Musculoskeletal pain predicts health-related job loss among workers aged 50-64 years: is it a hidden impact of osteoarthritis?

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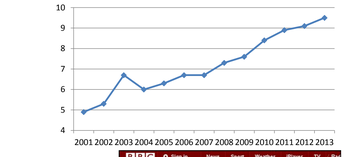
BACKGROUND

Life expectancy has increased steadily. Coupled with a decline in birth rates, there is a need for people to work to older ages. Changes to legislation, policy and pension have encouraged the workforce to postpone their date of retirement past the traditional 65 years of age (Figure 1).

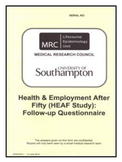
However, musculoskeletal disorders, particularly low back pain and osteoarthritis, increase in frequency with age.
We investigated the role of musculoskeletal pain in determining a decision to give up work for health reasons among a population cohort of adults aged 50-64 years over 12 months of follow-up

Figure 1: Proportion of men working past age 65 years, 2001-2013



METHODS

The Health and Employment After Fifty (HEAF) study is a prospective cohort study started in 2013 to investigate the relationships between work and health and retirement in a population cohort across England and Wales. In total, >8000 adults aged 50-64 years were recruited by sampling this age group from primary care databases. Participants completed postal questionnaires at baseline and 12 months later and provided information about their work, working conditions, general health, wellbeing, finances and living circumstances. At baseline, they were asked if they had experienced pain during the past 12 months in their arms /shoulders, legs or neck/back lasting for more than one month which had resulted in difficulty with washing, dressing or household chores.



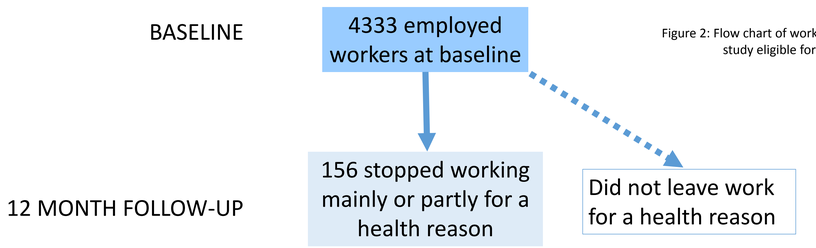


Figure 2: Flow chart of workers enrolled in HEAF study eligible for inclusion

RESULTS

Disabling musculoskeletal pain was common at all three sites: In total, 984 (22.7%) of the 4333 employed participants reported pain at one or more of the three sites. The distribution of pain at one/more sites is shown in Table 1.

	No pain	Arms and shoulders	Legs	Neck/back	All 3 sites
Single site pain	3349	159	127	261	
Arms and shoulders			40	160	
Legs				89	
Neck/back					
All 3 sites					148

After 12 months, 156 participants reported that they had given up their employment mainly or partly for a health reason. Table 2 summarises the mutually adjusted model for predictors of health-related job loss amongst this cohort:

	IRR	95% CI	P-value
Sex (females vs males)	1.54	1.03-2.30	0.034
Age (55-59 v 50-54 years)	1.66	0.95-2.91	0.074
Age (60-65 v 50-54 years)	3.81	2.18-6.64	<0.001
Self-rated health (fair/poor v excellent /good /very good)	2.07	1.26-3.40	0.004
Somatisation (2+ v 0)	1.73	1.00-2.98	0.049
Depression (Yes v No)	0.97	0.61-1.56	0.916
Job dissatisfaction (Yes v No)	4.40	2.76-7.01	<0.001
Being criticised at work (often /sometimes v rarely)	1.63	1.05-2.52	0.030
Pain at one site v no pain	1.71	0.99-2.93	0.053
Pain at 2 or more sites v no pain	2.06	1.21-3.51	0.008
Smoking (current v never)	1.85	1.07-3.20	0.027
Job (manual v non-manual)	1.30	0.86-1.97	0.206

CONCLUSION

Disabling musculoskeletal pain at 2 or more sites (upper limbs, lower limbs, neck/back) doubles the risk of having to stop work in the next 12 months amongst people aged 50-65 years whilst pain at one site is not a significant predictor. Other factors are important including: somatisation, depression, job satisfaction and perception of being criticised at work. Multi-site musculoskeletal pain at older ages may be associated with osteoarthritis but this has, to date, been little studied. Strategies to reduce the impact of musculoskeletal pain amongst older workers will be needed if we are to prevent premature job loss and increasing, rather than reducing, the disability employment gap.