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Dietary and Behavioral Approaches in the Management of Obesity

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Abstract

Given the prevalence of overweight and obesity and their associated health conditions, clinicians will be increasingly tasked with the responsibility of addressing overweight and obesity. This article reviews the 5A's approach – Assess, Advise, Agree, Assist, Arrange – and how clinicians can use the approach facilitate weight management discussions with their patients that met the recommendations provided in the 2013 adult weight management guidelines issued by the American Heart Association/ American College of Cardiology/The Obesity Society.

Keywords

Obesity; Weight Loss; Diet; Reducing; Weight Reduction Programs; Body Weight Maintenance

Introduction

Approximately two-thirds of U.S. adults are overweight or obese (1). Elevated body weight has been associated with increased risk of cardiovascular disease, type 2 diabetes mellitus, kidney disease, and certain cancers (2); however, losing weight can prevent or improve control of some obesity-related chronic conditions (3–5). The U.S. Preventive Services Task Force recommends high-intensity counseling interventions for individuals with obesity that include nutrition, physical activity, self-monitoring, goal setting, and group or individuals sessions (6). In 2013, the American Heart Association, American College of Cardiology and The Obesity Society (AHA/ACC/TOS) released evidenced-based guidelines for the management of obesity among adults (7). In this article, the clinicians' roles in weight management are discussed, particularly how to implement these guidelines and other recent advancements in dietary and behavioral approaches into clinical practice.

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Conflicts of Interest

The author has none to disclose.

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1. The Clinician’s Role in Weight Management

Clinicians may assume a variety of roles in the management of obesity, which vary based on their interest, education/training, and time. Prior studies of physicians have often cited a lack of training or experience regarding weight management as a major barrier to counseling their patients (8–9). Clinicians who did not receive adequate training on obesity might consider continuing medical education in this area if they plan to take a leading role in weight management. For physicians who plan to dedicate significant clinical effort in this area, certification through the American Board of Obesity Medicine (<http://www.abom.org/>) or other entity might be considered. Lack of time is another common barrier to weight management (8). Clinicians should also be aware that the recommended intensity of follow up may require at least monthly visits with patients (7), if not more frequently. If adequate follow up for patients cannot be accommodated, then referral to such programs that meet this requirement should be considered. While some physicians have reported avoiding weight loss discussions for fear of offending their patients (10), evidence supports the clinician’s role in referring patients into programs, providing accountability for patients, acting to “cheerlead” for patients during follow up visits, and maintaining the long-term trusting relationship through the ups and downs of weight loss (11).

Three key aspects – interest, training, and time – may influence the decision of whether a clinician might take a leading role in weight management or prefer the job of identifying and referring patients to appropriate weight management programs (Box 1). Regardless of whether the clinician decides to take an active or passive role, prior studies have documented the benefits of healthcare provider engagement in weight management. In a randomized controlled trial of a weight loss intervention where clinicians referred their patients to the program, patients who rated their physicians as more helpful lost significantly more weight than those who did not rate their physicians highly (12). When clinicians discuss weight loss without communicating judgement, patients are more likely to achieve a clinically significant weight loss (13).

Box 1

Key Questions to Ask Regarding Weight Management in Your Clinical Practice

- Am I interested in counseling patients on diet, physical activity, and behavior change to lose weight?
- Have I had enough training where I feel comfortable and confident taking a lifestyle history and working collaboratively with patients to devise an evidence-based action plan?
- Do I have enough time available in my panel to accommodate frequent follow up visits with patients every 2 to 4 weeks?

2. Weight Management in Clinical Practice

Clinicians' key duties involve identifying appropriate patients for referral, determining the weight management strategy, and following up on patients' progress. Regardless of whether the clinician takes an active or passive role, using an evidence-based behavior change strategy, such as the 5A's – Assess, Advise, Agree, Assist, Arrange (Box 2)(14–15), can help guide assessment and counseling. Conversations that use the 5A's have been associated with increased motivation to lose weight and greater patient weight loss success (16–17).

Box 2

5A's Counseling Approach

- Assess
- Advise
- Agree
- Assist
- Arrange

2.1 Identifying Appropriate Patients for Weight Management – “Assess”

In order to identify appropriate patients for weight management, clinicians should determine the individual's degree of obesity, cardiovascular and other risk factors, and their readiness to change. This is the first step in the 5A's approach, “Assess.”

Obesity should be assessed by body mass index (BMI), which reflects an individual's degree of adiposity. BMI is typically an accurate approximation of adiposity, although this measure may be inaccurate for elite athletes with substantial muscle mass. BMI is often calculated automatically in electronic health records (Box 3). The National Institutes of Health have classified BMI into 6 categories based upon the values associated risks of death, diabetes, hypertension and atherosclerotic coronary heart disease (Table 1). All classes of obesity are linked with high cardiovascular disease risk (BMI ≥ 30 kg/m²) and should be target for weight management (7). For patients with overweight, all may be eligible for weight management services; however, those patients who have other risk factors should be particularly targeted.

Box 3

Formula to Calculate Body Mass Index (BMI)

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height squared (m}^2\text{)}}$$

If the patient meets criteria for weight management based on BMI and risk factors, then the clinician and patient should agree that weight loss is appropriate. Clinicians should assess whether the patient is ready to make the changes necessary to succeed at losing weight (7). If a patient does not currently have time available to dedicate to lifestyle or if other issues are greater competing priorities, then deferring weight loss for another time is appropriate.

2.2 Educating about Health Risks and Benefits of Change – “Advise”

The second step in the 5A’s approach is “Advise,” which gives the clinician the opportunity to educate the patient about their weight and the health risks linked with overweight and obesity. At minimum, patients should be advised that the greater their BMI, the greater their risk of cardiovascular disease, type 2 diabetes, and death (7). Weight loss can reduce blood pressure, improve cholesterol profile and blood sugar, and decrease risk of developing diabetes. However, clinicians should be aware that weight loss through lifestyle changes has not led to decreased cardiovascular events (18).

Overweight and obesity have been linked to certain gastroenterological conditions such as gastroesophageal reflux disease (GERD) and non-alcoholic fatty liver disease (NAFLD)(1–20). Weight loss has been shown to improve these conditions including GERD and NAFLD (21–22). Other gastroenterological conditions linked with obesity are described in other articles in this issue of *Gastroenterology Clinics*.

2.3 Collaborating to Establish Weight Management Goals – “Agree”

The third step in the 5A’s process is “Agree,” where the patient and clinician agree upon goals (14–15). It is critical for clinicians to help their patients set goals that are quantifiable, achievable, and likely to lead to meaningful health benefits. For example, a goal of losing 5% of an individual’s starting weight over the next 6 months to lower blood sugar and prevent the development of diabetes. The 2013 AHA/ACC/TOS guidelines suggest appropriate goals and health benefits that can be expected with certain weight losses (Box 4) (7).

Box 4

Appropriate weight loss goals and associated health benefits

- Initial goal – 3 to 5% weight loss from starting weight over 3 to 6 months
 - Improves glucose, hemoglobin A1c, and triglycerides
 - Prevents development of type 2 diabetes mellitus in individuals with prediabetes
- Additional goal – 5 to 10% weight loss from starting weight over 6 to 12 months
 - Improves blood pressure
 - Lowers LDL-c and raises HDL-c

– Reduces need for medications

2.4 Determining the Weight Management Strategy – “Assist”

The fourth step in the 5A’s process is “Assist” – where the clinician and patient determine what weight management strategy will be pursued. In the section below, practice-based weight loss counseling is outlined briefly and evidence regarding weight management programs is covered in more detail as most clinicians opt to refer patients to programs given their limited time and training in this area.

2.4.1 Practice-based Weight Loss Counseling—For those clinicians who decide to take a leading role in weight management, the key duty involves engaging patients in a practice-based program that meets recommended guidelines. A systematic review found that behavioral interventions in clinical settings could result in weight losses of 3 kg over a 12-month period (23). Clinicians should be aware that weight losses may be more modest when counseling occurs within typical clinical practice settings rather than the results achieved with more intensive weight loss programs (24).

The clinician should assess weight and lifestyle histories, which can provide useful information about the origins of or maintaining factors for overweight and obesity, including success and difficulties with previous weight loss or maintenance efforts. Clinicians can consider having patients keep a food and activity journal for several days before their appointment to facilitate this process.

The 2013 AHA/ACC/TOS weight management guidelines suggest that clinicians’ focus their counseling on a dietary strategy that results in moderately reduced caloric intake (7). Patients can achieve this goal through a variety of strategies including:

- Limiting calories to 1200–1500 daily for women or 1500–1800 daily for men
- Prescribing a 500–750 calorie deficit from baseline calorie intake
- Following an evidence-based diet that promotes or restricts consumption of certain food types –low-fat diet, low-carbohydrate diet (e.g., Atkins), very-low-fat vegetarian diet (e.g., Ornish Diet), high-fiber diet (e.g., Volumetrics), or meal replacements (7,25–26)

Dietary adherence has been associated with greater weight loss (27), so engaging the patient in a discussion of all options and eliciting their preferences may be helpful. In addition to agreeing upon a specific dietary intervention, patients should be encouraged to pair the strategy with an appropriate behavioral intervention such as tracking calories or keeping a food diary to reinforce and support the behavior change.

While physical activity has many health benefits and is critical for weight loss maintenance, clinicians avoid using increased physical activity as the sole weight loss strategy as patients are unlikely to be successful losing weight. At 6 months, individuals who engage in physical activity alone lose about 2 kg of weight as compared to the 9 kg lost by those who changed

their diet (28). Increased physical activity can be an adjunct to dietary changes, but should not be the sole method for weight loss.

2.4.2 Referral to Weight Management Services—For clinicians who prefer a more passive role in weight management, the key duties involve referring these individuals to evidence-based weight management programs and following up on patients' outcomes with these programs. The 2013 AHA/ACC/TOS guidelines recommend that clinicians refer patients to a *high-intensity comprehensive lifestyle program* for at least 6 months (7). Programs should promote a lower-calorie diet and increased physical activity by using behavioral strategies. A “high-intensity” program should encourage individuals to attend at least 14 sessions over this 6-month period. While scientific evidence supports the efficacy of such programs, clinicians should be aware that patients may have difficulties identifying programs in the community that meet these guidelines. For example, one study found that only 19% of programs in the community had high concordance with these guidelines, and relying only on information from the Internet is unlikely to yield results (29). Clinicians who plan to rely on locally available weight management services should consider investing some time identifying and vetting programs to ensure that they are referring patients to evidence-based programs.

Alternatively, clinicians can consider referring patients to a center taking part in the National Diabetes Prevention Program. The Diabetes Prevention Program (DPP) was a landmark trial that demonstrated how an intensive program of lifestyle changes and weight loss can delay the development of type 2 diabetes (4–5). In March 2016, the Centers for Medicare and Medicaid Services announced that Medicare will now provide these services as a covered benefit for beneficiaries at risk for type 2 diabetes (30). The Centers for Disease Control (CDC) has established the National Diabetes Prevention Program, which has set standards and guidelines for organizations to deliver CDC-recognized DPP programs in the community (31). The DPP has also been offered through the YMCA through the YMCA of the USA Diabetes Prevention Program. Clinicians can now find CDC-recognized DPP programs in their communities online, which may facilitate referrals to this evidence-based program.

In addition, clinicians may also consider referring patients to commercial weight-loss programs. The 2013 AHA/ACC/TOS guidelines suggest that clinicians can consider referring patients to commercial programs that have evidence to support their efficacy (7). Some commercial programs contain all components recommended by the 2013 AHA/ACC/TOS guidelines – high-intensity, lower-calorie diet, increased physical activity, behavioral strategies, support – while others do not (Table 2).

Clinicians considering referral to commercial programs might prioritize commercial programs that have all recommended components. However, not all commercial programs have been rigorously tested in long-term randomized controlled trials that report weight losses at 12 months or beyond (26).

Currently, only two commercial weight loss programs – Weight Watchers and Jenny Craig – contain all components recommend in the 2013 AHA/ACC/TOS guidelines and consistently

demonstrate their weight loss efficacy at 12 months in multiple randomized controlled trials (Box 5)(26). Weight Watchers participants monitor their food intake by tracking points and participate in group, one-on-one or online support, while Jenny Craig participants use meal replacements and participate in one-on-one counseling. Both programs promote increased physical activity and use behavioral strategies such as self-monitoring and goal setting. The costs between the two programs differ substantially, although clinicians should be aware that the price of Jenny Craig includes food for the month where Weight Watchers prices do not. Weight Watchers has been suggested as the more cost effective option (32).

Box 5

Weight loss results among Weight Watchers' and Jenny Craig participants at 12 months

- Weight Watchers
 - Lost 3.5 to 4.3 kg at 12 months – at least 2.6% greater loss than control
- Jenny Craig
 - Lost 6.6 to 10.1 kg at 12 months – at least 4.9% greater loss than comparator

2.5 Monitoring Weight Loss Progress – “Arrange”

The final step in the 5A's is “Arrange” – to set up follow up with your patient. In particular, “arrange” is often forgotten by clinicians, yet is a component associated with successful dietary change and weight loss (17). This step enables clinicians to provide accountability for patients, “cheerlead” their successes, and maintain the long-term trusting relationship despite weight loss outcome (11). Following up with your patient to assess their progress within 3 months of the initial visit is appropriate for most patients and a second follow up at 6 months. These visits also provide an opportunity for the clinician to adjust medications in response to weight loss success. For example, many patients will need the dose of their anti-hypertensive medications lowered when they reach a 5% weight loss or beyond.

3. Weight Loss Maintenance

Although patients can struggle to lose weight, maintaining weight loss can be more difficult. Observational studies have shown that about 20% of people can achieve and maintain a clinically significant weight loss for at least 1 year. Data from the National Weight Control Registry indicates that successful strategies for weight maintenance include: high levels of physical activity (average 60 minutes/day), eating a low-calorie diet, self-monitoring weight, and maintaining a consistent eating pattern across the entire week (33). In addition, randomized controlled trials have shown that monthly in-person contact leads to greater weight maintenance success than web-based or self-directed efforts (34–35). Therefore, ongoing support and monitoring by the clinician is likely needed for long-term success.

Summary

Given the prevalence of overweight and obesity and their associated health conditions, clinicians will be increasingly tasked with the responsibility of addressing overweight and obesity. Clinicians can use the 5A's approach – Assess, Advise, Agree, Assist, Arrange – to facilitate weight management with their patients, regardless of whether the clinician prefers a leading or passive role in management. Given the limited time available and often insufficient training in obesity counseling, clinicians are likely to take a more passive role and refer patients to available services that should include any evidence-based local programs as well as CDC-recognized centers for the National Diabetes Prevention Program and commercial weight-loss programs like Weight Watchers and Jenny Craig. Clinicians should continue monitor patients' weight after a successful loss given high rates of weight regain.

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Key Points

- Clinicians should use an evidenced-based strategy like the 5A’s – Assess, Advise, Agree, Assist, Arrange – to facilitate weight management counseling with their patients
- Initial weight loss goal should be a 3 to 5% loss over a 3 to 6 month period through engaging in a high-intensity, comprehensive lifestyle change program that includes a moderately reduced calorie diet, increased physical activity and behavioral strategies
- Referral to locally available evidence-based weight loss programs should be considered which may include the National Diabetes Prevention Program or commercial weight-loss programs like Weight Watchers or Jenny Craig
- Continued follow up and surveillance after weight loss is critical for weight loss maintenance

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Table 1

Classifications of Body Mass Index (BMI)

Category	BMI (kg/m ²)	Eligible for Weight Management?
Underweight	< 18.5	No
Normal weight	18.5 to 24.9	No
Overweight	25.0 to 29.9	Yes, particularly if risk factors: <ul style="list-style-type: none"> • Increased waist circumference (men >102 cm; women >88 cm) • Hypertension, type 2 diabetes mellitus, coronary heart disease, or other conditions associated with overweight/obesity
Class I obesity	30.0 to 34.9	Yes
Class II obesity	35.0 to 39.9	Yes
Class III obesity	40.0	Yes

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Table 2

Components of Commercial Weight Loss Programs

Program	High-Intensity	Diet	Physical Activity	Behavior Strategies	Support
Weight Watchers	X	X	X	X	X
Jenny Craig	X	X	X	X	X
Nutrisystem	X	X	X	X	X
Curves	X	X	X	X	X
Health Management Resources (HMR)	X	X	X	X	X
Medifast	X	X	X	X	X
OPTIFAST	X	X	X	X	X
SlimFast		X		X	X
Atkins		X	X	X	X
The Biggest Loser Club		X	X	X	X
eDiets		X	X		X
Lose It!		X	X	X	X