

COPD 2016: The effect of including manual therapy in the management of mild chronic obstructive pulmonary disease: A randomized controlled trial_Roger Mark Engel_Macquarie University, Australia

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Chronic obstructive pulmonary disease (COPD) may be a major explanation for disability, hospital admission and premature death in Australia. Estimates put the amount of individuals affected at just over half 1,000,000. While exercise capacity may be a prognostic indicator in COPD, the first source of exercise limitation is dyspnoea with a rise in chest tightness identified together of the causes. Manual therapy (MT) increases mobility of musculoskeletal structures and has the potential to change chest tightness. Two pilot trials that used MT in conjunction with exercise reported greater improvements in exercise capacity within the group that received MT and exercise compared to exercise alone. This presentation will report on the planning and progress of a fully-powered randomized controlled trial designed to research the effect of MT and exercise on patients with mild COPD.

Methods

Eligibility for participation during this trial was hooked in to an individual being referred by a respiratory specialist to the PR unit at Sutherland Hospital, a medium-sized public hospital in Sydney, Australia. Inclusion criteria included age between 55 and 70 years at the time of enrollment, diagnosis of COPD, no contra-indications to MT including a bone density T score ≤ -2.5 and Z score ≤ -1 , being a non-smoker for a minimum of the preceding 12 months and skill to finish a 6-minute walking test (6MWT), which was used as a measure of exercise capacity.

A total of 45 participants were planned for this study. This was supported the amount of individuals mentioned this facility for PR annually and was set at one-third of the typical of the preceding 2 years' totals. This was a practical decision that factored within the workload of the hospital.

Allocation to an intervention group was randomized and concealed from both participants and researchers. Each participant randomly selected 1 of 45 sealed, opaque envelopes with one among the three group numbers written inside and was assigned to a gaggle consistent with that number. Block randomization wasn't used. Group 1 (PR) received the quality pulmonary program prescribed at Sutherland Hospital; group 2 (ST+PR) received soft tissue therapy described below, plus an equivalent PR program; and group 3 (ST+SM+PR) received an equivalent soft tissue therapy plus spinal manipulation

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Pulmonary rehabilitation consisted of a 24-week program made from intervention and non-intervention phases. The intervention phase consisted of two stages: an 8-week 'Introductory' stage, where participants were assessed for exercise capacity and introduced to health education and exercise training, followed by an 8-week 'Maintenance' stage, where exercise intensity was gradually increased to A level that was considered suitable for that participant. The non-intervention phase followed completion of the 'Maintenance' stage and involved an 8-week period of no PR intervention. Participants were directed to continue exercising at their own discretion during this era. There have been four assessment points during the 24 weeks: an initial assessment (week 0), at the top of the 'Introductory' stage (week 8), at the top of the 'Maintenance' stage (week 16) and at the top of the non-intervention phase (week 24).

Results:

Preliminary analysis of results from the primary group of participants show a trend towards greater increases in exercise capacity and lung function within the MT plus Ex group compared to Ex alone.

Discussion:

Combining MT with exercise enhances exercise performance in people with mild COPD. If the rise in exercise capacity is sustained it appears to possess a beneficial effect on lung function.

Biography

Roger Mark Engel is a Senior Lecturer and Coordinator of Research in the Department of Chiropractic at Macquarie University. He is an Osteopath and Chiropractor with over 30 years of clinical experience in hospitals in Australia and South-East Asia. In 2012, he was awarded a PhD from Macquarie University for his work in the field of Chronic Respiratory Disease in particular his work on the use of manual therapy in the management of chronic obstructive pulmonary disease. He has presented the results from his research at national and international conferences in Australia, Canada, China, Indonesia, Japan, UK and USA.

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