

Randomized Controlled Trial Investigating the Efficiency of Musculoskeletal Physiotherapy on Chronic Low Back Disorder.

Spine. 31(10):1083-1093, May 1, 2006.

*Goldby, Lucy Jane PhD *; Moore, Ann P. PhD +; Doust, Jo PhD +; Trew, Marion E. MSc +*

Abstract:

Study Design. Randomized, single blind, controlled trial.

Objective: To determine the efficacy of 2 components of musculoskeletal physiotherapy on chronic low back disorder.

Summary of Background Data: Musculoskeletal physiotherapy encompasses many treatment methods, however, manual therapy and exercises to rehabilitate spinal stabilization are the most frequently used. Despite their popularity, scant evidence supports their use on subjects with chronic low back disorder.

Methods: A total of 346 subjects were randomized to manual therapy, a 10-week spinal stabilization rehabilitation program, or a minimal intervention control group. Data were collected at baseline, and 3, 6, 12, and 24 months after intervention. Outcome measures recorded intensity of low back pain, disability, handicap, medication, and quality of life. There were 4 main variables combined in a primary component analysis to form a single outcome measure (i.e., a measure of dysfunction).

Results: The results indicated statistically significant improvements in favor of the spinal stabilization group at the 6-month stage in pain (65.9% reduction in symptoms) and dysfunction (combined mean reduction of 134, standard error 23.84), and at the 1-year stage in medication (34.3% reduction in medication), dysfunction (combined mean reduction of 134, standard error 18.2), and disability (mean difference in change 15.71 Oswestry Disability Index, 95% confidence interval 19.3-10.01).

Conclusions: As a component of musculoskeletal physiotherapy, the spinal stabilization program is more effective than manually applied therapy or an education booklet in treating chronic low back disorder over time. Both manual therapy and the spinal stabilization program are significantly effective in pain reduction in comparison to an active control. To our knowledge and up until now, this result has not been shown in patients with chronic low back disorder.

(C) 2006 Lippincott Williams & Wilkins, Inc.