



Weight-Control Methods, 3-Year Weight Change, and Eating Behaviors: A Prospective Nationwide Study of Middle-Aged New Zealand Women



Sook Ling Leong, PhD; Andrew Gray; Jillian Haszard, PhD; Caroline Horwath, PhD

ARTICLE INFORMATION

Article history:

Submitted 10 December 2015

Accepted 18 February 2016

Available online 7 April 2016

Keywords:

Weight-control methods

Middle-aged women

Weight change

Longitudinal study

2212-2672/Copyright © 2016 by the Academy of Nutrition and Dietetics.

<http://dx.doi.org/10.1016/j.jand.2016.02.021>

ABSTRACT

Background The effectiveness of women's weight-control methods and the influences of dieting on eating behaviors remain unclear.

Objectives Our aim was to determine the association of various weight-control methods at baseline with weight change to 3 years, and examine the association between baseline weight-control status (trying to lose weight, trying to prevent weight gain or no weight-control attempts) and changes in intuitive eating and binge eating at 3 years.

Design A nationally representative sample of 1,601 New Zealand women (40 to 50 years) was recruited and completed a self-administered questionnaire at baseline regarding use of variety of weight-control methods. Information on demographic characteristics, weight, height, food habits, binge eating, and intuitive eating were collected at baseline and 3 years.

Statistical analyses Linear and logistic regression models examined associations between both weight status and weight-control methods at baseline and weight change to 3 years; and baseline weight-control status and change in intuitive eating from baseline to 3 years and binge eating at 3 years. χ^2 tests were used to cross-sectionally compare food habits across the weight status categories at both baseline and 3 years.

Results Trying to lose weight and the use of weight-control methods at baseline were not associated with change in body weight to 3 years. There were a few differences in the frequency of consumption of high-energy-density foods between those trying to lose or maintain weight and those not attempting weight control. Trying to lose weight at baseline was associated with a 2.0-unit (95% CI 0.7 to 3.4, $P=0.003$) reduction in intuitive eating scores by 3 years (potential range=21 to 105), and 224% (odds ratio=3.24; 95% CI 1.69 to 6.20; $P<0.001$) higher odds of binge eating at 3 years.

Conclusions The apparent ineffectiveness of dieting and weight-control behaviors may reflect misconceptions about what constitutes healthy eating or energy-dense foods. Dieting may reduce women's ability to recognize hunger and satiety cues and place women at increased risk of binge eating.

J Acad Nutr Diet. 2016;116:1276-1284.

GIVEN THE PLETHORA OF WEIGHT-FOCUSED PUBLIC health messages, it is not surprising that dieting and engaging in various weight-control methods is common.^{1,2} In Australia and the United States, 50%

to 69% of middle-aged women (40 to 50 years old) report trying to lose weight.^{1,3}

Longitudinal studies have revealed that women's self-reported weight-control strategies were ineffective for weight loss or weight maintenance,^{1,3,4} with women using unhealthy weight-control methods (ie, ingesting laxatives, diet pills, diuretics pills, and smoking) gaining more weight over time than those using only healthy weight-control methods (ie, reducing fat intake, increasing physical activity).⁴ In the Australian Longitudinal Study of Women's Health, among middle-aged women who used healthy weight-control methods, those who used a single method gained less weight over 2 years (0.8 kg) than those who used three or more methods (1.2 kg).³ Women who used potentially health-damaging weight-control methods had a higher mean

Available below are the current Continuing Professional Education (CPE) articles for each month. CPE quizzes for these articles may be taken at www.eatrightPRO.org. Simply log in with your Academy of Nutrition and Dietetics or Commission on Dietetic Registration username and password, go to the My Account section of My Academy Toolbar, click the "Access Quiz" link, click "Journal Article Quiz" on the next page, then click the "Additional Journal CPE quizzes" button to view a list of available quizzes.

Non-members may take CPE quizzes by sending a request to journal@eatright.org. There is a fee of \$45 per article for non-member Journal CPE. CPE quizzes are valid for 1 year after the issue date in which the articles are published.

weight gain over 2 years (1.5 kg) than those who did not employ such strategies (1.1 kg).³

These results are disconcerting, as one may expect weight-control strategies to be associated with weight loss over time. Misconceptions regarding sources of dietary fat or energy may be a contributing factor.⁵ Another plausible explanation for the ineffectiveness of women's weight-control attempts is that dieting may lessen an individual's ability to recognize and respond to hunger and satiety cues, leaving dieters susceptible to episodes of uncontrolled eating. Longitudinal studies among adolescents have shown that dieting increased the risk of binge eating 1 and 5 years later,^{6,7} which in turn was associated with an increase in body mass index (BMI; calculated as kg/m²) at 5 years. Furthermore, young female adults who eat in response to hunger and satiety signals (ie, intuitive eating) had lower odds of binge eating, dieting, and unhealthy weight-control methods compared with those whose eating is not guided by body signals.⁸

Among the nationally representative cohort of 40- to 50-year-old New Zealand women recruited for the present study, we have previously reported that at baseline, 39% of the sample was trying to lose weight and another 42% were trying to prevent weight gain.⁹ Consistent with other studies,^{1,3,4} our baseline survey showed that women were most commonly using weight-control methods consistent with recommendations by health authorities (ie, decreasing consumption of fats and/or sugars, cutting down on size of meals/between meals snacks and exercising).⁹

Building on results from our baseline study, the specific objectives of this study were to examine the effectiveness of baseline weight-control methods in terms of 3-year weight change; cross-sectionally compare food habits across the weight-control status categories (trying to lose weight, trying to prevent weight gain, or no weight-control attempts) at both baseline and 3 years; and examine the longitudinal associations between baseline weight-control status and changes in intuitive eating (ie, eating in response to hunger and satiety cues) from baseline to 3 years and binge eating at 3 years.

METHODS

Study Design and Participants

The cohort for the study was randomly selected in May 2009 from the nationwide General and Māori electoral rolls (all New Zealand residents eligible to vote). A 66% response rate (n=1,601) was achieved and respondents were representative of the New Zealand population in terms of socioeconomic status and percentage identifying as Māori.¹⁰ Among those who consented and were eligible to participate in the longitudinal study (n=1,373), 1,125 responded at 2 years (82% retention rate) and 1,318 agree to be recontacted at 3 years. At 3 years, 1,025 (78% retention rate) women responded. Mail survey procedures, exclusion criteria, and use of incentives for all surveys were similar and have been previously described.¹⁰⁻¹³

This study was approved by the University of Otago Ethics Committee and the Ngāi Tahu Research Consultation Committee. For all surveys, participants were informed in the cover letter that by completing and returning the questionnaire, this would be taken as their informed consent to participate in the study.

Measures

Weight-Control Methods and Weight-Control Status.

The baseline questionnaire included a 12-item weight-control methods instrument that was a modified version⁹ of the 9-item instrument used in Survey 2 of the Australian Longitudinal Study of Women's Health, 1999 (47- to 52-year-olds).¹⁴ The original items included were "commercial weight loss programs," "meal replacements or slimming products," "cut down on size of meals or between meal snacks," "cut down on fats and/or sugars," "fasting," and "smoking." After pretesting of the questionnaire, the original item "laxatives, diuretics and diet pills" was separated into two items, "laxatives or diuretics" and "diet pills." The original item "exercise" was modified to "exercise in a driven or compulsive way" and, in addition, respondents were asked in a separate section of the questionnaire to respond "yes" or "no" to the statement "I do physical activity predominantly to lose weight or control my shape or weight." Two items—"making yourself sick (ie, vomiting)" and "low glycemic index (GI) diet"—were added to the list, and the item "vegetarian diet" was removed.

The questionnaire was also modified from assessment of when the practices were last used ("in the last 12 months," "more than a year ago," "never") to assessing the frequency with which women engaged in each of the "methods to lose weight or to control your weight in the last 12 months." Participants were asked to choose one response from four options: "not at all," "less than weekly," "once a week," or "two or more times a week."

Women were also requested to describe their weight-control status at baseline and again at 3 years by answering "yes" or "no" to the questions: "Are you currently trying to lose weight?" and "If no, are you currently trying to maintain your weight, that is, to keep from gaining weight?"

Food Habits

At baseline, the food habits section of the questionnaire was adapted from the previous New Zealand National Nutrition Survey, 1997.¹⁵ The questions evaluated the usual number of servings of fruits, vegetables, bread, and cereals consumed, as well as the frequency of consumption of selected high-fat foods (ie, chocolate-coated and/or cream-filled cookies; potato crisps, corn snacks or corn chips; cakes, scones, muffins, or sweet buns; meat pie or sausage roll; and burgers). Participants were asked to select from eight possible response options: never, less than once a month, one to three times a month, once a week, two to four times a week, five to six times a week, once a day and two or more times a day.

During the developmental phase of the New Zealand National Nutrition Survey, 1997, a repeatability study was conducted among 110 participants. Results showed that, on average the level of agreement in the frequency of reported food intake over 3 weeks was 89% for New Zealand Europeans, 92% for Māori, and 73% for Pacific People. Findings also showed that the repeatability of the questionnaire did not differ between males and females.¹⁶

At 3 years, in addition to the food items in baseline, 15 items (Table 1) from the Food Frequency Questionnaire for New Zealand adults¹⁷ were included. The reliability of this questionnaire over 9 months has been demonstrated in a convenience sample of 132 males and females between the ages of 30 and 59 years.¹⁷

Download English Version:

<https://daneshyari.com/en/article/2653049>

Download Persian Version:

<https://daneshyari.com/article/2653049>

[Daneshyari.com](https://daneshyari.com)