

Original Paper

Reproducibility of range of lumbar motion using a modified-modified Shober's technique in patients with chronic non-specific low back pain

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Abstract

Background and Objective: Lower back pain is one of the common discomforts of the occupational-musculoskeletal system, and the scope of motion measurement is important for assessing the effectiveness of therapeutic interventions. This study was carried out to evaluate the reproducibility of the modified-modified Shober's technique (MMST) in measuring the range of motion of lumbar in patients with non-specific chronic low back pain.

Methods: In this descriptive-analytic study, the range of motion of lumbar (flexion and extension) of 15 patients with non-specific chronic low back pain was measured in three times with modified – modified Shober's technique by two physiotherapists. To achieve this, the correlation coefficient (ICC) was used. Two measurements with an interval of one hour and one week were run to evaluate the reproducibility within-days and between-day, respectively.

Results: Flexion and extension were measured by the first assessor in within-day that showed a high reproducibility for flexion (ICC=0.88) and extension (ICC=0.71), findings also revealed an acceptable ICC for flexion (ICC=0.85) and extension (ICC=0.68) in between-days. The second assessor measurements of flexion and extension in within-day also presented high reproducibility for flexion (ICC=0.85) and extension (ICC=0.76); moreover, in between-days evaluation, correlation was found for flexion (ICC=0.81) and for extension (ICC=0.71).

Conclusion: This study showed that the modified-modified Shober's technique is applicable for measuring the reproducibility of range of lumbar motion in patients with non-specific chronic lumbar pain.

Keywords: Nonspecific Chronic Low Back Pain, Shober's technique, Lumbar motion

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