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Sedentary patients with COPD: differences by physical activity level

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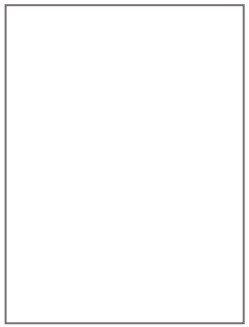

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Abstract

Sedentary behaviour (SB) and low physical activity (PA) are independently associated with worse health outcomes in COPD. Population studies show better outcomes for physically active than inactive sedentary people; factors distinguishing active/inactive sedentary COPD patients are unclear. This cross-sectional study explored differences between these groups and identified PA predictors.

Categories from Bakrania et al.[1] were used: high SB ≥8.5h/day; sufficient PA ≥5000 steps/day (Actigraph GT3X+). Differences in age, sex, comorbidities, FEV_1, GOLD ABE, symptoms (mMRC; CAT), Exercise Motivations Inventory 2 and functional capacity (6MWD) were analysed using (non-)parametric tests and PA predictors by logistic regression.

92 patients were included (67±8yrs; 84% male; 47% GOLD-B; 6MWD 427±98m; 4486[2825–6925] steps/day; 11[9–12] h/day SB). 88% had high SB: 54% were inactive (*couch potatoes*), 46% were active (*sedentary exercisers*). *Sedentary exercisers* were younger (65±7/70±7yrs, p<.001), had fewer symptoms(mMRC≥2:37%/73%, p=.003; CAT≥10:57%/79%, p=.032), higher lung function(FEV_1 1.4±0.5/1.2±0.5L, p=.014) and functional capacity (6MWD 480±79/383±98m, p<.001) than *couch potatoes*. No other differences were found. In high-SB patients, 6MWD significantly predicted sufficient PA(R^2Nagelkerke=.543, R^2Cox-Snell=.405; p<.001), adjusting for age(OR=0.901; 95%CI 0.822–0.987) and daylight time(OR=1.662; 95%CI 1.144–2.413). The odds of being active increased by 1.5% per additional 6MWD-meter(OR=1.015; 95%CI 1.007–1.024).

High SB patients are more likely to be active if younger, less symptomatic, and with better functional capacity, but only functional capacity predicts sufficient PA.

[1]Brakania et al. BMC Public Health 16,25 (2015)

Footnotes

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