A Systematic Review of Predisposing Biological and Mechanical Factors Related to Non-Specific Low Back Pain in Adolescents

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METHODS

A literature search (2005-2015) of PubMed, Medline, CINAHL, Science Direct, and Web of Science was conducted using search terms: (adolescent OR child) AND (low back pain OR LBP OR back pain) AND (risk factors OR indicators). The search limits were: peer-reviewed, English language, and human subjects. Selection criteria included: age <18, reported non-specific LBP, and clinically assessed biological/mechanical factors associated with LBP. Two reviewers independently assessed each study for methodological quality and came to consensus based on the MINORS Scale guidelines.

REFERENCES


DISCUSSION

There is conflicting evidence on the most relevant biological and mechanical risk factors for adolescents and LBP. Based on partial agreement across multiple studies, odds ratios, and psychometric properties of outcome measures, female gender, decreased abdominal strength, and decreased trunk extensor endurance were the most clinically significant risk factors. Limitations included lack of a standardized questionnaire for LBP history, variations in profession and expertise of assessors, and inconsistent use of outcome measures. Future research should include more uniform selection criteria, improved outcome measurement, and prospective data collection.