

## Psychosocial risks and work related MusculoSkeletal Disorders

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### Psychosocial aspects in the workplace: A risk factor for musculoskeletal disorders

1. What is work related stress?
2. MSDs risk factors
3. Psychosocial risks & MSDs
4. Exposures in industry
5. Preventing/controlling

### 1. What is work related stress?



### What is Work-Related Stress (WRS)?

- Stress which is caused or made worse by working.
- Stress occurs when an individual perceives an imbalance between the demands placed on them on the one hand, and their ability to cope on the other.
- It often occurs in situations characterised by low levels of control and support.

- Psychosocial risks due to job design and work practice/organisation
- Stress: personal response due to workplace harassment and bullying

### Anecdote 1

- HR Manager in Irish division of a multinational
- Shoulder neck MSDs

### Anecdote 2

- Shop floor operator
- Shoulder neck MSDs

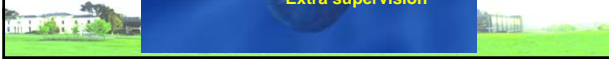
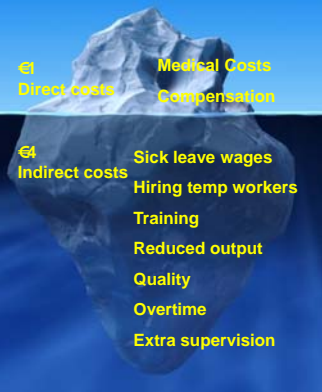


### Anecdote 3

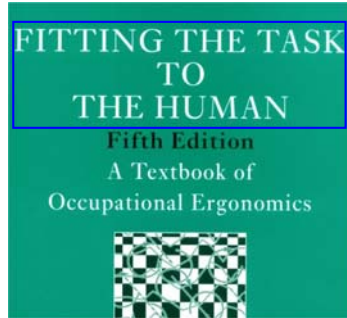
- Day versus night workers
- Permanent night workers
- Industrial assembly work
- Which had the lowest exposure to psychosocial risks?
  - Day workers?
  - Night workers?



### Direct and indirect costs



### Ergonomics



### 2. MSD Risk factors

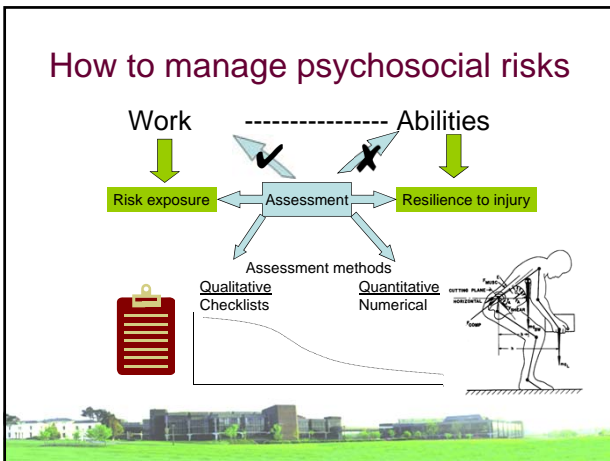
- Force
  - Poor posture
  - Repetition
  - Rest/recovery
  - Vibration
  - Psychosocial
    - Work Related Stress illnesses across EU, €13 Bn.
    - Neck/shoulder & lower back
    - Myalgia type injury: Low force tasks
- Biomechanics/physiology (linked to Force, Poor posture, Repetition, Rest/recovery, Vibration)  
 Endocrine responses (linked to Psychosocial)



### Measuring and evaluating risks

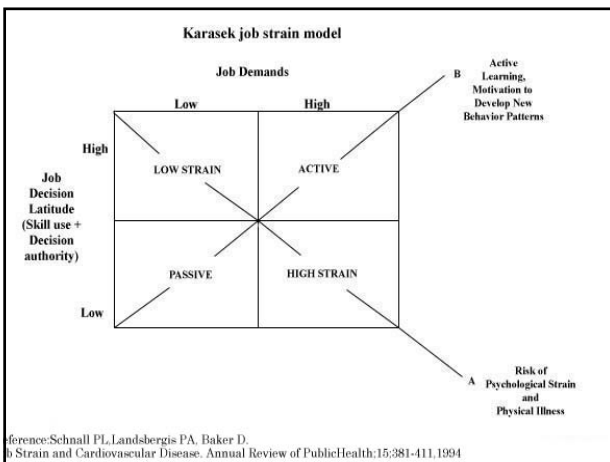
- Epidemiology: There is an effect
  - Injury data ✓
  - Whitehall I and II
- Stress increases muscle tension ✗
  - Pathology of MSDs
- Evaluation of psychosocial risks
  - Organizational Psychology methods ✓
    - (Karasek & COPSQ)
  - Predicting effect on MSDs? ✗





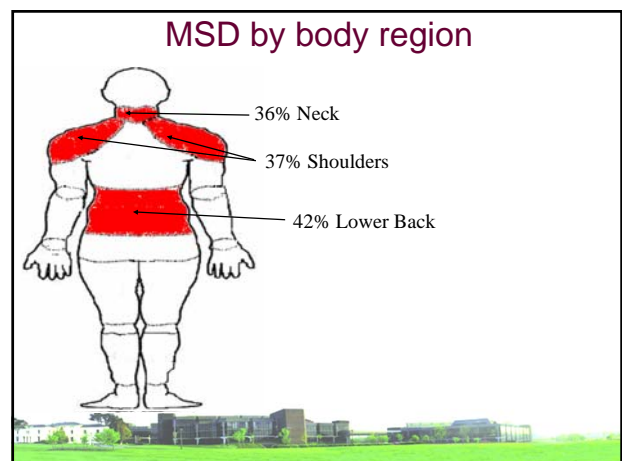
### Psychosocial Risks

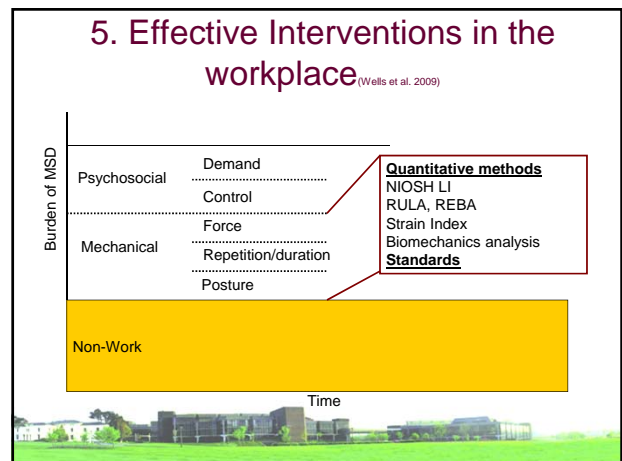
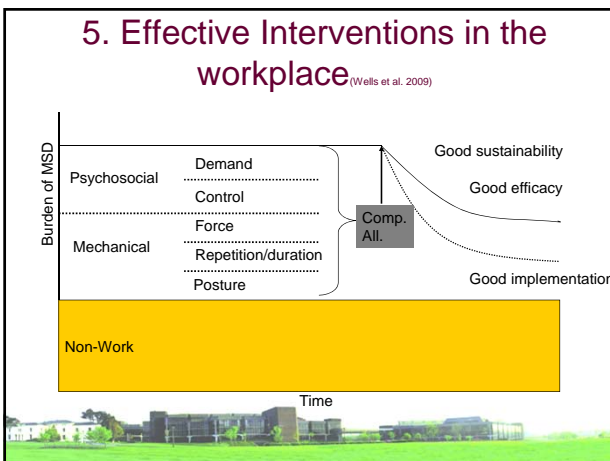
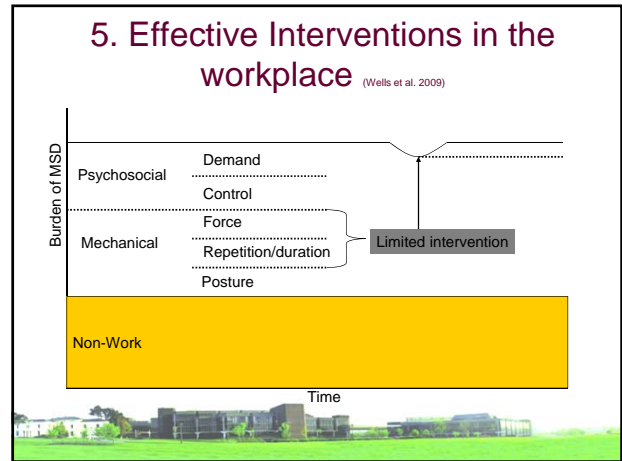
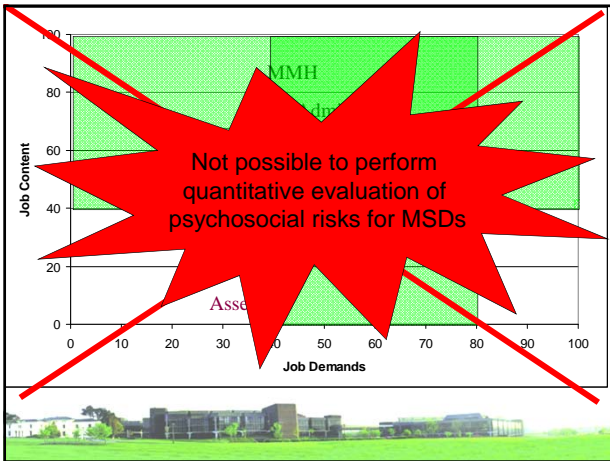
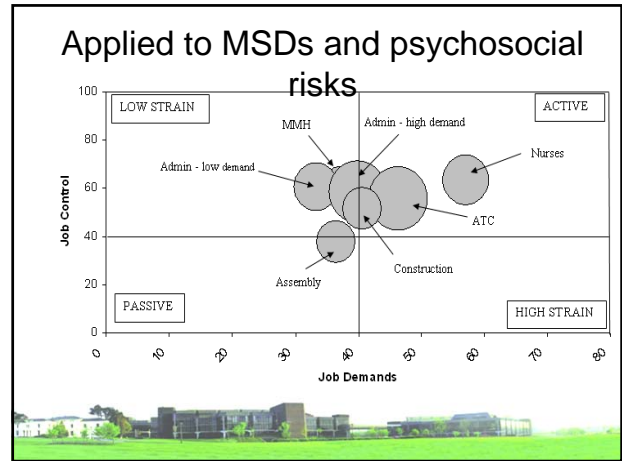
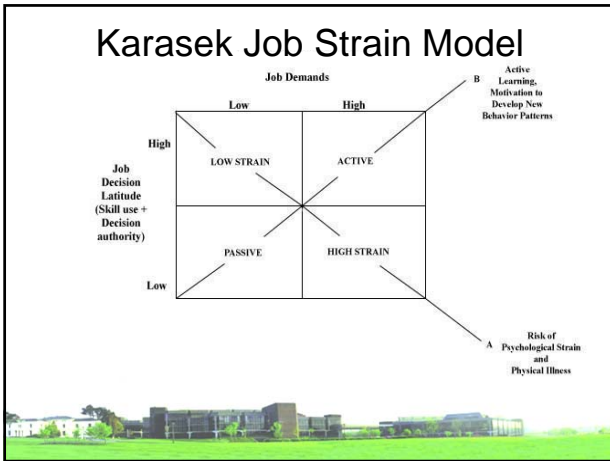
Context and level	Scale
1. Job Content	1.1 Influence at work 1.2 Possibility of development 1.3 Degree of freedom 1.4 Meaning of work 1.5 Commitment to work
2. Job Demands	2.1 Quantitative demands 2.2 Emotional demands 2.3 Hiding demands
3. General health	
4. Mental health	
5. Vitality	
6. Work Environment	6.1 Predictability 6.2 Quality of leadership 6.3 Social support 6.4 Feedback at work 6.5 Sense of community
7. Insecurity at work	
8. Job satisfaction	



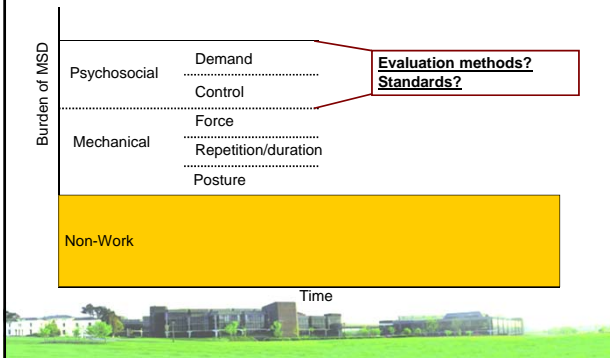
- ### 4. Exposures in Industry Case Study
- MSD Prevalence
    - Nordic Musculoskeletal Questionnaire
  - Psychosocial risk exposure
    - Copenhagen Psychosocial Questionnaire

- ### Participants
- 337 workers,
  - 203 Females and 134 Males
    - Manual Handling (n=19)
    - Admin high demands (n=14)
    - Admin low demands (n=51)
    - Nurses (n=49)
    - Air Traffic Controllers (n=43)
    - Assembly (n=135)
    - Construction (n=26)
  - Seven occupational groups





## 5. Effective Interventions in the workplace (Wells et al. 2009)



## How to manage psychosocial risks

1. Not just job content and Job Control: Holistic approach

2. Implement a Stress Policy

Work Positive ([www.hsa.ie/eng/Workplace\\_Health/Workplace\\_Stress/](http://www.hsa.ie/eng/Workplace_Health/Workplace_Stress/))

HSE Stress Mgt Resources: <http://www.hse.gov.uk/stress>

3. More detailed ergonomics assessment

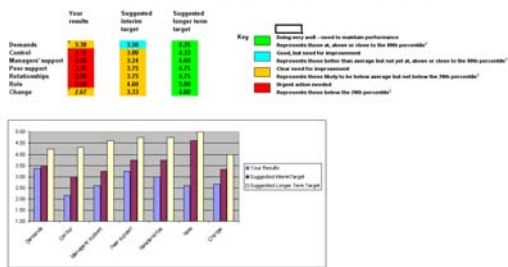
Engineering controls: reduce physical exposure

Static shoulder postures, as in VDU work

Participatory ergonomics

## Work Positive

Work Positive – Summary of results for HSE Management Standards questions<sup>2</sup>



## Anecdote 3

- Day versus night workers
- Permanent night workers
- Industrial assembly work
- Which had the lowest exposure to psychosocial risks?
  - Day workers? ✗
  - Night workers? ✓
  - More job control
  - Less job demands