

# Calorie Labels on the Restaurant Menu: Is the Use of Weight-Control Behaviors Related to Ordering Decisions?

Nicole Larson, PhD, MPH, RDN; Ann F. Haynos, PhD; Christina A. Roberto, PhD; Katie A. Loth, PhD, MPH, RD; Dianne Neumark-Sztainer, PhD, MPH, RD

## ARTICLE INFORMATION

### Article history:

Submitted 23 May 2017

Accepted 9 November 2017

### Keywords:

Binge eating  
 Dieting  
 Menu labeling  
 Restaurants  
 Weight control

2212-2672/Copyright © 2018 by the Academy of Nutrition and Dietetics.

<https://doi.org/10.1016/j.jand.2017.11.007>

## ABSTRACT

**Background** There is emerging evidence that calorie information on restaurant menus does not similarly influence the ordering decisions of all population groups and may have unintended consequences for individuals who struggle with disordered eating or other weight-related concerns.

**Objective** This study describes demographic patterns in the use of calorie information on restaurant menus and investigates relationships between using this information to limit calorie intake and measures of restaurant visit frequency and weight-related concerns and behavior.

**Design/participants** There were 788 men and 1042 women (mean age=31.0±1.6 years) who participated in the fourth wave of the Project EAT study. Participants were initially recruited from Minneapolis-St Paul, MN, schools and completed EAT-IV surveys online or by mail from 2015 to 2016.

**Main outcome measures** Participants self-reported weight-related concerns, restaurant eating, intuitive eating, dieting, healthy (eg, exercise) and unhealthy (eg, use of laxatives) weight-control behaviors, and binge eating.

**Statistical analyses performed** Descriptive statistics and linear and logistic regression models accounting for demographics and weight status.

**Results** Approximately half of participants (52.7%) reported they had noticed calorie information while purchasing a meal or snack in a restaurant within the previous month. Among individuals who noticed calorie information, 38.2% reported they did not use it in deciding what to order. The most common use of calorie information was to avoid high-calorie menu items (50.1%) or to decide on a smaller portion (20.2%). Using menu labels to limit calories was related to binge eating among women and was associated with more weight-related concerns, dieting, and unhealthy weight-control behaviors among both women and men.

**Conclusions** Nutrition educators and other health care professionals should talk with clients who struggle with disordered eating or weight-related concerns to learn about their use of calorie information at restaurants, address any potential unintended consequences, and promote healthy uses of calorie information.

J Acad Nutr Diet. 2018; ■:■-■.

THE PROVISION OF CALORIE INFORMATION ON restaurant menus has been identified as one promising, cost-effective strategy for preventing obesity and related chronic diseases<sup>1,2</sup> and is currently scheduled to become a federal requirement for US chain restaurants in May 2018.<sup>3</sup> From an obesity prevention perspective, there is some evidence that menu labeling may encourage restaurants to offer lower-calorie menu items.<sup>4,5</sup> Calorie labels may also lead consumers to select lower-calorie choices in certain settings, such as full-service restaurants,<sup>4,6</sup> but there is growing evidence of disparities in consumer use of menu labeling (eg, used less by low-income consumers)<sup>7</sup> and potential unintended consequences for

consumers with eating or weight-related concerns.<sup>8</sup> Although researchers did not observe any unintended consequences for eating behavior after the introduction of menu calorie labels in one cafeteria study,<sup>9</sup> a randomized, controlled online study demonstrated that when individuals with anorexia nervosa or bulimia nervosa were asked to make hypothetical choices, they ordered items containing fewer calories, and those with binge eating disorder ordered items containing more calories in the presence of labels compared with the absence of labels.<sup>8</sup> Given the limited state of the literature and the mixed nature of results, more research is needed to understand the degree to which restaurant menu labeling may positively or negatively

influence individuals with varying eating and weight-related concerns.

National survey data indicate that more than half of adults who report noticing calorie information at restaurants also report using it to make ordering decisions.<sup>10</sup> Although prior research has identified demographic characteristics associated with reported use of menu calorie labels, few population-based studies have examined reasons for using the information among those engaging in healthy and unhealthy weight-related behaviors.<sup>11-13</sup> On the one hand, restaurant calorie labels may negatively affect the eating or psychosocial health of individuals with weight concerns; on the other hand, the provision of information may reduce feelings of anxiety when eating out among those who struggle with disordered eating (ie, a disturbed pattern of eating that involves unhealthy behaviors such as restrictive dieting, taking laxatives or diuretics to lose weight, or binge eating).<sup>14-17</sup> Calorie information on restaurant menus may also be less relevant for individuals who adhere to the philosophy of intuitive eating (ie, to eat when one is hungry and stop when satiated). Finally, reasons for use may differ based on frequency of restaurant visits and restaurant setting, given that effects of restaurant menu labeling appear to be stronger in certain settings such as full-service restaurants, coffee chains, and sandwich shops.<sup>4</sup>

This study aimed to extend the evidence base by describing the use of calorie information on restaurant menus among a population-based young adult sample and investigating relationships between use of this information to limit calorie intake and measures of restaurant visit frequency and weight-related concerns and behavior. Specifically, the study examined overall concern about weight, use of an intuitive approach to eating, dieting to lose weight, use of various healthy and unhealthy weight-control behaviors, and binge eating in relation to menu label use. It was hypothesized, on the basis of prior research findings, that greater concern about weight and use of weight-control behaviors would be related to a higher prevalence of using menu labels to limit calorie intake,<sup>8,13</sup> but no hypotheses specifically regarding use of different types of weight control (ie, healthy, unhealthy, or extreme) or binge eating were developed. Evidence of this nature is important to assist health care providers and programs in the development of strategies and messages to guide the public in using calorie labels at restaurants. In addition, the results may have implications for refinements to the federal menu labeling requirements.

## METHODS

### Sample and Study Design

Project EAT (Eating and Activity in Teens and Young Adults) is a large, population-based study on eating and weight-related outcomes that has included follow-up of young people from adolescence to adulthood. At the original assessment (1998 to 1999), a total of 4,746 adolescents enrolled at 31 public middle schools and senior high schools in the Minneapolis-St Paul metropolitan area of Minnesota completed surveys and anthropometric measures.<sup>18,19</sup>

Data for the cross-sectional analysis reported here are drawn from the fourth survey wave conducted from 2015 to 2016. Original participants who had responded to at least one previous follow-up survey wave were mailed letters inviting

## RESEARCH SNAPSHOT

**Research Question:** Is the use of restaurant menu labels for limiting calorie intake (ie, to help avoid high-calorie menu items or decide on a smaller portion) linked to weight-related concerns and behavior among young adults?

**Key Findings:** A population-based survey conducted from 2015 to 2016 revealed that 52.7% of respondents were aware of menu calorie information made available before national implementation of labeling requirements. Results indicated that using menu labels to limit calories is related to binge eating among women ( $P=0.02$ ) and associated with more weight-related concerns, dieting, and unhealthy weight-control behaviors among both women and men (all  $P\leq 0.01$ ).

them to complete the EAT-IV survey. EAT-IV survey data were collected online, by mail, or by phone from 66.1% of those for whom current contact information was available ( $N=2,770$ ), resulting in a final sample of 1,830 young adults.

All study protocols were approved by the University of Minnesota's Institutional Review Board Human Subjects Committee. Parental consent and written assent from participants were obtained in 1998 and 1999. For the fourth survey wave, participants were mailed a consent form with their paper survey or reviewed a consent form as part of the online survey. Completion of the follow-up survey implied written consent.

### Survey Development

The EAT-IV survey was based on surveys used in previous study waves but modified to assess age-appropriate topics and to explore issues of emerging interest. Because of the recent attention given to the provision of calorie information on restaurant menus, measures were added to assess whether this information was noticed and used in making ordering decisions. Focus groups involving 35 young adults were used to pretest an initial draft of the survey, and feedback was used to reword or eliminate problematic survey measures before fielding. Scale psychometric properties were examined in the full sample of responders to the EAT-IV survey, and estimates of item test-retest reliability, reported in the following section, were determined in a subgroup of 103 participants who completed the EAT-IV survey twice within a period of 1 to 4 weeks.

**Calorie Information on Restaurant Menus.** For the purpose of determining whether participants noticed calorie information on restaurant menus, they were first asked the following yes/no question: "In the past month, have you noticed any calorie information while purchasing a meal or snack in any type of restaurant (such as a coffee shop, fast-food restaurant, fast casual restaurant, or sit-down restaurant)?" (test-retest agreement=83%). If participants responded yes, they were asked, "How did you use that calorie information when deciding what to order? Please mark all that apply." Participants were given the options of indicating they had not used the calorie information or used the calorie information to "avoid ordering high-calorie menu items," "avoid ordering something that would leave them

Download English Version:

<https://daneshyari.com/en/article/8571879>

Download Persian Version:

<https://daneshyari.com/article/8571879>

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