HRmax%predicted was below 85% in all participants. No adverse event was registered.
Conclusions: Cardiofitness room, senior gymnastics, and aquatic gymnastics seem safe and of moderate intensity for people with COPD. Enrolment of people with COPD on these community-based PAs, following PR, should be advised, as these may facilitate the long-term maintenance of PR benefits, while promoting a more physically active lifestyle in this population. Nevertheless, caution is needed when interpreting these results, since intensity of PA is highly influenced by individual factors and patients' enrolment must be preceded by a careful patient selection to ensure their safety.

Keywords: *Physical activity. Maintenance. Pulmonary rehabilitation. Chronic obstructive pulmonary disease. Community.*

CO 063. UNRAVELLING THE RELATIONSHIP BETWEEN FUNCTIONAL CAPACITY AND PHYSICAL ACTIVITY IN PEOPLE WITH INTERSTITIAL LUNG DISEASE

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Functional capacity (FC) and functional performance are distinct domains of functional status. Low functional capacity (FC) is commonly reported in people with interstitial lung disease (ILD). However, the literature on functional performance - possible to be objectively measured quantifying the physical activity (PA) levels - and on the relationship between FC and PA of this population is still scarce. Thus, this study aimed to: i) characterise the PA levels; ii) explore the relationship between FC and PA; and, iii) determine the distribution across the four quadrants of FC and PA of people with ILD. A retrospective cross-sectional study was conducted. PA levels were assessed with accelerometry (Actigraph® GT3X+), through steps/day and time spent in moderate-to-vigorous (MVPA) PA. Participants wore the Actigraph® for, at least, 4 consecutive days (7:00am-10:00pm). FC was assessed with the number of repetitions performed in the 1-minute-sit-to-stand (1-minSTS). PA levels were compared between three ILD diagnostic categories (i.e., fibrotic Hypersensitivity Pneumonitis [fHP], Idiopathic Pulmonary Fibrosis [IPF] and Connective Tissue Disease-related ILD [CTD-ILD]) and severity, using the ILD-GAP Index model (0-3, ≥ 4). U Mann-Whitney and Kruskal-Wallis tests were used to compare groups. Spearman's Correlation was used to analyse the correlation between FC and PA. For the quadrants analysis, participants were divided into the following: 1) low FC (1-minSTS < 70% predicted) and low PA (< 5,000 steps/day or < 150 min/week of MVPA) – "can't do, don't do"; 2) preserved FC (1-minSTS ≥ 70%), low PA (< 5,000 steps/day/< 150 min/week of MVPA) – "can do, don't do"; 3) low FC (1-minSTS < 70% predicted), preserved PA (≥ 5,000 steps/day/ ≥ 150 min/week of MVPA) – "can't do, do do"; 4) preserved FC (1-minSTS ≥ 70%), preserved PA (≥ 5,000 steps/day/ ≥ 150 min/week of MVPA) – "can do, do do". Forty-nine volunteers were included (68 [63-76] years; 23 [46.9%] male, FVC 84 [69-95]% predicted; DLCO 57 [40-73]% predicted). PA levels ranged between 792-113,670 steps/day and 2-1,604 min. spent in MVPA. PA levels across ILD subtype were not different (p = 0.061-0.609) however, significant differences were found across disease severity (GAP0-3 = 41 GAP ≥ 4 = 8 steps/day p = 0.003, GAP0-3 = 41 GAP ≥ 4 = 8 MVPA p = 0.015). Significant, moderate and positive correlations were found between FC and PA for both, steps/day (rs = 0.53, p < 0.001) and MVPA (rs = 0.40, p = 0.005). Participants' distribution on the FC and PA (steps/day) quadrants was: 22 (45%) "can't do, don't do"; 7 (14%) "can do, don't do"; 7 (14%) "can't do, do do"; 13 (27%) "can do, do do". Participants' distribution between FC and PA (MVPA) quadrants was: 20 (41%) "can't do, don't do"; 5 (10%) "can do, don't do"; 9 (18%) "can't do, do do"; 15 (31%) "can do, do do". People with ILD tend to be physically inactive. PA levels decrease with ILD severity and there is a relationship between FC and PA in this population. Applicability of the FC-PA quadrant may guide personalised interventions to optimise outcomes of these meaningful domains in ILD.

Keywords: *Interstitial lung disease. Physical activity. Functional capacity.*

CO 064. ARE PEOPLE WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE MORE MOTIVATED TO EXERCISE AND BE PHYSICALLY ACTIVE AFTER PULMONARY REHABILITATION?

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Physical activity is highly important for the health status of people with chronic obstructive pulmonary disease (COPD) because it has shown associations with reduced risk of all-cause mortality and acute exacerbations. Pulmonary rehabilitation improves functional capacity in people with COPD, but benefits have not been consistently observed in physical activity levels. Recently, it has been shown that motivation to exercise can be a precursor to the adaptation of more active lifestyles however, it is unknown whether pulmonary rehabilitation influences the motivation to exercise of people with COPD and whether this motivation contributes to increase physical activity. Therefore, this study aimed to explore i) motivation to exercise; ii) the relationship between motivation to exercise and physical activity and iii) the distribution across the four quadrants of motivation to exercise and physical activity, in people with COPD after pulmonary rehabilitation. An observational cohort study including people with COPD who undertook a 12-week community-based pulmonary rehabilitation program was conducted. Motivation to exercise was assessed with the global rating of change scale at the end of pulmonary rehabilitation. Global rating of change scale consists in a Likert scale composed by 11 points, ranging from -5 to 5 (-5, means "much worse"; 0, means "unchanged"; 5, means "much better"). Participants who scored 2 points or more were considered "motivated to exercise" (ME). Physical activity levels were evaluated pre- and post-pulmonary rehabilitation through accelerometry data (participants wore an Actigraph during seven days, 24 hours). A minimum of 8h (480 min) per day for four days was established for wear time validation. The minimal clinically important difference of 600 steps per day was used to identify "improvers on physical activity" (IPA). Spearman's (rs) correlation coefficient was used to determine the association between motivation to exercise and change in physical activity. We categorized participants in four motivation to exercise-physical activity quadrants: ME and IPA, ME and non-IPA, non-ME and IPA, non-ME and non-IPA, after pulmonary rehabilitation. Forty-one people with COPD (71 ± 7 years; 93% male; BMI 28 ± 6 kg/m^2; 57 ± 17 FEV1%predicted) were included. After pulmonary rehabilitation, most participants were ME (n = 35; 85%), but less than half were IPA (n = 18; 44%). No correlation between these two variables (rs = 0.132, p = 0.412) was observed. Participants distribution on the motivation to exercise-physical activity quadrants was: 15 (37%) "ME and IPA"; 20 (49%) "ME and non-IPA"; 3 (7%) "non-ME and IPA" and 3 (7%) "non-ME and non-IPA". After pulmonary rehabilitation, most participants were motivated to exercise but nearly half did not change the physical activity levels. Changing physical activity behavior is highly challenging, and research on which interventions can effectively modify it is still needed. Additionally, future studies including a more comprehensive assessment of motivation to exercise are required to confirm our results.