Fatigue in cancer patients during and after treatment: prevalence, correlates and interventions
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Authors' objectives
To review the literature concerning interventions to reduce fatigue in cancer patients.

Searching
MEDLINE, Current Contents and PsycLIT were searched from 1980 to July 2001. The search terms combined the words 'cancer' (or 'Hodgkin’s' or 'tumor' or 'tumour' or 'malign*' or 'haematolog*') and ('intervention' or 'exercise' or 'psychotherapy' or 'group' or 'counsel*') in the title and the word 'fatigue' in the title, keyword or abstract. Only studies published in English or Dutch were included.

Study selection
Controlled intervention studies of adult cancer patients, with a sample size of 15 or greater, were included.

Specific interventions included in the review
Studies in which fatigue was investigated during or immediately after treatment for cancer were included. Of the studies included in the review: three investigated the effect of a walking or exercise programme; five described the effect of individual counselling by professionals or former cancer patients; two evaluated the effect of supportive or psychiatric group meetings; one study used participating in engaging activities; and finally, one study used a virtual reality system.

Participants included in the review
Adult cancer patients were included. The sample of patients in the reviewed studies consisted mainly of breast cancer patients in five studies. Other studies involved people with gynaecological cancer, malignant melanoma or samples of people with different diagnoses. The age range was 23 to 84 years.

Outcomes assessed in the review
Fatigue was assessed. The Profile of Mood States fatigue questionnaire was the most frequently used measurement of fatigue.

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

Assessment of study quality
The authors do not state that they assessed validity.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the reviewers performed the data extraction.

The categories of data extracted were: diagnosis and treatment, intervention, patient characteristics, the number of measurements, and fatigue questionnaire.

Methods of synthesis
How were the studies combined?
The findings of the studies were pooled narratively.

How were differences between studies investigated?
The authors did not investigate heterogeneity.

Results of the review
Twelve studies with a total of 439 participants were included.

Three studies that investigated a walking or exercise programme found that patients reported less fatigue. Individual counselling by professionals (4 studies) had positive effects, but a study that investigated counselling by former cancer patients failed to find a reduction in fatigue. Group meetings, engrossing activities and the virtual reality intervention all reported less fatigue, immediately after the intervention. Follow-up results were presented in only 4 studies. In 3 of these studies, the positive effect of the intervention was still apparent at 3 or 6 months’ follow-up.

Authors’ conclusions
Most intervention studies to reduce fatigue appeared to be successful, but the follow-up analyses were lacking.

CRD commentary
This review addressed an appropriate question on an important topic and the inclusion and exclusion criteria were clearly stated. The search strategy appeared adequate but important non-English and Dutch language studies may well have been missed. Details of how the review was conducted were not reported, such as how many of the reviewers were directly involved, or the level of independent duplication or checking of information for the review. The included studies were all presented in adequate detail in the text and in tabular format. The narrative pooling of the findings of the individual studies was appropriate given the nature of the evidence.

The authors’ conclusions from their review appear justified, with the proviso that other non-English and Dutch papers might exist that could provide further information.

Implications of the review for practice and research
Practice: The authors state that, on the basis of the included studies, it would be better to encourage cancer patients to maintain activity levels balanced with efficient rest periods than to advise reduced activities and a lot of rest, as is current clinical practice.

Research: The authors state that in future research, the use of valid and reliable multi-dimensional fatigue instruments is recommended because fatigue is a subjective state with multiple dimensions. Fatigue questionnaires for which norm scores of healthy participants and/or other patient populations are available should be used in preference. Longitudinal and/or matched control group studies should be undertaken to indicate factors that are correlated with the initiation or persistence of fatigue in cancer patients.

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