short report

Audit of a behaviour modification program for weight management

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BACKGROUND The traditional management of overweight and obesity is to make weight loss the primary goal and to offer advice about eating less and exercising more. In controlled settings participants who remain in weight loss programs usually lose 10% of their weight. However, one to two-thirds of the weight lost is regained within one year, and almost all is regained within five years.[1]

METHOD At the Melbourne Weight Management and Eating Behaviour Clinic we designed a program to assist patients achieve and maintain a healthy weight. The program is based on achieving behaviour change rather than focussing on weight loss as the primary goal. The focus is on the reasons why patients exceed their most healthy weight, setting realistic behaviour change and accepting what cannot be changed.

DISCUSSION We conducted an audit of this program to identify changes in eating behaviour and weight management, and examine whether any changes were maintained after the completion of the program.

Method

Setting

The Melbourne Weight Management and Eating Behaviour Clinic only accepts patients with weight management and eating behaviour difficulties. It is staffed by a general practitioner and a dietitian. Patients either access the clinic directly, or are referred by doctors. They have nearly always previously tried other weight control methods.

The program

Patients are assessed individually by the GP in an initial one hour consultation. Any past history of dieting, reasons for weight fluctuations, feelings of guilt about food, nonhungry eating, activity levels, nutritional knowledge and beliefs, and body image issues are discussed. The approach used to manage weight is shown in Table 1.

This 'nondieting' approach is known as 'dialectical behavioural therapy'.[2] It aims to enable patients to adopt and maximise healthy eating behaviours, emotional wellbeing, levels of physical activity and levels of nutritional knowledge.

Patients are asked to keep a diary, called the 'Eating awareness record' of time and place of eating, thoughts and feelings, how hungry and full they feel before and after eating, the food consumed, and the speed of eating. They are subsequently reviewed at follow up visits lasting half an hour. Patients attend for at least 10 visits and can claim a portion of the fees from Medicare.

Subjects

Seventy-five consecutive patients seen by both the GP and the dietitian were invited to participate in the study. Sixty (85%) were female. All were mildly to severely overweight.

Evaluation instrument

A questionnaire was developed based on four main nutritional research sources which were chosen because of their relevance to clinical practice.[3-6] The most relevant components of these instruments were selected to create a new questionnaire.

Table 1. The approach to weight management

To help patients manage their weight:

- focus on health behaviours, not weight itself
- make patients feel positive about themselves and their body image
- emphasise health gain rather than kgs lost
- specifically address:
  - physical activity
  - emotional happiness
  - nonhungry eating
  - speed of eating

Audit design

The questionnaire was mailed out to participants in July 1995. A follow up telephone call was made after one month. Participants were asked to provide responses for three time periods: before they started the program, during the program, and within 12 months of completing the program (although a few were still attending). They were asked to record changes in eating behaviour, physical activity, weight and body shape, emotional wellbeing and nutritional knowledge. No formal ethics approval was sought, but patient identity was removed before aggregate data were analysed.

Results

Participants

The response rate was 34/75 (45%) by 12 months of completing the program. Of these, 26 had completed their consultations between three and 12 months previously, and eight were still with the program. The mean number of consultations per participant was 18.6.

Attitudes to the program were positive (n=34). Most participants rated it as beneficial, 71% as 'very beneficial', and 29% rated the program as 'of some benefit'. Most (n=34; 90%) reported they were able to use the knowledge gained.

Table 2. Self reported changes in weight and behaviour of 34 respondents

	Before program	During program	After program
Estimation of changes in weight and clothes size			
'Yo-yo' (ie. fluctuating weight)	15	4	2
Stable	5	13	24
Consistently increasing	13	2	2
Consistently decreasing	0	13	4
Frequency of physical activity			
None	16	0	2
1-2/week	12	12	11
3-4/week	5	20	21
Frequency of 'nonhungry' eating			
Never	0	1	4
Sometimes	8	31	28
Often	25	1	1
Speed of eating			
Slow	1	2	4
Moderate	5	19	18
Fast	21	13	10
Very fast	7	0	0
Frequency of weighing			
>1/day	2	0	1
Daily	6	1	2
Weekly	12	12	5
Monthly	2	6	5
Rarely	12	15	21
Weight modifying behaviours			
Reduced fat intake			32
Increased carbohydrate intake			26
Ability to maintain dietary change			26
Confidence in ability to prepare healthy meals			29

Success in weight change or stabilisation

Most participants achieved weight reduction or stability up to 12 months after completing the program (Table 2). Many said they did not feel they were dieting, nor had compromised the pleasure of eating.

Changes in self reported weight modification behaviours

Physical activity levels increased, 'nonhungry' eating decreased, participants ate more slowly and weighed themselves less often after the program (Table 2). Many reported a reduced fat intake, increased

carbohydrate intake, believed they could maintain these dietary changes for life, felt confident in their ability to prepare low fat tasty meals, and felt that they could achieve this most of the time (Table 2).

Approximately half (n=18; 53%) made their own food choices in a variety of situations, while just over a third (n=12; 35%) 'sometimes' made these choices. Additionally, the majority believed they could make appropriate food choices at the supermarket (n=21; 62%), while approximately one quarter (n=8; 24%) could 'sometimes' do this.

Changes in self reported attitudes and beliefs about weight reduction

After the program participants felt less guilty about eating, increased their enjoyment of food, became more aware of physical signals of hunger and satiety and became less dissatisfied with their body shape and weight. They also felt less negative about themselves and reported a general improvement in their health.

Discussion

Every parameter we measured in this audit improved after the program. In particular participants became less negative and more accepting of their body image. We were pleased that the changes appeared to be sustained 12 months after completing the program.

The several obvious shortcomings to this audit, (including the small sample size, low response rates, lack of group control, lack of intention-to-treat analysis, subjective nature of the data collected, and the limited duration of follow up), preclude our conclusion that the program is effective and well received. Nevertheless we know of no better evidence for any other primary care intervention.

Conflict of interest: Dr Rick Kausman owns the Melbourne Weight Management and Eating Behaviour Clinic where Thea O'Connor was a dietitian during the study.

References

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Further reading

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