Effectiveness of graded activity versus physiotherapy in patients with chronic non-specific low back pain: Mid-term follow up results of a randomized controlled trial

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Objective

To compare the effectiveness of Graded Activity and Physiotherapy at mid-term (six months post intervention) in patients with chronic nonspecific low back pain for intensity pain and disability.

Methods

This study examined 66 patients with LBP: Graded Activity group (GA) n= 33 mean age 47.2 (10.5) and Physiotherapy Group (FT) n=33 mean age 46.6 (9.5).

The interventions were individualized, one hour per session, for six weeks and often twice a week. Patients in the GA group was based in the protocol described by Macedo[1]. Which are based on individualized, progressive and sub-maximal exercises aiming to improve physical fitness and stimulate changes in behavioral and attitudes due to pain. The PT group was based in the protocol described by Franca[2] using stretching, strengthening and motor control exercises.

Results

The majority of participants were women in both groups with duration of low back pain 21 months. There were no statistically significant differences between groups for any of the baseline measures (table 1). After six weeks, GA and PT groups showed significant improvements in pain and disability (table 1).

Conclusion

The results of this trial suggest that Graded Activity and Physiotherapy exercise have similar effects in terms of reducing pain and disability.

Table 1. Intra-group analyze of outcomes for Graded Activity and Supervised Exercise groups.

	Unadjusted Mean (SD)		Between groups diference In chance score	p
	Physiotherapy Group	Graded Activity		
Intensity Pain (0-10)#				
Baseline	7.6 (2.0)	7.2 (1.9)		
Posttreatment	2.5 (1.9)	2.4 (1.4)	0.1 (-0.7 to 1.0)	.71
6 mo	4.1 (3.1)	4.0 (1.9)	0.1 (-1.1 to 1.5)	.80
Disability (0-24)#				
Baseline	12.8 (4.8)	12.9 (4.9)		
Posttreatment	6.3 (5.5)	6.5 (4.2)	-0.2 (-2.7 to 2.3)	.87
6 mo	7.4 (6.2)	7.4 (5.2)	-0.0 (-2.9 to 3.0)	.98

Data are expressed as mean (SD), #Normal range. CI = 95% confidence interval
*p<0.05 value for Repeat Measure ANOVA

References [1] Macedo LG. et al. Effect of motor control exercises versus graded activity in patients with chronic nonspecific low back pain: a randomized controlled trial. Phys Ther 2012. [2] Franca FR. et al. Effects of muscular stretching and segmental stabilization on functional disability and pain in patients with chronic low back pain: a randomized, controlled trial. J Manipulative Physiol Ther 2012

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