

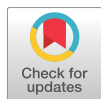


# Use of Singing for Lung Health as an alternative training modality within pulmonary rehabilitation for COPD: a randomised controlled trial

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**Singing for Lung Health was non-inferior to physical exercise training in short-term improvement of 6-min walk test distance in COPD patients attending pulmonary rehabilitation. In both groups, the effect was related to high adherence.** <https://bit.ly/3uoP4Q8>

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## Abstract

**Background** Pulmonary rehabilitation (PR) is a cornerstone in chronic obstructive pulmonary disease (COPD) management. However, PR adherence is generally low, and barriers include availability, economic issues, motivation and an inability to attend or perform physical training. Therefore, alternative, evidence-based PR activities are required. Singing may have benefits for quality of life (QoL), respiratory control and well-being in COPD, but the impact on the PR key outcome, physical exercise capacity, is uncertain.

**Methods** In this randomised controlled trial (NCT03280355), we investigated the effectiveness of 10 weeks of PR, including either “Singing for Lung Health” (SLH) training or standard physical exercise training (PExT). The primary outcome was a change in exercise capacity (6-min walk distance (6MWD)) from baseline to post-PR. Secondary outcomes were changes in QoL (St George’s Respiratory Questionnaire (SGRQ)), Hospital Anxiety and Depression Score (HADS), lung function, dyspnoea and adherence.

**Results** We included 270 COPD patients, and 195 completed the study. Demographics across groups were comparable, and both groups improved significantly in 6MWD and SGRQ score. SLH was non-inferior to PExT in improving 6MWD (mean±SD 13.1±36.3 m versus 14.1±32.3 m,  $p=0.81$ ; difference 1.0 m, 95% CI −7.3–9.3 m) with 21.8% and 25.0%, respectively ( $p=0.57$ ), reaching the 6MWD minimal important difference of 30 m. We found no significant between-group differences concerning SGRQ, HADS, lung function, dyspnoea or adherence.

**Conclusion** Our study suggests that SLH is non-inferior to PExT in improving 6MWD during a 10-week PR programme. Future studies addressing reproducibility, long-term effects and health economics are needed.

