

Outpatient Management of Obesity: A Primary Care Perspective

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Abstract

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An estimated 64% of the adult population in the United States is either overweight or obese. Because obesity affects such a large percentage of the population and carries with it numerous health risks, it is essential that physicians treat obesity and encourage healthy-weight maintenance within the primary care setting. Effective weight management will require providing the appropriate physical environment for the overweight or obese patient, properly evaluating the impact of a patient's weight on health, evaluating a patient's readiness to change, setting appropriate weight-loss goals, and providing information and help about how to modify dietary and physical activity patterns. Achieving and maintaining weight loss is more likely to be successful when there is a physician-patient partnership where the physician provides support and motivation for the patient's efforts to initiate and maintain a healthy body weight.

Key words: outpatient, obesity treatment, weight loss, weight maintenance

Introduction

Overweight and obesity are the second leading cause of preventable death in the United States today, second only to smoking. Over 100 million American adults (64%) are considered overweight or obese (1,2). Obesity substantially raises adults' risk of morbidity from a number of diseases, including coronary heart disease, hypertension, dyslipidemia, stroke, gallbladder disease, osteoarthritis, sleep apnea, type 2 diabetes, and certain types of cancers (3). Long-term,

or in some cases, life-long therapy is required for effective weight management to reduce the morbidity and mortality associated with obesity.

Primary care physicians are in a unique position to treat obesity and assist with healthy-weight maintenance. Physicians reach many different segments of the population, and physician expertise is highly regarded by patients. To begin effective management of weight, primary care physicians need to deal with several issues. First, the office environment should be comfortable and nonthreatening to the overweight or obese patient. Second, dealing with weight involves assessing how the patient's weight affects his or her health and assessing his or her readiness to make changes in lifestyle. Body mass index (BMI) and waist circumference must be routinely recorded in the patient's chart. The physician must also be prepared to help the patient set a reasonable goal for weight loss. Many patients will have weight-loss goals that exceed the effectiveness of our current treatment strategies. The physician must be able to provide information about making the behavior changes in dietary and physical activity patterns necessary for weight loss. Finally, the physician must be able to work with the patient as a team, providing the support and encouragement necessary for the patient's long-term success.

The Office Environment

An important component of office-based obesity care is the physical environment. An accommodating environment is the first step in communicating your support to your overweight or obese patients. A focus should be placed on accessibility and comfort within the office setting. Stairs, doorways, hallways, restrooms, and waiting room chairs should be evaluated for their suitability to meet the needs of the large patient. In addition, specialized equipment, such as large adult- and thigh-size blood pressure cuffs, private scales that measure weight >350 lbs, extra-large gowns, tape measures, step stools, and chairs without arms, should be a requirement in any office where obese patients will be treated (4).

Previsit weight-related questionnaires can be completed in the waiting area and can help facilitate a productive

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Weight Loss Goals

If weight loss is a personal goal, how much weight would you like to lose?

- 10–20 lb
- 21–40 lb
- More than 40 lb

If weight loss is a goal, what is/are your reason(s)?

- To improve health
- To look better
- To get down to a size _____

Weight Loss History

How do you feel about yourself and your current weight? (please describe)

What weight-loss methods have you tried before? (check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Reduced-calorie diet | <input type="checkbox"/> Reduced-carbohydrate diet |
| <input type="checkbox"/> Reduced-fat diet | <input type="checkbox"/> Diet programs; support groups |
| <input type="checkbox"/> Physical activity | <input type="checkbox"/> Over-the-counter diet pills |
| <input type="checkbox"/> Prescription medications | <input type="checkbox"/> Other _____ |

How would you describe your experience with the weight loss methods you've listed above?

Medical History

Do you or any of your family members have any of the following medical conditions or illnesses?

- | | | |
|-----------------------------------|---|--|
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Congestive heart failure | <input type="checkbox"/> Heart attack |
| <input type="checkbox"/> Stroke | <input type="checkbox"/> Arthritis | <input type="checkbox"/> Asthma |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> High cholesterol | <input type="checkbox"/> High blood pressure |

Physical Activity

How often do you engage in physical activities?

- | | | |
|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> Every day | <input type="checkbox"/> 3 or more times a week | <input type="checkbox"/> Once a week |
| <input type="checkbox"/> Once a month | <input type="checkbox"/> Never | |

Weight Loss Options

Which of the following weight loss options are you interested in pursuing?

- Healthy eating plan Increased physical activity Medication

Figure 1: Previsit weight-related questionnaire adapted from Ref. 5.

discussion between the physician and patient about his or her weight-loss history, goals, and options. An example of a typical questionnaire (5) is provided in Figure 1, although the questionnaire should be tailored to each particular patient population. This information can assist the physician in developing a treatment plan for the patient. It is very useful to have the patient keep food-intake and activity diaries (Figure 2) for 1 week. This information will enable the

physician to get a clear picture of the patient's current dietary and physical activity patterns and will also increase the patient's awareness of these patterns. It may be useful to have educational materials about weight and obesity treatment in the office. This can include information about the relationship of weight to health and information about obesity treatment options, including diet, activity, medications, and surgery (Table 1).

Table 1. Internet resources for patient information on healthy-weight management

American College of Sports Medicine:
<http://www.acsm.org>
American Dietetic Association: <http://www.eatright.org>
American Heart Association:
<http://www.americanheart.org>
American Obesity Association: <http://www.obesity.org>
Get Up. Get Out. President's Council on Physical Fitness
and Sports: <http://www.fitness.gov>
National Institutes of Health, National Heart Lung and
Blood Institute: <http://www.nhlbi.nih.gov>
North American Association for the Study of Obesity:
<http://www.naaso.org>
Shape Up America!: <http://www.shapeup.org>
U.S. Food and Nutrition Information Center:
<http://www.nal.usda.gov/fnic>

standard categorization. A desirable BMI is 18.5 to 25.0 kg/m². *Overweight* is considered a BMI of 25.0 to 29.9 kg/m², and *obesity* is a BMI of 30 kg/m² or greater (2).

Although BMI has been shown to provide an acceptable approximation of total-body fat for most patients, there are limitations to this technique that must be considered. For instance, BMI does not distinguish fat mass from lean mass, nor does it accurately reflect the distribution of body fat. Therefore, in muscular patients, such as athletes, BMI can overestimate body fat, and in persons who have lost muscle mass or with edema, such as many elderly, it can underestimate body fat.

In addition to measuring a patient's BMI for the initial assessment of obesity, measuring waist circumference, or the amount of fat around the abdomen, is important in assessing disease risk. Measurement of waist circumference is recommended in patients with a BMI between 25.0 and 34.9 kg/m². To measure waist circumference using proper technique, a measuring tape should be placed in a horizontal plane around the abdomen at the level of the iliac crest, without compressing the skin. The measurement should be recorded at the end of a normal expiration. When waist circumference is larger than normal—more than 40 inches (102 cm) in men and 35 inches (88 cm) in women—an individual's risk for certain disorders increases. These disorders include the following: cardiovascular disease, hypertension, dyslipidemia, and type 2 diabetes. Combined with overweight or obesity, a high waist circumference can raise the patient's disease risks from high to extremely high (2).

As with BMI, there are limitations to measuring waist circumference. Although it is useful in estimating abdomi-

nal adiposity, waist circumference measurements cannot distinguish visceral adipose tissue from overlying subcutaneous adiposity. Moreover, measuring waist circumference is most useful in patients with a BMI <35 kg/m². In persons with a BMI of 35 kg/m² or greater, measuring waist circumference adds little to the predictive power of the disease risk classification of BMI (2). However, a waist circumference measurement may be very helpful in patients with a BMI >25 kg/m² where there is suspicion that the elevated BMI may not be an accurate surrogate measurement for body fat (i.e., very muscular person). In this case, a normal waist circumference measurement would confirm the suspicion that the BMI is reflecting an increase in muscle rather than fat and therefore not placing the patient at a higher health risk. Good clinical judgment must be used in interpreting both BMI and waist circumference measurements.

Talking to Your Patient about Weight Loss

The most important qualities of an effective physician when dealing with obesity are sensitivity and compassion. Obesity is one of the few conditions that are still actively discriminated against by the public and health care providers. One study found that over two-thirds of family health care providers claimed overweight patients lacked self-control (6). Many patients will not raise the issue of weight with their health care provider because of the fear of being blamed for their problem. Health care providers and staff should discuss weight in a nonjudgmental fashion. It is reassuring to patients to realize they will not be judged or viewed in a negative manner because of their weight. Weight management is extremely difficult, and communicating that the health care provider understands the patients' difficulties can be helpful in creating a successful communication and treatment environment.

Setting Realistic Weight Loss Goals

Successful weight loss and healthy-weight management depend on sensible goals and expectations. However, most people who begin weight-loss programs have goals that are unattainable. Some patients may be interested in achieving their personal "goal" or "dream" weight, which often constitutes a weight reduction much greater than the 5% to 10% known to improve risk factors associated with obesity. To provide sound advice about weight loss or weight management, physicians should assess a patient's interest in weight control in a nonjudgmental fashion, be empathetic, and avoid criticizing the patient if unrealistic goals are desired. Instead, discuss the patient's current weight assessment and associated health risks, emphasizing the health benefits of more realistic reductions in weight (7).

Physicians can also set other treatment goals that are not measured by the scale. Such goals may include improve-

ments in feelings of well-being, improvement in mobility, reduction in waist circumference, and adherence to a diet and exercise regimen (8). Instead of talking about an ideal weight, which is often unattainable for the obese patient, focus on and substitute the term "healthier weight." Moreover, both the physician and the patient should realize that the goal of treatment is not necessarily weight loss alone but weight management to achieve the best possible weight for improved health (9). Successful weight management is a slow process, and incremental progress to achieve the patient's goal weight is acceptable. The short-term weight loss goal should be a 5% to 10% weight loss over a 6-month period at a rate of 1 to 2 lbs per week (2). Faster rates of weight loss are not associated with better long-term results (10). Most weight loss will be achieved during the first 6 months of weight loss therapy. Thereafter, the priority becomes one of preventing regain of the weight. It may be useful to have your patient try to maintain the weight loss achieved during the first 6 months for a few months before trying to achieve more weight loss. Ultimately, the challenge in weight management is keeping the weight off permanently.

Assessing Motivational Readiness

The decision to attempt weight-loss treatment should take into account the patient's readiness to make the necessary lifestyle changes. To assess patient readiness, the NHLBI clinical guidelines recommend evaluating the following factors: reasons and motivation for weight loss, previous attempts at weight loss, support expected from family and friends, understanding of risks of obesity and benefits of weight loss, attitudes toward physical activity, time availability, and potential barriers to the patient's adoption of change.

Patient motivation is critical to the success of an obesity-treatment program. Motivational readiness can be determined by understanding the stages of how people change (11). In the precontemplation stage, the patient has no intention to change. The goal for patients at this stage is to begin thinking about changing a behavior, whereas the physician's task should be to engage the patient in contemplating change. Many obesity patients in this stage have tried several times to lose weight but have given up because of repeated failures.

The contemplation stage is characterized by an intention or willingness to change. During this stage, patients assess barriers as well as the benefits of change. It is not unusual for some patients to spend years in this stage. Empathy, validation, praise, and encouragement are particularly necessary when patients are struggling with ambivalence and doubt their ability to accomplish the change.

Patients reach the preparation stage once they are ready to make a specific change. As their determination to change increases, patients may experiment with small changes;

however, such changes usually are inconsistent. Walking for 30 minutes once a week, for example, may be a move toward increasing physical activity. At this stage, physicians should encourage patients to address the barriers to completing their action.

A patient reaches the action stage when he or she is performing a behavior regularly for 6 months. This is a stage that physicians should be eager to see their patients reach, and any action taken by patients should be praised because it demonstrates the desire for lifestyle change. During this stage, physicians should continue to ask about successes and difficulties and be generous with praise and admiration. When the changes that have been made are sustained, the final stage of maintenance has been reached. It is not uncommon, however, for patients to find themselves moving through the stages of change several times before the change becomes truly established. By identifying a patient's position in the change process, physicians can intervene as necessary and help the patient move along these stages of change.

Diet and Exercise Considerations

Intentional weight loss is an important goal for obese patients because it improves many of the medical complications associated with obesity and can prevent the development of new obesity-related disorders. Many of these beneficial effects, including improvements in insulin sensitivity and glycemic control in patients with type 2 diabetes; decreases in serum triglycerides, total cholesterol, and elevated blood pressure; reduced symptoms of degenerative joint disease; and improved gynecologic conditions, begin after modest weight losses of 5% to 10% of initial body weight (2).

To achieve weight loss, the patient must create a state of negative energy balance, in which energy intake is less than energy expenditure. It is difficult to create sufficient negative energy balance for weight loss with exercise alone. This does not mean that exercise is not important. It will help achieve a greater negative energy balance and will be critically important for weight maintenance. The most practical way to achieve negative energy balance and weight loss is by reducing food intake. There are many ways to do this. Patients can use one of the popular diets or structured meal plans (meal replacements) or can count calories or intake of fat or carbohydrate. The NIH treatment guidelines recommend a weight-loss goal of 1 to 2 lbs per week. This can usually be achieved by a daily calorie deficit of 500 to 1000 kcal/d. Diets containing 1000 to 1200 kcal/d should be selected for most women, and those between 1200 and 1600 kcal/d should be chosen for men (2).

Physical activity helps with weight loss and is essential for maintenance of weight loss. For most obese patients, physical activity should be initiated slowly in the form of low-level aerobic activity, such as walking. See www.nhlbi.nih.gov.

coloradoonthemove.org for an example of how to set walking goals. Depending on the patient's progress, the amount of weight lost, and the patient's overall physical condition, more strenuous physical activity can be initiated. It is also important to increase a patient's awareness regarding the importance of activities of daily living. For example, incorporating physical activity throughout the day (i.e., walking up stairs instead of taking elevators or escalators or walking longer distances) and reducing sedentary time (i.e., watching television or working on the computer) can be helpful in weight management. The ultimate goal is to make being physically active a permanent part of one's lifestyle.

Maintaining weight loss requires a balance between energy intake and energy expenditure. Regular physical activity can help maintain weight loss and prevent weight regain. It also can lead to a reduction in the risk for diabetes and coronary heart disease beyond that attributable to weight loss alone. Individuals enrolled in the National Weight Control Registry who have maintained their weight loss for over 1 year attribute their achievements to the following: consuming a high-carbohydrate, low-fat diet; practicing self-monitoring of food intake and physical activity; eating breakfast; and engaging in daily physical activity (12).

It is important for both the physician and patient to be aware of the change in energy requirements that can occur with weight loss. For most patients, after 6 months of weight-loss therapy, changes in resting metabolic rates and problems with adherence to treatment strategies make continued weight loss difficult. At this point, the physician and the patient should revise diet and physical activity goals to reflect decreased energy requirements resulting from decreased weight. To achieve additional weight loss, the patient must further decrease calories and/or increase physical activity to create an energy deficit at the lower weight.

Providing Information and Help with Behavior Change

Long-term monitoring and encouragement from the physician through clinic visits, group meetings, or telephone or e-mail, can help to prolong the maintenance phase of weight loss, ensuring better prospects for long-term success.

For many obese patients, behavior modification support can provide a way to overcome obstacles to compliance with dietary therapy or physical activity. In some cases, a patient is able to provide his or her own support for making lifestyle modifications, whereas others might derive greater benefits from professional support administered on an individual basis or in group settings, such as commercial weight-loss programs and self-help groups. Because it is the patient who must make changes to achieve weight loss, the physician's role should be to provide self-help information and assist in setting dietary and physical activity goals. Developing a sense of partnership with a patient is essential

for a successful outcome. With goals selected, an action plan can be devised to implement change.

Few physicians are trained in behavior modification and may feel uncomfortable prescribing a diet or exercise regimen because of lack of formal training or time constraints. In these instances, physicians can enlist the help of other health care professionals, such as behavioral psychologists, dietitians, and exercise physiologists, to reinforce the message that a change in behavior is needed and to provide additional education and skill information to the patient. The physician also can refer patients who do not respond to education or traditional advice to a program of formal behavioral modification. When combined with an effective diet and exercise regimen, a behavioral modification program that is tailored to a person's needs and abilities can be beneficial. Such programs teach proven behavior change techniques, such as self-monitoring of eating habits and physical activity, stimulus control, stress management, problem solving, cognitive restructuring, contingency management, and social support, that can be used to assist patients in weight control (13).

Summary

The United States is experiencing an epidemic of overweight and obesity, making it essential that primary care physicians play a greater role in treating persons who are already obese. A supportive office environment and staff can help facilitate a patient's weight loss efforts and provide encouragement to begin the challenging process of losing weight. When assessing a patient for BMI and waist circumference, it is important to ensure proper measurement technique and clinical judgment. The physician-patient relationship and patient motivation are critical factors in the success of a patient to achieve weight-loss goals. Clinicians should have multiple diet, exercise, and behavioral resources available to patients to help them achieve their weight-loss goals. Successful long-term outcome of the treatment of obesity requires that an individual change or modify attitudes, beliefs, and behavior with respect to eating and physical activity.

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