

chamber. Additionally, the following assessments were performed: pulmonary function through spirometry and impulse oscillometry (IOS), chest X-ray (CXR), and QoL using the WHOQOL-BREF.

Results: Of the participants included in the study, 34 (56.7%) were women. The mean age was 55.1 ± 14.1 years, while the median time since the end of TB treatment was 24 months (range, 20–27 months). A history of smoking was reported by 29 (48.3%) participants, with a median smoking load of 25 (9–39) pack-years. While 46 (76.7%) participants had an mMRC score of 0–1, only 14 (23.3%) had an mMRC score of 2–4. Regarding QoL as assessed by the WHOQOL-BREF questionnaire, the worst-performing domains were physical and environment. The mean peak oxygen uptake (VO_{2peak}) was 16.1 ± 6.8 ml/kg/min. There were positive correlations between VO_{2peak} and several parameters, including height ($r_s = 0.343$, $P = 0.007$), physical–WHOQOL-BREF ($r_s = 0.275$, $P = 0.033$), and forced vital capacity (FVC, $r_s = 0.603$, $P < 0.0001$). There were negative correlations between VO_{2peak} and several parameters, including age ($r_s = -0.452$, $P = 0.0002$), heterogeneity of resistance between 5–20 Hz ($r_s = -0.466$, $P = 0.0001$), frequency response (Fres, $r_s = -0.675$, $P < 0.0001$), and reactance-area ($r_s = -0.647$, $P < 0.0001$). In IOS, patients with small airway disease had a lower VO_{2peak} . Regarding CXR, only pulmonary cavitation and nodular opacities were associated with a lower VO_{2peak} . In multivariate analysis, FVC, age, male sex, and Fres explained 65.2% of the variability in VO_{2peak} .

Conclusion: Patients with PTLTLD present low VO_{2peak} . There is a relationship between VO_{2peak} and lung mechanics. In these patients, IOS is able to detect more pulmonary mechanical alterations than spirometry, including those reflecting small airway disease (SAD). There is a relationship between VO_{2peak} and radiographic abnormalities, particularly pulmonary cavitation and nodular opacities. However, the relationship between VO_{2peak} and QoL is virtually nonexistent. Thus, the use of both CPET and IOS may aid in the monitoring of patients with PTLTLD.

Implications: There is still much to be discovered, as PTLTLD, a post-PTB disease, is a developing field, with few studies. This study highlights the impact of VO_{2peak} on individuals with PTLTLD. Tools such as CPET, IOS, spirometry, CXR, and QoL assist in guiding and managing treatment. Personalized and patient-centered care is important to improve limitations in this population, with early interventions to improve functional capacity, minimizing the impact of the disease, and improving QoL.

Keywords: Post-tuberculosis lung disease, Exercise, and Lung function

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COMPARISON BETWEEN CONVENTIONAL REHABILITATION AND CONVENTIONAL REHABILITATION ADDED TO DANCE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Background: Chronic obstructive pulmonary disease (COPD) is recognized as one of the most relevant conditions worldwide, due to its high morbidity and mortality. Patients classified by GOLD as groups B and E are strongly encouraged to participate in pulmonary rehabilitation (PR) programs. Dance has been shown to be equally or, at times, more effective as a rehabilitation strategy when compared to other types of physical activity.

Objectives: To compare the effect of conventional rehabilitation and the effect of conventional rehabilitation added to dance in patients with COPD.

Methods: This is a conventional randomized controlled clinical trial to be carried out at the Pulmonary Rehabilitation Laboratory at Veiga de Almeida University (UVA). Patients diagnosed with COPD, of both sexes, will be evaluated. Eligible participants will complete quality of life questionnaires – 36-item Short Form (SF-36), the COPD Assessment Test (CAT) and the Hospital Anxiety and Depression Scale (HADS). Additionally, patients will undergo pulmonary function tests, including spirometry, in addition to the six-minute walk test (6MWT), the handgrip test and the one maximum repetition test (1RM test). Finally, participants will be randomly divided into two groups: one group will perform conventional PR twice a week and the other group will perform conventional PR once a week and dance rehabilitation on another day of the same week for a total duration of 12 weeks. The evaluation tests will be repeated at the end of the intervention.

Results: It is expected that after the 12 weeks of intervention, G2 participants will have obtained greater and better results in relation to exercise capacity, QoL and peripheral muscle strength when compared to G1.

Conclusion: We believe that intervention using dance in conjunction with conventional PR may demonstrate improved benefits in exercise capacity and consequent improvement in QoL, by increasing the performance of resistance exercises, promoting a longer period of aerobic exercise compared to the level of anaerobic exercise, together with the use of strength exercises.

Implications: COPD is a multifactorial and systemic disease that can cause several conditions, such as dyspnea and decreased exercise capacity, culminating in a reduction in the QoL of patients. Among the indicated treatments, PR is highly valued due to its cost-effectiveness. Currently, there are few studies in literature on the use of dance as PR. The availability found indicates dance as an effective rehabilitation strategy for patients with COPD. Thus, by comparing groups of PR and PR plus dance, it is possible to find a way to enhance the effects of PR in patients with COPD, promote an improvement in QoL, and eventually maintain high adherence rates to PR. Consequently, it is assumed that there will be a decrease in the abandonment of PR programs and, consequently, an improvement in symptoms and exercise capacity of patients with COPD.

Keywords: Chronic obstructive pulmonary disease, Dance, Rehabilitation