

Characteristics of successful weight loss maintainers after very low calorie diet-induced weight loss.



Kathryn Hart¹; Cecile Jones¹; Kelly L Johnston²
¹Faculty of Health and Medical Sciences, University of Surrey
²LighterLife UK Limited, Parkway, Harlow, Essex UK
k.hart@surrey.ac.uk



Introduction

- Very low calorie diets (VLCD) induce substantial initial weight loss and a recent meta-analysis has shown that continued use of formula-based products is associated with improved weight-loss maintenance (WLM) after the VLCD period ⁽¹⁾.
- Decreased disinhibition and energy intake from fat, and increases in dietary restraint and self-weighing have also been associated with lower weight regain over a 10 year maintenance period ⁽²⁾.

Aim

To investigate the factors associated with successful weight loss maintenance (WLM) after VLCD induced weight loss in order to better support individuals and optimise this crucial stage of the weight loss 'journey'.

Method

- Individuals registered with LighterLife (LL), who had undertaken the Total weight-loss programme comprising a VLCD, behavioural modification and group support, and who had lost at least 10% of their starting weight followed by a minimum period of 6 months on the LL maintenance programme, were invited to complete an online questionnaire and to consent to the research team accessing their weight history data.
- The questionnaire assessed diet and activity behaviours (including items from the Dutch Eating Behaviour Questionnaire)⁽³⁾ and ongoing engagement with aspects of the LL programme.
- Ethical approval was received from the University of Surrey Ethics Committee

Results

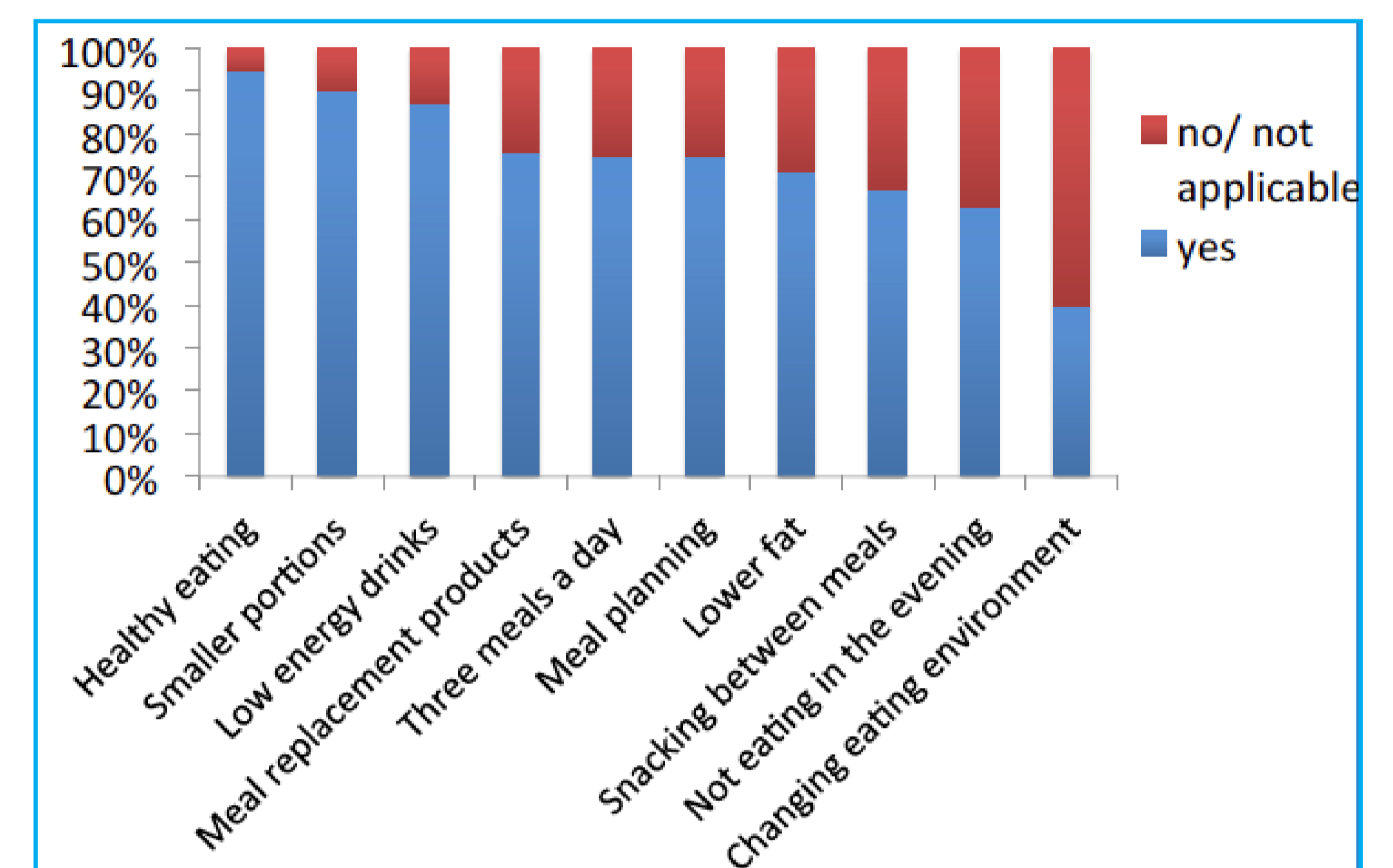
- 1010 randomly selected individuals who met the inclusion criteria were emailed the study link; 104 completed the online questionnaire within a 3 month period (10.3%).
- The sample were predominantly female (91%) with a mean age of 51.0[SD 11.1]yrs.
- They had lost an average of 23.6[8.0]% of their starting weight on the VLCD (22.6[13.0]kg) and had been engaged in WLM for a median of 17 months (range 6-82mths).
- On average respondents had maintained 76.6[33.7]% of their weight loss although longer follow up was weakly but significantly correlated with a reduction in the degree of weight loss maintained (rs=-0.2; p=0.45).

Results contd

Weight maintenance strategies

- Clients most commonly reported eating more healthily (95%) choosing smaller portions (90%) and lower energy drinks (87%) and the use of meal replacement type products (76%) (see Fig 1).

Fig 1. Weight maintenance strategies employed by adults (n=104) following VLCD weight loss.



- Self-monitoring techniques were infrequently reported although traditional calorie counting (27%) and paper diaries (22%) were more popular than 'apps' (4%) or online tools (15%).

Factors associated with successful WLM

- WLM success was not significantly associated with any one approach, although a trend towards increased use of meal planning (Fisher's exact test, p=0.09) and smaller portions (Chisquare, p=0.09) in those with the greatest (Q4) versus the least (Q1) WLM was seen.
- Greater WLM was associated with more LL Foodpack use and group attendance, with a significantly more frequent attendance when corrected for duration of maintenance (Q1: 1.03[0.9], Q4: 1.66[1.2] groups per month; p=0.04).
- Greater WLM was associated with less external and emotional eating but greater dietary restraint (see Fig 2).

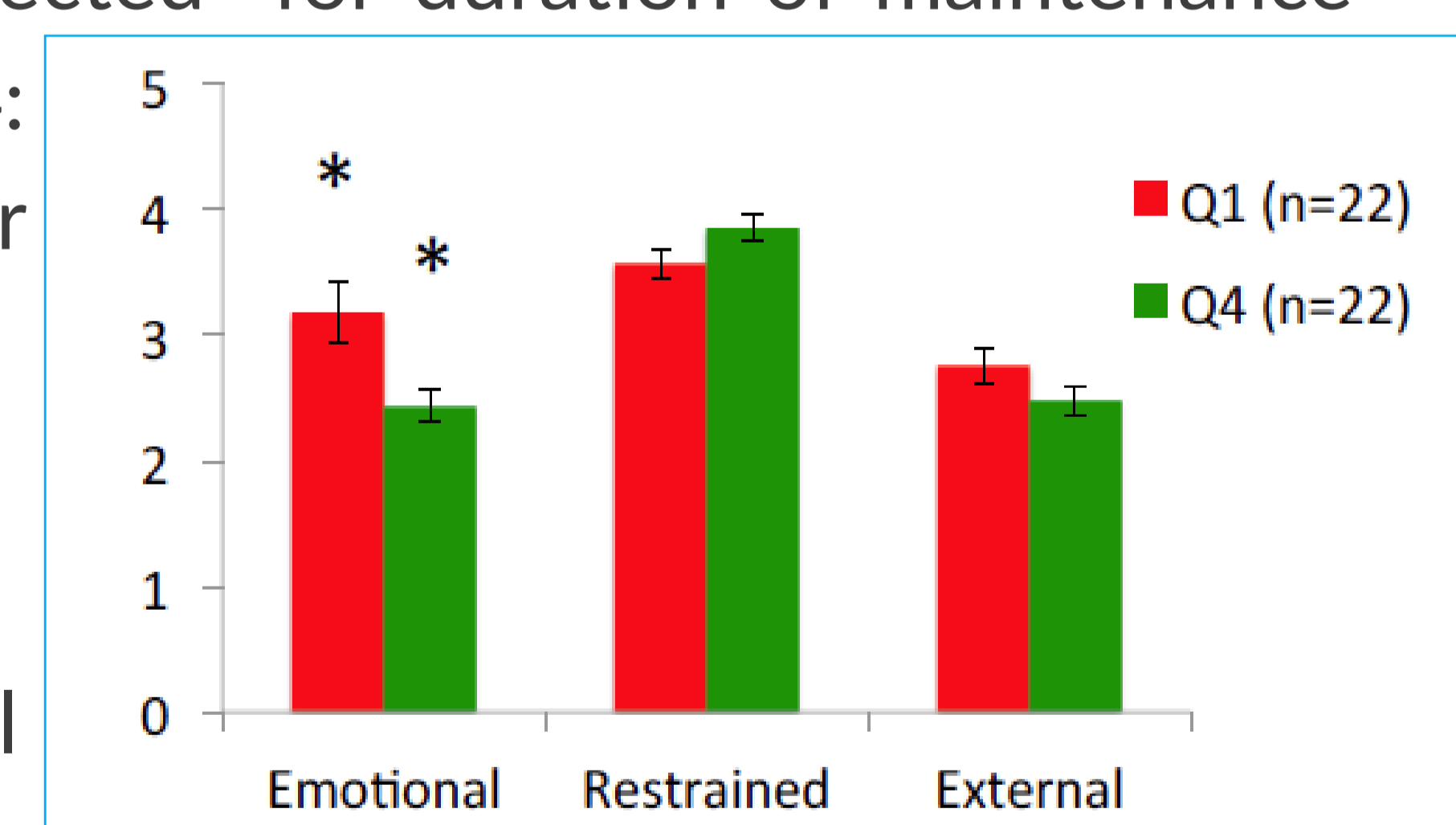


Fig 2. Eating behaviours in high (Q4) and low (Q1) weight loss maintainers. (*p=0.04, duration corrected)

Discussions

- Maintenance of weight loss post-VLCD may be facilitated by a range of strategies, most importantly continued group support.
- Further analysis will address any associations between reported dietary intakes and WLM success.