Abstract

Objective:

The purpose of this study was to compare the effects of 2 exercise programs; Stabilization exercises and stretching exercises, on functional disability, pain Intensity, and Multifidus Thickness, in individuals with nonspecific chronic low back pain (NSCLBP).

Method:

A total of 45 participants was enrolled into this study, 15 women without any kind low back pain as control group and 30 women with NSCLBP as experimental groups and randomly assigned to two groups as a function of intervention. In the stabilization group, exercises focused on the TrA and lumbar multifidus and oblique muscles, whereas in the stretching group, exercises focused on stretching the erector spine, hamstrings, and triceps surae. Intensity of pain (visual analog scale), functional disability (Oswestry disability questionnaire), Multifidus Thickness (Ultrasonography test) and Lumbar Range of Flexion (Modified-Modified Shober’s test) were compared as a function of intervention. Interventions lasted 12 weeks, and sessions happened three times a week. Analysis of variance was used for intergroup and intragroup comparisons.

Results:

As compared with baseline, both treatments were effective in relieving pain and improving disability, Multifidus Thickness and Lumbar Range of Flexion (P < .005). The stabilization group had significantly higher gains for all variables except Lumbar Range of Flexion. Furthermore, compared Multifidus Thickness and Lumbar Range of Flexion between experimental groups and control group showed a significant difference in the baseline and after the intervention this space significantly decreased.

Conclusion:

Both techniques improved pain and reduced disability. In this study, stabilization exercises were superior to stretching exercises for the measured variables associated with chronic low back pain.