

## Dance as a rehabilitative strategy for patients with COPD

MacBean V, Reilly CC, Rafferty GF and Kolyra E, EUROPEAN RESPIRATORY JOURNAL, 2017; 50: Suppl. 61, 3715

Pulmonary rehabilitation (PR) is a highly effective intervention for COPD, though lack of enjoyment and preconceptions about exercise impact on uptake, completion and maintenance of physical activity post-PR. We piloted dance classes led by an experienced choreographer and a trained dancer as an exercise modality for 5 patients with COPD (61–76 years, 3 female, GOLD 2-3). The intervention, comprising 1 hour of stretching, posture, balance, coordination and strength exercises based on a variety of movement and dance techniques and styles at low to high intensity, was trialled in 1 session and refined over 2 further sessions. During the latter 2 sessions heart rate (HR) was recorded; dyspnoea and leg fatigue numerical rating scale (NRS) values taken at 4 points during the class; participants rated mood, sense of group cohesion and enjoyment.

Peak HR reached 79-95% of predicted maximum, and was maintained above 70%max for median 26% of class duration. Individual participants' peak NRS values for dyspnoea ranged from 4–9, and for leg fatigue from 4–8. All participants showed improved mood (from median (range) 5 (4-7) to 7 (5-7)), sense of group cohesion (6 (3-6) to 7 (5-7)), deemed the sessions worthwhile (7 (6-7)), and expressed enjoyment (7 (6-7)) and a sense of achievement (6 (3-7)) on completion. Qualitative data indicated participants underestimated class duration by up to 15%, and that concentration on technique helped divert attention away from dyspnoea.

Expert-led dance sessions may provide a suitable intensity of training stimulus to improve strength and fitness in individuals with COPD, with potential wider psychosocial benefits. A larger randomised trial is warranted to compare dance-based exercise to conventional PR.