Self-Perceived Eating Habits and Food Skills of Canadians

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ABSTRACT

Objective: This study identified and described Canadians' self-perceived eating habits and food skills through the use of population-based data.

Design: Data from the Canadian Community Health Survey 2013 Rapid Response on Food Skills was used to examine the eating quality and patterns of Canadians. Data were collected from all provinces in January and February 2013.

Main Outcome Measures: Respondent variables (sex, age, Aboriginal/immigrant status) were examined to assess differentiations between socio-demographic groupings (family structure, marital status, education, and income).

Analysis: Logistic regression was used to determine whether demographic variables increased the likelihood of certain responses.

Results: Forty-six percent of Canadians believe they have excellent/very good eating habits, with 51% categorizing their habits as good or fair. Similarly, the majority report having good food skills. Sex and age were significantly associated with food skills, with women rating their cooking skill proficiency higher than men (72% vs 55%), and older Canadians reporting higher food skill knowledge than their younger counterparts.

Conclusions and Implications: Results indicate that while portions of the Canadian population have adequate food skills, others are lacking, which may negatively impact their diet. Findings from this study have implications for education and health promotion programs focusing on foods skills, particularly among vulnerable target groups.

Key Words: health surveys, food skills, eating habits, Canadian Community Health Survey (*J Nutr Educ Behav*. 2016;48:486–495.)

INTRODUCTION

The rapidly growing rates of obesity and related chronic disease in global populations[1,2] have prompted many public health and education experts to examine dietary and food behavior patterns[3,4] and the role of food skills in protecting nutritional health.[5-9] Eating patterns in industrialized countries, and increasingly around the globe, have been shifting in recent decades to include disproportionate amounts of highly processed convenience foods,[4,10] the majority of which have low nutritional profiles.[11] The increased intake of ultra-processed foods is linked with rising obesity rates.[12,13] The high use of ultra-processed foods has also been implicated in reduced domestic food preparation time, creating a cycle of dependence on convenience food products and a decline in basic food skills.[14,15]

Possessing adequate food skills, or having the capabilities to plan, select, prepare, and consume food, has been proposed as a protective quality against obesity and nutrition-related chronic disease. While still an emerging concept, some studies have shown that having better food skills is associated with better diet quality[16,17] and may help some food-insecure individuals.[18] Having sufficient food skills may allow individuals to have more control over their diet by preferentially selecting and preparing basic foods with favorable nutrition profiles.[19] More research, however, is needed to empirically demonstrate the linkages between food skills and diet quality. The steady and steep increase in the consumption of highly processed foods in recent decades, coinciding with increased rates of obesity and chronic disease, suggests that this is an important area that warrants examination.[10,11,20]

The purpose of this study was to identify and describe Canadians' self-perceived eating habits and food skills through the use of population-based data from the Canadian Community Health Survey Rapid Response on Food Skills (CCHS).

METHODS

Setting and Participants

The CCHS is a federal cross-sectional survey aimed at providing health information at the national and provincial levels. Beginning in 2007, major changes were made to the survey design and as a result, data collection now occurs every year (although a "cycle" is now considered to be a 2-year period).[21] The rapid response component is offered to organizations interested in national estimates on an emerging or specific issue related to the population's health.[22] This research is based on results from Parts 1 and 2 of the CCHS 2013 Rapid Response on Food Skills, which collected data from a nationally representative sample of Canadians ≥ 12 years of age in all 10 provinces. Data collection took place across the country in January and February of 2013. Interviewers from Statistics Canada, a government agency that produces statistics to better understand the population, administered questions related to meal preparation, the amount of basic versus processed ingredients used, cooking and kitchen skills levels, time spent on food preparation, frequency of family meals, and children's participation in household food activities. The addition of these questions to the Canadian Community Health Survey Annual Component was sponsored by the Office of Nutrition Policy and Promotion, Health Canada. In total, 10,098 respondents completed Part 1 (which assessed knowledge, planning, and transference of skills) and 10,701 completed Part 2 (which focused on mechanical skills and food conceptualization). The overall response rate was 67.3%.[22] Further details as well as the questionnaire can be viewed on the Statistics Canada website.[21] Research for this study was conducted at the Manitoba Research Data Centre and is consistent with Research Ethics Board Requirements. Data were accessed in a secure environment and all output was first reviewed by Statistics Canada to ensure disclosure avoidance before release.

Measures

This study focused on the self-rated behaviors of Canadians regarding their eating habits, meal preparation practices, ingredients used in cooking, and kitchen skills as well as grocery shopping routines and meal adjustments. Self-reported eating habits were ranked as "excellent or very good," "good or fair," or "poor." Similarly, self-assessment of the respondent's mechanical skills (ie, cutting, peeling, baking from a recipe or from scratch) were ranked by the respondent on a scale ranging from "very limited" to "very good." Respondents were also asked to classify their cooking skills and meal preparation habits on the basis of categories chosen by Statistics Canada. This took into account the types of foods most often used in the meal of the day that required the most preparation (ie, whole/basic foods, easy-to-prepare items, or take out/delivery) as well as their ability to cook from basic ingredients, and the proportions of respondents falling into these categories were calculated. The food skills component asked respondents about grocery shopping habits, inquired about grocery budgeting and use of grocery lists, and whether or not respondents made choices by using *Canada's Food Guide to Healthy Eating* (CFGHE) when choosing and purchasing ingredients. Additionally, respondents were also asked if they had ever adjusted a recipe to make it healthier, and, if so, were asked how this was done (ie, reducing salt, sugar, or fat content, etc).[22]

Demographic variables such as sex, age, and education status were used to assess the variability of these practices across Canada, and key variables were examined to assess differentiations between various socio-demographic groups. Descriptive statistics were used to describe differences between sexes, in addition to Aboriginal status (being of First Nations, Métis, or Inuit as well as those with Registered or Treaty Indian status), immigrant status, and comparisons between family structure, and other characteristics were observed by looking at marital status and respondent and household education. Income was also examined as a factor, splitting respondents into 4 groups on the basis of their household income. Individuals with invalid responses, such as "refusal to answer," "don't know," or "not applicable," were excluded from the study.

Statistical Analysis

Cross-tabulations and chi-square testing were performed to compare proportions among demographic groups. Logistic regression was used to determine whether any of the aforementioned demographic variables increased the likelihood of certain practices such as recipe adjustment and grocery planning. Odds ratios were calculated and the significance level was set at $P < .05$ for differences and $.05 < P < .10$ for trends. Reference groups were chosen on the basis of hypotheses that certain characteristics (such as higher income or education) may be linked with enhanced food skills. All analyses were performed with the use of PASW SPSS Statistics (version 13, IBM Corp, Armonk, New York) and STATA Statistical Software (version 22, StataCorp LP, College Station, Texas). Because the CCHS uses a multi-stage, stratified, complex survey design and requires a complex formula to calculate variance estimates, Statistics Canada recommends using bootstrapping to estimate distribution from a sample's statistics. Bootstrapping is an approach used to estimate distribution from a sample's statistics. It can also be defined as "sampling within a sample" and involves the selection of random samples known as replicates and the calculation of the variation in the estimates from replicate to replicate.[21] The bootstrapping method was used in all the data analyses for the present study via STATA software. As well, the sampling error of the estimates from the CCHS (quantified by the coefficient of variation, or CV) must be taken into consideration when using CCHS data. When the CV is between 16.6 and 33.3, the estimate should be interpreted with caution because of high variability.

RESULTS

The majority of respondents reported having good eating habits, with almost half reporting "excellent" or "very good" and more than half reporting "good" or "fair." Older respondents (65 years and over) were more likely ($P < .05$) to report "excellent" or "very good" eating habits than those 12–29 years of age. Female respondents