



Title	The Clinical Effectiveness and Cost Effectiveness of Long-Term Weight Management Schemes for Adults: A Systematic Review
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Aim

To assess the long-term clinical and cost effectiveness of multicomponent weight management schemes for adults in terms of weight loss and maintenance of weight loss.

Conclusions and results

We identified 3358 references, of which 12 were included in the clinical effectiveness review. Five randomized controlled trials (RCTs) compared multicomponent interventions with nonactive comparator groups. Generally, weight loss appeared to be greater in the intervention groups than in the comparator groups. Two RCTs compared multicomponent interventions that focused on diet. These studies presented no statistically significant differences in weight loss between interventions. Four RCTs compared multicomponent interventions that focused on physical activity. We found little consistency in the pattern of results, in part owing to the differences in the interventions. The intervention in one RCT focused on the goal-setting interval, and weight loss appeared to be greatest in those given daily goals versus weekly goals. Overall, where measured, it appeared that most groups began to regain weight at further follow-up. Of the 419 studies identified in the cost-effectiveness searches, none met the full inclusion criteria. Our review describes 2 economic evaluations, but caution is required in their interpretation since they did not meet all inclusion criteria. These studies used lifetime chronic disease models, and the models included the costs and benefits of avoiding chronic illness. Both studies found the interventions to be cost effective, with estimates varying between -473 pounds sterling (GBP) and GBP 7200 per quality-adjusted life-year gained. Since methodological omissions from these studies were apparent, caution is required in interpreting the results. Long-term multicomponent weight management interventions were generally shown to promote weight loss in overweight or obese adults. Weight changes were small, however, and weight regain was common. There were few similarities between the included studies; consequently an overall interpretation

of the results was difficult. Some evidence suggests that weight management interventions are likely to be cost effective, but caution is necessary due to limitations in both of the cost-evaluation studies described.

Recommendations

See Executive Summary link www.hta.ac.uk/project/2036.asp.

Methods

Data sources: A sensitive search strategy was designed and applied to 10 electronic bibliographic databases (eg, MEDLINE, EMBASE, Cochrane Library) from inception to December 2009. Bibliographies of related papers were screened, key conferences and symposia were searched, and experts were contacted to identify additional published and unpublished references. Study selection: Independently, 2 reviewers screened titles and abstracts for eligibility. Inclusion criteria were defined a priori and applied to the full text of retrieved papers by 2 reviewers using a standard form. Clinical effectiveness studies were included if participants were adults with a body mass index >25 kg/m²; if the interventions were well-described multicomponent (diet, exercise, behavior therapy) weight management approaches with a weight loss outcome; and if the studies were RCTs with at least 18 months' follow-up. Studies in the systematic review of cost effectiveness were required to be cost-effectiveness analyses. Data extraction and quality assessment: Data extraction and assessment of methodological quality was undertaken by one reviewer and checked by a second. Differences in opinion were resolved through discussion or recourse to a third reviewer at each stage.

Further research/reviews required

See Executive Summary link www.hta.ac.uk/project/2036.asp.