



Use of an integrated approach to the education of nutrition and exercise science professionals stressing the dynamic nature of energy balance will provide a broader understanding of each discipline than can be achieved through taking a single course in the opposite discipline (9). This integration, along with improved collaboration between the professions, can improve the delivery of services to the consumer and weight management outcomes (9). To foster such collaboration, each must understand and respect the knowledge, skills, and scope of practice (SOP) of the other profession (9).

To address this issue, in 1999, the American College of Sports Medicine (ACSM), the Academy of Nutrition and Dietetics (Academy), and International Food Information Council (IFIC) Foundation surveyed a national sample of Academy and ACSM members to identify practices and attitudes of each profession (3). This phone survey reached 306 Academy members and 317 ACSM members. Results showed that approximately half of RDN respondents reported it was important to encourage regular PA (51%), whereas more than half of exercise professional respondents identified reduction of fat intake as a key message (55%) and 43% encouraged a balanced diet (3). In 2015, the same organizations collaborated on an online survey to determine whether these practices and attitudes had changed. This survey targeted practicing RDNs (n = 3,715) and ACSM Certs (n = 1,759), representing a 9.1% and 7.0% response rate, respectively (10). Students and individuals reporting credentials in both areas were eliminated from the analysis. Table 1 provides the general demographics of the survey participants.

Participants were asked questions regarding credible sources of information on healthful eating, PA, and weight loss; familiarity with and knowledge of each professions' SOP and that of the other profession; attitudes toward sale of dietary supplements and PA resources; the frequency with which each provides advice on the opposite topic and refers to other professionals; and their perception of the credibility of the other profession. For the purposes of this survey, healthful eating was defined as "a dietary pattern to meet nutrient needs for an individual's health concerns," and PA "encompasses both unplanned and planned physical activity (exercise) (10)."

In the following section, we summarize the results of this survey; the complete survey results are provided elsewhere (10). Interestingly, a wide discrepancy was observed in each profession's perception of who is the expert in the area of weight management. We therefore describe the challenges of providing evidence-based weight management services and identify ways in which RDNs and ACSM Certs can work together to best meet each client's needs.

### Do RDNs Give Physical Activity Guidance to Clients?

Overall, more than 83% of RDNs reported that providing PA guidance based on the 2008 Physical Activity Guidelines for Americans (PAG) was within their SOP (10). A majority (56.6%) also reported that providing guidance on PA to achieve a client's weight goals was within their SOP, whereas a smaller percentage

**TABLE 1: Characteristics of RDNs and ACSM Certs who Responded to the Survey\*. Excerpted from Manore et al. (10)**

Characteristic	RDN (n = 3,715)	ACSM Cert (n = 1,759)	P
	n (%)	n (%)	
Male sex	105 (2.8)	572 (32.6)	<0.001
Bachelor's degree major	3,490 (93.9)	1,483 (84.3)	<0.001
Nutrition/Dietetics/ Food Science	3,020 (86.5)	45 (3.0)	—
Exercise/ Kinesiology	41 (1.2)	954 (64.3)	—
Other	429 (12.3)	484 (32.6)	—
Any Master's degree	2,093 (56.3)	726 (41.3)	<0.001
Nutrition/Dietetics/ Food Science	1,595 (76.2)	13 (1.8)	
Exercise/ Kinesiology	56 (2.7)	515 (70.9)	
Other	442 (21.1)	198 (27.3)	

\*Sent to 25,947 ACSM certified exercise professionals and 54,258 Academy members with a 7% and 9.1% response rate, respectively. Only credentialed RDN members of the Academy were included in the analysis.

considered providing specific guidance on strength training (13%) or recovery from injury (23%) to be within their scope. Although 63.8% of ACSM Certs consider providing PA guidance based on the 2008 PAG to be within the RDN's SOP, only 24% thought that giving PA guidance for weight management was within the RDN's SOP (10).

### Do ACSM Certified Exercise Professionals Give Healthful Eating Advice to Clients?

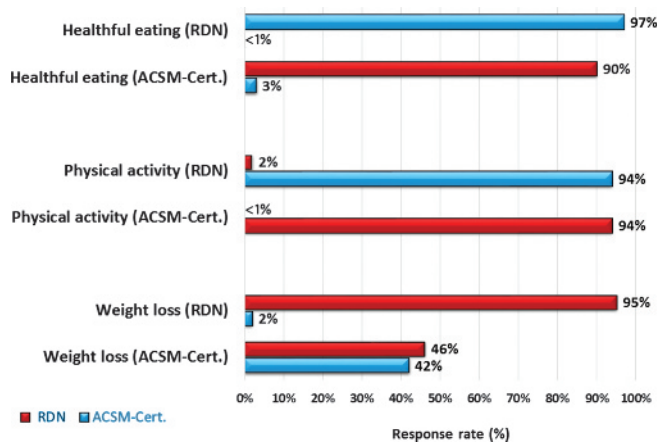
More than 76% of ACSM Certs reported that they regarded it within their SOP to provide their client with healthful eating advice based on the Dietary Guidelines for Americans, and 81% felt they could provide guidance on locating credible healthful eating information. Overall, 43.9% of ACSM Certs reported that providing guidance on healthful eating to achieve a client's weight goal was within their SOP, and 13.7% felt it was within their SOP to provide healthful eating advice for a specific disease or condition. Conversely, only 23.8% of RDNs thought that it was within the ACSM Cert SOP to provide healthful eating advice to manage weight, and only 4% felt it was within their SOP to provide healthful eating advice for a specific disease or condition (9).

### How Does Each Profession Perceive Their Expertise and That of the Other Profession in the Area of Diet and Physical Activity?

As shown in the Figure, RDNs and ACSM Certs are in agreement that ACSM Certs are the most credible source of PA

# PROFESSIONAL COLLABORATION: WEIGHT MANAGEMENT

**Figure.** How ACSM-Certs and RDNs rated themselves and the other profession regarding who was the most credible source of information for healthy eating, physical activity, and weight loss. The colored bars indicate the profession being rated, whereas the row labels indicate those completing the rating. Percentages may not sum 100 because other options were allowed but were infrequently selected. See Manore et al. (10) for details.



information for consumers, and that the RDN is the most credible source of information for healthy eating.

## Who Can Provide the Best Advice to Clients About Weight Management?

RDNs overwhelmingly see themselves as the most credible source of weight loss information for clients (95%), whereas results from

ACSM Certs are mixed, with 46% identifying the RDN as the most credible source of weight loss information for clients and 42% reporting that they were the best source (See Figure). Notably, RDNs see themselves as the weight management experts, yet they typically have little training in the area of PA for weight management. Conversely, a high percentage of ACSM Certs see themselves as the experts in weight management despite their lack of extensive training in nutrition and food science.

## Competency Varies With Level of Expertise

ACSM and the Academy both offer a range of credentials based on level of education and experience. ACSM Certs requirements vary from the Certified Personal Trainer, which requires a high school diploma or equivalent (<https://certification.acsm.org/acsm-certified-personal-trainer>), to the ACSM Certified Exercise Physiologist, which requires a Bachelor’s degree in Exercise Science (<https://certification.acsm.org/acsm-certified-exercise-physiologist>) and the ACSM Clinical Exercise Physiologist, which requires a Bachelor’s degree in Exercise Science along with clinical exercise experience (<https://certification.acsm.org/acsm-certified-clinical-exercise-physiologist>). ACSM’s Registered Clinical Exercise Physiologist requires a Master’s-level degree in Exercise Science, Exercise Physiology, or Kinesiology and clinical experience (<https://certification.acsm.org/acsm-registered-clinical-exercise-physiologist>). All RDNs are required to hold a Bachelor’s degree, complete coursework approved by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy including nutrition science,



medical nutrition therapy, biochemistry, food science, counseling skills, and behavior modification (<http://www.eatrightacend.org/ACEND/content.aspx?id=6442485414>). They also must successfully complete a minimum of 1,200 hours in a supervised practice program before taking and passing a national examination administered by the Commission on Dietetic Registration (CDR). Both RDNs and ACSM Certs must complete annual continuing education hours to maintain their registration or certification. Upon completing two years of practice, RDNs become eligible to earn advanced certification through CDR in sports nutrition as a certified specialist in sport dietetics (CSSD) (<http://www.scandpg.org/sports-nutrition/be-a-board-certified-sports-dietitian-cssd/>) or can complete certificate programs in adult weight management (<https://www.cdrnet.org/weight-management-adult-program>) or childhood and adolescent weight management (<https://www.cdrnet.org/weight-management-childhood-adolescent-program>). Only the CSSD requires knowledge of exercise physiology, but all require knowledge of the role of PA in weight management. It is important to note that regardless of advanced training and/or certification, RDNs would not be working within their SOP if they provided a specific exercise training program to a client without also being a certified exercise professional. The interested reader is referred to an extensive table outlining educational requirements published elsewhere (9).

### Evidence-Based Weight Management

Energy balance is dynamic in nature, and intervening on one side of the energy balance equation affects the other side in a variety of ways that are only beginning to be understood (9). Despite the lack of extensive training in the opposite field, ACSM Certs and RDNs working in weight management must have a thorough grasp of the science of dynamic energy balance, and each must address both sides of the energy balance equation (9). In addition, both professionals need the skills required to understand the specific needs of their client and address behavioral issues necessary to affect positive change.

The obesogenic environment and exposure to misinformation through the Internet and media add to the challenges faced by would-be weight reducers and must be addressed. Although research clearly demonstrates the complexities involved in designing appropriate interventions for weight loss and maintenance, incomplete and out-of-context summaries of research articles publicized by the media muddy the picture for the layperson. In one recent example, “To Keep Obesity at Bay, Exercise May Trump Diet,” published in the *New York Times* (*NYT*) (Reynolds May 4, 2016) reported on an animal study published in ACSM’s flagship journal, *Medicine & Science in Sports & Exercise*.<sup>®</sup> In this study, young normal weight but obesity-prone rats were placed in one of three groups: exercise, calorie restricted, or control (19). The diets of the calorie-restricted rats were adjusted based on daily weights to ensure similar weight loss to the exercise group, which allowed researchers to compare the metabolic effects of weight loss from exercise versus caloric

restriction. Both exercise and caloric-restricted animal groups experienced metabolic improvements with weight loss, but the exercise group also experienced improvements in fat oxidation and insulin resistance that typically occur with exercise training. Overall, both groups experienced metabolic improvements with weight loss, but the exercise group experienced additional metabolic benefits beyond those seen with caloric restriction alone. Although this study represents an important contribution to the literature, the misleading title of the *NYT* article inferred more effective weight loss from exercise versus diet, contributing to the misunderstandings surrounding this area of enormous public interest (8). Such misrepresentations demonstrate why both ACSM Certs and RDNs must be able to critically evaluate media interpretations of research and place them in context for their clients.

A precise prescription for successful weight loss does not exist for either diet or PA. Exercise without a reduction in energy intake, although providing overall health benefits, has been found to result in limited weight loss (7,15,16). Conversely, creating an energy deficit by restricting caloric intake alone will result in weight loss but is likely to have negative metabolic consequences such as excessive loss of lean mass and decreases in resting metabolic rate that will make maintenance difficult (2,13).

The CDC public health guidelines for weight loss include a reduction in energy intake by 500 to 1,000 kcals per day and inclusion of 60 to 90 minutes of moderate-intensity PA most days of the week, thus addressing both energy intake and energy expenditure (5). The inability of researchers to identify a single optimal protocol beyond these broad guidelines is likely due to the substantial individual variability observed in response to weight loss interventions, highlighting the need for skilled assessment and implementation of individualized nutrition and PA strategies.

ACSM and the Academy each provide guidance for evidence-based weight management strategies (1,7,12). Tables 2 and 3 illustrate the guidance that each organization provides to their professionals related to weight management, with the documents focusing on what their respective professionals can do to help clients lose weight, yet they do not outline how the two professions should or could work together.

### Working Together to Integrate Nutrition and Physical Activity

ACSM Certs and RDNs are committed to using an evidence-based approach to weight management, thus helping clients develop healthy eating and PA patterns that will enable them to achieve and maintain a healthy body weight and reduce their risk of chronic disease. Our survey found that 51.1% of RDNs referred clients to ACSM Certs for credible information on PA, and 72.2% of ACSM Certs referred clients to RDNs for credible information on healthful eating (10). The most frequent reason cited for referral selection was trust in the credential, and

## PROFESSIONAL COLLABORATION: WEIGHT MANAGEMENT

most reported science-based recommendations and individualized attention as the primary benefit to clients by both RDNs (84.7%) and ACSM Certs (90.9%) (10).

Working together to meet their client's respective needs strengthens both the RDN and ACSM Cert. Furthermore, focusing on one's own area of expertise and knowing when it is appropriate to refer to the other expert maintains credibility for each respective profession. Ultimately, it is this professionalism that helps clients persevere in making progressive changes rather than giving up prematurely, a victim of unrealistic expectations generated in part by advertisements for weight loss foods and products and some media. By working together, the two professionals can strengthen the public health message that a successful weight management program is a function of both purposeful PA and prudent diet changes because each intrinsically enhances the other.

---

**Working together to meet their client's respective needs strengthens both the RDN and ACSM Cert. Furthermore, focusing on one's own area of expertise and knowing when it is appropriate to refer to the other expert maintains credibility for each respective profession. Ultimately, it is this professionalism that helps clients persevere in making progressive changes rather than giving up prematurely, a victim of unrealistic expectations generated in part by advertisements for weight loss foods and products and some media.**

---

Through networking and sharing information, RDNs and ACSM Certs can build relationships that enhance the weight



**TABLE 2: Summary of Weight Management Recommendations From ACSM's Guidelines for Exercise Testing and Prescription (11)**

Target of at least 5%–10% reduction in body weight over 3–6 mo
Target changing eating and exercise behaviors
Target reducing energy intake by 500–1,000 kcals/d
Progressively increase moderate-intensity physical activity to a minimum of 150 min/wk
Progress to >250 min/wk to promote long-term weight control
Include resistance exercise in addition to aerobic exercise and reductions in energy intake
Incorporate behavior modification strategies to facilitate change
Enhance communication between health care professionals, dietitians, and health/fitness and clinical exercise professionals and individuals with overweight and obesity after the initial weight loss period.

management outcomes of their clients. Some suggestions to begin working together are provided as follows:

- Make an effort to find members of the opposite profession who work in weight management. Get to know the type of services provided and insurance policies that cover these services. These interactions will increase awareness of the services available to your client and the trained professionals you can make referrals to.
- Attend an Academy or ACSM meeting, particularly when it is in your area. Both offer sessions on nutrition and PA. In this way, you become aware of research and experts in the other profession and can begin to build bridges.
- Invite members of the opposite profession to presentations or workshops in your area that they may benefit from and ask them to do the same for you.
- Speak with individuals and identify those with whom you share a philosophy toward weight management to make client referrals.

This dualistic approach combining the talents and expertise of both RDNs and ACSM Certs makes realistic weight loss goals and achievable lifestyle changes possible and helps steer clients away from popular but unfounded claims such as “lose 40 pounds in 40 days!”

### When to Refer

RDNs work within their SOP when they encourage adherence to the 2008 Physical Activity Guidelines (18), but should refer to an exercise professional when a client needs assistance in implementing PA guidelines, would benefit from a risk assessment, baseline testing, individualized exercise program, or when safety is a concern (12,14). Referral to an ACSM Cert may be especially important for obese clients needing extra assistance in meeting their PA goals in a safe and comfortable manner (6).

**TABLE 3: Academy of Nutrition and Dietetics Evidence-Based Nutrition Practice Guidelines for Adult Weight Management for RDNs (1)**

Nutrition assessment	Obtain height (m) and weight (kg), body mass index (kg/m <sup>2</sup> ), waist circumference (cm), and body composition if available
	Obtain biochemical data and medical tests as appropriate including blood pressure, fasting blood lipid profile, and glucose from medical files
	<ul style="list-style-type: none"> <li>• Obtain food- and nutrition-related history including beliefs and attitudes (including food preferences and motivation)</li> <li>• Food environment, including access to fruits and vegetables, cooking facilities</li> <li>• Dietary behaviors, including eating out</li> <li>• Diet experience, including food allergies and past dieting history</li> <li>• Medications and supplements</li> <li>• Physical activity — current and past and screen time</li> </ul>
	Client and family medical history
	Determine energy requirements by measuring resting metabolic rate or using a validated equation multiplied by the appropriate physical activity factor
	Determine typical energy and nutrient intake data
	Assess motivation, readiness to change, and self-efficacy based on behavior change theories and models
	Dietary intervention
Collaborate with individual to set realistic goals such as loss of up to 2 lbs weekly or 10% of body weight	
Prescribe individualized diet to reduce energy intake (kcal/d) based on patient preferences, health status, nutritional adequacy, and level of physical activity	
Create energy deficit of 500–750 kcal/d using an evidence-based diet	
Individualize meal pattern to distribute calories throughout the day	
Encourage physical activity, progressively increase to 150–420 min or more per week depending on intensity and medical status	
Incorporate one or more of the following strategies: self-monitoring, motivational interviewing, structured meal plans, meal replacements and portion control, goal setting, and problem solving	
Coordinate care with interdisciplinary team	
Monitoring and evaluation	
Monitor food- and nutrition-related history, biochemical data, and medical tests	
Reassess energy needs if weight loss is not occurring as expected	

ACSM Certs work within their SOP when they encourage adherence to the Dietary Guidelines for Americans (7) (Table 4). The job task analysis of the ACSM Cert addresses the need for collaboration between professions for optimal outcomes, but specific criteria for identifying individuals for referral to a nutrition professional have not been developed. However, the ACSM’s Position Stand for Weight Management includes the following statement:

- “Exercise professionals should be cautioned regarding the provision of dietary advice to overweight and obese adults. In particular, caution is advised when chronic disease risk

**TABLE 4: 2015–2020 Dietary Guidelines for Americans (17)**

Key Recommendations
<b>Consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.</b>
<b>A healthy eating pattern includes:</b>
<ul style="list-style-type: none"> <li>• A variety of vegetables from all of the subgroups — dark green, red and orange, legumes (beans and peas), starchy, and other</li> <li>• Fruits, especially whole fruits</li> <li>• Grains, at least half of which are whole grains</li> <li>• Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages</li> <li>• A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), nuts, seeds, and soy products</li> <li>• Oils</li> </ul>
<b>A healthy eating pattern limits:</b>
<ul style="list-style-type: none"> <li>• Saturated fats and <i>trans</i> fats, added sugars, and sodium</li> </ul>
Key recommendations that are quantitative are provided for several components of the diet that should be limited. These components are of particular public health concern in the United States, and the specified limits can help individuals achieve healthy eating patterns within calorie limits:
<ul style="list-style-type: none"> <li>• Consume less than 10% of calories per day from added sugars</li> <li>• Consume less than 10% of calories per day from saturated fats</li> <li>• Consume less than 2,300 mg per day of sodium</li> <li>• If alcohol is consumed, it should be consumed in moderation — up to 1 drink per day for women and up to 2 drinks per day for men — and only by adults of legal drinking age.</li> </ul>

Healthy Mediterranean style and healthy vegetarian are identified as alternative eating patterns (<https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/>).

## PROFESSIONAL COLLABORATION: WEIGHT MANAGEMENT

factors or known chronic disease are present. Providing specific diet recommendations may be outside the SOP for the exercise professional, and the appropriate course of action may require referral to a registered dietitian” (7) (pg 164).

The following criteria are suggested for identifying individuals who would benefit from referral to an RDN:

- Need for individualized diet prescription beyond Dietary Guidelines for Americans (<https://health.gov/dietaryguidelines/2015/>) and MyPlate recommendations (<https://www.choosemyplate.gov/dietary-guidelines>).
- Need for medical nutrition therapy including, but not limited to, diabetes, hypertension, cardiovascular disease, and gastrointestinal disorders.
- Need for skilled counseling to prioritize dietary changes and overcome obstacles to behavior change related to food choices and meal patterns.
- Concern about possible disordered eating/unhealthy relationship with food.

Not every client will need a team approach. For some, encouraging adherence to the Dietary Guidelines for Americans and the 2008 Physical Activity Guidelines will enable the client to achieve his or her health and fitness goals.

ACSM Certs and RDNs are each challenged by the client who believes that the best way to achieve weight goals is to spend hours in the gym while eating as little as possible. Together, both professionals can discuss dynamic energy balance and the need for a diet strategy that supports PA and an active lifestyle. As clients achieve greater success through science-based strategies delivered by professionals, the popularity of quick-fix schemes may diminish and the health of the nation improve.

### Sidebar: Case Study

The client is a 40-year-old obese man who was referred to a RDN by his physician on receiving a diagnosis of hyperlipidemia and hypertension. He played football in high school and college but became sedentary when he started his career and has gained 40 lbs over the past 18 years. He lost 15 to 20 lbs twice during this time by eliminating breads and starches, using a meal replacement shake for breakfast and lunch, and adopting an exercise program that included approximately 45-minute spin classes 4 to 5 days a week and his own home-based resistance training program. Weight was regained when he was unable to sustain the extreme dietary and exercise program for more than several weeks. He had not exercised regularly in 5 years.

The client identified the following goals:

- Have more energy
- Manage weight
- Avoid heart disease
- Feel better about his appearance

Client’s current demographic and biochemical profile.

	Baseline Data	Normal Range (12)
Height (inches)	70	—
Weight (lbs)	235	—
Body mass index (kg/m <sup>2</sup> )	33.7	<25
Waist circumference (inches)	41.25	<40
Total cholesterol (mg/dL)	240	<200
Triglycerides (mg/dL)	320	<150
Low-density lipoprotein (mg/dL)	140	<100
High-density lipoprotein (mg/dL)	25	>40
Fasting blood glucose (mg/dL)	110	60–99
Glycosylated hemoglobin (%)	5.8	<6.5
Blood pressure	160/100	<120/80

Client’s current dietary habits: The client reports eating little throughout the day but has a large dinner that typically consists of 12 oz of beef, mashed potatoes, and a salad with blue cheese dressing. Weekends will include bacon and eggs for breakfast, a large meat sandwich with water for lunch, and dinner at a restaurant. Typical alcohol intake is one to two beers two nights per week with dinner and a half bottle of wine and/or two servings of scotch once or twice on weekends.

Nutrition Assessment:

- Obese with central adiposity
- Uneven distribution of calories consumed throughout day and week
- Significant alcohol intake contributing to elevated triglycerides and positive energy balance
- Estimated energy requirements 2,936 calories daily

Initial nutrition plan:

- Distribute calories throughout the day by including breakfast and lunch
- Include whole grain breads and cereals
- Reduce saturated fat and cholesterol by reducing quantity of animal protein and selecting lean meats
- Increase unsaturated fats by preparing foods with olive oil, including fish two to three times weekly, and snacking on small portions of walnuts or almonds
- Include 1% fat or fat-free milk and yogurt
- Include three servings of fresh fruit and at least one cup of vegetables daily
- Reduce alcohol intake to two glasses of wine on weekends
- Refer to ACSM Cert for fitness assessment and individualized exercise program

- Support behavioral changes through the use of motivational interviewing, self-monitoring, realistic goal setting, overcoming obstacles, intuitive eating (focus on body cues for hunger and satiety), and addressing order of recommendations in a client-focused manner

#### Fitness assessment:

- History of sporadic exercise including both aerobic and strength training
- No known symptoms impeding initiation of regular exercise (14)
- Numerous coronary artery disease risk factors that should benefit from regular exercise, including obesity, hypertension, dyslipidemia, and elevated fasting blood glucose
- Risk factor profile indicates presence of metabolic syndrome

#### Initial exercise plan:

- Due to sporadic, but moderate-to-vigorous intensity of previous exercise, and no known signs or symptoms of disease, client can begin regular, moderate exercise (14)
- Moderate exercise should be initiated and maintained for approximately 3 months, at which time client can progress to vigorous exercise if so desired
- Moderate aerobic exercise targets should include a heart rate reserve (HRR) or  $VO_2$  reserve of 40% to 59%, a metabolic equivalent level of 3 to less than 6, or a rating of perceived exertion of 12 to 13 (Borg scale 6–20), which are all reflective of an intensity that causes noticeable increases in heart rate and breathing during exercise
- Client also should engage in resistance training 2 to 3 days per week, including most large muscle groups for 2 to 3 sets per day, with 8 to 12 repetitions

### Benefits of Collaboration between RDN and ACSM Cert

#### Benefit to RDN:

- Client received individualized exercise prescription based on assessment
- Knew client was exercising regularly and safely
- ACSM Cert reinforced need to fuel before and after workouts and supported RDN's recommendations
- Continued communication allowed energy requirements to be adjusted as exercise tolerance increased
- Improved credibility by focusing on area of expertise and providing appropriate referral for exercise
- Improved compliance with both nutrition and exercise plans
- Improved outcome because client was able to sustain lifestyle changes

#### Benefit to ACSM Cert:

- Client received individualized diet prescription based on assessment
- Nutrition plan addressed medical needs
- Nutrition plan supported physical activity needs
- Nutrition counseling and motivational interviewing helped advance change
- Improved credibility by focusing on area of expertise

#### Benefits to client:

- Felt good about having a team working together to help him achieve his goals
- Repeated messages from each member of the team provided additional support and motivation
- Improved compliance and sustainability
- Achieved goals of increased energy, reduced risk of heart disease, reduced weight, and improved body image

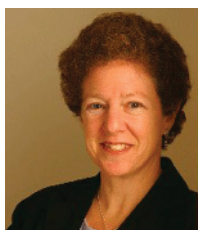
1. Ard JD, Miller G, Kahan S. Nutrition interventions for obesity. *Med Clin North Am*. 2016;100(6):1341–56.
2. For a healthful lifestyle: promoting cooperation among nutrition professionals and physical activity professionals. American College of Sports Medicine, the American Dietetic Association, International Food Information Council. *J Am Diet Assoc*. 1999;99(8):994–7.
3. Centers for Disease Control and Prevention Web site [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; [cited 2016 November 1]. Available from: <http://www.cdc.gov/chronicdisease/overview/index.htm>.
4. Centers for Disease Control and Prevention Web site [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; [cited 2016 November 1]. Available from: [https://www.cdc.gov/healthyweight/losing\\_weight/index.html](https://www.cdc.gov/healthyweight/losing_weight/index.html).
5. Dikareva A, Andersen R. Physical activity programming for clients with obesity: considerations for exercise professionals. *ACSMs Health Fit J*. 2016;20(4):21–7.
6. Donnelly JE, Blair SN, Jakicic JM, Manore MM, Rankin JW, Smith BK; American College of Sports Medicine. American College of Sports Medicine Position Stand. Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults. *Med Sci Sports Exerc*. 2009;41(2):459–71.
7. International Food Information Council Foundation Web site [Internet]. Washington (DC): International Food Information Council Foundation; [cited 2016 October 20]. Available from: <http://www.foodinsight.org/articles/2016-food-and-health-survey-food-decision-2016-impact-growing-national-food-dialogue>.
8. Manore MM, Brown K, Houtkooper L, et al. Energy balance at a crossroads: translating the science into action. *Med Sci Sports Exerc*. 2014;46(7):1466–73.
9. Manore MM, Hand RK, Liguori G, et al. Knowledge and beliefs that promote or hinder collaboration among registered dietitian nutritionists and certified exercise professionals—results of a survey. *J Acad Nutr Diet*. 2017;117(2):280–96.
10. NORC at the University of Chicago Web site [Internet]. Chicago (IL): NORC at the University of Chicago; [cited 2016 November 10]. Available from: <http://www.norc.org/PDFs/ASMBSoesity/IssueBriefASMBSNORCObesityPoll.pdf>.
11. Pescatello LS. *ACSM's Guidelines for Exercise Testing and Prescription*. 9th ed. Philadelphia (PA): Lippincott Williams & Wilkins; 2014.
12. Academy of Nutrition and Dietetics Evidence Analysis Library. Adult Weight Management Evidence-Based Nutrition Practice Guideline Executive Summary. Updated 2014. Accessed March 14, 2016. <http://andeal.org/topic.cfm?menu=5276&cat=4690>.
13. Redman LM, Heilbronn LK, Martin CK, et al.; Pennington CALERIE Team. Metabolic and behavioral compensations in response to caloric restriction: implications for the maintenance of weight loss. *PLoS One*. 2009;4(2):e4377.
14. Riebe D, Franklin BA, Thompson PD, et al. Updating ACSM's Recommendations for Exercise Preparticipation Health Screening. *Med Sci Sports Exerc*. 2015; 47(11):2473–9.



## PROFESSIONAL COLLABORATION: WEIGHT MANAGEMENT

15. Thomas DM, Bouchard C, Church T, et al. Why do individuals not lose more weight from an exercise intervention at a defined dose? An energy balance analysis. *Obes Rev.* 2012;13(10):835–47.
16. Thorogood A, Mottillo S, Shimony A, et al. Isolated aerobic exercise and weight loss: a systematic review and meta-analysis of randomized controlled trials. *Am J Med.* 2011;124(8):747–55.
17. U.S. Department of Health and Human Services and U.S. Department of Agriculture Web sites [Internet]. Washington (DC): U.S. Department of Health and Human Services and U.S. Department of Agriculture; [cited 2016 October 10]. Available from: <http://health.gov/dietaryguidelines/2015/guidelines/>.
18. U.S. Department of Health and Human Services Web site [Internet]. Washington (DC): U.S. Department of Health and Human Services; [cited 2016 October 10]. Available from: <http://www.health.gov/paguidelines/guidelines/>.
19. Welly RJ, Liu TW, Zidon TM, et al. Comparison of diet versus exercise on metabolic function and gut microbiota in obese rats. *Med Sci Sports Exerc.* 2016;48(9):1688–98.
20. Yang L, Colditz GA. Prevalence of overweight and obesity in the United States, 2007–2012. *JAMA Intern Med.* 2015;175(8):1412–3.

**Disclosure:** Rosa Hand is an employee of the Academy of Nutrition and Dietetics, which received funding from ACSM and IFICF and provided an in-kind contribution of time to complete the survey described here. The other authors declare no conflicts of interest and do not have any financial disclosures.



**Karen Reznik Dolins, Ed.D., RDN, CSSD, CDN,** is adjunct professor of sports nutrition in the Department of Health and Behavior Studies at Teachers College, Columbia University. Dr. Dolins maintains a private practice helping clients improve health and physical performance through nutrition and exercise. She is a past chair of the Sports and Cardiovascular Nutrition practice group of the Academy of Nutrition and Dietetics and a recipient of their Achievement Award.



**Melinda M. Manore, Ph.D., RDN, CSSD, FACSM,** is a professor of Nutrition in the College of Public Health and Human Sciences, Oregon State University. Dr. Manore's research focuses on the role of nutrition and exercise in health and performance, with special emphasis in energy balance and obesity prevention. She currently is the coauthor of four textbooks, one of which is on nutrition and exercise. She has served on the editorial boards of numerous journals including *Medicine & Science in Sports & Exercise*®, ACSM's *Health & Fitness Journal*®, and the *Journal of the Academy of Nutrition and Dietetics*. Dr. Manore received ACSM's Citation Award in 2016, ACSM's President's Lecture in 2012, and the Academy's SCAN Distinguished Scholar award in 2011. She also served on the President's Council on Fitness, Sport and Nutrition Science Board from 2011 to 2013.



**Rosa K. Hand, M.S., RDN, LD, FAND,** is the director of the Dietetics Practice-Based Research Network at the Academy of Nutrition and Dietetics, where she conducts research in a variety of nutrition and dietetics topic areas. Research interests include using survey methodology to illuminate professional practice patterns and evidence-practice gaps.



**Gary Liguori, Ph.D., FACSM,** is the founding dean, College of Health Sciences, at the University of Rhode Island, and a professor of Kinesiology. Dr. Liguori also is an associate editor of ACSM's Guidelines for Exercise Testing and Prescription, 10th edition, and senior editor of both ACSM's first edition Resources for the Health Fitness Specialist and ACSM's 5th edition Health-Related Physical Fitness Assessment Manual.

### BRIDGING THE GAP

Weight management is an important issue for many Americans because it is closely linked to overall health and the ability to lead an active lifestyle. The Academy of Nutrition and Dietetics (Academy) and the American College of Sports Medicine (ACSM) each have professional members who are registered, licensed, or certified to help individuals reach these personal weight- and health-related goals. There are times, however, that the needs of a given client may fall outside the scope of practice for either professional. This article summarizes the results of an ACSM/Academy member survey that examined how Registered Dietitian Nutritionists (RDNs) and ACSM certified exercise professionals (ACSM Certs) provide healthful eating and physical activity advice to clients related to weight management, including where roles overlap and gaps exist. By working together (e.g., through purposefully seeking each other out, sharing information, making appropriate referrals, and attending lectures and workshops in the other area) these two professions can build relationships that integrate dynamic energy balance and enhance the weight management outcomes of their clients.