Critically Appraised Papers

An energy conservation program for people with cancer produced small changes in fatigue

Synopsis


Research objective: To determine the effect of energy conservation on fatigue reduction in people with cancer.

Design: Randomised controlled trial with intention-to-treat analysis. Allocation not concealed. No assessor blinding, although measures were self-administered.

Setting: Two hospital sites (Philadelphia and Utah, USA). Interventions provided by telephone to participants at home.

Participants: Eligible participants were: (i) beginning treatment for cancer; (ii) due to receive three or more cycles of chemotherapy, 6 weeks of radiotherapy, or both; and (iii) able to complete self-report questionnaires in English. Baseline questionnaires were completed before treatment began (n = 296). Participants were stratified according to job status, treatment type, and diagnosis, then randomised. The majority were women (85%) with breast cancer (71%). Baseline demographic data were not available for comparison, but baseline equivalence was evident across groups for outcome measures. Some data/measures were missing for 104 participants at the first post-treatment time (n = 292 with complete data* = 74% follow-up rate).

Intervention: Experimental group (n = 200): Energy conservation and management (ECAM) involved three telephone sessions delivered by an oncology nurse. Session 1 (30 min): Information about energy conservation; homework involved completing a journal to monitor fatigue, rest, activity and symptoms. Session 2 (30 min): Develop a plan of valued activities and ways to minimise fatigue. Session 3 (15 min): Evaluate and revise plan. Control group (n = 196): Equal time and attention was provided by a nurse, by telephone. Information was provided on nutrition and diet. Dietary records were kept and discussed.

Outcome measures: Self-reported scales: (a) Short Form of the Profile of Mood States: Fatigue (POMS-SF), a five item checklist measuring fatigue intensity during the past week (1 = not at all, 5 = extremely); maximum total score 25*. (b) Schwartz Cancer Fatigue Scale (SCFS), a six-item checklist with three physical/three mental fatigue components; maximum total score 30*. (c) General Fatigue Scale (GFS), a seven-item scale; maximum total score 70*. (d) Functional Performance Inventory (FPI), a 65-item scale with six subscales; maximum total score 264*. Measures were self-administered before cancer treatment began, and then again on two further occasions (48 h after the second and third chemotherapy treatments, or during the last week of radiotherapy and 1 month after completion).

Results: Statistically significant difference between groups for fatigue reduction over time in favour of the ECAM group, but not for functional performance. From follow-up time one to time two, the POMS-SF mean difference was 0.2 points (95% CI 0.1 to 0.5); the SCFS-physical mean difference was 0.2 points (95% 0.0–0.4); and the GFS-total mean difference was 0.6 points (95% CI 0.1–1.1).

Conclusions: A ‘modest’ benefit in fatigue reduction for participants receiving ECAM compared with control intervention. The authors acknowledge uncertainty about whether this difference is clinically significant for people with cancer.

*Additional information provided by study authors.

Commentary

Fatigue is a subjective experience that affects everybody, yet for people receiving treatment for cancer, it is among the most prevalent and debilitating of symptoms. With causes still largely unclear, finding treatments that may reduce fatigue and its impact are important.

To date, there have been few rigorous studies evaluating interventions targeted at reduction of cancer-related fatigue. This study is among the first trials of energy conservation and activity management for people receiving treatment for cancer. Delivery of three sessions of tailored energy conservation training by telephone slightly moderated the expected rise in fatigue over time related to cancer therapy, compared to a control group receiving nutrition training by telephone. However, any clinical significance of this effect is questionable.
The use of telephone for delivery of energy conservation training has great potential. It enables people to receive training and support in their homes at a time when they may feel unwell, or when they have returned home to regional/rural areas following treatment. Other features of this intervention that may be useful include: encouraging people to maintain a fatigue diary or journal, to increase their awareness of times when fatigue is at its worst; and developing an energy-conservation plan that can later be appraised with the assistance of a therapist.

As one would anticipate, use of energy conservation behaviours increased as a result of training in this study, yet only small differences in moderation of fatigue were found over time between groups. Apart from this change being of questionable clinical significance, the question remains whether the small response is because of the actual treatment, or to the design and delivery of this particular study. Participants with missing data at some time-point in the study (41%) were in poorer health than those with complete data. This means there would have been a concentration of participants responding who were comparatively ‘well’ and therefore it would have been more difficult to detect change over time and between groups. One wonders what effect may have been found, if all data had been available. As this is one of the first studies available, it is all the more important to test this intervention again with attention to maximising response rates.

Given the interplay between distressing symptoms such as pain, fatigue and depression in people receiving treatment for cancer, multifaceted interventions need further investigation. The combination of energy conservation with other promising treatments currently being evaluated, such as cognitive behaviour therapy, exercise, and stress management, may prove fruitful.

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Occupational therapists working with indigenous Australians use communication strategies, assessment tools and assistive devices that are more culturally appropriate for this population

Synopsis


Research Objective: To explore the experiences, perspectives and practical strategies of occupational therapists working with Aboriginal and Torres Strait Islander people living in rural and remote areas of Queensland, Australia.

Design: Exploratory qualitative study, based on phenomenology.

Setting: Community.

Participants: Occupational therapists \( n = 8 \) who had at least 12 months experience working with Aboriginal and Torres Strait Islander people from rural/remote regions of Queensland. All therapists interviewed were female, and had worked for government health, rehabilitation or education services. Purposive and opportunistic sampling was used initially, followed by snowball sampling.

Methods: A single semistructured interview was conducted face-to-face with three participants, and by telephone with five participants. Interviews were 30–90 min long, tape-recorded and transcribed verbatim (presumably by one of the researchers, although, this is not stated). Data were analysed separately by two researchers using inductive thematic analysis. Codes were developed, compared, then entered into a computer software program (NVivo). Similarities and differences between participants’ experiences were identified. Quotes were selected to represent key findings. Rigour was enhanced by sending interview transcripts back to participants, to confirm their accuracy.

Main findings: The occupational therapy participants identified three key themes: (i) practice models and principles; (ii) communication and practical strategies; as well as (iii) supports and resources, which they considered culturally appropriate for use with indigenous clients. Practice models most often identified included the Canadian Occupational Performance...
Model, client-centred practice, the ‘top-down’ process (defining goals before assessing client performance), case management, and a ‘strengths-based’ approach. Communication strategies that facilitated effective interaction with clients and their families were emphasised, such as speaking softly, checking understanding, and using demonstrations and pictures. Practical strategies were used that involved the extended family, encouraged collaborative goal setting, addressed disempowerment by meeting in the clients’ preferred environment (e.g. meeting in the park or garden), modifying assessments and activities. Helpful resources included cross-cultural training, information about learning styles of indigenous people, cultural variations between groups/communities, and access to indigenous health workers.

Conclusions: Strategies identified as culturally appropriate for indigenous Australians were consistent with those identified in previous literature. Suggestions were made for additional resources, culturally appropriate assessment tools and assistive devices.

Commentary

This paper presents a discussion of the perceptions of eight occupational therapists regarding strategies they found helpful when working with indigenous Australians in rural and remote Queensland. The research presents the perceptions of professionals, and not those of the client population. Consequently, the strategies reported require a more thorough examination and discussion by indigenous Australians, the people who are the focus of this study and strategies described. Research presented from the perspective of professionals, without the input of indigenous Australians, has major limitations. The interpretation may be naïve, even flawed.

We can have some confidence in the strategies listed because they are consistent with much of the cultural competence/awareness training modules in existence throughout Australia. However, little new information is provided by this research, for those already familiar with current practice. A major challenge when working cross-culturally is the alteration of one’s world view. It may be tempting for clinicians to read the list of strategies and implement them at a superficial level.

Although participant numbers were limited in this study, the researchers would not have been able to locate many more occupational therapists for recruitment, given the relatively small numbers of professionals working in rural and remote regions of Australia. The recency and length of participant experience was not discussed (beyond the minimum of 12 months). Both factors would have a bearing on the information provided at interview.

The qualitative research methods used ensure confidence in the analysis. The interview guide would have benefited from wider dissemination for discussion during the development phase. Additional insights could also have been gained by including in the interview guide opportunities for participants to discuss the benefits of prior experience, relevance of an experienced mentor (from any health background), and their views on abandoning traditional professional boundaries as part of the development of trust with communities.

The authors attempted to consult the wider literature through the excellent work of linguist Eades (1988) and sociologist Saggers (1993). They have included the relevant work of experienced Australian occupational therapists such as Glynn (1993). However, the article could have been enhanced by a wider search of the non-occupational therapy literature, where most information on this topic rests — and then referencing in more detail to the findings.

The need to modify assessments was discussed, and it is a very important issue for indigenous Australians and those providing health services. For example, modifying pictures and objects may positively influence the face validity of a test. Face, content and criterion validity must be carefully examined when any assessment is being used cross culturally. This is an area begging for future research.

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References