

Low Back Pain as a Challenge for Occupational Health

Toni Vänni, Jorma Rantanen, Kari Reijula, Fabrizio Russo, Sergio Iavicoli

Introduction

Globally low back pain (LBP) prevalence is 80-90% in a worker's lifetime and 15-20% annually. LBP is a major cause of sickness absenteeism and disability. As a multifactorial and multi-outcome condition, it sets a daily challenge for occupational health. This study analyses the support from research for occupational health practices in the prevention and management of LBP at work.

Methods

A total of 1300 articles with pre-set keywords were searched from PubMed, SCOPUS, Cochrane Library and manually and grouped using the PRISMA flow scheme. Selected 160 articles were analysed independently by two experts and 66 were finally included. Modified Joanna Briggs plus AMSTAR2 criteria were used for quality assessment. For prevention and management of LBP at work, a logic model was designed, containing 8 steps; identification, response, analysis and assessment, prevention, management, impact, and evaluation. The articles— mainly systematic reviews— were located into logic model boxes and the conclusions for each box were summarized and assessed for consistency and evidence. Finally, an overall evaluation of studies in view of prevention and management of LBP and return to work was made.

Results

Only high-quality articles were included. Most of the reviews were limited to topics fitting to one or two logic model steps. A comprehensive approach was rare, mainly found in five (7.5 %) good practice guidelines, GPGs. Systematic reviews were often inconsistent in conclusions. The majority of articles and reviews focused on description rather than practical solutions. The most frequent recommendations called upon more and higher quality research on LBP.

Discussion and conclusions

LBP is still an unsolved problem for occupational health practice due to narrow scope articles and inefficiency in problem solutions. Heterogenous concepts, inconsistent criteria and methods often prevent concise conclusions. An approach extending from problem identification to practical solutions and higher quality and relevance is recommended.