01; *** p<0.001; # borderline significant p<0.10

Outcome: high sick leave duration	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 4 OR (95% CI)
Gender: male	0.71 (0.48-1.05)#	0.71 (0.48-1.06)#	0.68 (0.46-1.01)#
Age	1.01 (0.99-1.03)	1.01 (0.99-1.03)	1.01 (0.99-1.03)
Occupation (Blue-collar = ref)			
White-collar	0.82 (0.53-1.26)	0.80 (0.52-1.25)	0.81 (0.52-1.25)
Executive	0.47 (0.27-0.81)**	0.47 (0.27-0.81)**	0.49 (0.28-0.86)*
Shift work: yes	1.16 (0.78-1.72)	1.16 (0.78-1.73)	1.12 (0.76-1.67)
NFR: low	0.51 (0.36-0.73)***	0.53 (0.37-0.75)***	0.52 (0.36-0.75)***
Individual social capital		0.98 (0.88-1.08)	1.02 (0.90-1.14)
Work unit social capital			0.75 (0.56-1.00)*
	Estimate (S.E.)	Estimate (S.E.)	Estimate (S.E.)
Intercept variance	0.138 (0.109)	0.138 (0.111)	0.129 (0.106)
	-2 log pseudo likelihood	-2 log pseudo likelihood	-2 log pseudo likelihood
Model fit	5748.662	5696.041	5713.811

* p<0.05; ** p<0.01; *** p<0.001; # borderline significant p<0.10

Spearman's ρ = -0.24 (p<0.05)



Discussion: conclusions

❖ Results suggest that workplace social capital is associated with indicators of sustainable employability in an ageing workforce, independent of work content characteristics

❖ Need for recovery: mainly determined by individual level psychosocial risk factors

❖ Sickness absence: role for contextual social capital at work unit level

Thank you!

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