

I-P031

DIFFERENT STRATEGIES OF CORE MUSCLE TRAINING FOR THE PATIENTS WITH CHRONIC LOW BACK PAIN

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ABSTRACT

Background and Purpose: Chronic low back pain (CLBP) is defined repeated back pain presenting for longer than 12 weeks. It is a common musculoskeletal disorder, but its etiology is complex. Many exercise techniques provided core muscle training of CLBP to improve the affected problems, eg. trunk muscle weakness. However, distinct strategies and efficacies of exercise techniques have never been researched. This study is a literature review to compare the different strategies of core muscle trainings for CLBP.

Materials/Methods: We searched involving databases in the EBSCOhost and PubMed, and used key words including chronic low back pain, core muscle training or strengthening, and trunk exercise or stabilization. Included criteria were that the subjects were diagnosed as CLBP, and a randomized controlled trial comparing core muscle trainings. The exercise strategy, study design, intervention, assessment and outcome were analyzed and compared in the searched papers.

Results: Within the 4 literatures, 4 exercise strategies were explored. The trunk balance exercise, segmental stabilization and motor control exercise were compared with the general trunk strengthening exercise. Significant improvements in pain intensity, functional disability and quality of life were found from included studies. All studies indicated the specific exercise strategies were better than general strengthening exercise.

Conclusions and Clinical Relevance: CLBP patients often lack of the motor control and strength of deep trunk muscles. Specific exercise strategies on these core muscles have positive effects for CLBP patients.