

Helping individuals to help themselves*

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Obesity is a serious and increasing health issue. Approximately two-thirds of adults in the UK are now overweight or obese. Recent public health reports firmly reinforce the importance of engaging individuals to look after their health, including their weight. They also spell out the need for individuals to be supported more actively, on many levels, to enable this 'engagement'. Meanwhile, national surveys indicate that approximately two-thirds of adults are concerned about weight control, with one-third actively trying to lose weight. This finding is hardly surprising considering current weight statistics, plus the plethora of popular diets on offer. Weight-loss methods include diet clubs, diet books, exercise, meal replacements, advice from healthcare professionals and following a self-styled diet. Obesity is a multi-factorial problem, and losing weight and, in particular, maintaining weight loss is difficult and often elusive. It is argued that the modern obesogenic or 'toxic' environment has essentially taken body-weight control from an instinctive 'survival' process to one that needs sustained cognitive and skill-based control. The evidence suggests that health professionals can help individuals achieve longer-term weight control by supporting them in making sustainable lifestyle changes using a range of behavioural techniques. These techniques include: assessing readiness to change; self-monitoring; realistic goal setting; dietary change; increased physical activity; stimulus control; cognitive restructuring; relapse management; establishing ongoing support. Consistently working in a client-centred way is also being increasingly advocated and incorporated into practice to help motivate and encourage, rather than hinder, the individual's progress.

Behaviour change: Obesity: Weight management

The problem of obesity

During the last 20 years there has been a rapid increase in the rates of obesity in the UK, across all age-groups. The last 10 years alone has seen the percentage of obese men in England rise from 13 in 1993 to 22 in 2002, and for women from 16 to 23 respectively (Royal College of Physicians, 2004). Approximately two-thirds of adults are now overweight or obese (Department of Health, 2003). Overweight, and in particular obesity, is associated with a wide range of health problems, including type 2 diabetes, CVD, cancers, osteoarthritis, infertility, joint and back pain, liver and respiratory disorders and psycho-social problems. The National Audit Office (2001) has linked deaths caused by obesity to shortening life by an average of 9 years. The Health Committee report on obesity (House of Commons Health Committee, 2004) estimates the

economic costs of obesity at £3.3–3.7 × 10⁹/year, and of obesity plus overweight at £6.6–7.4 × 10⁹/year.

It is now generally accepted that obesity is increasing as a result of multiple adverse environmental factors that make it easy for energy intake to exceed energy expenditure. There is also a genetic basis to the control of body weight, which makes some individuals more susceptible to these environmental factors, and as a result they find it more difficult to manage their weight (Royal College of Physicians, 2004). Thus, addressing the problem of obesity needs to be coordinated and multifaceted, and to recognise the true complexity of the issue. Since individuals are ultimately responsible for their own and their children's health, the solution requires engaging these individuals in looking after their health, which in turn involves supporting them more actively at many levels, to enable this engagement (Wanless, 2004).

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Jebb *et al.* (2003) have also called for improved communication between scientists and other stakeholders in the prevention and treatment of obesity (government, health professionals, media, employers, food industry, schools and parents) to overcome specific barriers to effective action against obesity. For example, targetting public messages to cater for individuals with different levels of motivation, communicating realistic goals for weight loss and healthy body weights, and establishing clear messages about healthy weight management to help combat short-term and nutritionally-unsound popular diets.

Dieting and popular diets

The National Diet and Nutrition Survey (Food Standards Agency, 2004) has indicated that approximately 24% of women and 10% of men are actively trying to lose weight at any one time. Another one-third of adults are said to be 'watching their weight' (Wardle *et al.* 2000). This finding is hardly surprising considering current weight statistics, the social pressure to be slim and the plethora of popular diets on offer, frequently endorsed by thin celebrities. Much of this weight concern is likely to be related to appearance rather than health, since consumer research (Mintel Group, 2004) has found that only 16% of the adults interviewed are concerned about the health risks of obesity. Problems such as heart disease, cancer and arthritis are of far greater concern, which is of interest since all these diseases are influenced by obesity. There are also interesting gender differences, with overweight men being less likely to perceive their weight as a problem than women (Wardle & Johnson, 2002). This situation suggests that raising awareness in overweight men is a potentially useful strategy.

Weight concern and associated dieting does not necessarily relate to being overweight. Wardle & Johnson (2002) have found, in a sample of 1894 British adults, that approximately one-quarter of normal-weight women, but few men, feel overweight or are trying to lose weight, while only half those who would benefit from losing weight are trying to do so. It has also been found that whether normal weight, overweight or obese, by far the preferred method amongst dieters is following their own diet. Other methods, in decreasing order of popularity, are slimming clubs, diet books, meal replacements, advice from healthcare professionals and pills or injections. The Internet is another source of diet plans, but it is unclear how many individuals use this approach.

What is clear is that individuals of all weights are exposed to a barrage of popular diets from various sources. They usually come coupled with the promise of quick easy weight loss to achieve that fashionably slim body. The diets typically focus on short-term weight loss brought about by meal plans and eating rules, e.g. detox, blood type or fat-burning soup diets. However, the success of the most popular diets is supported by testimonials rather than science, and there is currently no evidence to suggest that they lead to weight loss for any other reason than their dietary rules result in participants consuming less energy than they expend (Freedman & Kennedy, 2001).

There is intense public interest in low-carbohydrate diets, with media reports suggesting that three million in the population follow them in the UK. A systematic review of low-carbohydrate diets by Bravata *et al.* (2003) has concluded that there is currently insufficient evidence to make recommendations for or against this dietary approach, particularly for prolonged periods (>90 d). Two 1-year studies have found that while weight loss after 6 months is greater on a low-carbohydrate diet compared with a low-fat diet, after 1 year weight loss is no longer different between the two groups (Foster *et al.* 2003; Stern *et al.* 2004). Foster *et al.* (2003) have concluded that at the present time there is not enough information to determine whether the beneficial effects of the low-carbohydrate diet outweigh its potential adverse effects on the risk of CHD in obese persons. Concern has also been expressed over the potential long-term effects of a diet, so at odds with international dietary guidelines, on bone health, renal function and cancer risk (Harper & Astrup, 2004).

This vast array of diets, each claiming to have their own special way of working, can cause confusion and lead to a succession of confidence-depleting dieting failures. It is, therefore, important for health professionals to stay informed about the relative merits or otherwise of different popular diets and to be able to sensitively dispel any myths about unrealistic goals and how they claim to work (Freedman & Kennedy, 2001).

As well as their energy content, the nutritional composition of diets for weight management (see Table 1) and their impact on diet- and obesity-related disorders (such as CVD, bone health, diabetes, cancers and hypertension) are of key importance (Jebb *et al.* 2003). Regular physical activity is also essential for general health, disease prevention and well-being, in addition to aiding successful weight management (Table 2; Department of Health, 2004). Although variable in quality, many slimming clubs, the individual's own diets and some popular diets do offer sound and evidence-based approaches. If individuals choose to follow them, health professionals can continue to monitor their weight and general health, and support their progress, to ensure continuity of care. It may also be possible to have an 'open door' policy so that individuals can come back for health professional support at a later date if needed.

Table 1. Key dietary messages for adults for managing weight and health risk reduction

Include a variety of foods from the main food groups
Consider portion size
Reduce the proportion of fat, particularly saturated fat
Partially substitute monounsaturated or <i>n</i> -3 polyunsaturated fats for saturated fat
Increase fruit and vegetables to at least five portions daily
Make low-glycaemic index, whole-grain and high-fibre carbohydrate-rich foods part of meals
Reduce sugar intake
Limit salt intake
Follow a structured meal pattern, starting with breakfast

Table 2. Key physical activity message for adults to promote health and weight management (Department of Health, 2004)

30 min moderately-intense activity, e.g. brisk walking or taking 10 000 steps over the day, on at least 5 d of the week can promote general health
45–60 min activity each day may be needed to prevent the development of obesity in the absence of a reduction in energy intake
Individuals who have been obese and who have lost weight may need to do 60–90 min activity daily in order to maintain their weight loss

Weight-management skills

An individual's eating and physical activity behaviours throughout life influence body weight. Most individuals gradually gain weight over a long period of time; often without realising they have changed their behaviours enough to promote weight gain. These changes could be very small, e.g. an excess of only 210 kJ (50 kcal)/d could result in a weight gain of 2.5 kg in 1 year. Peters *et al.* (2002) argue that the modern environment has taken successful body-weight control from an instinctual (unconscious) process to one that requires cognitive skill and effort, and that individuals who are not devoting substantial conscious effort to managing body weight are probably gaining weight.

Concerted action to address the obesogenic or 'toxic' modern environment is now beginning to take place. This process will take time and is unlikely to change back to an environment in which cognitive effort is no longer required. It is, therefore, essential to simultaneously empower and encourage individuals with the motivation, knowledge and skills to lose and maintain weight lost in a realistic and ultimately long-term way (Royal College of Physicians, 2004).

Weight loss and weight maintenance can be viewed as two distinct phases requiring different skills, with weight loss being a finite process typically lasting between 1 and 6 months (Lean, 2000). A variety of different dietary approaches to reduce energy intake may be used to promote weight loss (Table 3). The use of low-energy diets with a treatment duration of 6 months, and ≤ 1 year, has been associated with a clinically-important mean weight loss of 8%. However, average weight losses of 10% should be achievable, particularly when dietary approaches are combined with physical activity and behaviour therapy.

As mentioned earlier, there is much debate about the ideal macronutrient content of a diet for weight loss. It

Table 3. Dietary approaches in the management of overweight and obesity (adapted from Kopelman & Grace, 2004)

Low-fat diets
Low-energy diets
Fixed energy deficit (2.5 MJ (600 kcal) energy deficit from calculated energy requirements)
Meal replacements
Very-low-energy diets

is increasingly recognised that different approaches suit different individuals, and there may be a benefit to matching a dietary approach to suit individual requirements and preferences (Kopelman & Grace, 2004). This approach was highlighted in 2003 by the BBC1 television programme Diet Trials. The University of Surrey and its associated consortium conducted a randomised controlled trial to evaluate four popular diets (Weight Watchers, Rosemary Conley Diet and Fitness Clubs, Slimfast and Dr Atkins New Revolution diet) over a 6-month period. Compared with the control, all diet groups lost body fat, the average differences were quite small and not significant between the diets (Truby *et al.* 2004). It will be interesting to see when the data are further analysed if individual characteristics can predict which type of diet suits them better.

Success in the longer term relies on the individual being able to sustain new attitudes and behaviours, by building them into everyday life and thus maintaining energy balance. These factors are thought to be more important than the macronutrient composition of the diet (Freedman & Kennedy, 2001). The behaviours must also be compatible with promoting good nutritional and physical health. It should be noted that in the case of low-carbohydrate diets such as the Atkins diet long-term use is not currently recommended (Harper & Astrup, 2004).

Many of the skills required for weight maintenance are distinct from those required to achieve weight loss. Of particular importance in the maintenance phase is enabling individuals to remain motivated without the powerful reinforcement of losing weight. Managing lapses and relapses and reframing unrealistic weight-loss goals (which could be associated with body image issues) are also of key importance. These aspects raise many challenges for health professionals; not just because of the skills required in providing such support, but also in the delivery of this support on a potentially large and long-term scale. This problem will require imaginative and innovative thinking.

What do successful weight-loss maintainers do?

Losing weight, and in particular maintaining weight loss, is difficult and often elusive. Clinical trials all show an increasing level of weight regain over time, but some specific weight-maintenance success strategies are emerging.

The National Weight Control Registry is the largest study of individuals successful at long-term weight maintenance. Approximately half the sample lost weight through formal programmes; the remainder lost weight on their own. A range of different dietary approaches was used, but nearly all the sample combined them with exercise (Klem *et al.* 1997). Registrants had lost an average of 30 kg and maintained a required minimum weight loss of 13.6 kg for 5 years. Despite using different approaches to lose weight, key behavioural characteristics common to the weight-loss maintainers have emerged, including: eating a diet low in fat and high in carbohydrate; frequent self-monitoring of body weight and food intake; high levels of regular physical activity (≥ 1 h/d); eating breakfast and regular meals; limiting fast food; accepting realistic weight

goals; recognising that weight control is not 'painless' but requires ongoing commitment. Weight-loss maintenance may, however, get easier over time. Once these successful maintainers have maintained a weight loss for 2–5 years, the chances of longer-term success greatly increase, suggesting a shift in balance between the efforts involved and the pleasure gained from weight maintenance (Klem *et al.* 2000).

Other strategies used by successful weight-loss maintainers include: using self-styled strategies; eating some favourite foods without guilt; accepting body shape rather than using it to evaluate self worth; confronting problems rather than eating to cope; using support from family, friends or health professionals to avoid major relapse (Kayman *et al.* 1990). Health professionals can use these findings to help individuals develop the lifestyle skills and confidence to cope better with the obesogenic environment and achieve health-important long-term weight maintenance.

Helping individuals to help themselves

Health professionals can help individuals achieve longer-term weight control by supporting them in making sustainable lifestyle changes using a range of behavioural techniques (Thorogood *et al.* 2002; Mulvihill & Quigley, 2003). There is also good evidence that behavioural lifestyle interventions, either alone or in combination with anti-obesity medication, can help individuals keep off clinically-important amounts of weight for ≤ 4 years. This attainment in turn markedly reduces their risk of type 2 diabetes and CVD (Tuomilehto *et al.* 2001; Diabetes Prevention Program Research Group, 2002; Phelan & Wadden, 2002).

A number of key practical skills and strategies to enable lifestyle change will be described here. Hunt & Hillsdon (1996), Brownell (1997) and Rollnick *et al.* (1999) provide further detailed practical guidance for health professionals, and Weight Concern (2001) and Costain (2003) provide practical guidance for the public. However, effective delivery of these strategies requires health professionals to be well skilled, have good communication skills and knowledge of working in a client-centred way.

Client-centred practice

Working in a client-centred way is being increasingly advocated and incorporated into practice (Lewin *et al.* 2003). Hunt & Hillsdon (1996) state that working in a client-centred way should result in the patient feeling listened to, understood and trusted. Definitions vary, but it can be seen as involving the health professional trying to understand how the patient views their problem, and working on potential solutions together to culminate in the patient feeling they have developed their own realistic plans for change. This approach helps them to build knowledge and skills, and with it self-efficacy and confidence in their ability to consider, make and sustain lifestyle changes. The core health professional or practitioner qualities for client-centred practice are unconditional acceptance, genuineness and empathy.

Assessing readiness to change

Assessment is a vital part of helping individuals to help themselves, and also allows a good relationship to be built. As well as assessing more familiar issues such as medical and social history, weight and dieting history, current health and eating behaviour (how food fits into a typical day) and barriers to change or problem areas, it is also important to assess the individual's readiness to change their behaviour. It is easy for health professionals to assume that the individual is ready to start with action-oriented goals, when they may actually feel quite ambivalent about it, even if they state that they want to lose weight.

Based on their findings from individuals who naturally and successfully make changes, Prochaska & DiClemente (1992) have developed a framework that describes six stages in the process of lifestyle change, i.e. precontemplation, contemplation, preparation, action, maintenance and relapse (Table 4). The skilled health professional's task is to recognise the stage at which patients are initially, and then to motivate and support them to move through the stages, being mindful that individuals can at times move in either direction, and often go around the cycle a number of times before achieving long-lasting change. If, for example, the health professional attempts to explore changes in eating habits when the individual is still in the contemplation stage, resistance is much more likely. It must also be recognised that a decision not to make change at that particular time is quite valid.

Tools to help assess readiness and motivate change include: importance and confidence scales; decisional balance (pros and cons of weight loss) assessment grids; discussion about why the individual wants to lose weight; their hopes and expectations; individual preferences; key barriers to losing weight; what will help them to be successful. Use of these tools will depend on the skills and experience of the health professional. Signs that an individual may be ready to change include: less resistance; fewer questions about the problems associated with change; looking ahead; experimenting with change.

Goal setting

Helping individuals to set realistic and achievable goals can improve outcomes by helping them to feel more confident and in control. Motivated by their successes, they are more likely to continue (Wardle & Rapoport, 1998). An unrealistic goal can set an individual up for failure and may cause them to blame themselves ('I have no willpower') when it is treatment itself that is at fault. Helpful goals can be remembered as being specific, measurable, achievable, relevant and time specific, i.e. SMART. Helping patients to identify and set small goals, to identify possible barriers to change and potential solutions, to monitor their progress and to reward their success can improve outcomes. Making these features part of a written and personalised action plan is helpful.

Realistic weight goals are important for both the patient and the health professional providing the help (Wardle & Rapoport, 1998). As a consequence of the power of

Table 4. Overview of the stages-of-change model, including key tasks for the skilled health professional to employ at each 'stage' of change (adapted from Weight Concern, 2002; reprinted with permission)

Stage of change	Indication	Decisional balance	Therapeutic strategies
Pre-contemplation	My doctor sent me	Costs vastly outweigh benefits	Build rapport Information giving: increase awareness of benefits Avoid scaremongering
Contemplation	Seriously intending to change in next 6 months	Increased awareness of benefits Costs stay same	Build rapport Reinforce perception of benefits Work on reducing perception of costs Encourage identification of lifestyle goals and link to change
Preparation	No plan Seriously intending to change in next month Have a plan	Benefits outweigh costs Fear of failure	Provide clients with choices: menu for change Problem-solving to overcome barriers to change Tackle fear of failure through: Realistic goal-setting Reinforcing and/or teaching appropriate coping strategies
Action	Changing according to plan	Benefits outweigh costs Risk of relapse	Goal setting: SMART Reinforcement Stimulus control (Re)lapse management Response substitution Resistance training CBT
Maintenance	See action		

SMART, specific, measurable, achievable, relevant and time-specific; CBT, cognitive behavioural therapy.

physiological and environmental influences on weight loss and maintenance, losses of 5–10%, or $\leq 15\%$, are now viewed as a successful outcome (National Institutes of Health and National Heart, Lung and Blood Institute, 1998). These levels of loss are also clearly associated with important health benefits (Scottish Intercollegiate Guidelines Network, 1996). For patients with a history of steady weight gain, weight stability is a beneficial long-term goal. However, studies show that most individuals embarking on weight-loss programmes 'dream' of losing 20–35% of their initial body weight (Foster *et al.* 1997; Jeffery *et al.* 1998). The dream is not helped by media messages promoting an obsession with thinness, and 'before' and 'after' photos from diet companies depicting large weight losses as a realistic outcome. Again this discrepancy can mean that individuals never feel successful, despite being so, and abandon their weight-loss attempt.

Health professionals can help individuals help themselves by clearly discussing realistic weight goals at the outset, and assessing changes in any physical, psychosocial or metabolic variables, e.g. breathlessness, joint pain, inactivity, mood, body image, self-esteem, binge or comfort eating, blood glucose, triacylglycerols, blood pressure, in order to provide additional or alternative evidence of success. Negotiating realistic goals needs to be carried out with care, to avoid alienating the client, which could inadvertently reduce their motivation.

Self-monitoring

Self-monitoring, typically with a food and activity diary, is a key part of successful behaviour change. It helps individuals become more aware of their eating and exercise habits, which in turn helps with goal setting. If behaviour around eating is also recorded it enables individuals to recognise specific events or triggers that influence their eating behaviour; for example, being bored and alone in the house triggers unplanned snacking followed by feelings of failure and more snacking. Once identified, the individual can then plan strategies to manage these triggers, and associated negative thoughts or responses. This process generally involves stimulus control and cognitive restructuring (Brownell, 1997; Rapoport & Wardle, 2000). Self-monitoring also helps individuals to track progress with their goals, stay more conscious of what they eat and how active they are, and check their progress over periods of time. Many individuals find self-monitoring challenging, but it is a key indicator of motivation and engagement in a programme, and can keep up motivation in the longer term. This approach may help to explain why those who manage to self-monitor in some way are more likely to be successful with weight loss and weight maintenance (O'Neill, 2001; Wing & Hill, 2001).

Health professionals can enhance the benefits of self-monitoring by providing constructive feedback. Some form of positive feedback should always be given, however

small the achievements may seem. 'Marking' food diaries is unlikely to be effective and can discourage individuals from recording foods they perceive to be 'bad'. Health professionals can view feedback as detective work, and a useful tool for guiding patients to generating their own solutions to barriers and new problems. This approach avoids the common scenario of health professionals telling patients what they think they should do.

Stimulus control

This strategy involves developing skills to decrease exposure to the external triggers (lack of time, sight or smell of food) and internal triggers (emotions, cravings, negative thoughts) that lead to overeating, unplanned eating or lapsing from a weight-loss plan. Self-monitoring helps individuals to identify such triggers. Using a client-centred approach, health professionals can then help individuals to identify their own relevant coping strategies; examples include: using a shopping list; not shopping when hungry; eating meals and snacks at planned times; keeping 'problem' foods out of the house; doing an activity during television advertisements; using smaller plates; eating slowly; putting a walking outfit by the bed at night ready for the next morning; planning in advance for meals out; keeping the serving dishes off the table; buying portion-controlled foods rather than family packs; shopping via the Internet. In addition to these stimulus-control strategies, other techniques can be employed to enable individuals to outlast or 'surf' cravings using distracting activities and reframing negative thoughts. These strategies are most effective if the health professional helps the patient to generate possible options that are relevant to them, rather than the health professional directly advising the patient about what they need. However, it can be helpful to appropriately offer the patient a range of suggestions.

Cognitive restructuring

Cognitive restructuring is used to identify and challenge unhelpful (sometimes called dysfunctional) thoughts, feelings and beliefs about eating and weight control and to replace with positive alternatives. This aspect of behaviour includes negative 'self-talk' (automatic thoughts or statements individuals make to themselves that negatively influence how they think and act); examples include 'catastrophising'; 'all or nothing' thinking; disregarding anything positive; making definite demands such as 'always' or 'never'. Cognitive restructuring is a skill that helps individuals to accept realistic and achievable weight loss and behaviour-change goals. Self-monitoring, which includes a record of thoughts and feelings, helps individuals to identify, then positively reframe, negative thoughts. Working with thoughts and feelings is an advanced skill requiring appropriate training.

Relapse management

Lapses and relapses are a normal part of behaviour change. Patients are learning new skills to change often

long-standing attitudes, thoughts and behaviours. It is helpful for both the patient and the health professional, if health professionals assume that lapses and relapses are a result of lack of weight-management skills rather than lack of motivation or desire to change.

It is common for individuals to feel that a single overindulgence or missed activity session means they have failed, so may as well give up. This reaction is a classic example of 'all or nothing' thinking. Patients should be reassured from the start that these indiscretions have not ruined what they have achieved so far, but that lapsing is normal. They should be encouraged to view lapses as opportunities to learn more about behaviour change; for example, use that experience to work out how they could avoid or deal with a similar situation next time. This process can be helped by: using diaries to identify triggers for lapsing; planning how to prevent lapses in advance; compiling a list of coping strategies for high-risk situations such as a list of distracting activities; distinguishing physical hunger from a craving; ignoring, confronting or outlasting cravings; having a plan for averting or stopping a binge.

A good helping relationship, in which the patient feels able to return, is essential for health professionals to be able to help in the case of relapse. It is common for patients to drop out of treatment if they perceive that they have failed or 'let down' their health professional.

Flexible restraint

The skill of flexible rather than rigid control of eating behaviour has been associated with lower scores for overeating and binge-eating behaviours (Smith *et al.* 1999; Westenhoefer *et al.* 1999) and higher probability of successful weight-loss maintenance (Kayman *et al.* 1990; Westenhoefer *et al.* 2004). 'Flexible restraint' can be practically described as following eating and activity plans or personal goals the majority of the time, and occasionally including favourite foods or meals or missing planned activities, and doing so without feelings of guilt.

Ongoing support

The World Health Organization (2000) has defined obesity as a chronic disease, which therefore requires long-term management. Successful lifestyle interventions include not only skills training, but maintenance strategies such as regular and ongoing support to consolidate new behaviours and prevent relapse (Diabetes Prevention Program Research Group, 2002; Wadden *et al.* 2002; McTigue *et al.* 2003). Studies have also shown that this ongoing care can be successfully delivered at a clinic, by telephone or by mail and innovative approaches such as the use of television, the Internet and email may help to address the decline in participation in maintenance sessions that can happen over time (Wadden *et al.* 2002).

Health professionals must not overlook this vital aspect of helping individuals to help themselves. Discussing what kind of support would be most helpful and where it is going to come from is time well spent. Support could range

from simply showing an interest and providing brief comments of encouragement, to the establishment of weight-management clinics or individual appointments to monitor progress and reinforce behaviour-change skills.

Commercial slimming groups, health clubs, local leisure services and interactive Internet weight-loss programmes can also offer accessible and ongoing support. Family, friends and peers are other important sources of support, especially if the individual wanting their support is quite specific about how their supporters can best support, rather than undermine, their progress.

More harm than good?

Concerns that dieting induces eating disorders or other psychological dysfunction in overweight and obese adults are generally not supported by research. A review by the National Task Force on the Prevention and Treatment of Obesity (2000) has concluded that moderate energy restriction, in combination with behavioural weight-loss treatment, does not seem to cause clinically important binge eating in overweight adults without pre-existing binge-eating problems. It might also ameliorate binge eating, at least in the short term, in those reporting recurrent binge eating before treatment. Most studies of behavioural weight-loss interventions also report improvements in psychological status during weight loss.

Help for health professionals

To help individuals help themselves health professionals need to be equipped with adequate obesity-management skills. This process can include different levels of training in assessment, communication, nutrition education, dietary approaches, physical activity and behaviour-change skills. Awareness of anti-obesity medication and bariatric surgery is also essential.

Evaluation of services using a psychological model allows for a comprehensive examination of services already in place, identification of gaps and a better understanding of how health professionals fit into the 'bigger picture' of obesity prevention and treatment at the population level. Such a model could state that there are four major prerequisites to bring about change: motivation; knowledge; skills; support. Currently, health professionals are well trained to provide knowledge, but generally less so for the other three prerequisites. Green *et al.* (2000) have shown that practice nurses rated training in assessment, negotiation and goal setting as particularly lacking. This limitation could lead to professional frustrations and a lack of motivation to develop weight-management services.

To begin to address this skills deficit, local or national training courses should be available and accessible to health professionals. Registered dietitians often run courses locally. It is also important to know when, and how, to refer on, for example, to a registered dietitian, clinical psychologist, fitness professional, counsellor, weight-management clinic or specialist obesity clinic. Locally-agreed treatment

algorithms can assist this decision process. Local resources will vary and can be limited. However, the proposed multi-faceted solutions to the obesity epidemic include recommendations for improved training in obesity management for all health professionals (Royal College of Physicians, 2004) and the establishment of a strategic framework for preventing and treating obesity within the National Health Service, drawing on existing National Service Frameworks (Wanless, 2004).

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