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Self Reported Prevalence of Musculoskeletal Disorders and Exposures to Psychosocial Risks

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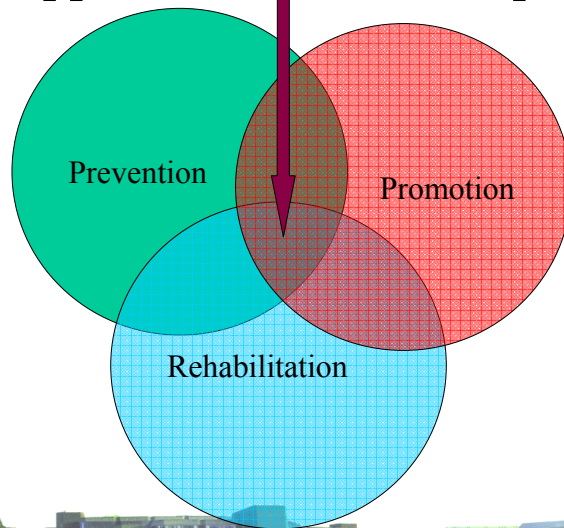
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Strategy for reducing risks

- <u>Domain</u>   <u>Expertise</u>
- Prevention   ➡   Ergonomics
- Promotion   ➡   Health Promotion
- Rehabilitation/recovery ➡ Occ health

- Problem: insufficient interaction between domains of expertise in the workplace

For impact: need <u>integrated</u> research & application in the workplace

Prevention

Promotion

Rehabilitation

MSD Risks: Challenge for integrated research & application

- Irish Small Firms Association 2008
  - Back pain and stress most common reasons for sick leave on medical certs
- Physical Risk Factors:
  - Force, Repetition, Posture
- Psychosocial Risk Factors:
- Individual Risk Factors:
  - Age
  - Gender

Method

- 1 Pain and Discomfort

  - Nordic Musculoskeletal Questionnaire

  - General Health Questionnaire

  - Physical Activity Questionnaire

- 2 Psychosocial risks
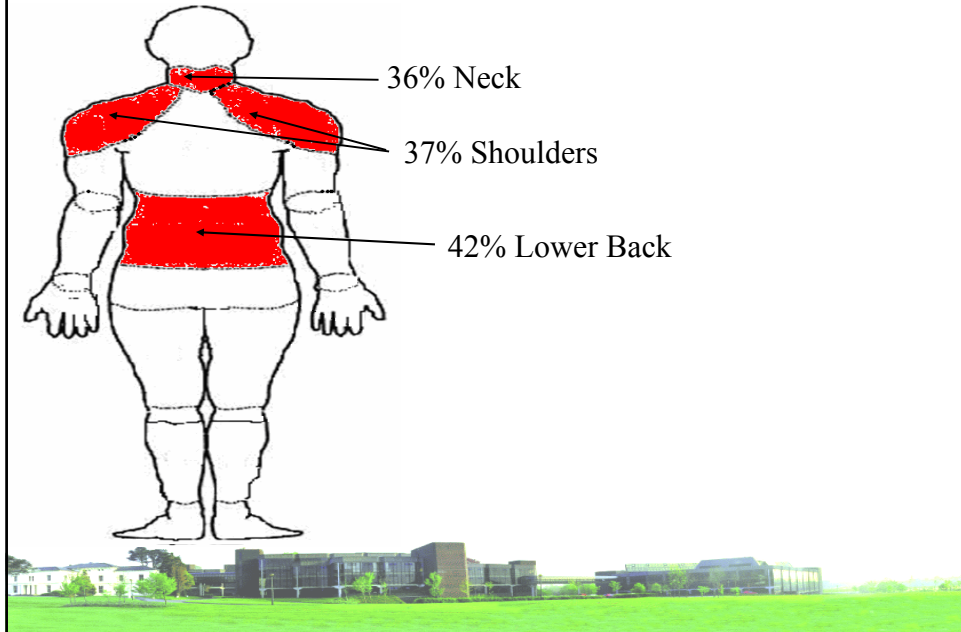
  - Copenhagen Psychosocial Questionnaire

Participants

- 200 Females and 132 Males
- 8 occupational groups

	Female	Male	Female	Male
Age	%	%	n	n
18-30 yrs	43%	47%	87	62
31-40 yrs	29%	27%	57	36
41-50 yrs	18%	14%	37	18
51+ yrs	10%	12%	19	16

MSD Results: highest prevalence regions

36% Neck

37% Shoulders

42% Lower Back


MSDs by body region and gender

Body Area	Prevalence of disorders in last 12 months		Prevalence of disorders in last 7 days	
	% of sample		% of sample	
	Females	Males	Females	Males
Neck	39%	31%	39%	31%
Shoulders	38%	34%	38%	35%
Elbows	8%	9%	8%	9%
Wrist/Hands	18%	22%	18%	19%
Upper Back	20%	17%	20%	17%
Lower Back	43%	41%	43%	44%
Hips/Thighs/Buttocks	14%	16%	14%	17%
Knees	16%	25%	16%	28%
Ankles/Feet	13%	13%	13%	14%
Exp. one or more symptoms	71%	69%	71%	69%

MSDs by Age and Gender
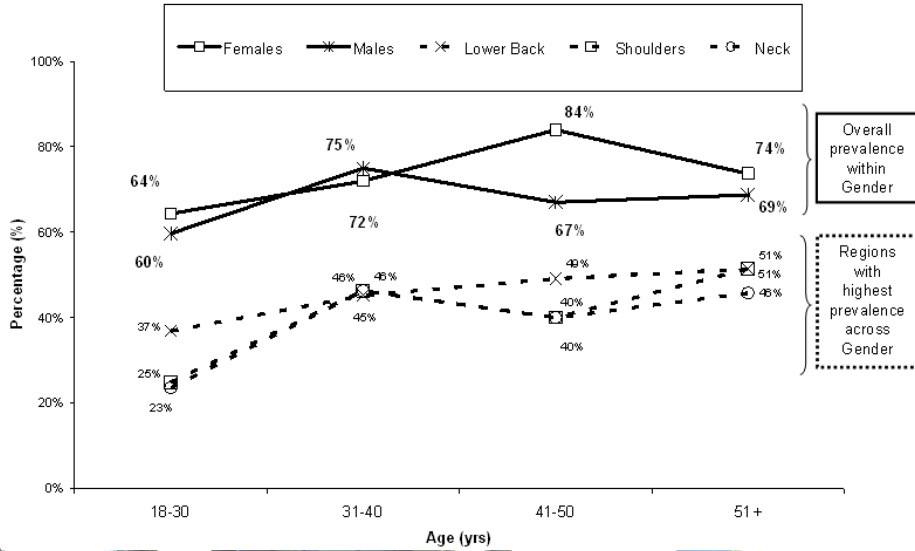
Lower Back, Shoulders and Neck.
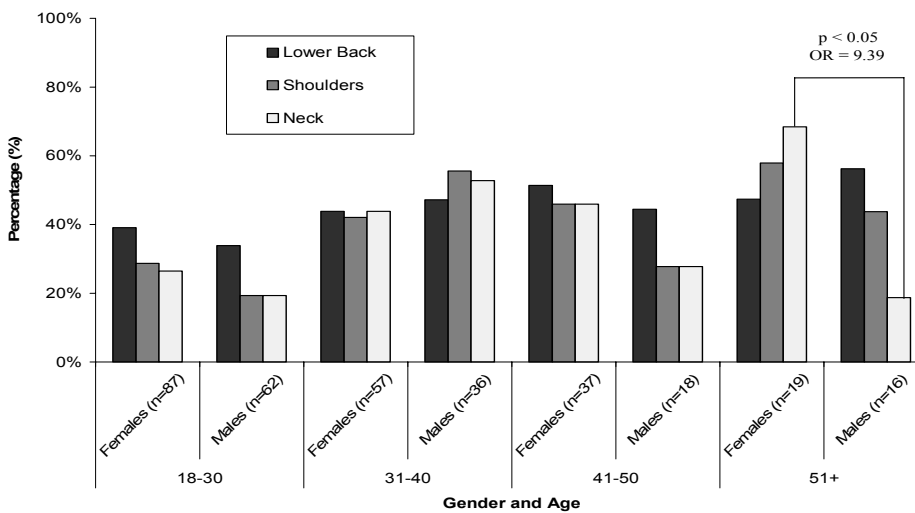
EU employment and participation

Psychosocial Results

Psychosocial and MSD Associations

Significant associations with MSDs

•Job Demands, Job Content, Job Satisfaction and Work Environment

Strongest for

•Job Demands and Job Content

# Psychosocial risks: Age and gender differences to exposures

	Scale	Sig. [a]	Age	Male					Female			
				Avg.	SD	Sig.[b]	Sig.[c]		Avg.	SD	Sig.[b]	Sig.[c]
Work-Related	Job Content	<0.01	18-30	51	17	<0.05	4**		41	19	<0.0005	2***,3,4*
			31-40	55	17				52	20		1***
			41-50	56	22				53	21		1**
			51+	66	13		1**		58	22		1**
	Job Demands	NS	18-30	62	17	NS			62	19	NS	
			31-40	56	19				59	19		
			41-50	58	22				57	19		
			51+	56	19				56	19		
	Work Environment	NS	18-30	62	19	NS			62	17	NS	
			31-40	58	14				60	16		
			41-50	56	20				55	17		
			51+	64	15				63	17		
	Job Satisfaction	NS	18-30	71	14	NS			68	17	NS	
			31-40	69	14				71	15		
			41-50	73	17				66	20		
			51+	70	23				69	21		

|	Scale	Sig. [a]	Male					Female			
			Age	Avg.	SD	Sig.[b]	Sig.[c]	Avg.	SD	Sig.[b]	Sig.[c]
Individual-Related	General Health	<0.001	18-30	54	25	NS		66	18	NS	
			31-40	52	29			58	23		
			41-50	43	27			54	26		
			51+	46	30			66	26		
	Mental Health	<0.005	18-30	58	14	NS		42	9	<0.0005	2** 3,4***
			31-40	65	8			38	8		1**
			41-50	61	15			35	9		1***
			51+	33	7			33	8		1***
	Vitality	< 0.05	18-30	49	11	NS		48	11	NS	
			31-40	48	10			48	12		
			41-50	49	17			46	12		
			51+	40	14			49	12		
	Insecurity at work	NS	18-30	66	34	NS		57	34	<0.0005	3** 4***
			31-40	77	29			64	39		
			41-50	76	30			74	35		1**
			51+	78	30			87	27		1*** 2*

Psychosocial risks different by age and gender
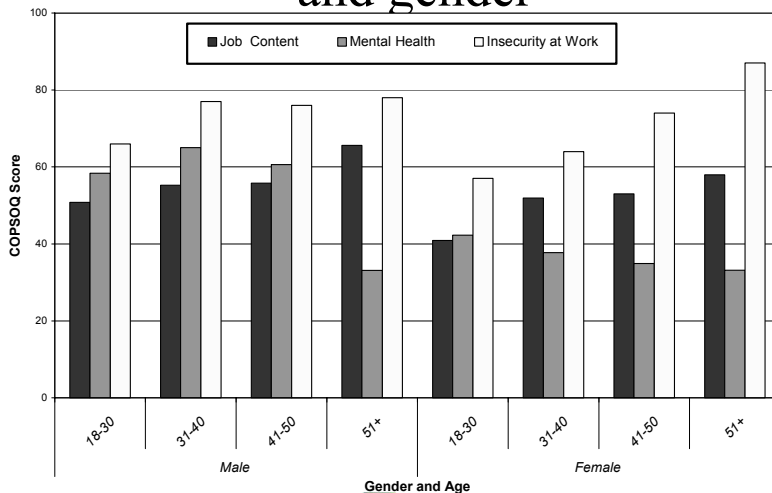
Psychosocial Results

Youngest and Oldest participants experienced significantly different scores in:

<0.05

<0.0005

<0.005

<0.005

Job Content

Mental Health

Insecurity
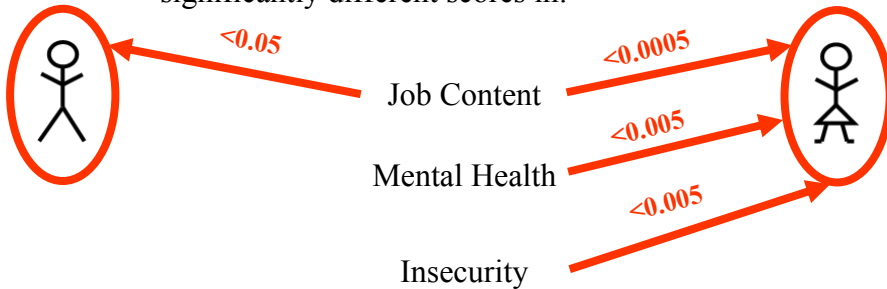
Conclusions

- MSD and body sites
  - lower back (F: 43%, M: 41%),
  - neck (F: 39%, M: 31%)
  - shoulders (F: 38%, M: 34%)

Inline with EU data

- Prevalence increases with age
  - Other EU data suggests decrease
  - Healthy worker effect/
  - Injured survivor – Presenteeism
    - Fewer lower risk work opportunities
  - Evaluation techniques including age?
- Psychosocial risk exposures
  - Older workers and females were exposed to more negative work related psychosocial risks
    - Interventions targeting job demands and control
    - Prevention? Evaluation methods – MSD risks