The NHS England Low-Calorie Diet Programme

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Key words: diabetes, NHS England Low-Calorie Diet Programme, behavioural and psychological theory, cognitive behavioural therapy models

The evolution of national programmes at scale is one of the most important developments for diabetes care in the NHS. Notably, the Diabetes Eye Screening Programme has structured diabetes eye screening since its inception in 2003, and its effectiveness can be judged by the fact that diabetes is no longer the leading cause of blindness.[1] Moreover, the National Diabetes Prevention Programme is now well established, and research presented at the Diabetes UK professional conference in March 2022 suggests that someone who completes the programme reduces their chances of developing diabetes by 37%.[2]

Currently, NHS England is piloting a Low-Calorie Diet Programme, with the 10 original pilot sites recently bolstered by an additional 11 sites.[3] The overall programme's evidence base is derived from the DiRECT and DROPLET studies[4,5] and starts with an 8-week period during which people with type 2 diabetes take an 800 calorie total diet replacement. The pilot sites are initiating the programme in different ways. The specific interventions are much more than a 'soups and shakes' diet and all sites use evidence-based psychological techniques to support people with diabetes throughout the 12 months of the programme. Consequently, it is important to know what psychological theories and techniques have been used by each provider, so that programme outcomes and processes in the different pilot sites can be evaluated and general efficacy principles can be developed.

The paper in the current edition by Evans *et al* is therefore timely and will provide a foundation for subsequent analysis.[6] The paper examines the theoretical underpinnings of the behaviour change programmes developed by the the four independent providers for the intial 10 pilots.

Evans *et al* presents a model of the overall complex of elements that were considered when designing the four different programme instantiations. During the 8-week low calorie diet (LCD) period, programmes consider and work with participants' expectations, norms, attitudes, intentions and goals regarding dieting and weight loss, and provide education about the importance of lifestyle change and the need to seek social support for those changes. During this LCD phase, problems are raised, discussed with staff and hopefully resolved. Outcomes are then reviewed, and further goals are set for the remainder of the year, again considering participants' expectations, norms, attitudes and intentions. Additional physical activity goals are set.

Successful weight loss during the initial eight weeks is used as a type of behavioural experiment to demonstrate to the person that they are able to lose weight, that they have the empowerment or self-efficacy to manage their diet, and that it is possible for them to manage or monitor their diet and activity. Progress is monitored throughout the year and relapse – weight gain of at least 2kg – is managed by four weeks of more intensive intervention.

One provider's documentation was rated as having used no behaviour change theory to implement the programme, although the transtheoretical (Stages of Change) model was mentioned. This models readiness to change, but not how to facilitate or maintain change after it has occurred. Of course, that behaviour change theory was not mentioned does not mean none was used. However, current guidance on facilitating behaviour change suggests that generic 'support', 'counselling' and so on may be insufficient, and that more specific and directive activities may be required to identify and work with the individual client's relevant thoughts and feelings, including negative feelings about the self, caused in part by being overweight or obese, the stigma that can result, and unsuccessful past attempts at weight loss.[7]

The other providers used different, although related, behavioural intervention theories in designing their interventions. These included Cognitive Behavioural Therapy models, such as the ABC (Antecedents, Behaviours, Consequences) model, the Health Beliefs Model, social-cognitive theory and COM-B, which conceptualises behaviour as being caused by the person's capability, opportunity and motivation.[8]

Will different models differentially affect outcomes, particularly in terms of the 'holy grail' of preventing weight regain? Or will it be more important that all programmes address clients' feelings, cognitions and situational support for weight loss, and provide relevant empathetic support? Considering such issues is an important advance in increasing the efficacy of weight loss diets and preventing 'yo-yo' dieting, which can make weight gain worse in the long term. The results will be eagerly awaited

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Br J Diabetes 2022;**22**:7-8
https://doi.org/10.15277/bjd.2022.340

by diabetologists, dieticians and psychologists but, most importantly, by people with type 2 diabetes.

Conflict of interest None.
Funding None

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