

Idiopathic Pulmonary Fibrosis (IPF) is a progressive, debilitating interstitial lung disease of unknown aetiology that results in irreversible scarring of the lungs. Patients develop impaired oxygen exchange and subsequent functional limitations including dyspnoea, hypoxia and fatigue. Patients' fear of breathlessness leads to avoidance of physical activity yet, exercise is crucial to maintain health, strength, and mobility. Pulmonary rehabilitation is advocated for IPF patients but access to such programmes is difficult and restricted.

Methods The Irish Lung Fibrosis Association (ILFA) in collaboration with the physiotherapy department at the Mater Misericordiae University Hospital developed the 2000 Steps a Day Challenge as a new and innovative home-based exercise programme for IPF patients. The 2000 Steps a Day pack includes a pedometer, guidance and a diary to progress the step programme, and a Contract for Success to encourage commitment. Positive language and inspirational messages were used to motivate patients to make it part of their daily routine and reassure and support those experiencing setbacks. The programme was piloted by 15 ambulatory patients (11 male: 4 female) for 4-weeks. 10/15 patients required supplementary oxygen, 6/15 patients were on the lung transplant list and 3/15 patients were post-lung transplant. Patients were asked to record their baseline daily step count for 1-week, to gradually incorporate an additional 2000 steps (equivalent to 1 mile of walking) into their daily routine, and to complete a questionnaire on the suitability of the new exercise programme.

Results 12/15 patients completed the pilot phase and successfully added at least 2000 steps extra to their daily routine. 10/12 patients completed the questionnaire. 90% said the written materials were clear and understandable, 70% said the programme was easy to incorporate into their lives, 80% were motivated to exercise every day, 90% considered the pedometer a good motivational tool, 70% found the diary practical, 80% reported improved confidence, 100% felt a sense of achievement after reaching their target, 100% would recommend the programme to another patient. To date, over 200 walking packs have been requested. The ILFA 2000 Steps a Day Challenge is a novel, safe, effective and achievable home-based exercise solution for IPF patients.

The lungs at work: occupational lung disease

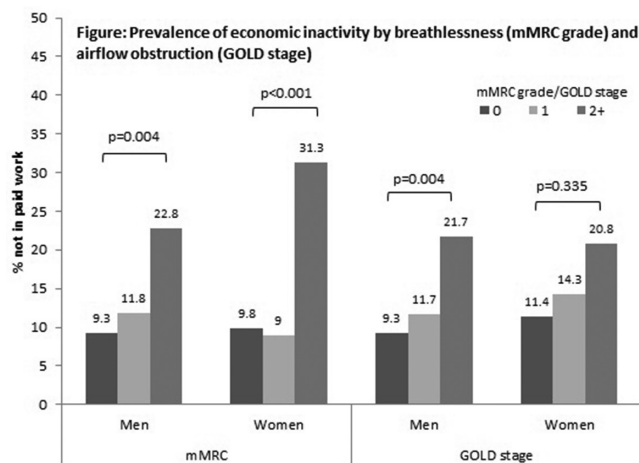
P126 BREATHLESSNESS AND LUNG FUNCTION PREDICTS FUTURE WORK DISABILITY IN OLDER WORKERS: DETECTION, INTERVENTION, RETENTION?

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Economic pressures and the ageing population have increased the importance of maintaining fitness to work in older adults. Dyspnoea and airflow limitation are associated with disability particularly in individuals with diagnosed disease. A cross-sectional general population survey of 51–60 year olds demonstrated significant associations between breathlessness, airflow obstruction and work performance; a follow-up survey was completed 18 months later to examine changes in work.

Participants from the first study were sent a postal questionnaire asking about job and employment changes. Questionnaire



Abstract P126 Figure 1 Prevalence of economic inactivity by breathlessness (mMRC grade) and airflow obstruction (GOLD stage)

and spirometry results from the initial study were used to define breathlessness (modified MRC scale) and airflow obstruction (GOLD stage) respectively. Information from the follow up questionnaire was also used to identify cases, defined as those who had experienced a change in employment, and frequency matched controls of the same gender, who reported no change in work circumstances (with a ratio of two controls per case).

Results from respondents to the follow up questionnaire (1663/1773 (94%)), all of whom had been in full time work at the time of the first study) showed that the majority (78.5%) continued in full time employment; however 10.6% were working part time and 10.9% were no longer in paid employment at follow up. Of the participants still in employment who reported changing their hours or activity at work, 9.3% stated that this change had been to their health. Prevalence of economic inactivity rose with increasing breathlessness and with increasing airflow obstruction in workers of both sexes; these relationships were statistically significant in all cases except for airflow obstruction in women (Figure). The odds of GOLD stage 1 or greater airflow obstruction was significantly higher in cases than in controls (unadjusted OR 1.71, 95% CI 1.10–2.77, $p = 0.02$).

These findings suggest that breathlessness and airflow obstruction are associated with subsequent job instability and premature loss from the workforce in older workers. A focused surveillance programme could identify those at higher risk of employment problems with the intention of ameliorating them – providing that there are suitable interventions available to support continuing workforce activity in adults in their sixth decade of life and beyond.

P127 COPD AND THE WORKPLACE; ATTITUDES OF THOSE WITH AND WITHOUT THE CONDITION IN A POPULATION BASED STUDY

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Background Current estimates support 15% of the total population burden of chronic obstructive pulmonary disease (COPD) to be associated with harmful inhaled occupational exposures. Despite a now substantial body of evidence relating to causation, remarkably little is known about the consequences of these