# An exploration of healthcare-related locus of control in COPD patients attending group-based pulmonary rehabilitation 

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Background \& Aim: Pulmonary rehabilitation is of proven benefit in improving function and health-related quality of life in patients with COPD. However, long-term maintenance is poor. Though reasons for this are not fully understood, psychological concepts such as Health Locus of Control (HLOC) may be of interest. This exploratory study aimed to investigate whether HLOC can be altered through pulmonary rehabilitation.

Method: A non-randomized controlled before/after design was used. Eligible participants with a diagnosis of COPD and attending their first pulmonary rehabilitation program were invited to participate. The intervention consisted of standard pulmonary rehabilitation care: A six-week course comprising twice-weekly group-based exercise and education sessions. Participants completed the multidimensional health Locus of Control Form-C (MHLC-C) and standard assessments pre(baseline) and post the six-week program.

Result: 96 patients were invited to participate, 46 consented and 20 completed both pre-and-post study outcomes. Significant improvement between pre- and post-tests were found for two MHLC-C dimensions (Internal: Mean increase=5.4, $\mathrm{p}=0.012$ and Doctors: Mean increase $=2.1, \mathrm{p}=0.016$ ).

Conclusion: Though limited by methodological issues, the results tentatively suggest that HLOC can be significantly altered through group-based pulmonary rehabilitation, potentially through enhanced self-management and education strategies empowering patients. Further investigation of these findings and the relationship with long-term maintenance is warranted.

