Comparison of range of commercial or primary care led weight reduction programmes with minimal intervention control for weight loss in obesity: Lighten Up randomised controlled trial


Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
The primary objective of the study was to evaluate the effectiveness of several pragmatic weight loss interventions in primary care patients; the study also evaluated the costs of each programme. The authors concluded that the only programme to achieve statistically significantly greater weight loss than exercise only was Weight Watchers. The effectiveness evidence was good quality but the cost analysis was limited. The authors did not highlight cost-effectiveness conclusions but the evidence was promising for Weight Watchers.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The primary objective of the study was to evaluate the effectiveness of several pragmatic weight loss interventions in primary care patients; the study also evaluated the costs of each programme.

Interventions
The interventions compared included the following eight weight loss programmes: Weight Watchers, Slimming World, Rosemary Conley, Size Down Programme, general practice-led, pharmacy-led and choice of intervention. There was an exercise-based comparator group.

Weight Watchers, Slimming World and Rosemary Conley were commercial programmes. They were all group-based interventions at community centres and lasted one hour to 90 minutes. They varied in the one-to-one contact availability, website access and goal-setting. Participants were provided with vouchers for 12 weeks of the programme. The Size Down Programme was an NHS group-based programme run in the community by support workers trained by the dietetics service. This provided six weekly two-hour sessions with follow-up sessions at nine and 12 weeks. The general practice and pharmacy programmes each included 12 one-to-one sessions in the general practice or pharmacy. The first session was 30 minutes and the others were 15 to 20 minutes. The exercise comparator provided 12 free entrance vouchers for a local authority run fitness centre. Participants in the choice arm were able to choose one of the six main programmes.

Location/setting
UK/community

Methods
Analytical approach:
Intervention costs and effectiveness were based on the same clinical study. The time horizon was the follow-up period of the trial. No study perspective was stated.

Effectiveness data:
The primary clinical outcome was weight loss at three months’ follow-up. Secondary outcomes were changes in self reported physical activity, weight loss at one year and percentage weight loss at three months and one year. These were measured in the eight-arm randomised clinical trial of the weight loss programmes. Eligible patients were from South Birmingham Primary Care Trust. Patients from practices with general practice programme training were randomly
allocated to any one of the eight trial arms. Patients from other practices were randomly allocated to one of seven trial
arms (excluding the general practice arm). An independent statistician organised randomisation and placed allocations
in opaque envelopes. Outcomes were measured at baseline, three months and one year. Outcomes were analysed
according to intention-to-treat. Differences between groups were calculated unadjusted and adjusted for baseline
differences in patient characteristics.

Monetary benefit and utility valuations:
Not relevant.

Measure of benefit:
There was no summary measure of benefit. The measures of benefit were the clinical outcomes of the trial.

Cost data:
The costs of each programme, sending out invitation letters and a call centre that coordinated the service were included
in the analysis. An average cost per person was calculated based on staff employed over a 12-month period and the
number of clients that used the service. The costs were in UK £.

Analysis of uncertainty:
Whether or not the difference between groups reached statistical significance at a level of 5% confidence was reported.
Alternative analyses were undertaken using per protocol analysis instead of intention-to-treat and by comparing
commercial programmes to primary care programmes.

Results
At the programme end, only the Weight Watchers (-2.41, 95% CI -3.6 to -1.23) and Rosemary Conley (-2.22, 95% CI
-3.4 to -1.04) programmes recorded a statistically significant reduction in weight compared to the comparator arm of
exercise only. At one year, only the Weight Watchers programme recorded a statistically significant reduction in weight
(-2.38, 95% CI -3.98 to -0.78). All groups reported increased physical activity at three months follow-up compared to
physical exercise alone. Only Weight Watchers reported increased physical activity to compared to the physical
exercise only group at one year.

Total costs per patient were £76.87 for Weight Watchers, £71.37 for Slimming World, £76.87 for Rosemary Conley,
£91.87 for NHS Size Down Programme, £112.73 for general practice and £112.3 for pharmacy.

Analyses that estimated the effect of gender, programme choice and with adjustments for baseline differences were
similar to unadjusted results. Per protocol analysis had similar findings to intention-to-treat analysis. Analysis that
compared commercial programmes to one-to-one primary care programmes found that commercial programmes
resulted in statistically significantly greater weight loss at three months (p=0.004 unadjusted) and one year (p=0.02
unadjusted, p=0.06 adjusted).

Authors’ conclusions
The authors concluded that the only programme to achieve statistically significantly greater weight loss than exercise
only was Weight Watchers.

CRD commentary
Interventions:
The interventions were well described and included programmes that were available on the NHS and commercially,
which was useful for local decision makers.

Effectiveness/benefits:
The clinical outcomes were appropriate for the trial. If a rigorous cost-effectiveness analysis were conducted, weight
loss might be translated into reduced future disease and valued. The trial appeared to be well conducted and well
analysed.

Costs:
The costs included were consistent with a health service perspective. Very few costing details were provided in the
analysis. The focus of the study was to evaluate the effectiveness outcomes of the trial. The authors acknowledged that they did not try to determine the cost to primary care from a change in consultation rates or drugs or costs to the participants of attending the programmes or purchasing any products from the commercial programmes.

Analysis and results:
The analysis was well described and the results were well presented. The authors barely discussed the cost results as the focus of the study was to evaluate the clinical effectiveness outcomes of the trial.

Concluding remarks:
The effectiveness evidence was good quality but the cost analysis was limited. The authors did not highlight cost-effectiveness conclusions but the evidence was promising for Weight Watchers.

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