

Chapter 31

Achieving Dietary Change: The Role of the Physician

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Key Points

- The worldwide obesity epidemic has increased the impetus for development of clinic-based strategies targeting delivery of nutrition advice and counseling in the primary-care setting.
- Nutrition counseling is most effective when the intensity of therapy is aligned with the severity of disease risk and supported by counseling and referral of clients to appropriate nutrition intervention programs.
- Client-centered counseling strategies engage the patient in development and implementation of an action plan designed to enhance self-management practices.
- The 5As-counseling model is a recognized evidence-based method for conducting minimal contact behavior change interventions.
- Application of a combination of motivational interviewing and cognitive-behavioral strategies is effective in precipitating nutrition-related behavior change.

Keywords Client-centered counseling • Clinical care guidelines • Behavior change • Motivational interviewing • Evidence-based counseling methods • Stages of change • Cognitive-behavioral theory • Physician interventions

Introduction

Healthy People 2020 established a national goal of increasing the proportion of physician office visits that include nutrition counseling or education for patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia, and to increase the proportion of primary-care physicians who regularly measure the body mass index of their patients [1]. Early intervention by medical providers has the potential to have an enormous impact on disease prevention, mitigation of disease progression, improving the quality of life of patients, and decreasing healthcare expenditures. Inclusion of nutritional status as a routine component of care heightens patients' awareness of the critical link between

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diet and health and enhances the credibility of the healthcare professional in addressing nutrition-related issues. Engagement of health professionals, government and the community sectors is necessary to support individuals and families in making healthy diet and physical activity choices [2].

This chapter provides guidance on techniques and tools for optimizing the delivery of nutrition assessment, counseling, and referral in a busy primary-care practice setting.

Efficacy of Nutrition Counseling by Physicians

Nutrition and lifestyle counseling is an important component of routine prenatal and pediatric care, and a cornerstone of disease prevention and management. Screening and assessment are the critical first steps to identify opportunities for prevention and treatment. Evidence-based guidelines recommend a step-care approach, aligning of treatment intensity with health risk [3–5]. Patient-centered counseling is an effective means to enhance dietary change through assessment of patient needs and readiness to change, tailoring interventions to meet realistic goals, and encouraging patients to engage appropriate medical and social resources for more intense support [6]. Numerous studies describe effective clinic-based strategies for delivering nutrition advice and counseling in the primary-care setting targeted to patients with diabetes, hyperlipidemia, hypertension, who need weight control, or general diet improvement [7–15]. These multidisciplinary interventions involve a client-centered approach, supported by a variety of office-based systems (office prompts, algorithms, and diet assessment tools).

Physician advice is an important catalyst for diet-related behavior change. Patient retention of nutrition advice is significantly better (95% vs. 27%, $p < 0.01$, related to specific foods; 90% vs. 20%, related to food preparation methods) when received by providers trained in nutrition counseling [16]. Advice provided by trained providers was more extensive, specific, and culturally relevant; communication skills were used to enhance rapport and ensure that patients understood the advice. Multiple studies recommend that primary-care providers receive training in the use of motivational interviewing techniques, goal setting, and use of evidence-based tools for facilitating behavior change [17–20]. Referrals to a registered dietitian or community-based nutrition intervention program are excellent strategies to increase the intensity of interventions, but cannot substitute for ongoing involvement of the patient's primary physician.

Physicians are ideally positioned to influence patients to seriously consider dietary change to improve health, especially when they make referrals to dietitians and comprehensive lifestyle intervention programs. A listing of dietitians available in all geographic areas can be found on the Academy of Nutrition and Dietetics web site (<http://www.eatright.org>). Group interventions, such as behavioral therapy or self-management education programs, are efficacious and cost-effective strategies for supporting diet and physical activity lifestyle change [21–30]. Lifestyle change curriculum, materials, training information, and a program locator can be found on the Centers for Disease Control web site (<http://www.cdc.gov/diabetes/prevention/lifestyle-program/index.html>).

Medical Office System Support

In busy medical practices, an explicitly planned and coordinated team approach, knowledgeable staff, and supportive office systems facilitate rapid assessment, sensitive conversations, patient-centered counseling, and referrals. Modifications to medical office systems and electronic health record systems aid delivery of care consistent with algorithms that align intensity of treatment with level of

health risk. Innovations in health technology facilitate timely screening and assessment (e.g., automating BMI determination and risk classification), enhance access to appropriate educational materials, improve communication among healthcare providers and patients, and enhance the referral process [31, 32]. For example, weight is routinely screened during routine prenatal visits, but an electronic health record system facilitates rapid assessment of weight change, prompts timely counseling, and provides instant access to appropriate educational material or a referral.

New primary-care delivery models, such as the patient-centered medical home (<http://www.pcmh.ahrq.gov>), suggest practice organization which leverages healthcare teams that utilize new technologies (in-house or virtual) and healthcare reforms, such as the Affordable Care Act [33], to expand the capacity of primary-care providers to improve access to high-quality nutrition counseling and intensive lifestyle interventions. Primary-care providers screen, assess, motivate, and coordinate care with dietitians, other healthcare team members, or community organizations, all based on patient readiness and care guidelines. Future enhancements of electronic health record systems will support the use of mobile technology and wi-fi-enabled glucometers, scales, blood pressure monitors, and activity trackers which automatically transmit data to a server or smartphone applications. Studies indicate that services delivered remotely are effective [34]. These emerging technologies simplify the monitoring of food intake, physical activity, weight, blood pressure, and blood sugar, and facilitate timely feedback via text-messaging, telephone, and e-mail.

Modification of office systems to streamline office-based prevention, standardize the approach to less intensive care, and to coordinate with nutrition professionals and programs outside the office for more intensive interventions have been effective strategies for the implementation of current evidence-based guidelines [15, 35, 36]. A well-designed office system facilitates an evidence-based approach, ensuring efficient and consistent data collection, assessment and documentation of counseling, simplified tracking of care through the use of flowcharts, electronic prompts, or chart reminders, reminder messaging for patients, and coordinated educational materials and strategies [37].

The principles for organizing an office system to support delivery of nutrition care advice and counseling include [19, 38]:

1. Policy and procedure for the delivery of nutrition advice and counseling to target populations.
2. Determining baseline rates for target populations (e.g., patients with diabetes, hyperlipidemia, hypertension, obesity).
3. Defining staff roles and identifying a process champion to support coordination, training and acquisition of resources.
4. Identifying and adapting screening, assessment, and intervention tools, and developing referral procedures appropriate for various patient populations (e.g., pediatrics, prenatal, weight management, self-management of diabetes). Utilization of office information technology to aid screening, assessment, and decision support which aligns with clinical care guidelines is helpful. Identify and cultivate relationships with nutrition professionals, multidisciplinary clinics, and community resources to link patients with appropriate medium-intensity and high-intensity behavioral interventions.
5. Training of healthcare providers.
6. Setting a start date; planning periodic communication to assess implementation and chart reviews.

Routine documentation of a core set of nutrition-related data—such as height, weight (electronic medical records can flag at-risk patients), waist circumference, and activity level—sets the stage for the provider to address diet related to clinical care. Patients may complete assessment forms while waiting to see the provider. A recent review provides a description of brief assessment tools suitable for clinic use to support the dietary management of cardiovascular disease, diabetes, or obesity [39]. The WAVE (Weight, Activity, Variety, and Excess) and REAP (Rapid Eating and Activity Assessment for Patients) are two such tools designed to target healthy eating and cholesterol reduction [40]. Each

Table 31.1 Web-based nutrition education resources

Source of information	Internet site
Academy of Nutrition and Dietetics	http://www.eatright.org/
Centers for Disease Control and Prevention	http://www.cdc.gov/diabetes/prevention/lifestyle-program/curriculum.html http://www.cdc.gov/cholesterol/educational_materials.htm
Canadian Obesity Network	http://www.obesitynetwork.ca/5As_evidence
Dietary Guidelines Tools & Resources	http://health.gov/dietaryguidelines/2015/resources.asp
Joslin Diabetes Center	http://www.joslin.org/info/diabetes-and-nutrition.html
NHLBI Health Information for the Patient, Public, and Professional	http://www.nhlbi.nih.gov
NIH Office of Dietary Supplements, Dietary Supplement Fact Sheets	http://dietary-supplements.info.nih.gov (then click on “Health Information”)
National Institute of Diabetes and Digestive and Kidney Diseases, The Weight-control Information Network (WIN)	http://win.niddk.nih.gov/
University of Virginia School of Medicine	https://med.virginia.edu/ginutrition/patient-education/
USDA ChooseMyPlate resources and online tools	http://www.choosemyplate.gov/health-professionals

assessment tool provides a brief diet assessment and facilitates meaningful counseling in 1–9 min. Table 31.1 identifies sources of high-quality education literature, interactive media, and self-monitoring tools (provided in a variety of languages and suitable for low-literacy clients) which target a wide variety of nutrition-related issues.

Client-Centered Counseling

Client-centered counseling is designed to place much of the responsibility for the intervention process on the client. By adopting a facilitation role, the counselor fosters a greater openness and trust. Use of informal clarifying questions increases the client’s insight and self-understanding. Establishing client rapport is a prerequisite for free expression of thoughts and feelings that, particularly in the unmotivated client, may not be “politically correct.” The goal is to move from the traditional hierarchical relationship to one of partnership.

This approach toward counseling is particularly useful in diet counseling as it is the client who ultimately determines what change he or she is willing and able to make and sustain. The physician brings a depth of medical knowledge to objectively assess and communicate assessment results, help to frame the problem, and motivate and guide the client to set realistic goals. The client knows best what lifestyle changes can be made and can identify barriers and solutions relevant to their situation. The client-centered approach takes the pressure off the provider to have all the answers and represents a shift in the typical relationship between physician and client, which may be somewhat unfamiliar to both parties. The ultimate goal of counseling is to actively engage the patient in self-management practices necessary to change and maintain a healthy diet. The traditional doctor–patient approach (e.g., “I want you to walk for 45 minutes every day and lose 10 pounds”) is likely to antagonize many patients. They may well give the impression to the doctor that they agree with the plan, but will then go and find a doctor who will give them a pill to fix the problem.

The 5As Counseling Model

The 5As is an evidence-based method for conducting minimal contact interventions targeting behavior change [31, 41]. It is a framework for sensitive, realistic, measurable, and sustainable nutrition change strategies that focus on improving health and well-being. Adoption of this approach for physician-provided nutrition counseling allows others to collaborate in developing tools and materials to support the process. The 5As include:

- *Ask*: ask permission to discuss diet and/or weight and explore readiness to change.
- *Assess*: assess diet-related risk factors, diet, diet history, and physical activity patterns.
- *Advise*: give clear, specific, and personalized lifestyle change advice, including tailored information about personal health risks/benefits.
- *Agree*: collaborate with the patient to identify nutrition-related health and behavioral goals and strategies that the patient is willing to implement.
- *Assist*: assist the patient in achieving agreed-upon goals by acquiring knowledge, confidence, and social/environmental support for behavior change. Refer high-risk patients to more intensive counseling in accordance with evidence-based guidelines. Arrange follow-up contact to provide ongoing support.

The Canadian Obesity Network provides 5As toolkits to support integration of evidence-based counseling techniques in pediatrics, healthy pregnancy, and adult practice. Primary-care team training and implementation resources are available to support each step in the process (http://www.obesitynetwork.ca/5As_Team).

Models for Inducing Change

Transtheoretical Model and Stages of Change

This model attempts to describe a sequence of cognitive and behavioral stages people use over time to achieve intentional behavior change. The core concept, known as Stages of Change, reflects an individual's attitudes, intentions, and behavior related to change of a specific behavior. Stages of change are identified as precontemplation, contemplation, preparation, action, and maintenance. Table 31.2 outlines treatment strategies endorsed by the transtheoretical model [42]. Strategies targeted to the early stages of change target motivation, and those used in the later stages are more consistent with strategies used in behavioral therapy.

Motivational Interviewing

Motivational interviewing integrates well within the transtheoretical model. It facilitates the client in exploring and resolving their own uncertainty and building confidence and enhancing commitment to change. The four guiding principles of the technique include expression of empathy, development of discrepancy, roll with resistance, and support self-efficacy (client confidence in their ability to

Table 31.2 Stages of change and stage appropriate treatment strategies

Stage of change	Treatment strategies
Precontemplation	Personalize assessment information, educate about risk, acknowledge patient's emotions related to condition
Contemplation	Increase patient's confidence (self-efficacy), discuss ambivalence and barriers to change, reinforce past accomplishments, encourage a support network, emphasize expected benefits
Preparation	Facilitate client setting of small, specific, realistic goals to build confidence; reinforce small accomplishments
Action	Provide tailored self-help materials; refer to a behavioral program or self-management program
Maintenance	Help patient anticipate and prepare for high-risk situations, link patient with community support groups, encourage continued self-monitoring and goal setting, if patient ready to continue

accomplish a specific task). The tone of the counseling session is totally nonjudgmental and the counselor uses open-ended questions and reflective listening to frame discrepancies between client goals and actions. Conflict and confrontation are avoided by rolling with resistance—verbalizing the understanding that the client is in the best position to determine when change can occur. The process stresses the use of reflective listening skills rather than the drive to provide information; it supports enhancement of self-efficacy and optimism for change [43]. This is a major paradigm change from the counseling that is frequently employed in a busy clinic setting, which is oriented around problem solving. Further resources and training information on this technique can be found at <http://motivationalinterviewing.org>.

Cognitive–Behavioral Theory

Cognitive–behavioral theory is based on the assumption that all behavior is learned and is directly related to internal factors (e.g., thoughts and thinking patterns) and external factors (e.g., environmental stimuli and feedback) that are related to the problem behavior. Patients are taught to utilize a variety of behavioral and cognitive strategies to recognize behaviors that lead to inappropriate eating and replace them with more rational thoughts and actions. The behavioral strategies most suited to minimal contact interventions are outlined in Table 31.3 and include self-monitoring, goal setting, and problem solving.

Incorporation of Behavioral Theory Tenets to the 5As Model

The 5As model provides specific guidance on how to integrate motivational interviewing, the trans-theoretical model, and cognitive–behavioral therapy principles into a minimal contact dietary intervention. A quick assessment allows for tailoring of counseling goals. For those patients not ready to make dietary changes, the goal of the intervention is to enhance readiness/motivation. The

Table 31.3 Behavioral strategies useful to support dietary change

Strategy	Application
Self-monitoring	Cornerstone of therapy, used in goal setting/progress assessment Provide rationale and instruction for self-monitoring Assist patient in reviewing log and identifying patterns Assist with goal setting and problem solving Celebrate successes
Goal setting	Collaborative activity Identify goal that client is willing to expend effort to achieve Discuss pros and cons of goal Document and track progress toward long- and short-term goal May need to provide information/skill development Encourage strategies to build confidence Celebrate successes
Problem solving	Define the problem Brainstorm solutions Weigh pros and cons of potential solutions Patient selects/implements strategy Evaluate outcomes/adjust strategy

intervention addresses the client's ambivalence about change; motivational interviewing is an appropriate strategy. Clients ready to change will be more open to utilize behavior therapy strategies such as self-monitoring, goal setting, and problem solving. The 5As model outlined in Table 31.4 guides the content of the brief nutrition encounter.

Summary

A growing body of literature has emerged that describes brief and effective clinic-based strategies for delivering nutrition advice and counseling in the primary-care setting to motivate patients to take action to improve their health. The 5As model for minimal contact interventions targeting behavior change is one such starting point. Numerous organizations have developed nutrition-specific tools and counseling guides to support this intervention model. Physician knowledge of behavior change models relevant to individual-level interventions facilitates tailoring of nutrition counseling to meet patient needs. Tailoring of nutrition education materials and referral to nutrition experts, behavior therapy, self-management education programs, or community programs can enhance counseling intensity and support patients' development of self-management practices necessary to achieve and maintain healthy diets. Routine use of patient-centered counseling strategies, innovations in information technology, and increased availability of moderate- and high-intensity lifestyle change programs in the clinical or community setting will further enhance delivery of nutrition advice and counseling in the primary-care setting.

Table 31.4 Incorporation of behavioral theory tenets to the 5As model

<i>Ask</i>	<p>To address the topic you might say:</p> <p>“What you eat is very important for your health and for the management of your [blood cholesterol, blood pressure, etc.]. May I discuss your diet with you today?”</p> <p>This invitation gives the client some control over the encounter. If the answer is “no,” end the discussion. If the patient is uncertain or says “yes,” avoid giving advice, but continue the assessment.</p>
<i>Assess</i>	Age, condition, and disease-specific assessment criteria should be addressed.
<i>Diet</i>	Diet: Recommend use of a brief nutrition assessment tool such as the WAVE or REAP (good waiting-room activity).
<i>Diet readiness</i>	Diet readiness to change: You may ask the client to rate on a scale of 1–10 (10 being fully ready to take action) how ready they feel to take action to improve their diet right now. The focus of the intervention will vary based upon the readiness score:
<i>Diet history</i>	<ul style="list-style-type: none"> • If score is low [1–4], inform, raise awareness, explore beliefs/attitudes, and encourage change. • If score is moderate [5–7], explore patient’s ambivalence and, if willing, negotiate a small, specific behavior change goal. • If score is high [8–10], focus on goal setting/problem solving.
<i>Anthropometric and disease-specific criteria</i>	
<i>Advise</i>	<p>You might say: “Based upon your health risk [specify] and current diet assessment, I recommend we focus on _____ [excess saturated fat intake, excess carbohydrate intake, low fruit/vegetable intake].”</p> <p>Aim for a strong, succinct, clear, personalized message about what you think the patient should do, delivered with concern and conviction, and related to the benefits to be derived from this change.</p> <p>For patients not ready to change, but open to a discussion about diet change, rather than giving specific advice, you could briefly explore the patient’s ambivalence to change by asking:</p> <p>“Why did you rate yourself a—on the scale from 1 to 10?”</p> <p>“What would need to happen for you to be more ready to change?”</p> <p>“What would be some advantages to making a diet change?”</p> <p>“What are the disadvantages to making a diet change?”</p> <p>“Have you attempted to change your diet? What worked or didn’t?”</p> <p>“Would family/friends help you to change your diet?”</p> <p>You might end the intervention here by saying: “I respect your decision to not make a change right now. You are the best judge of what is right for you, but when you are ready, I will be willing to assist you.”</p>
<i>Agree</i>	<p>For patients ready to make diet change, you might ask:</p> <p>“What do you think needs to change in your diet?”</p> <p>“What are your ideas for making that change?”</p> <ul style="list-style-type: none"> • Negotiate behavior change goals • Encourage self-monitoring • Briefly discuss barriers and guide use of problem solving
<i>Assist</i>	<p>Provide handouts and web resources based upon patient goals/interests.</p> <p>Provide lists and recommendations for community resources.</p> <p>Follow up by phone, e-mail, or an office visit in 2–4 weeks, if specific behavior change goals are set.</p> <p>If patient is at high risk or has a chronic disease diagnosis, consider a referral to a registered dietitian or for more intensive lifestyle counseling.</p>

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