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Mobile Work - Assessing the Complexity and Workload Factors as Challenge for Occupational Health Care



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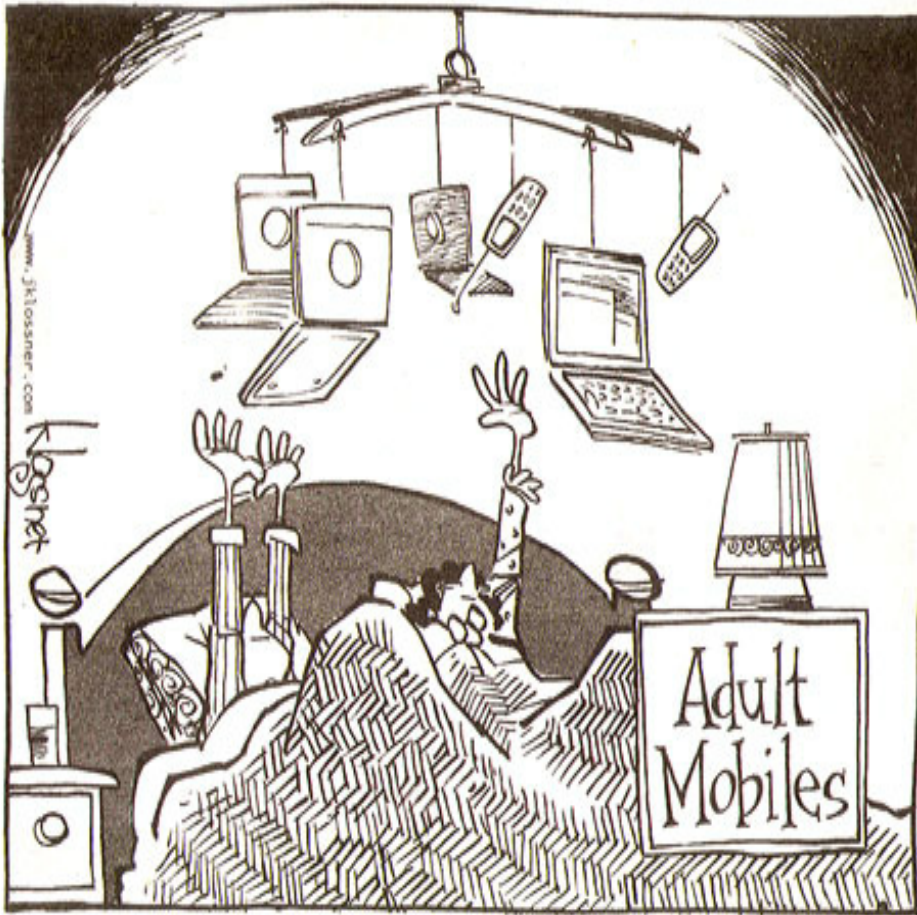


The purpose of my presentation is

- 1. to introduce the concept of mobile work,
- 2. to describe the research method used, the data collection and the analysis,
- 3. to reveal the empirical results illustrating
 - the methods available for assessing the work load factors of mobile work as well as the assessment practises performed by Finnish occupational health care
 - the developmental needs for the new assessment method for mobile work
- 4. finally summarise the findings of the study.



Mobile work definition



- The work is “mobile”, if the employee works outside of the primary workplace more than ten hours per week and uses ICT –technology for communication (Gareis 2006, Vartiainen 2006).
- Mobile employees work on business trips, in the field, in the means of transport, on customers´ premises, in hotels, from home basis - mobile work is also multi-locational (Lilischkis 2003)



Occupational Health Care Act

According to the Law for Occupational health care **2001/1383, 12§** the occupational health care should include:

1. Investigation and assessment of the healthiness and safety of the work and the working conditions through repeated workplace visits and using other occupational health care methods,
2. Investigation, assessment and monitoring of work-related health risks and problems, employees' health, working capacity and functional capacity, including any special risk of illness caused by the work and the working environment.





Challenge

- Occupational health care professionals (OHCP) are expected to be able to connect employees' strain and well-being experiences to the characteristics of their work.
- When employees are working everywhere and any time,
 - what is the place occupational health care professional should assess by using repeated workplace visits – or
 - what would be the new ways to capture the knowledge needed
- OHCPs should be able to explore the complexity and workload factors in mobile work. Are there applicable assessment methods for measuring these factors?





The objectives of this study were...

- to evaluate the commonly used and validated workload assessment methods from the point of view of the complexity factors of mobile work
- to describe the prevailing occupational health care practices of assessing the complexity and workload factors
- to present a new assessment concept for capturing the workload factors in mobile work.





Method

- The developmental work research was used as the methodological frame of reference.
- Many data acquisition methods were used.
 - First, to evaluate the adequacy of the existing workload assessment methods for capturing the complexity factors the existing validated measurement methods (n = 44) were collected, and their validity was assessed against the complexity factors of mobile work.
 - Secondly, to understand the prevailing practices two different occupational health care practices were followed in detail.
 - Thirdly, for developing the new assessment concept the user oriented and cooperative method called expert forum was used.



Interviews

1. Identification the complexity factors of mobile work

Interviews

2. Identification the complexity factor related work load factors of mobile work

Content analysis

3. Evaluation of the validity of current work load assessment methods from the mobile work point of view

Interviews and observations

4. Exploring the practices of occupational health care, how they assess the work load of mobile work

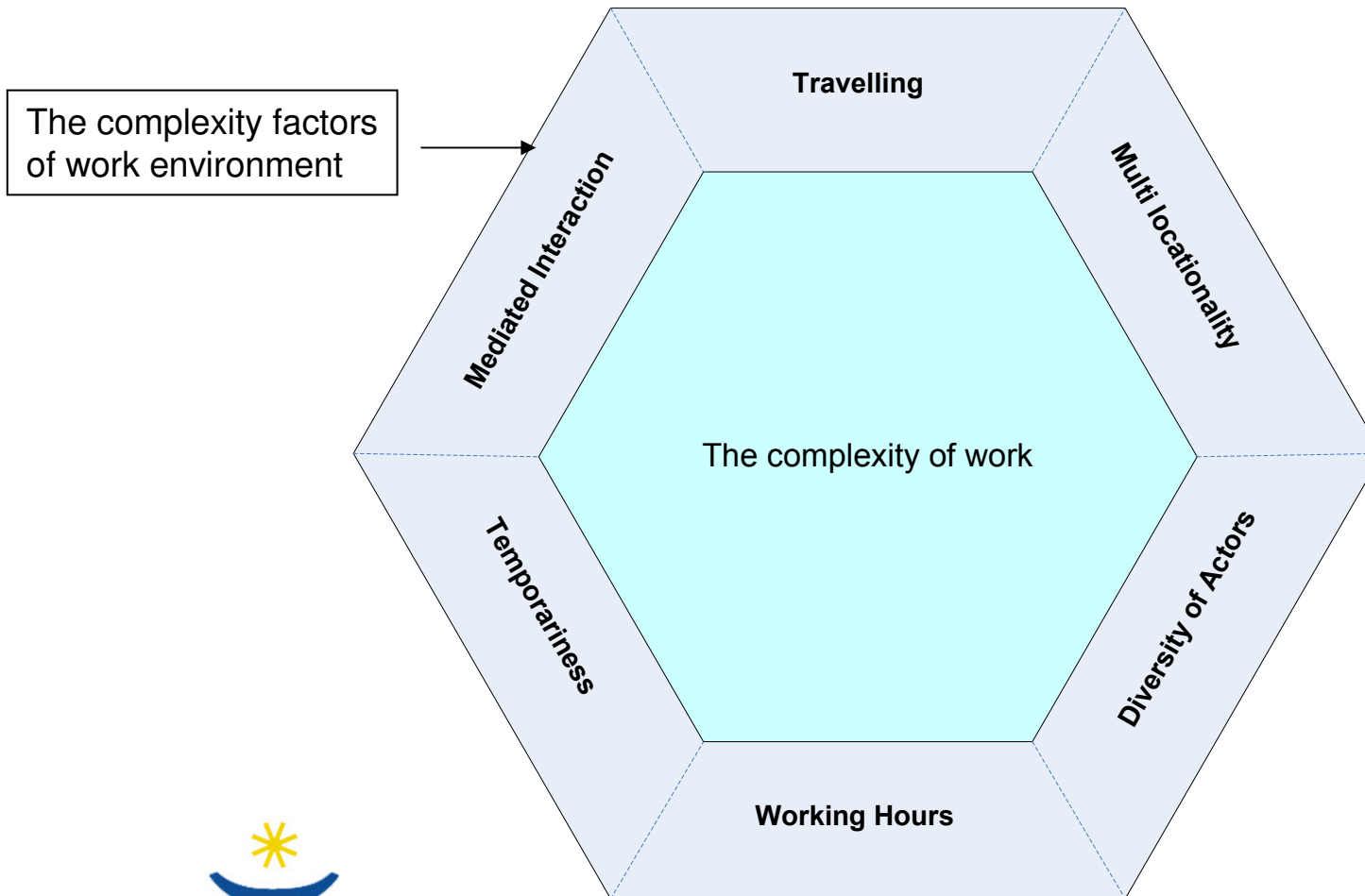
Expert forums, discussions from meetings

5. User oriented collaborative development of new assessment concepts and tools for mobile work

6. Iterative researcher oriented development of the content for the new assessment tool



The identified complexity factors of mobile work



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Every complexity factor contained several work load factors, an example of factor “travelling”

The complexity factor	The work load factors	Number of reviewed methods that are totally suitable for assessing the complexity factor N	Number of reviewed methods that contain features suitable for further development N
Travelling	<p>The extent of travelling</p> <ul style="list-style-type: none"> - The number of travelling days per year - Total duration of working trip (days) - Total duration of the travelling day (travelling and working hours together;(h/day) - Travelling hours (h/day; h/trip) - Immobility time in the means of transport (h/day) - Travelling over time zones (number of zones and the direction of crossing) <p>The mode of travelling</p> <ul style="list-style-type: none"> - Means of transport used - Setting/safety of the surroundings of the means of transport - Driving the means of transport <p>Immediate time after travelling</p> <ul style="list-style-type: none"> - Opportunity for rest 	0 of 44	12 of 44



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Applicable work load assessment methods for mobile work

	Number of methods totally suitable for assessing the complexity factor N	Number of methods that contain features suitable for further development N
The complexity factor		
Travelling	0 of 44	12 of 44
The use of multiple work places	0 of 44	29 of 44
Cultural diversity	0 of 44	2 of 44
Working time	0 of 44	18 of 44
Mediated interaction	0 of 44	1 of 44
Temporariness (the project work mode)	0 of 44	2 of 44



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Analysis of prevailing occupational health care practices:

- Despite many data acquisition possibilities, occupational health care professionals used only
 - work place survey procedure and
 - hazard and risk assessment classification

for assessing work load





Analysis of prevailing occupational health care practices:

- By the tools and procedures they used, they were able to assess only the primary workplace – and the hazards and risks tend more likely to be at secondary work places, in the means of transport, at home etc.
- Mobile workers seldom worked at primary places



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Developmental needs

- According to the expert forum, there are mobile work specific workload factors that occupational health care practitioners should be able to identify.
- Especially there is a need to develop a valid work load assessment method
 - for those globally mobile workers who travel a lot (over 100 travel days per year)
 - for those employees who already have symptoms due to mobile and multi-location work.





Conclusions

- There are mobile work specific complexity and work load factors
- There are not any tools for occupational health suitable as such for work load assessment of mobile work
- Occupational health care practitioners have met the need to better understand and assess the work loads of mobile employees
- There is a need to develop new tools for occupational health care for assessing the work load of mobile employees
- The development should be done together with OHC-practitioners
- Development of the work load assessment method focused on those globally mobile workers, who travel a lot is going on





Conclusions

- The requirement specification phase is going on
 - Assessment of working conditions should be based on data collection done by employees
 - Existing mobile devices of employees should be used as tools for data collection
 - The collected data should be used for understanding the well being factors and risk factors of mobile work
 - The collected data should lead to health improvement of mobile employees as well as to the prevention of risks of diseases
 - The selection of the variables to the measurement object should be based on scientific evidence
 - The first version should concern assessment of those globally mobile workers, who travel over 100 days per year





Thank you



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