
Obesity in older adults: a systematic review of the evidence for diagnosis and treatment

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CRD summary

This generally well-conducted review examined weight loss interventions in the elderly. The authors stated that intensive interventions (including diet, physical activity and behavioural components) can promote modest weight loss in this age group. Although these conclusions appear sound, suggestions on who might benefit in the long term and from which intervention require substantiation through further research.

Authors' objectives

To review the evidence on the diagnosis and treatment of obesity in the elderly. This abstract focuses on treatments for obesity.

Searching

The authors searched MEDLINE and the Cochrane Library, consulted with experts, and reviewed the bibliographies of published reviews and articles in English (January 1980 to November 2005). Evidence tables from previous systematic reviews were also consulted.

Study selection

Study designs of evaluations included in the review

To be eligible, studies had to be randomised controlled trials (RCTs). Trials of less than one year's duration were excluded.

Specific interventions included in the review

Specific weight-loss interventions were not pre-specified. Trials had counselling on diet and/or, exercise and/or behavioural components. The duration of the studies ranged from 12 to 48 months.

Participants included in the review

Data on patients aged 60 years and older were considered. Most studies were of U.S. samples with participants who were generally healthy and in their 60s.

Outcomes assessed in the review

Outcomes eligible were reductions in morbidity and mortality, improvements in quality of life and function, and intermediate cardiovascular outcomes such as glucose control, blood-pressure and lipid levels.

How were decisions on the relevance of primary studies made?

At least two authors independently assessed the relevance of each study.

Assessment of study quality

At least two authors independently assessed study quality. The criteria used to assess validity were not stated.

Data extraction

At least two authors independently extracted the data from the studies. The interventions were categorised in terms of counselling frequency (low, moderate or high) and according to their components (diet, exercise and behavioural techniques).

Methods of synthesis

How were the studies combined?

The studies were combined in a narrative.

How were differences between studies investigated?

Differences between the studies were explored according to intervention intensity and components.

Results of the review

Seventeen RCTs were included in the assessment of effectiveness of treatments for obesity. The numbers of participants were not recorded.

No RCTs of surgical or pharmacological treatment in older adults were identified. RCTs involving intensive counselling strategies including behavioural, dietary and exercise components produced a weight loss of 3 to 4 kg over 1 to 3.3 years. Across the studies, the weight loss was linked with other positive outcomes: improved glucose tolerance, improved physical functioning, reduced incidence of diabetes, and a combined hypertension and cardiovascular end point. It was also linked with the negative outcome of reduced bone density.

Authors' conclusions

The authors stated that intensive interventions (including diet, physical activity and behavioural components) can promote modest weight loss, but the data are insufficient to evaluate surgical or pharmacological treatments. They suggested that obesity treatment is most likely to benefit people with high cardiovascular risk. There were limited data to suggest possible functional improvement and treatment should take measures to avoid bone loss.

CRD commentary

Inclusion criteria were defined for the study design, participants and outcomes, but not for the intervention. Searching covered a range of resources but was restricted to the English language, which can introduce bias. Two authors were involved in the review process and this helps minimise bias in the selection, data extraction and quality assessment of studies in the review. The criteria used to assess validity were not reported. A narrative synthesis was appropriate given the diversity of the interventions and outcomes. Although the conclusions on weight loss appear sound and advice on the need to tailor programmes to the needs of the elderly appropriate, suggestions on who might benefit in the long term and from which intervention would need confirmation in further research.

Implications of the review for practice and research

Practice: The authors stated that programmes including dietary components and physical activity need to be tailored to the elderly who may have chronic disease or functional limitations. New approaches may be needed to break down barriers to participation in such programmes

Research: The authors did not state any implications for further research.

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Other publications of related interest

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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.