

Nutritional Information on Restaurant Menus

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Abstract

Obesity is a challenging public-health problem worldwide and policy-makers are continually seeking for relatively low-cost but broad-reaching policy interventions which could influence consumer choice and prevent serious health effects. Through the implementation of menu labelling, the catering sector could be a stakeholder in promoting healthy diets and combating obesity. Although regulations about menu labelling have been set in several countries, posting nutritional information on menus is still in its infancy in the rest of the world. Evidence of the influence of menu labelling on calorie intake is mixed due to heterogeneity among studies (laboratory's real-settings; cross-sectional v/s interventional, etc.). The format of nutrition information also plays a role in the efficacy of its usage among consumers (sole calorie labelling or additional nutrition information). Future research should focus on the behaviour of the restaurant industry, on testing various label formats for different populations and on the labelling of particular health-related components.

Keywords: Calories; Catering; Eating Out; Menu Labeling; Nutrition

Introduction

The increasing rate of overweight and obesity is an important public health concern, as obesity has more than doubled worldwide since 1980. Nowadays in the world, 39% of adults are overweight and 13% are obese. The fact that 41 million children under the age of five are either overweight or obese is also alarming [1]. The effects of the obesity pandemic on people are visible through the development of conditions such as type 2 diabetes and cardiovascular diseases, and on society through the growing costs of healthcare and the dropping levels of

productivity [2, 3]. Primary prevention efforts targeting adults have, for the most part, been discouraging and there is growing evidence that the manifestation of obesity and its co-morbidities begins in early childhood [4, 5].

Although obesity and unhealthy dietary habits are complex multi factorial problems, it is recognized that eating out of home is an important contributor to this trend because it is part of the so-called obesogenic environment. An obesogenic environment is usually described as a combination of readily available unhealthy

food and sedentary behaviour [6]. Moreover, obese adults consider eating out as a key barrier to sustaining adherence to a specific dietary regime [7]. However, modern lifestyles and time scarcity have contributed to an increase in eating outside the home and it is expected that this trend will continue [8]. Accordingly, environmental factors could provide numerous opportunities for reducing obesity prevalence, and menu labelling, being a list of nutritional information in restaurants that typically reports calories but could include saturated fats, sodium and carbohydrates as well, could certainly contribute towards this goal.

Nowadays, when it is recognized that information provided on packed food could be a valuable tool in educating consumers on how to choose healthier food and, in this way, could help to fight against obesity [9], customers in foodservices, where menu labelling legislation has not been introduced, are a particularly vulnerable population due to this lack of information. In view of all the above, the catering sector is increasingly being recognized as a stakeholder in the promotion of healthy diets and lifestyles.

Historical Background of Menu Labelling

The interest in providing nutritional information on food eaten away from home started to grow more than fifteen years ago, when the World Health Organization [10] suggested that making nutrition information available to consumers in a straightforward manner would allow them to select healthier choices when eating out. In 2005, the Institute of Medicine recommended that calorie content should be printed on menus and menu boards, as a strategy to curb the obesity epidemic in the USA, and this was supported by the National Restaurant Association as well [11]. In 2010 in the USA, the Patient Protection and Affordable Care Act became a national platform to fight obesity [12]. Under the rules, restaurants and retail food establishments offering restaurant-type food at 20 or more locations would be required to provide calorie information on standard menu items. This information would be displayed on all menus, including menu boards, the Internet offering, drive-through boards, or menus for take-away. In 2014, the US Food and Drug Administration released final regulations requiring calorie labels, together with suggested daily total calorie intake, to be listed on all menus [13]. Although the nationwide implementation of obligatory menu labelling was expected to be in force by late 2016, the FDA recently extended the compliance date [14]. Voluntary calorie and nutrient labelling on menus and displays in out-of-home venues have been partially introduced in Australia,

Bahrain, Canada, Malaysia, South Korea, Taiwan and the United Kingdom [15]. In the European Union, however, no jurisdiction mandates nutritional labelling on menus to date, and menu labelling research is in its infancy. Consequently, there is very limited research on menu labelling outside the USA, but a growing interest has been noted [16-18].

Influence of Menu Labelling on Food Choice and Caloric Intake

A recent review conducted by Lachat and co-workers [19] has shown that, in comparison with eating at home, eating out of home is associated with lower dietary quality (a higher total energy intake, a higher energy originating from fat and a lower intake of micronutrients, in particular vitamin C, calcium and iron). While foods eaten outside of the home were demonstrated to be important sources of energy in all age groups, their energy contribution increased especially in adolescents and young adults [19].

An analysis of the potential effects of caloric menu labelling on particular food choice and on reducing calories ordered or consumed gave mixing results. Evidence differs depending on whether simulation studies (cross-sectional or pre-post) or evaluations were made in real-world settings (i.e. in cafeterias and restaurants, rather than in laboratories).

Some cross-sectional studies, which aimed to explore the purchase intention of hypothetical choices, with or without calorie labels, indicated lower purchase intention when respondents received calorie information [20-25]. Pre-post studies have also confirmed decreased purchase intention or calories purchased, after seeing nutrition information, as well as a larger decline with regard to higher calorie meals [20, 26]. These effects were more obvious when the actual calories were higher than the expected calories in the hypothetical restaurant [20].

Uncontrolled studies in cafeterias and chain restaurants show either a small but meaningful reduction in calories purchased [27, 28] or did not detect any effect of labelling [29]. However, controlled studies that measure calories purchased shortly before and after the implementation of menu labelling regulations in restaurant settings have not found reduction in calories purchased [30-32].

A recent systematic review and meta-analysis of the relationship between menu calorie labelling and calories

ordered shows that menu calorie labelling is associated with a 18.13 kilocalories ordered per meal. A classification of the studies by settings revealed that the reduction in calories ordered in non-restaurant settings (i.e. laboratory, the Internet, street corner interview) remained statistically significant, with approximately 60 fewer calories ordered when menu labelling was available. However, controlled studies in restaurant settings showed menu labelling to be associated with a non-significant -7.63 kilocalorie reduction [33].

Influence of Different Approaches to Calorie Labelling on Menus

Currently, where it exists, menu labelling legislation requires just the presentation of calorie information together with a suggested daily calorie intake statement [13] but such information can also be presented in different ways. Moreover, it was shown that consumers may not be able to understand and use the available nutrition information to make healthier food choice [20]. Most consumers tend to underestimate the number of calories and fat in food consumed outside of the home and the errors they make are greater with regard to high-calorie menu items or menu items that are promoted as healthy by eating establishments [34, 35].

Much research deals with the effects of different formats of nutrition information. When a systematic review was made about the influence of different types of nutrition information – informative (i.e. kcal), contextual (i.e. cal plus recommended daily energy intake) or interpretative menu labels (i.e. nutrition fact table or traffic light system) – on calorie selection, it was shown that menu labelling with calories alone did not have the intended effect on calories selected or consumed. However, the addition of contextual or interpretative nutrition information helps consumers to choose and consume fewer calories [36].

Several studies confirmed gender-specific differences in menu label use, with women using labels more often and, consequently, selecting and consuming fewer calories [37-39].

Future Research

Although evidence suggests that menu labelling does not impact revenue [40, 41], but could have a positive influence on menu item reformulation as well as on other facets of the restaurant setting, the response from the restaurant industry is still inadequate. Future research

should be focused on the behaviour of the restaurant industry, on testing various label formats for different populations and on the labelling of particular health-related components (i.e. sodium).

It could be concluded that menu labelling could be a relatively low-cost but broad-reaching policy intervention which can contribute to the slight modification of eating habits, help reduce the rate of obesity and contribute to activities aimed at abating the incidence of chronic non-communicable diseases related to food (i.e. obesity, hypertension, diabetes, etc). However, nutrition education programs should be implemented with different populations to enable them to effectively use nutrition information as a tool for controlled food choice. Education should primarily focus on calorie information to increase its effective use in weight management.

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