CRD summary
This well-conducted review concluded that the lack of significant findings was not unexpected (due to the limited evidence available), and that pain education might not be sufficient to reduce pain and improve quality of life in cancer patients. The conclusion reflects the evidence presented, but a restricted search may mean that potentially relevant trials were missed.

Authors' objectives
To evaluate the effects of educational interventions on quality of life, pain intensity, and pain interference of cancer patients.

Searching
Seven databases (including PubMed and DARE) were searched for eligible papers from 2000 to 2010. Only studies published in English were eligible. Search terms were reported. It was not reported whether attempts were made to identify unpublished studies. Reference lists of included papers were searched manually.

Study selection
Only randomised controlled trials (RCTs) were considered for inclusion. RCTs had to include adult cancer patients with cancer-related pain. Patient education programmes had to be delivered by health care staff as information, behavioural instructions, or advice through verbal, written, or audio channels. Trials had to report on quality of life (including functional status, perceived pain control, anxiety, satisfaction with pain treatment, pain interference, physical functioning, psychological status, spiritual well-being, social functioning), pain intensity, and pain interference.

Included patient age ranged from 56 to 62 years; the proportion of women ranged from 57 to 66.1%. Cancer diagnosis of included patients varied across the trials, as did the level of pain experienced. Patients with cancer-related pain were recruited from outpatient or ambulatory oncology clinics. Half of the included trials were conducted in Australia, the other half were conducted in the USA. Interventions varied across trials including a representational approach, provision of video tapes and/or booklets, as well as instructional and cognitive behavioural education. Comparators included basic or general pain education, standard care, and videos/booklets on nutrition. All trials used standardised measures to assess quality of life and pain; the most consistently used tool was the Brief Pain Inventory.

Two authors independently assessed studies for inclusion. Disagreements were resolved in discussion and referred to a third author if necessary.

Assessment of study quality
Two independent reviewers assessed trial quality using the Jadad scale. Scores ranged from 0 to 5, with higher scores representing better methodological quality. Trials were assessed on randomisation, blinding, and completeness of follow-up.

Data extraction
Two independent reviewers extracted data on participants, interventions, comparators, and outcomes. Any disagreements were referred to a third reviewer.

Methods of synthesis
The included trials were summarised in a narrative synthesis.

Results of the review
Four RCTs (647 patients, range 97 to 189) were included in the review. Trials were published from 2004 to 2010. Jadad scores for quality assessment ranged from 2 to 4 points, with lack of blinding presenting the greatest risk of bias across
the RCTs. Length of follow-up ranged from four to ten weeks.

Pain intensity decreased significantly following the educational intervention (two RCTs, no statistics reported). No statistically significant differences were found between groups for quality of life outcomes.

**Authors’ conclusions**
Due to the limited evidence available, the lack of significant findings was not unexpected. Pain education alone might not necessarily be sufficient to reduce pain and improve quality of life in cancer patients.

**CRD commentary**
The review question and inclusion criteria were clear. Several relevant databases were searched, but it was unclear if attempts were made to identify eligible unpublished trials. Only studies published in English were eligible, so relevant trials may have been missed. Independent duplicate processes were used for study selection, quality assessment, and data extraction, which reduced the risk of reviewer bias and error.

A standardised scale was used to assess quality of the included trials. Detailed results of the quality assessment were provided in supplementary online material. Given the heterogeneity between the trials acknowledged by the authors, the use of a narrative synthesis rather than a quantitative meta-analysis seemed appropriate.

This was a generally well-conducted review. The conclusion reflects the limited evidence presented, but restrictions in the search may mean that potentially relevant trials were missed.

**Implications of the review for practice and research**
**Practice:** The authors hoped that the findings of this review would increase health professionals' awareness of cancer patients’ pain and quality of life needs.

**Research:** The authors recommended that future research should investigate whether family members or carers might be able to reduce cancer patients’ pain. They stated that patient preferences for content and format of educational interventions, the quality of existing interventions, and the expertise of the health professionals should be investigated. In addition, they recommended that studies with longer follow-up times should be conducted to more accurately measure quality of life outcomes.

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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.