Obesity and dietary behavioural changes

Jardine G, BSc Dietetics, Post Grad Dip Dietetics (UKZN)
Registered dietitian in private practice, Durban, KZN
Correspondence to: Genevieve Jardine, e-mail: Genevieve.diet@discoverymail.co.za
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Abstract

Obesity is a multifactorial condition involving genetic, environmental and behavioural factors. For most people wanting to lose weight, little can be done to alter genetics or their environment. What is generally required is a change in behaviour that will result in re-balancing the energy equation. Weight loss is a result of reducing energy input from the diet and increasing energy output through exercise. This simple solution can only be achieved with changing obese people's eating behaviour. To start the process of change, people need to be self-motivated. Behavioural treatment is goal focused, using specific weight loss goals and/or dietary goals which are attainable. Behavioural treatment is also process orientated: it involves helping people to identify which eating behaviours are unhelpful and to plan how to change them. Lastly, behavioural treatment involves implementing a sequence of small dietary changes rather than one large change. It is based on the principle that successfully making small changes leads to the successful achievement of long-term goals.

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Obesity: a growing concern

Obesity is complex because it is clearly a biological, psychological and social phenomenon. The increasing prevalence of obesity in many countries means that it should be considered a pandemic.[1] South African statistics for 2007 show that the statistics for obesity range between 3 and 18% in the Indian population, 10 and 40% in the black population, 4 and 18% in the coloured population and 13 and 15% in the white population.[2] As healthcare providers, we cannot ignore the proverbial elephant in the room. Apart from the effect that excess weight has on people's self-esteem, there are many detrimental health implications to being overweight. What makes obesity so unusual and disheartening to treat is that there is no quick fix, no script to write and no guarantee of lasting results. Facilitating weight loss with people is time consuming and often frustrating for health professionals, and it requires frequent contact and regular support. Obstacles to successful weight loss are a high relapse rate, lack of time and lack of resources.[3]

Factors responsible for obesity

It has long been assumed that weight gain is caused by eating too much and exercising too little. This equation has become too simplistic to explain the obesity pandemic fully. Other influences such as biology, physiology, environment and behaviour should be considered when trying to tackle the problem of obesity.[4] For individuals who want to lose weight there is little they can do to alter biological, physiological and/or most of their environmental factors. What individuals can change are their behaviours. Behaviours are the result of complex psychological factors including habits, emotions, attitudes, beliefs and background.[4] These behaviours impact on the energy balance; however, simply educating patients on the benefits of healthy eating and exercise is not enough to change behaviours in order to prompt weight loss. Healthcare providers require skill and patience to effectively manage behavioural change in patients who need to lose weight.

The behavioural change process

The process of successful weight management starts with a motivated person, the setting of attainable goals, continual self-monitoring and a positive approach to overcoming setbacks and relapses. Behavioural treatment is goal focused, using specific goals that are attainable and realistic in order to facilitate a clear assessment of success. Behavioural treatment is also process orientated: it involves helping people identify what to change and planning how to change it. Lastly, behavioural treatment involves implementing a sequence of small changes rather than one large change. It is based on the principle that successfully making small changes leads to the successful achievement of long-term goals.[5]

People must want to lose weight. Most individuals are aware that they are overweight but may have become disillusioned about attempting weight loss. People who are overweight are sensitive about their

appearance and may struggle with low self-esteem. Sometimes people are self-motivated but frequently it is up to the healthcare professional to help foster that motivation. There are a number of strategies to consider when encouraging the development of this motivation.

- Ensure a "weight history" is conducted on each person.
- Establish whether they have tried to lose weight in the past and what methods they used to do so.
- Investigate their weight fluctuations and previous weight loss achievements.
- Look for trigger points to activate (often yet another) weight loss attempt.

Ask empathetic questions such as "What do you think about your weight?" or "Trying to lose weight is hard work, isn't it?" Being empathetic and non-judgmental paves the way for honest conversations regarding weight issues, which in turn may lead to increased confidence. The more hopeful the person is, the more motivated he or she is likely to feel. Look for new reasons for the patient to lose weight. This may involve finding other goals which shift the focus away from the weight on the scale but which will still have an impact on long-term weight loss. It is important to assess at what stage in the change process a person is. The Stages of Change Model identifies five different stages: pre-contemplation, contemplation, ready to change, maintenance and relapse.[6] Only once the person has moved through the pre-contemplation and contemplation stages and arrived at the ready to change stage can appropriate goals be set.

Setting the right goals is the most important start. For most people who are trying to lose weight their primary focus is weight reduction as measured on the scale. However, it might be more productive to focus on other areas – such as dietary changes or increased activity – that will eventually lead to a reduction of weight on the scale.

When setting a goal weight, use small weight-change goals that are realistic and allow the person to be successful in smaller, more manageable steps. Body mass index (BMI) has historically been used to set weight goals but the BMI weight ranges often result in larger weight loss goals. Unrealistically high goals can lead to disappointment or prevent a person from even initiating the weight loss process. It is well documented that a 5 to 10% weight loss can result in significant improvement in health outcomes.[3] Apart from weight loss as a goal, use other health outcomes to establish goals, for example, improved glucose control or a reduction in cholesterol or hypertension. Often other clinical indices allow for more short-term targets. Once a realistic goal weight and other health targets have been set, select two or three other non-weight-related goals. These would usually involve dietary and exercise goals.

Set dietary and exercise goals that will lead to weight loss. A short-term goal should be based on behaviour change rather than weight because many factors (such as salt, fluid and humidity) affect weight in the short term. When helping people select short-term goals it is important that they are specific and formulated with a clear action plan. It is vital to pinpoint poor habits of overeating or under-activity that prevent weight loss and to set goals that would start to curb these unhelpful behaviours. Some of these poor habits include:

- Skipping breakfast
- Eating in front of the television
- Eating food straight out of the cupboard or fridge
- Buying junk food at work because there is no packed lunch
- Drinking carbonated beverages instead of water
- Having second helpings of food
- Picking at leftovers on the table or from the fridge

In discussion with the person who wants to lose weight, decide on which habits are the most self-sabotaging and make plans for changing them. Once the goal has been set, analyse any possible barriers to success. A specific action plan must be thought through from beginning to end. Do not try to change them all at once but select only two or three at a time. For example: rather than saying "Eat less at night" have a more specific goal such as "Avoid a second helping in the evening". The action plan would then be to dish up the food in the kitchen and immediately pack away leftovers in containers and put them into the fridge so that the leftovers are not a temptation. This behaviour would need to start immediately and then be reassessed two weeks later.

Use either set diets or food diaries. Giving a person a set diet may work because it gives structure and regulates portion size. The downside to following a set diet is that people develop an "on diet" mind set. Some people may get derailed from the diet if they are unable to follow it exactly. They may feel like they have blown their diet and feel like a failure. An alternative is to use a food diary as a starting point to make changes.[3] A food dairy can help people acknowledge that they are eating more than they thought and can be useful for identifying possible triggers for overeating. From the food diary small changes can be discussed and agreed on, even if it means changing one meal at a time. The choice of diet versus food diary depends on the individual.

Whether following a set diet or using a food diary to administer changes, large reductions in total energy input are required in order to see a shift in weight. Typically a diet would require a decrease of 500 to 600 kcal/day (2 100 to 2 520 kJ/day) of total energy per day in order to bring about a weight reduction of 0.5 kg per week.[3] (See Table I.) This energy reduction requires more than switching from full-cream milk to skim milk. The ultimate goal is a low-fat, low-GI diet that eliminates "junk foods" and includes fresh fruit (at least two servings) and vegetables (at least 1½ cups) daily. Portion sizes of starch, meat products and fats also need to be controlled as it is also possible to overeat on healthy foods. There should also be no "days off" from the eating management plan and the changes need to be adhered to even over the weekends.

Table I: Energy reduction after making changes to breakfast

Meal items	Energy estimations	Altered meal items	Energy estimations
1 cup of Morning Harvest muesli	1 200 kJ	1 cup High Fibre Bran Flakes	600 kJ
1 cup full-cream milk	640 kJ	1 cup low-fat milk	525 kJ
3 teaspoons sugar	285 kJ	(no sugar)	
1 slice brown toast	300 kJ	1 slice brown toast	300 kJ
2 teaspoons margarine	380 kJ	(no margarine)	
30 g Cheddar cheese	420 kJ	fat-free cottage cheese	155 kJ
250 ml orange juice	500 kJ	sliced tomato	120 kJ
Total	3 725 kJ	(deficit of 2 025 kJ)	1 700 kJ

On a practical level the process would involve an initial individual counselling session with long-term follow-up in the form of group counselling or individual consultations. If possible immediate family or key friends should be present in order to encourage and support the patient on a daily basis with the weight loss programme.[3] A skilled dietician would be required to plan for the correct energy reduction to produce results and would be able to provide competent dietary education. Follow-ups would require a team approach.

The goals require regular evaluation. Short-term goals should be monitored and new goals set so that momentum is not lost. Achievement of short-term goals should be celebrated as this builds motivation and much needed self-esteem. Achievement of smaller goals allows people to move closer to long-term goals and little rewards along the way will help keep them invigorated. These rewards can be tangible – such as buying new clothes – or intangible – such as booking an afternoon off from work.

Monitoring of goals can include loss of weight on the scale, improved blood glucose control or a change in clothing size. Self-monitoring is essential. People should be encouraged to weigh themselves at regular intervals (not more than once a week) and keep food diaries. Continuous use of food diaries allows people to observe and record aspects of their behaviour such as adherence to portion size, triggers for overeating, servings of fruit and vegetables etc. Self-monitoring helps identify areas of non-adherence and aids in the creation of strategies for change.

Dealing with non-adherence is an essential skill for both people who want to lose weight and for healthcare professionals.[5] Non-adherence should be viewed as an opportunity to learn and to improve skills in managing behavioural change and not as failure. Non-adherence is primarily due to a lack of planning rather than a lack of motivation. Analyse what has happened and how it can be prevented in future.[5] It is important to focus on what can be done differently in future. Use any setback to sharpen planning and coping skills.

It must be understood that it requires great psychological effort to resist temptation and a person's resolve is seriously eroded during times of stress. Weight control is hard work and people require constant encouragement and hope. Avoid criticising and rather develop strategies that will help people recover from the setback and move forward.

Create a user-friendly environment. Pay attention to the furnishings and equipment in your office. Make sure that office chairs do not have arms so that they are large enough to accommodate obese patients. Ensure that your scale can weigh heavy individuals – most commercially available scales do not exceed 150 kg. Use a larger blood pressure cuff when necessary. However, creating an accepting environment goes beyond equipment and furnishings: it also involves the attitude of practitioners. Practitioners need to go to great lengths to encourage and support patients and continually affirm their self-worth. The intent is that greater self-respect will give courage to help people persevere with the weight loss challenge.

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