Efficacy of complementary and alternative medicine therapies in relieving cancer pain: a systematic review

Bardia A, Barton D L, Prokop L J, Bauer B A, Moynihan T J

CRD summary
The review concluded there was some evidence of short term benefit for the relief of cancer pain with hypnosis, imagery, support groups, acupuncture and healing touch but, due to the paucity of rigorous trials, no interventions can be recommended. The reliability of the authors' cautious conclusions is uncertain due to lack of reporting of review methods and poor quality evidence.

Authors' objectives
To evaluate the efficacy of complementary and alternative medicine (CAM) therapies for the relief of cancer-related pain.

Searching
MEDLINE, PubMed, EMBASE, CINAHL, AMED and the Cochrane Library were searched from inception to August 2005. Search terms were reported. Reference lists of identified articles were searched for relevant additional articles.

Study selection
Randomised controlled trials (RCTs) evaluating CAM interventions for the relief of cancer-related pain were eligible for inclusion. Studies that evaluated procedural or post-surgical pain in cancer patients were excluded. A definition of CAM was used as defined by the National Center for Complementary and Alternative Medicine.

The CAM therapies in the included studies included acupuncture, music, psychological support, cognitive behavioural therapy (CBT), hypnosis, relaxation and guided imagery, HESA-A herbal remedy, Ai-Tong-Ping capsules, massage, aromatherapy and healing touch/Reiki. They were compared to sham treatment, conventional cancer treatment, other pharmacological treatment or placebo. Treatment duration ranged from a single session (30 minutes) to weekly sessions up to one year. The majority of studies assessed pain outcomes using the Visual Analog Scale (VAS) but various other pain scales were also used (details reported in review). All participants were being treated for cancer-related pain but no further participant characteristics were reported.

The authors did not state how papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Validity was assessed and scored (between 0 and 5) using the Jadad scale for randomisation, blinding and handling of withdrawals. Validity was graded as high (4 to 5 points), intermediate (3 points) and low ((2 or less). For studies where blinding was not possible, such as support groups, imagery, massage and healing touch, a modified Jadad scale was used.

The authors did not state how many reviewers performed the validity assessment.

Data extraction
Two reviewers independently extracted data for the review.

Methods of synthesis
The studies were combined in a narrative synthesis. Each study was described in the text and additional descriptive information was presented in tables.

Results of the review
Eighteen RCTs (n=1,499) were included in the review. Seven RCTs were high quality, three were intermediate quality
and eight were poor quality.

Seven RCTs reported significant benefit for CAM therapies compared to control groups in reducing cancer-related pain including acupuncture (n=90), support groups (n=311), hypnosis (n=67), relaxation/imagery (n=161) and herbal supplement/HESA-A (n=24 but with no apparent control data).

Seven RCTs reported immediate post-intervention or short-term benefit for CAM therapies compared to controls including acupuncture (n=124), music (n=40), herbal supplement/Ai-Tong-Ping (n=60), massage (n=230), and healing touch (254).

Four studies reported no benefit of CAM therapies compared to control groups for music (n=30) or massage (n=239) in reducing cancer pain compared to control arm.

No RCTs reported significant adverse effects of CAM therapy (data not reported).

**Authors’ conclusions**
There was some evidence of short term benefit for the relief of cancer pain with hypnosis, imagery, support groups, acupuncture and healing touch but, due to the paucity of rigorous trials, no interventions can be recommended due to short duration and lack of power and sham control.

**CRD commentary**
Inclusion criteria were clearly defined for study design, intervention, outcomes and participants. Several relevant sources were searched but no attempts were made to minimise publication bias. It is unclear if attempts were made to minimise language bias. Methods were used to minimise reviewer errors and bias in the extraction of data, but it was not clear whether similar steps were taken in study selection or validity assessment. Validity was assessed using specified criteria and results of the assessment were reported. The authors reported modifying validity criteria where it was not possible to blind participants or assessors, but these modifications were not presented, making it difficult for the reader to judge this for themselves. A narrative synthesis was appropriate given the differences between studies. No details on participant characteristics is provided, therefore it is not possible to assess the generalisability of the results. The authors appropriately consider the limitations in the included studies in terms of study design, short duration, lack of sham control and power. The reliability of the authors’ cautious conclusions are uncertain due to the poor quality studies included in the review and a lack of reporting of review methods.

**Implications of the review for practice and research**
Practice: The authors stated that no CAM therapies can be recommended due to the paucity of evidence in this review.

Research: The authors stated that further research is needed focusing on methodologically strong RCTs to determine the potential efficacy of CAM interventions for the relief of cancer pain.

**Funding**
Not stated.

**Bibliographic details**

**PubMedID**
17135649

**DOI**
10.1200/JCO.2006.08.3725

**Original Paper URL**
Indexing Status
Subject indexing assigned by NLM

MeSH
Acupuncture Therapy; Complementary Therapies/classification; Evidence-Based Medicine; Humans; Massage; Mind-Body Therapies; Neoplasms/complications; Pain/etiology; Pain Management; Social Support; Therapeutic Touch; Treatment Outcome

AccessionNumber
12007001592

Date bibliographic record published
01/09/2008

Date abstract record published
20/05/2009

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.