Can exercise treat eating disorders?

Hausenblas HA, Cook BJ, Chittester NI

CRD summary
This review concluded that exercise may improve a range of outcomes in patients with eating disorders. The conclusion should be treated with caution because of limitations in the evidence base (few and small studies) and review methods (limited validity assessment). The authors’ recommendations for further research seemed appropriate.

Authors’ objectives
To evaluate the effects of exercise interventions as a treatment for eating disorders.

Searching
The authors searched Dissertation Abstracts International, PubMed and PsycINFO to February 2007. Search terms were reported. They also searched reference lists of review articles, books and research articles, handsearched indexes of relevant journals and contacted researchers in the field to locate current or unpublished studies. The authors did not report whether language restrictions were imposed.

Study selection
Controlled studies of exercise interventions in people with an eating disorder (anorexia nervosa, bulimia nervosa or eating disorder not otherwise specified) were eligible for the review. Studies had to report outcome data for an eating disorder symptom. Included studies enrolled women (where reported) with anorexia or bulimia or a population with a mixture of disorders. Control groups were women with or without eating disorders. A variety of exercise interventions were used. Duration of the intervention (where reported) ranged from eight weeks to six to 12 months. Various different outcomes were assessed, the most frequent being depression.

The authors stated neither how the papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they formally assessed validity, but they reported on attrition rates and use of randomisation.

Data extraction
The authors stated neither how the data were extracted for the review nor how many reviewers performed the data extraction.

Methods of synthesis
Studies were synthesised in a brief narrative. Differences between studies were discussed in the text and presented in a table.

Results of the review
Six studies with over 375 participants were included (sample size was not reported for one study). Three studies were very small (14 to 21 participants). Five of the studies were reported to be randomised. Three studies reported attrition rates (median six participants, range four to 26). Four studies reported statistically significant benefits of exercise for outcomes that included body satisfaction, mood and quality of life.

Exercise did not affect weight gain.

Authors’ conclusions
Exercise may improve a range of outcomes in patients with eating disorders, but more research was needed.
CRD commentary
This review addressed a clear question. Inclusion criteria were clear but broad; it appeared that the review was not restricted to randomised trials (which provide the best evidence about effectiveness of interventions). The authors searched a range of sources and attempted to locate unpublished studies. It was unclear whether language restrictions were imposed on the search, so the risk of language bias was uncertain. The authors did not fully assess validity of the included studies, which meant that the reliability of the evidence on which the review was based was uncertain. Review methods were not reported, which made it difficult to assess the risk of errors and bias in study selection and data extraction. A narrative synthesis was appropriate in view of the range of interventions and outcomes included. The authors’ conclusions reflected the evidence presented, but should be treated with caution in view of the limitations of the evidence base (few and small studies) and of the review methods (particularly a lack of validity assessment). The recommendations for further research seemed appropriate.

Implications of the review for practice and research
Practice: The authors stated that patients with eating disorders could safely engage in exercise programmes during treatment.

Research: The authors stated that well-designed randomised trials of exercise interventions were required and that research was needed to determine the most beneficial type of exercise and which patients would benefit most from exercise interventions.

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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.