

Health and Wellness Coaching Improves Weight and Nutrition Behaviors



Abstract: *Most Americans have an eating pattern inconsistent with the Dietary Guidelines, putting them at risk for obesity and chronic disease. Health and wellness coaching (HWC) for lifestyle behavior change is emerging as a potentially effective tool to prevent and treat chronic disease. A systematic literature review identified 11 randomized controlled trials studying the use of HWC for improving nutrition-related biomarkers and eating behaviors. These trials demonstrate efficacy of HWC across diverse populations and treatment modalities. Almost all (82%) of the trials showed an improvement in at least one outcome. The most commonly studied outcomes were weight, blood pressure, and fruit, vegetable, and fat intake. There are several gaps in the research. The assessment of nutrition-related behaviors can be expanded to include assessment of diet quality and eating patterns associated with chronic disease prevention. Research is needed to evaluate HWC for nutrition-related biomarkers and behaviors in understudied populations with known health disparities. In addition, the health coaching dosage for long-term maintenance of changed outcomes and behaviors is inconsistent*

or unknown. These gaps will be important to address to determine policies and best practices for future application of HWC.

Keywords: health coaching; obesity; nutrition behavior; fruits; vegetables; randomized controlled trials

Additionally, suboptimal diet is responsible for 14% of all disability-adjusted life-years lost.⁴

Two of every 3 US adults and almost 1 of every 3 US children are overweight or obese.⁵ High rates of obesity are responsible for rising health care costs. Obese adults spend

 Health and wellness coaching (HWC) for lifestyle behavior change is emerging as a potentially effective tool to prevent and treat chronic disease. 

Most Americans have an eating pattern inconsistent with the Dietary Guidelines. A majority (1 year and older) eat too few vegetables, fruit, dairy, and oils, while overconsuming total calories, added sugars, saturated fats, and sodium.¹ These eating patterns are a major contributor to overweight and obesity and chronic disease (such as heart disease, cancer, and type 2 diabetes), which account for the leading causes of death in the United States.^{2,3}

42% more on direct health care costs than adults who are a healthy weight.⁶ A healthful diet (ie, *Dietary Guidelines for Americans*) is one of the most powerful strategies for preventing excess weight gain and protecting against chronic disease. Yet Americans struggle to change eating behaviors to be more consistent with the *Dietary Guidelines for Americans*. Racial and economic disparities persist, with little change in black and Hispanic adults and lower-income populations.⁷

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A multitude of effective strategies crossing various implementation modalities will be needed to combat the current negative trends in US health. Health and wellness coaching (HWC) for lifestyle behavior change is emerging as a potentially effective tool to prevent and treat chronic disease. Historically, the definition for “coaching” has not been universal, but recent reviews have defined coaching as a “client- or patient-centered process that assumes a working relationship/partnership develops between patient and clinician to advance healthy lifestyle behavior change.”⁸⁻¹⁰ Common characteristics of HWC include the following: (a) a coach who was trained and uses behavior change theory, (b) participatory patient who helps determine health goals, and (c) patient self-monitoring. Health coaches are trained health care professionals or well-trained peers.

A recent systematic review of the HWC literature identified 11 randomized controlled trials (RCTs) that met the HWC definition and evaluated the influence of HWC on clinical markers (eg, weight, blood pressure) and nutrition behaviors.⁸ This article reviews outcomes from these RCTs and discusses some important considerations for future research to advance this area of research.

HWC Improves Weight and Nutrition Behaviors in Diverse Populations

Of the 11 RCTs, almost half ($n = 5$; 45%) of the studies addressed obesity.¹¹⁻¹⁵ Other trials focused on hypertension ($n = 2$),^{16,17} cardiovascular disease ($n = 1$),¹⁸ and general wellness ($n = 2$).^{19,20} The frequency of health coaching was high; participants met with health coaches weekly or biweekly for as few as 8 weeks or as long as 12 months. Researchers studied the effect of HWC for clinical markers of weight, blood pressure, and cholesterol, as well as specific nutrition behaviors. The nutrition behaviors were most commonly fruit, vegetable, and fat intake measured using full-length food frequency questionnaires (eg, Block) or screeners (eg Block

Dietary Fat Screener). Almost all (82%) of the trials showed an improvement in at least one outcome.

HWC is effective across populations. The primary audience for many of the US-based studies were white or African American women of moderate income or higher. However, Bartels et al showed positive changes in weight and stages of change for eating behaviors among ethnically diverse (46% white) women and men with serious mental illness (eg, depression, schizophrenia). Weight loss persisted 6 months after the 12-month intervention ended.¹² In another study by Miller et al, researchers did not see improvements in weight but noted higher fruit and vegetable intakes among a lower income group of African American women with hypertension.¹⁷ HWC helped with weight loss in several other patient populations, including young and middle-aged adults with physical disabilities.¹⁵

HWC is effective for weight and nutrition behaviors across delivery modalities and using a variety of professional and trained peers as health coaches. Participants had positive outcomes after communicating with health coaches face-to-face or using telehealth and email. Often a combination of services was used, with an initial in-person session followed by phone consults and online responses. These findings are important given the rising use of telemedicine to improve access, reduce costs, and enhance health outcomes for patients.²¹ Health coaching was delivered with individuals^{12,13,15} and groups.¹⁶ Dietitians, nurses, and social workers are trained health professionals adept at delivering patient-centered services for weight loss and nutrition behavior change. The literature, however, also shows it is effective to use trained peer educators. For example, Leahey and Wing evaluated 3 types of coaching models for obesity treatment among a small sample of middle-class white women: professional (weight loss interventionist), peer (another member of the weight loss group), and mentor (successful weight losers). Participants in the professional and peer coaching

conditions lost 9.6% and 9.1% of initial body weight at the 6-month mark, and the mentor group lost 5.7%.¹⁴ Larger studies are needed to confirm results and determine best practices for selecting health coaching models.

Future Research Considerations

Based on the current literature, HWC appears to be an effective strategy for improving clinical outcomes (especially weight) and for helping individuals eat more fruits and vegetables. However, there are some limitations to the literature. For example, only 1 RCT offered a comprehensive evaluation of diet quality.¹⁶ Little is known about the influence of HWC on other eating behaviors critical to the prevention and treatment of obesity and chronic disease. In fact, rather than concentrating on total fat, the current focus for improving nutrition behaviors centers on reducing highly processed foods rich in refined grains, starch, added sugars, and salt while increasing nuts, seeds, beans, fish, and yogurt in addition to fruits and nonstarchy vegetables.⁷ Future HWC evaluation should explore these variables and eating patterns (eg, Mediterranean) associated with lower rates of chronic illness.

RCTs with nutrition behavior outcomes are limited to topics of cardiovascular disease and hypertension, obesity, and general wellness. Studies evaluating use of HWC for patient populations with (or at high risk for) cancer and type 2 diabetes are important gaps to fill. About 38.4% of Americans will be diagnosed with cancer at some point in their lifetime,²² and the number of Americans with diagnosed diabetes is projected to increase 165% from 4.0% to 7.2% by the year 2050.²³ HWC shows promise to be effective for diverse populations, yet research should continue to concentrate on health disparate populations. For example, black males are understudied in HWC RCTs, and they are expected to be the fastest growing ethnic group with diagnosed diabetes with projected increases of +363% from 2000 to 2050 compared to +107% of white females.²³

Nutrition behavior change can be difficult to achieve and even more difficult to maintain. The dosage of HWC to maintain behavior change is not known. Over half of the RCTs did not report follow-up data. One study reported outcomes were maintained 3 months after tele-coaching ended.¹³ Two studies showed weight loss persisted 6 months after the intervention ended,^{11,12} while one study reported participants reverted back to baseline a year after a 6-month intervention.¹⁶ Thus, long-term maintenance of nutrition behavior change is largely inconsistent or unknown. Future work in this area can inform policy and best practice.

HWC is emerging as an important strategy for the prevention and treatment of obesity and chronic disease across diverse populations. HWC can improve nutrition-related biomarkers (weight, blood pressure) and improve eating behaviors related to fruits, vegetables, and fat. Successful modalities include in-person, telehealth, and Internet-based communication with individuals as well as groups. Continued investigation of critical behaviors related to diet quality in health disparate populations and determining best practices for health behavior maintenance are important points to consider.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.


Ethical Approval

Not applicable, because this article does not contain any studies with human or animal subjects.

Informed Consent

Not applicable, because this article does not contain any studies with human or animal subjects.

Trial Registration

Not applicable, because this article does not contain any clinical trials. 

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