Massage therapy for low back pain: a systematic review
Ernst E

Authors' objectives
To assess the effectiveness of massage therapy in low back pain (LBP).

Searching
MEDLINE, EMBASE, and the Cochrane Library were searched (inception - July 1997). Additionally, the author searched his own files and asked other researchers for further relevant articles. Bibliographies of retrieved articles were examined for further relevant publications. The search strategy included languages other than English (but not specified).

Study selection
Study designs of evaluations included in the review
Controlled clinical trials incorporating one patient group who received massage as the sole treatment.

Specific interventions included in the review
Massage, defined as manual or apparative massage of muscular and soft tissue structures of the back. Trials in which massage was used in combination with other treatments (other than mild heat) were excluded. Trials were excluded when massage was used in both treatment and control groups. Types of massage included gentle stroking, light effleurage, soft tissue massage of the lumbosacral area, and underwater massage. Frequency of treatment sessions and duration of treatment programmes varied between trials. Control groups received rotational manipulation, chiropractic, electrostimulation, transcutaneous muscular stimulation, corset, balneotherapy, traction, and no treatment.

Participants included in the review
Patients with any form of LBP, including acute, subacute, or chronic.

Outcomes assessed in the review
The outcome measures used varied between studies, and included pain (assessed by visual analogue scale), Borg Scale, Confidence Scale, Schober test, straight leg raise, extension strength, Oswestry Scale, Roland-Morris Scale, general symptoms, activities of daily living, mobility, tenderness to palpation, fingertip flexion test, and analgesic consumption. The length of follow-up ranged from 3 weeks to one year.

How were decisions on the relevance of primary studies made?
The author does not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
No formal systematic assessment of validity was reported. However, some methodological problems of the trials were highlighted in the discussion.

Data extraction
Data were extracted in a standardised, prespecified way, into a structured table. Data on study design, participant characteristics, interventions, length of follow-up, outcome measures and results, were recorded.

Methods of synthesis
How were the studies combined?
Narrative summary.
How were differences between studies investigated?
By narrative discussion and tabulation of study details.

**Results of the review**
Four randomised controlled trials (RCTs) (n=397).

Results from one RCT suggested that underwater massage was significantly more effective compared with no treatment, but no significant between group differences were observed for massage versus traction, or massage versus balneotherapy. Pain and analgesic consumption were the main outcome measures. Findings from two trials suggested that massage was equally as effective as spinal manipulation or electrostimulation. One study used a nonvalidated index and the other used pain, straight leg raising to pain, and fingertip floor distance as outcome measures. The fourth RCT showed no significant differences between massage and corset, and massage and electrostimulation, however chiropractic proved to be significantly more effective than massage. The main outcome measures were the Oswestry and Roland-Morris Scales.

**Authors' conclusions**
Few trials of massage therapy for LBP have been published. Those that are available are methodologically flawed. Massage might have some potential and in view of the popularity of massage for LBP, rigorous studies are urgently needed.

**CRD commentary**
The review question and selection criteria for primary studies are clearly explained. Useful study details are presented in text and tables. The decision to combine studies by narrative synthesis is appropriate given the heterogeneity of primary material. Although some details of the search strategy are provided, the search terms used are not mentioned, so it would not be possible for the reader to replicate this search. The author does not mention accessing more specialist sources that are relevant for the field of complementary therapies (i.e. AMED, and the database of the Research Council for Complementary Medicine). Although he mentions that languages other than English were considered, the specific languages are not listed, so it is difficult to get an idea of the coverage of the review. Although some aspects of study validity are mentioned in the discussion, criteria are not used systematically for assessment, and a more systematic assessment would have been useful, particularly given the author's comments on the methodological flaws of the included trials. The author's conclusions appear to follow on from the evidence presented.

**Implications of the review for practice and research**
Practice: The authors did not state any implications for practice.

Research: The authors stated that more investigations of massage therapy in low back pain are urgently needed.

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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.