



The Effect of Physiotherapy on Pain and Disability in Patients With Lumbar Spinal Stenosis

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Background and Aim. Lumbar spinal stenosis (LSS) is a common degenerative condition and a leading cause of neurogenic symptoms, including pain and impaired mobility. Optimal management typically involves a multimodal approach incorporating patient education, behavioural strategies, and exercise therapy. However, considerable variability exists in physiotherapy exercise programmes for LSS, highlighting the need to evaluate their effectiveness. Therefore, this study aimed to compare the effects of individualised and group-based physiotherapy programmes on pain and disability in patients with LSS.

Methods. The study included 12 women diagnosed with LSS who reported symptoms such as difficulty walking and pain in the lower back and lower extremities. Participants completed a 21-day intervention consisting of exercise sessions five times per week, 30 minutes per session. Group I followed an individualised exercise programme tailored to their symptoms and functional capacity, while Group II participated in a standardised group exercise programme. Outcome measures assessed before and after the intervention included pain intensity (Visual Analogue Scale), disability (Oswestry Disability Index), functional mobility (Keitel Movement Test), and walking distance to symptom onset.

Results. Following the intervention, pain decreased by 2.0 points in Group I ($p = 0.039$) and 1.5 points in Group II ($p = 0.024$). Disability scores improved significantly in both groups (–19 points in Group I and –21 points in Group II; $p < 0.05$). Functional mobility improved significantly in both groups ($p < 0.001$). Walking distance and time to symptom onset increased significantly in both groups ($p < 0.05$). No statistically significant differences were observed between the groups.

Conclusions. Both individualised and standardised group physiotherapy programmes effectively reduced pain and disability and improved functional mobility and walking tolerance in patients with LSS. Standardised exercise programmes may represent a practical and accessible treatment option.

Keywords: Lumbar spinal stenosis; physical therapy; disability; pain

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Informed Consent Statement: This study was approved by the Ethics Committee of Lithuanian Sports University (No. (M)-2025-799-2). All participants provided written informed consent prior to participation. The study was conducted in accordance with the Declaration of Helsinki.



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