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## Abstract

## Motivation and physical activity in COPD: an exploratory study

A key factor for the adoption of an active lifestyle is self-determined motivation; however, it is often overlooked in COPD. Understanding the motives underlying patients' decision to be (or not) physically active will provide insight into future interventions. This study assessed the motives for patients with COPD to engage in physical activity (PA) and their association with PA behaviour.

A cross-sectional study was conducted in stable patients with COPD. Motivation was assessed with the Exercise Motivation Inventory-2 (EMI-2; score 0[Not at all true for me]–5[Very true for me]; 5 dimensions) and PA with accelerometry [ActiGraph-GT3X+, 7 days; moderate to vigorous PA (MVPA), steps/day]. Spearman's correlations (ρ) were used to assess their relationship.

60 participants were enrolled (67.2 $\pm$ 7.7 years; 76.7% men; FEV $_1$ 49.5 $\pm$ 19.7pp). Patients' motives to be physically active were mostly Health, Fitness and Psychological. Correlations with PA were weak and non-significant (p>0.05) (Table 1).

**Table 1.** Exercise Motivation Inventory-2 (EMI-2) dimensions, physical activity (PA) and correlations (ρ) between both (n=60).

|                | Median<br>[Q1-Q3]     | EMI-MVPA<br>ρ (p) | EMI-Steps<br>ρ (p) |  |
|----------------|-----------------------|-------------------|--------------------|--|
|                |                       |                   |                    |  |
| EMI-2          |                       |                   |                    |  |
| Psychological  | 3.4[1.9-4.0]          | .16 (.21)         | .19 (.16)          |  |
| Interpersonal  | 1.3[0.8-3.0]          | .07 (.62)         | .05 (.68)          |  |
| Health         | 4.2[3.1-4.7]          | 03 (.81)          | .04 (.77)          |  |
| Body Related   | 1.9[.8-3.1]           | .12 (.36)         | .13 (.33)          |  |
| Fitness        | 3.7 [3.0-4.6]         | .09 (.49)         | .09 (.51)          |  |
| PA             |                       |                   |                    |  |
| MVPA (min/day) | 20.9[8.5-45.8]        |                   |                    |  |
| Steps/day      | 4904.5[2662.8-7195.4] |                   |                    |  |

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Patients with COPD value Health, Fitness and Psychological motives to be physically active, although these are not related to their PA behaviour. Findings highlight the complex nature of PA and the need to further explore factors influencing PA and motivation in this population.

## **Keywords:**

COPD; physiotherapy care; physical activity

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