



## Differences in job related stresses and strains and work ability between managers and staff in the service sector

Symposium on „Cognitive, Emotional and Social Components of Services Encounters: Employees and Customers Perspectives“

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Managing people and organizations in turbulent times“

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## Agenda

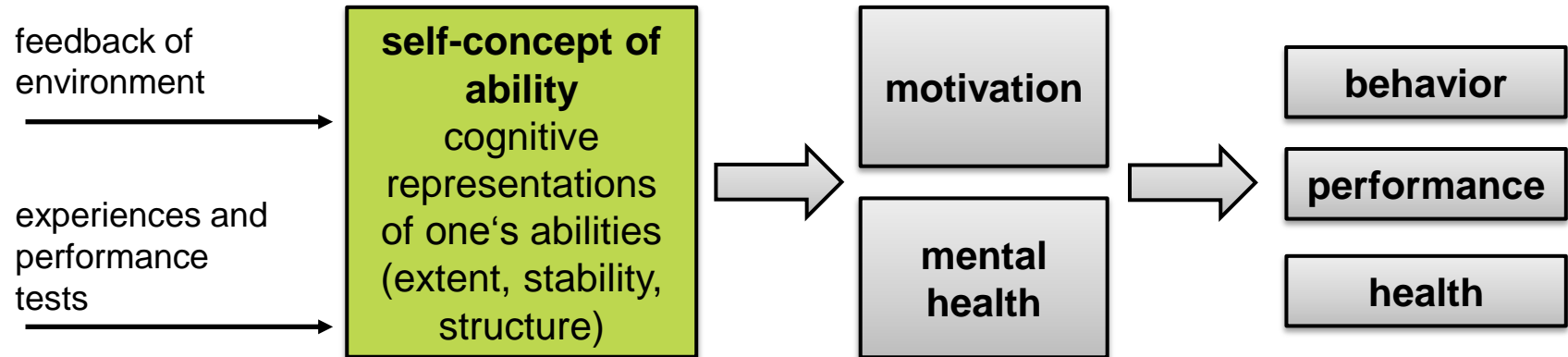
1. Work ability and increased demands in the service sector
2. Survey „Healthy work in North Rhine-Westphalia 2014“
3. Differences between leading and fellow employees regarding stresses and strains and their ability to work
4. Conclusions and implications for safety and health at work, human resources and organizational development



## Self-concept of Ability

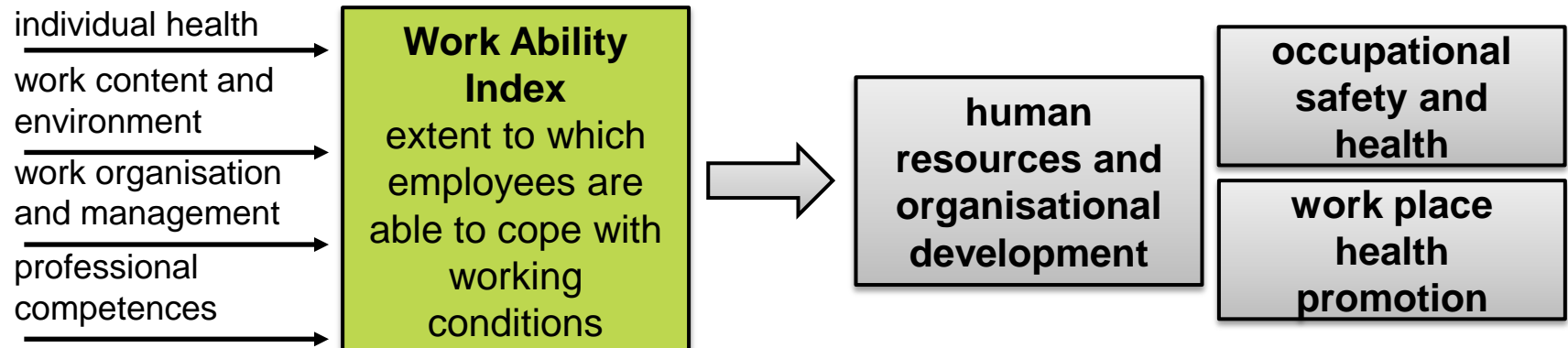
(e.g. Bandura, 1977; Epstein, 1973; Meyer, 1984; Stiensmeier-Pelster & Schöne, 2008)

### References



## Work Ability Index (e.g. Hasselhorn & Freude, 2007; Ilmarinen & Tuomi, 2004)

### Determinates





## Working in the service sector is mentally demanding

- An accumulation of (mentally) demanding tasks and critical employment conditions – particularly in personal services – can be detected.
  - Overstress by responsibility, time pressure and amount of work has increased and technological developments facilitate flexibility and availability, too.
- ➔ This “new quality of work” impacts recovery and health.

## Job requirements for managers increased

- ➔ Managers are responsible for effective and efficient safety and occupational health in the workplace.
- They decide and delegate tasks and control workflow, amount of work and work climate.
  - Especially middle management positions are demanding and stressful since these managers are responsible and delegate but – in many cases – have not the authority to make complex decisions.

(e. g. Bakker, Demerouti, Schaufeli, 2003; Grebner et al., 2003; Kjellberg et al., 2010; Kyriacou, 1987; Lambert & Lambert, 2001; Polzer et al., 2014; Seibt et al., 2012; Yang, 2009; Zimmermann et al., 2012)



## Research Questions

**Q1: How do managers and employees of the service sector evaluate work related stresses and strains?**

**Q2: How do managers and employees of the service sector evaluate their actual and future ability to work?**



## Survey „Healthy Work in North Rhine-Westphalia 2014“

- CATI: interviews conducted in November/December 2013
- original sample
  - N = 2.025 employees of North Rhine-Westphalia (1102 male/ 923 female)
  - aged between 17 and 79 years, M = 42.11 (SD = 12.47)
- for the purpose of this presentation
  - n = 1057 employees of the service sector (457 male/ 599 female)
  - aged between 17 and 70 years, M = 42.16 (SD = 12.51)
- biggest, gathered industries of the service sector:
  - health care, social services (29%)
  - other civil services (23%)
  - education (17%)



## Variables

- independent variable: leadership

291 managers vs. 758 fellow employees (+7 no answer)

- dependent variables:
  - 29 items with respect to stresses and strains, e.g. high responsibility, high time pressure or amount of work, rated on a scale from 0 (not strained) to 3 (heavily strained)
  - current ability to work from 1 to 10 points (based on the best work ability that was reached in the past),  $M = 7.92$  ( $SD = 1.71$ ) → good
  - future ability to work from 1 (very unlikely) to 4 (very likely),  $M = 2.89$  ( $SD = 1.06$ ) → likely



## Significant differences in work related stresses and strains on single items

stresses and strains	fellows	managers	t	df	p
noise	0.66 (0.97)	0.52 (0.85)	2.22	586.31	.027
physically straining work	0.58 (0.94)	0.41 (0.78)	2.88	623.46	.004
monotonous work	0.42 (0.78)	0.29 (0.65)	2.88	621.31	.004
high responsibility	1.21 (1.01)	1.46 (1.08)	-3.46	492.89	.001
high time pressure	1.08 (0.98)	1.31 (0.99)	-3.42	1046	.001
doing different tasks at the same time	1.10 (1.04)	1.24 (1.05)	-1.99	1045	.046
long absence from home	0.60 (0.91)	0.76 (0.97)	-2.50	1046	.013
trouble and conflicts with colleagues	0.51 (0.83)	0.64 (0.84)	-2.25	1046	.025
many business trips or away on construction jobs	0.25 (0.67)	0.37 (0.74)	-2.33	478.84	.020





# Exploratory factor analysis with parallel analysis

(Horn, 1965; Fabrigar et al., 1999)

factor	item	factor loading	all	service	production
<b>work environment</b>	working with dirt	.889			
	physically stressing work	.803			
	substances that are a risk for health	.633			
	high risk to have an accident or crash	.607	0.56 (0.63)	0.48 (0.58)	0.75 (0.71)
	climatical conditions (heat, cold, etc.)	.566			
	noise	.533			
	physically constraining postures	.510			
<b>work organisation and amount of work</b>	high time pressure	.766			
	doing different tasks at the same time	.696	1.06 (0.77)	1.12 (0.79)	1.01 (0.74)
	high responsibility	.681			
	excessive demands caused by the amount of work	.627			
<b>working climate, social conditions</b>	trouble and conflicts with line managers	.833			
	trouble and conflicts with colleagues	.692	0.63 (0.67)	0.64 (0.69)	0.64 (0.65)
	lack of information	.425			
<b>mobility</b>	long absence from home	.739	0.45 (0.70)	0.46 (0.69)	0.46 (0.73)
	many business trips or away on construction jobs	.652			



## Differences in work related stresses and strains on factorial basis, actual and future ability to work

	<b>fellows</b>	<b>managers</b>	<b>t</b>	<b>df</b>	<b>p</b>
work environment	0.50 (0.58)	0.45 (0.59)	1.26	1037	.208
work organisation and amount of work	1.08 (0.78)	1.26 (0.81)	-3.36	1042	.001
working climate, social conditions	0.62 (0.70)	0.68 (0.67)	-1.17	1039	.241
mobility	0.42 (0.67)	0.56 (0.75)	-2.75	473.74	.006
actual ability to work	7.87 (1.68)	8.04 (1.79)	-1.41	1042	.159
future ability to work	2.87 (1.07)	2.95 (1.06)	-1.14	1025	.256



## Correlations of working conditions and ability to work

	future ability to work	work environment	work organisation	working climate	mobility
actual ability to work	.233**	-.145**	-.118**	-.143**	-.025
future ability to work		-.254**	-.209**	-.097**	.108**
work environment			.366**	.422**	.387**
work organisation				.367**	.304**
working climate					.349**

\*  $p \leq .05$ ; \*\*  $p \leq .001$



## Summary

- Managers in the service sector perceive more work related stresses and strains caused by work organisation and amount of work as well as by mobility compared to fellow employees.
- Actual ability to work is not related to leadership but correlates negatively with physical, mental and social work related stresses and strains.
- Future ability to work is positively related to actual ability to work but negatively related to physical and mental stresses and strains.



## Conclusions and implications

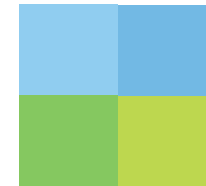
- **German Occupational Safety and Health Act:** risk assessment of mental stresses and strains (especially by work organisation and amount of work) should be conducted
- **work place health promotion:** organisation and employees should pay attention to task management and work flow to prevent stress caused by work organisation

### Take into account:

- cognitive tasks are mentally demanding – doing different tasks at the same time is expensive (Meyer et al., 1997; Meyer et al., 1998; Rubinstein, Meyer, & Evans, 2001)
  - higher switching costs
  - higher error rates
  - takes more time to complete tasks
  - loss of productivity
  - is exhausting and effects recovery



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Thanks for your attention.



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