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Brief report

Meal replacement soups and shakes: do they have a place in public health practice to manage weight loss?

Bronwyn McGill[a,b,c,e], Anne C Grunseit[a,b,c], Philayrath Phongsavan[a,b], Claudia Harper[b,d], Blythe J O'Hara[a,b]

[a] Prevention Research Collaboration, Sydney School of Public Health, University of Sydney, NSW, Australia
[b] Charles Perkins Centre, University of Sydney, NSW, Australia
[c] The Australian Prevention Partnership Centre, Sydney, NSW, Australia
[d] The Boden Institute of Obesity, Nutrition, Exercise and Eating Disorders, University of Sydney, NSW, Australia
[e] Corresponding author: bronwyn.mcgill@sydney.edu.au

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Background

Nine per cent of Australian adults report dieting to lose weight, and 49% of these describe their diets as 'low calorie'.[1] An online search for 'low calorie/energy diet products' reveals many advertisements for commercially available low- and very low-energy meal-replacement (MR) products, including promotions for 'soups and shakes'. Evidence supports low- and very low-energy MRs as a successful strategy for weight loss in overweight and obese individuals.[2,3] Australian clinical practice guidelines for overweight and obesity management include changing lifestyle behaviours and the use of very low-energy diets as effective in supporting weight loss for overweight and obese adults.[4] Considering the evidence supporting their use to reduce energy intake, MRs may be underutilised in weight loss management.[5] Further, the role of their use in public health is unclear. Although many studies have investigated the efficacy of MRs, few have explored participant perceptions of using these options for weight-loss management. In those studies that have explored this, MRs were positively perceived, and considered convenient and easy to use.[6,7]

The Healthy Weight for Life (HWFL) program is an 18-week weight-loss lifestyle-modification program for overweight or obese adults with chronic disease who have private health insurance.[8] The program includes physical activity and dietary recommendations, incorporating a portion-controlled eating plan including MRs under the brand name KicStart, in the form of a shake or soup. Past participants of the program have lost on average, approximately 7–8% of their baseline weight.[9,10] We undertook qualitative research to investigate an additional maintenance phase for HWFL participants. Six focus groups were conducted during November 2016, with 28 English-speaking participants who had completed

HWFL within the past year (53.6% of participants were male, 46.4% female, 85.7% aged 55 years and older, 82.1% from most advantaged areas, 96.4% from major cities; 60.7% of whom had maintained their weight loss or lost further weight after completing the program). The focus groups explored incentives for weight-loss maintenance using a thematic inductive approach.[11] Participants spoke spontaneously and at length about their experiences of using MRs for weight loss management. Although not the primary research focus, participants' enthusiasm for discussing soups and shakes was notable. This study aims to provide initial insights into participant experiences of using MRs in the hope of stimulating debate within public health about the place they may (or may not) have in promoting healthy weight-loss management across the population.

Meal replacements: participant perceptions

Overall, MR options of soups and shakes were favourably perceived and seen as a major feature of HWFL (Table 1). Participants noted that they were convenient and fitted into their lives without much effort. They generally viewed MRs as an effective weight-loss strategy, and integral to ongoing weight-loss management. A stronger emphasis was placed on soups and shakes than on physical activity and healthy diet components of the program, suggesting that MRs were more highly valued than other program components.

Table 1. Example participant quotes about using meal replacement soups and shakes in weight-loss maintenance

Theme	Reinforcing	Contrasting
Flavour preferences	*"… it's pretty tasty. Yeah, it's a good product. It's nothing bland."* Male, 69 years	*"You've only got 2 or 3 choices [that they enjoyed]. You soon get sick of it."* Male, 66 years
Motivation	*"I started to want to eat healthier because I was losing weight. It gave me enthusiasm … I don't want to put it back on again …"* Female, 57 years	*"You get tired of just drinking, get bored with drinking the shakes all the time."* Female, 56 years
Routine and convenience	*"I found the sachets really useful … it was really quick. I realised it was just a short-term thing, a kick-start thing."* Female, 59 years	*"It's got all the right vitamins and minerals and all those things you need, but I found it hard."* Female, 55 years
Long-term use	*"I'm still doing this 8 months later. Now, the days I have breakfast cereal, I have a shake for lunch."* Male, 78 years	*"I focused more on the zero foods and more of the natural, changing my habits and supermarket shopping."* Male, 47 years

Many participants attributed weight loss to MRs, in turn providing motivation for further weight-loss management. Although some expressed boredom with available flavours, many continued using MRs, primarily to replace one meal per day (either breakfast or lunch), following the 18-week program, to regulate their weight. Our research advances previous findings that reported only *intention* to use MR diets intermittently[7], with our observations showing that participants proactively use partial meal replacement for ongoing weight-loss management. The value participants place on soups and shakes raises the question: why

don't more participants place similar value on a balanced diet and sufficient physical activity? Possibly, MRs provide a tangible, seemingly quick and easy way of addressing weight loss, as opposed to the complex behavioural challenges of dietary or physical activity change.

Implications and future directions

There is currently no consensus or guidance on how MRs should be used for weight-loss management. Our observations, while preliminary, suggest there may be a role for partial meal replacement, particularly given the acceptability of this option to consumers for weight-loss management. Other than for those with existing dietary intolerances, adverse effects of MRs (for partial meal replacement) are reported to be mild in nature.[2] Our participants first experienced using MRs in a supported and supervised setting. However, the extent and range of use of commercially available MRs in the general population with overweight and obesity is unknown. The accessibility, acceptability and the degree to which users believe MRs support successful weight loss should compel provision of an evidence-based viewpoint on the role of MRs for real-world weight management.

Currently, public health messages for weight management and improving obesity-related health outcomes mostly advocate lifestyle change. Public health practitioners are well placed to engage in future study and debate about whether MRs could or should be promoted as part of an evidence-based weight-loss management strategy, in the short and/or long term. Future research should also focus on the equitable use of MRs in weight management in terms of perceived and actual effectiveness, value for money and product satisfaction for individuals from socio-economically disadvantaged areas or culturally and linguistically diverse backgrounds. The question of how best to incorporate the use of MRs into weight-loss management – if at all – represents an unexplored opportunity for public health practitioners.

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Competing interests

None declared.

Author contributions

BM, AG, PP and BOH contributed to the design of the evaluation. BM and BOH coded the data and BM, BOH and AG were involved in the data analysis. BM prepared the first draft of the manuscript and BM, AG, PP, CH and BOH contributed to subsequent drafts. All authors read and approved the final version of the manuscript.

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