



# Family-based pulmonary rehabilitation in COPD: A randomized controlled trial

Alda Marques, Cristina Jácome, Joana Cruz, Raquel Gabriel, Daniela Figueiredo

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Article

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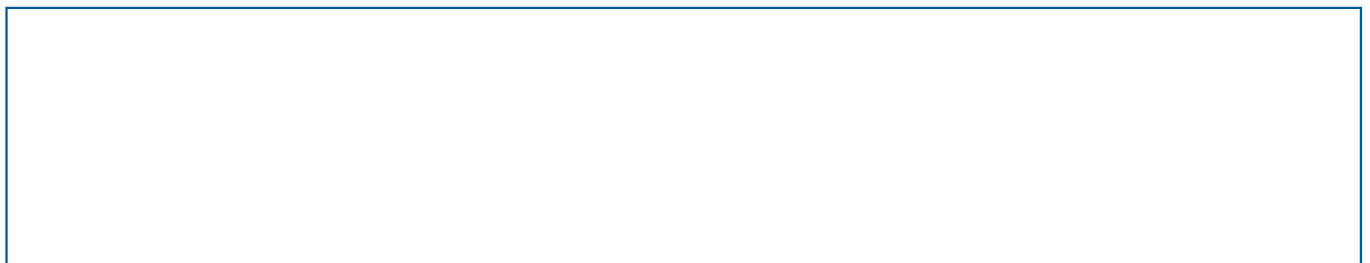
## Abstract

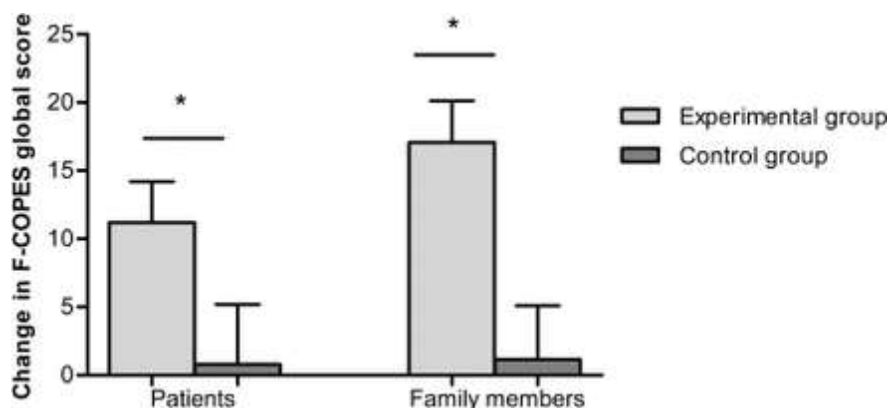
Pulmonary Rehabilitation (PR) for COPD focus on patients' needs, often neglecting the family. This study aimed to assess the impact of family-based PR on patients with COPD and their family members.

Patients and family members were randomly assigned to family-based or conventional PR. All patients underwent 12-weeks of exercise training (3\*wk) and psychoeducation (1\*wk). In family-based PR, family members participated in psychoeducation together with patients. Family coping was assessed with the Family Crisis Oriented Personal Scales (F-COPES) in patients and family members. Patients' dyspnoea was assessed with the Modified British Medical Research Council scale, knee extensors strength with the 10 repetition maximum and exercise tolerance with the 6-minute walk test.

42 patients ( $67 \pm 11$  yrs;  $FEV_1$   $70 \pm 22$  pp) and 42 family members ( $59 \pm 12$  yrs) participated. Adherence to family-based PR (22 dyads) was  $92 \pm 9\%$ . Improvements in family coping in patients ( $p = .048$ ) and family members ( $p = .004$ ) of the family-based PR exceed the improvement of the conventional PR (Fig.1). Patients from both groups had significant improvements in dyspnoea, muscle strength and exercise tolerance ( $p < .001$ ).

Fig 1. Mean changes in F-COPES by group.





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Family-based PR is feasible and does not interfere with the widely recognised patients' benefits in conventional PR. Moreover, the inclusion of family members enhances the coping resources of the family system to manage COPD.

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