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Methods for the assessment of neuromotor capacity in non-specific low back pain: Validity and applicability in everyday clinical practice.

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Abstract

BACKGROUND: Physiotherapists and clinicians require methods that can be used in everyday practice for measuring proprioception of the trunk in individuals with non-specific low back pain (NSLBP).

OBJECTIVE: Our objective was to conduct a systematic literature review of methods used for assessment of proprioception of the trunk in individuals with non-specific low back pain.

METHOD: Data were obtained from MEDLINE, CINAHL, Embase, PEDro and CENTRAL databases from their inception to December 2011. Reference lists of the selected reviews were hand searched for other potentially relevant studies. Randomized and nonrandomized controlled studies proprioception of the trunk in individuals with low back pain were selected. Thirty-six studies satisfied the selection criteria and were included in this review.

RESULTS: Two reviewers independently selected the studies, conducted the quality assessment, and extracted data from each study. The Strobe scale was used to evaluate the scientific rigor of each selected study.

CONCLUSIONS: This systematic review covered all the relevant literature, but none of the included studies offered a valid, reliable and feasible method to assess neuromotor capacity in everyday physiotherapy clinical practice.

KEYWORDS: Non-specific low back pain; balance; clinical applicability; equilibrium; kinesthesia; low back pain; motor control; proprioception; repositioning error

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