



Eating behaviors among low-income obese adults in the United States: Does health care provider's advice carry any weight



Cori Lorts, Punam Ohri-Vachaspati *

School of Nutrition and Health Promotion, Arizona State University, 550 N. 3rd Street, Phoenix, AZ 85004, United States

ARTICLE INFO

Article history:

Received 8 October 2015

Received in revised form 19 January 2016

Accepted 6 February 2016

Available online 12 February 2016

Keywords:

Weight loss

Health care provider advice

Nutrition counseling

Obesity management

Primary care

ABSTRACT

The U.S. Preventive Task Force recommends that all patients be screened for obesity and given appropriate weight loss advice, if needed, as nutrition counseling by primary care physicians is a key objective for Healthy People 2020. This study assesses the association between health care provider's (HCP) advice to lose weight and eating behaviors among obese individuals. Data were collected using a household survey of adults in five New Jersey cities in 2009–10. Analyses presented are limited to 548 obese participants. Negative-binomial regression analysis determined the association of participants' eating behaviors and HCP's advice to lose weight, after adjusting for the participant's attempt to lose weight and demographic variables. Despite being obese, only 48% of the participants received weight loss advice from their HCP while 68% stated they were attempting to lose weight. HCP's advice to lose weight was associated with increased salad and fruit consumption (PR 1.3, 95% CI 1.06–1.61; PR 1.23, 95% CI 1.02–1.48). Attempting to lose weight was positively associated with a higher consumption of fruit (PR 1.39, 95% CI 1.13–1.72), vegetables (PR 1.22, 95% CI 1.07–1.39), and with eating fruits and vegetables as snacks (PR 1.62, 95% CI 1.28–2.05). Attempting to lose weight was negatively associated with consumption of sweet snacks (PR 0.68, 95% CI 0.49–0.94), sugar sweetened beverages (PR 0.71, 95% CI 0.58–0.87) and fast food (PR 0.77, 95% CI 0.62–0.97). There were no significant interactions between HCP's advice and attempts to lose weight. Obese adult's attempt to lose weight, and not HCP's advice to lose weight, was a predictor for healthy eating behaviors. Interventions in medical practices should train HCPs on effective strategies for motivating obese patients to adopt healthier lifestyles.

© 2016 Elsevier Inc. All rights reserved.

1. Introduction

The high rate of obesity among adults is a public health concern; more than one-third of adults in the United States are obese, 6.4% have extreme obesity (Ogden et al., 2014) and the rate of obesity has increased 134% since 1980 (LeBlanc et al., 2011). Obesity raises the risk for heart disease, diabetes, cancer, and stroke (Health, 1998). It is estimated that 20% of medical care costs in the United States are spent on obesity-related diseases, at \$209.7 billion annually (Cawley and Meyerhoefer, 2012). Healthy lifestyle choices, such as being physically active and eating nutrient-dense foods, can help prevent chronic disease (Chiuve et al., 2012; Lee et al., 2012). In order to prevent the development of chronic disease, effective strategies are needed to help obese individuals adopt healthy eating habits.

Nutrition and weight loss counseling are key strategies to improve the health of obese individuals. Eighty two percent of U.S. adults have seen a health care provider (HCP)¹ within the past year (Blackwell

et al., 2014) and nutrition counseling by primary care physicians is a key objective for Healthy People 2020 (U.S. Department of Health and Human Services). The U.S. Preventive Task Force recommends that all patients are screened for obesity and are given appropriate weight loss advice, if needed. Advice may include healthy eating for weight loss, physical activity, and behavioral management techniques (LeBlanc et al., 2011).

Unfortunately, many HCPs do not provide weight loss or nutrition counseling for overweight and obese individuals. Rates for weight-related counseling by HCPs range from 25% (Bleich et al., 2011) to 67% among obese populations (Pool et al., 2014). Many barriers exist for weight loss and nutrition counseling by HCPs, including lack of time, inadequate reimbursement, and lack of knowledge both on nutrition and effective counseling techniques (Kolasa and Rickett, 2010; Wynn et al., 2010). The U.S. National Heart, Lung and Blood Institute released evidence-based guidelines for the treatment of overweight and obese patients, but HCPs are not adequately using these recommendations (Antognoli et al., 2014; US National Heart, 2000). Weight loss advice varies by practice, individual HCP and by patient demographics, leaving most obese patients receiving no or inadequate weight loss advice (Anis et al., 2004; Bleich et al., 2011; Ko et al., 2008; Shiffman et al., 2009). The low prevalence of weight loss related advice by HCPs and the lack of

* Corresponding author.

E-mail addresses: Cori.Lorts@asu.edu (C. Lorts), Punam.Ohri-Vachaspati@asu.edu (P. Ohri-Vachaspati).

¹ HCP = health care provider.

adherence to national guidelines are two potential barriers to effectively helping obese individuals adopt healthier lifestyles.

Previous studies have explored the relationship between HCP's advice to lose weight with patient attempts to lose weight and with self-reported weight loss strategies of eating less fat and calories, but no studies published to date have looked at the consumption of specific foods or food groups (Bish et al., 2005; Jackson et al., 2013; Kabeer et al., 2001; Loureiro and Nayga, 2006; Rose et al., 2013; Sciamanna et al., 2000). This distinction is important because most individuals are not able to accurately estimate fat or calorie content of commonly consumed foods (Lichtman et al., 1992). Nutrient recommendations are often created for health professionals and are then translated in terms of food groups for the public to follow. Using data from a low-income, high minority obese sample, this study explores the relationship between HCP's advice to lose weight and consumption of key energy and nutrient-dense foods. We also examine how obese individuals' own efforts to lose weight are associated with eating behaviors. We hypothesize that HCP's advice to lose weight and individual's attempts to lose weight will be independently and positively associated with healthier eating behaviors while being negatively associated with negative eating behaviors.

2. Methods

2.1. Data source

The data used in this study were collected using a random-digit-dial household phone survey between 2009 and 2010. Interviews were conducted with 1708 adults in five cities in New Jersey: Camden, Newark, New Brunswick, Trenton, and Vineland. Eligible households had at least one child aged three to 18 years. The respondent of the survey was the adult who made most of the food purchasing decisions for the household. Interviews were conducted in both English and Spanish and participants were given an incentive of \$10 for their participation. Each interview took on average 36 min to complete. The survey instruments were field tested and the interviewers were trained to ensure high quality of data collected.

The survey was divided into 10 sections: introduction/household inventory, health status, height/weight, food environment, physical environment for activity, child behavior, adult behavior, health care coverage, employment and earnings, and demographics. This study used self-report answers from respondents of their demographics, health behaviors, and eating habits.

2.2. Study sample

The analysis presented here are limited to 548 obese adults with complete data on all variables used in the analysis. Obesity was categorized as a Body Mass Index (BMI) greater than or equal to 30. Obesity was then broken into two categories, following the National Heart, Lung, and Blood Institute guidelines: obesity, BMI 30–39, and extreme obesity, BMI 40 and greater (US National Heart, 2000). Participant BMI was calculated from self-reported height and weight. BMI based on self-reported data is highly correlated with professionally measured BMI (McAdams et al., 2007).

2.3. Outcome variables

A total of 12 eating behaviors were chosen as outcomes based on energy and nutrient density, as well as their association with obesity (Khan et al., 2009; Sanchez et al., 2009). Frequency-based questions used to determine eating behaviors were adapted from previously validated items and have been shown to have significant correlations with 24-hour recalls (Murphy et al., 2001; Nelson and Lytle, 2009) as well as have high test–retest reliability (Nelson and Lytle, 2009). Questions were also adapted from the Behavior Risk Factor Surveillance Survey and 2009–10 National Health and Nutrition Examination Survey (Centers for Disease Control and Prevention; Centers for Disease Control and Prevention). For each type of food or beverage included, participants were asked, "How often do you eat/drink (food/beverage item)." Response options included times per day, per week or per month. Daily consumption frequency was calculated for ten eating behaviors (fruit, vegetables, soda, sweet snacks, salty snacks, salad, eating fruits and vegetables as snack (FV snacks), fruit drinks,

fruit juice, and total sugar sweetened beverages) and weekly consumption frequency for fast food and breakfast.

2.4. Explanatory variables

Information on age, gender, race/ethnicity, education, income, height, and weight were collected from each respondent. The respondent's attempt to lose weight was determined by the question, "Are you doing anything to lose weight?" with possible responses of "yes", "no", "don't know" or refusal to answer. Health care provider's advice to lose weight was determined by the question, "In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?" Responses categories included "yes, lose weight", "yes, gain weight", "yes, maintain weight", "no advice given about weight", "don't know/not sure" or refusal to answer. Those responding "yes, lose weight" were coded as 1 for HCP's advice to lose weight while those who received no advice were coded as 0. Due to potential conflicting information in this obese sample, those who responded with "yes, gain weight" or "yes, maintain weight" were dropped from the sample ($n = 13$). Income was categorized by a ratio of Federal Poverty Level to account for differences in income based on household size.

2.5. Analysis

Descriptive analyses were run on all variables. Bivariate analyses were run using chi-square test for categorical variables and t-tests were used for continuous variables. The outcome variables' distributions were skewed and had a large spread with excess zeroes; thus, negative binomial regression was considered appropriate for multivariable analysis. A significant correlation was expected between HCP's advice to lose weight and participant's attempts to lose weight, raising the concern for multicollinearity, but investigations revealed a spearman's rho of 0.17. The models were first run with either HCP's advice to lose weight or attempting to lose weight in the model, and then with both these variable included in each regression model at the same time to determine independent effects. An interaction term (attempting to lose weight * HCP's advice to lose weight) was calculated and added to the model to test for moderation. All models adjusted for covariates, including age, gender, race, BMI, poverty status, education, and city of residence. Age, BMI, and poverty status were included as categorical variables, as presented in Table 1. All analyses were conducted in Stata (version 13.1) and were considered significant at $p < 0.05$.

3. Results

A total of 548 obese adults with children in their household were included in these analyses (Table 1). The sample was largely female at 83%. Fifty three percent of the sample was non-Hispanic black and 33% were Hispanic. Eighty six percent of the sample did not graduate college, and 64% were below 200% of the Federal Poverty Level. Of all 548 obese respondents, only 264 (48%) received advice to lose weight from their HCP in the last 12 months. Among those who were extremely obese, 64% received advice to lose weight. Sixty eight percent of all respondents stated that they were attempting to lose weight. A higher prevalence (72%) of those who were extremely obese (BMI ≥ 40) reported attempting to lose weight, compared with 67% of obese (BMI 30–39) individuals. Seventy six percent of those who received HCP's advice to lose weight were attempting to lose weight compared to only 60% of those who did not receive advice.

In unadjusted analyses, HCP's advice to lose weight did not vary by gender, ethnicity, or poverty status; however, significant differences were observed by age, BMI category, education, and individual's efforts to lose weight.

Healthy, nutrient-dense foods in this sample were consumed infrequently and energy-dense snack foods were eaten frequently (Table 2). The average mean frequency of fruit consumption was only once per day and vegetables was 2.2 times per day while fast food was eaten weekly. Those who received HCP's advice to lose weight and those who reported attempting to lose weight had a higher frequency of fruit consumption ($p = 0.03$ and $p = 0.003$, respectively). The mean consumption of sugar sweetened beverages was more than

Download English Version:

<https://daneshyari.com/en/article/6046097>

Download Persian Version:

<https://daneshyari.com/article/6046097>

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