

Background: Systemic sclerosis (SSc) is a connective tissue disease characterized by autoimmunity, small vessel vasculopathy and excessive collagen deposition in the skin and internal organs. Pulmonary involvement is responsible for reducing the functional capacity to exercise and represents the main cause of death. The six-minute walk test (6MWT) is a simple, non-invasive, easy-to-perform, and reliable submaximal aerobic exercise test that can be used in patients with advanced lung disease. Patients with SSc often have not only lung disease, but combinations of cardiopulmonary involvement, skin fibrosis, musculoskeletal damage, and joint disease, which can confound the 6MWT interpretation. As it is an independent predictor of SSc-related mortality, the 6MWT is a potentially useful tool in the assessment of outcomes along with pulmonary function tests (PFTs) and computed tomography. Currently, there is a huge concern about the need for early screening, search for new treatments and closer monitoring of patients with diffuse cutaneous systemic sclerosis-associated interstitial lung disease (dcSSs-ILD) before irreversible deterioration of lung function occurs.

Objectives: To build a predictive model for the six-minute walk distance (6MWD) in women with dcSSs-ILD without pulmonary arterial hypertension.

Methods: This is a cross-sectional study in which 69 women with dcSSs-ILD underwent the 6MWT, Health Assessment Questionnaire-Disability Index (HAQ-DI), PFTs (including spirometry, measurement of pulmonary diffusion capacity for carbon monoxide-DLCO and measurement of respiratory muscle strength), handgrip strength (HGS) and quadriceps strength (QS).

Results: The mean 6MWD was 447 ± 78 m, with 43.5% of the participants not reaching 80% of the predicted value. The 6MWT was positively correlated with HR ($r = 0.418$, $P = 0.0004$), forced vital capacity ($r = 0.306$, $P = 0.011$), DLCO ($r = 0.360$, $P = 0.002$), maximal inspiratory pressure ($r = 0.268$, $P = 0.029$), and maximal expiratory pressure (MEP, $r = 0.288$, $P = 0.019$) and negatively with age ($r = -0.378$, $P = 0.001$), body mass index (BMI) $r = -0.248$, $P = 0.039$) and HAQ-DI ($r = -0.438$, $P = 0.0001$). In the multiple linear regression analysis, QS, BMI, DLCO, age and MEP explained 72% of the 6MWD variability.

Conclusion: In patients with dcSSs-ILD, alongside reduced pulmonary diffusion, deterioration in respiratory and peripheral muscle strength negatively impact performance during the 6MWT. Furthermore, the greater the age and BMI, the lower the 6MWD. Our results are promising and may become a contribution to future investigations aimed at new pharmacological therapies for dcSSs-ILD.

Implications: These findings may help the growing number of randomized controlled trials that have emerged in search of disease-modifying therapies for dcSSs-ILD, with the aim of incorporating the 6MWD as a clinical outcome measure.

Keywords: Systemic sclerosis, Interstitial lung disease, Exercises

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EFFECTS OF DANCE THERAPY IN WOMEN WITH BREAST CANCER UNDERGOING RADIOTHERAPY TREATMENT

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Background: Radiotherapy is essential to reduce the risk of locoregional recurrence in patients with breast cancer. However, several symptoms and adverse effects can be manifested during or after radiotherapy. There is evidence that the use of non-pharmacological interventions can reduce symptoms resulting from radiotherapy treatment in cancer patients. Dance/movement therapy (DTM), defined by the American Dance Therapy Association (ADTA) as the psychotherapeutic use of movement to promote the emotional, social, cognitive and physical integration of the individual, could be a way of approaching to minimize the adverse effects of that treatment.

Objectives: Conduct a review on the effects of dance therapy in patients with breast cancer during and/or after radiotherapy.

Methods: The research was carried out between September and November 2022, through searches in the Pubmed, SciELO, Cochrane Library and Google Scholar databases with the search strategy of the descriptors obtained in the Medical Subject Headings (MESH) of the National Library of Medicine with the combination of keywords and the following Boolean operators: ((Dance therapy or Therapy or Dance or Dance Therapies or Therapies or Dance or dance movement therapy) AND (Breast cancer or Breast Neoplasm or Neoplasm or Breast or Neoplasms or Breast or Breast Tumors)) AND (Radiotherapies or Radiation Therapy or Radiation Therapies or Therapies, Radiation or Therapy or Radiation). Studies that addressed the use of dance therapy in patients with breast cancer undergoing radiotherapy were included. Exclusion criteria were studies involving patients with other types of cancer and studies made available in languages other than Portuguese and English.

Results: A total of 3,966 articles were found in the four searched databases. After reading the title and abstract, 16 articles were selected and read in full. Of these, 3 articles remained in the study for analysis. The results presented in this review demonstrate that dance therapy can contribute to improving or reducing the perception of stress, anxiety, fear, fatigue, pain, internal reconstructions, in addition to improving functionality, returning to activities of daily living and improving the quality of life of patients undergoing radiotherapy.

Conclusion: Dance therapy can help improve morbidities in patients with breast cancer undergoing radiotherapy.

Implications: Dance therapy is a clinically relevant intervention, but it has few studies in the oncology area. More studies are needed, with better standardization of the intervention, for better scientific evidence of the effects of dance therapy in these patients.

Keywords: Dancetherapy, Breast neoplasm, Radiotherapy

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APPLICATION OF TIMP SCALE ON THE HOSPITAL ENVIRONMENT: A REALITY FOR EARLY INTERVENTION IN PRETERM INFANTS

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Background: The upscale of surf life on preterm neonates (PTN) is due to the advances in antenatal care, those individuals must have