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Inspiratory Muscle Training for Respiratory Muscle Strength and Pulmonary Function in Female Breast Cancer Patients: A Systematic Review

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ABSTRACT

Introduction: Breast cancer, common among women, weakens respiratory muscles and impairs lung function due to chemotherapy, radiotherapy, and surgery. Inspiratory Muscle Training (IMT), combined with aerobic exercise, improves respiratory muscle strength, and reduces dyspnoea. IMT can enhance quality of life for breast cancer patients dealing with fatigue, stress, and post-treatment symptoms.

Aim: The study aims to assess the impact of IMT on respiratory mechanics and pulmonary function in breast cancer patients to address treatment-related respiratory difficulties.

Materials and Methods: The review included Randomised Controlled Trials (RCTs) and clinical trials following the PICO method, involving women with stable breast cancer post-adjuvant treatment and reduced inspiratory muscle strength or dyspnoea. Interventions combined IMT with aerobic or other exercises, while control groups received low-intensity IMT. Primary outcomes were respiratory muscle strength and pulmonary function. Study characteristics, participant details, interventions, and trial quality were assessed using the 11-point PEDro scale.

Conclusion: The research supports using IMT for postmastectomy breast cancer survivors, combined with therapy or aerobic exercise, to strengthen respiratory muscles, improve performance, and reduce stress and fatigue. While the results are promising, further large-scale, multicentre studies are needed to enhance the effectiveness of IMT in breast cancer rehabilitation.

Keywords: Breast neoplasms, Breathing exercise, Complications, Threshold inspiratory muscle training, Treatment protocols

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