Can nutrition menu labelling positively influence consumer food choices? A review of the literature

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Overweight and obesity has become an increasing issue around the world; particularly in the UK and the US. An increased tendency of consuming away-from-home foods is one of the factors contributing to this problem. Some researchers and government campaigners believe that menu labelling could help people make healthier and more informed choices when eating out. This article aims to review existing literature regarding the UK and US to analyse possible effects that menu labelling can have on diners’ choices and provides suggestions on how to improve the effectiveness of labelling. The review of the literature shows that menu labelling can improve some consumers’ food choices, facilitate informed decisions and increase individual’s health concerns. However, labelling has limited effects on improving the choices of those consumers who eat out more frequently or are overweight. Labelling is also believed to lack accuracy when dishes are modified to cater for individual needs, and present only limited nutritional information. Suggestions to improve nutritional labelling on menus include: providing more comprehensive public education on nutrition and labelling, proposals of unified legislation and simplifying nutritional menu labelling by adding coloured symbols and arranging menu items in order of calorie value.

Keywords: menu labelling, away-from-home foods, healthy eating, overweight and obesity

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Introduction: obesity and its link with eating out

Overweight and obesity has become an increasing issue around the world and particularly in the UK and the US. The World Health Organisation (WHO) (2015) has stated that obesity has almost doubled since 1980. The UK obesity rate has nearly trebled in the last 30 years, reaching an alarming 24.9%, the highest rate in Europe (National Health Service, 2013a). More than one-third (34.9% or 78.6 million) of U.S. adults are obese (National Centre for Health Statistics, 2014). These disturbing trends are associated with various factors, and an increased tendency of consuming away-from-home foods is one of them (Hwang and Lorenzen, 2008).

There are three main reasons as to why eating out can have significant impact on people’s health. Firstly, the frequency of consumption and the amount of food eaten outside home are on the increase. Forty six per cent of food expenditure in the US goes towards eating out (Food and Drug Administration, 2013) resulting in consumption of a third of all calories on these occasions (Savage and Johnson, 2006). Secondly, those calories do not always provide consumers with good nutrients, such as vitamins and fibre; particularly as menu items in food establishments frequently show high salt levels and fat content (Benelam, 2009). This is a result of restaurateurs’ primary concern with increasing their profits. Due to marginal demand for healthier menu items and their shorter shelf life, the business’ priority for consumer’s health versus profit do not always concur (Glanz et al., 2007). Finally, continuously increasing portion sizes in catering establishments has come as an attractive addition to the increasing and frequent consumption of unhealthy food (Young and Nestle, 2002). For example, serving size was found to be the biggest contributing factor to calorie consumption per serving compared to calorie density (Scourboutakos and L’Abbé, 2012).

In response to these trends the US Food and Drug Administration (FDA), established in 2003, have urged restaurants to offer voluntary point-of-purchase nutrition information in menus across all eating establishments (FDA, 2004). Following this proposition the US Department of Health and Human Services (HHS) (2010) has issued an Act that required all catering establishments with more than 20 outlets to provide mandatory calorie information on typical menu items at the point of purchase. Similar measures have also been undertaken in the UK. For example, the Food Standards Agency (FSA) (2009a) announced a program for developing a voluntary calorie labelling scheme for the catering industry, whereby twenty one companies agreed to take part.
Proposing menu labelling in catering establishments has raised debates about the effectiveness of this approach, which will form the central analysis of this article. The forthcoming section will analyse the importance of healthy eating and why menu labelling can potentially contribute to healthier meal choices, supported through relevant literature in these areas. Positive effects of labelling along with its limitations will be discussed in detail. Subsequently, the suggestions for improvement of the effectiveness of nutrition labelling will be given. Finally, the conclusion will be drawn, summarising the key observations and acknowledgment of the limitations of the article.

The importance of healthy eating and the potential of labelling to tackle obesity

The Guideline Daily Amounts or GDA is 2500 kcal for an average man and 2000 kcal for an average woman (Food and Drink Federation, 2013). Knowing the amount of calories that are consumed by an individual and being able to compare it to a suggested norm is important for maintaining a healthy weight balance (FSA, 2013). Overeating can lead to weight problems, which are associated with diseases such as: strokes, diabetes, asthma and arthritis (Centres for Disease Control and Prevention, 2013; Mokdad et al., 2003). It is suggested that menu labelling can potentially reduce the risk of obesity (FSA, 2009b) by helping consumers avoid dietary excess and deficit in nutrients (Luba, 1985). Furthermore, it can facilitate comparisons between foods, encourage informed choices and provide basic education on nutritional value (Ibid).

Positive effects of menu labelling found in research studies

Nutritional menu labelling can contribute to healthier food choices among consumers purchasing away-from-home food, as found by a study conducted in the US. Twenty per cent of participants changed their orders after being shown the menu with nutritional information (Yamamoto et al., 2005). Of this twenty percent, three times as many people reduced their calorie intake compared to those who increased it; which shows a promising effect (Ibid). This is supported by Angell and Silver (2008), who’s research study showed that those who do pay attention to nutritional information provided on the menu reduce their calorie intake by fifteen percent.

Moreover, menu labelling can assist in facilitating informed choices. Including nutritional information on menus has especially benefited those actively seeking it (Howlett et al., 2009).
Those groups mostly include: women, older generations (as health concerns increase with age) and those with a higher income and educational attainment (Josiam and Foster, 2009). If no nutritional information is available then it is hard for calorie-conscious people to identify the amount and type of food they should be eating (Wootan and Osborn, 2006).

Knowing their calorie intake is particularly important for those consumers who eat out at restaurants that they perceive to be ‘healthy.’ It has been found that making food choices based on inaccurate knowledge prior to calorie disclosure has led to the consumption of more calories than that after the disclosure (Wei and Miao, 2013). In other words, consumers are often misled by healthy images depicted in restaurants, which in turn, can lead to an underestimation of the amount of calories in served meals, unless the real values are revealed on the menu (Ibid).

It has also been evidenced by Burton et al (2009) that consumers often have a poor understanding of how much fat, salt and calories their quick-service restaurant food contains. Their findings revealed that a high majority underestimated the calorie content to the extent that on average, 900 extra calories were consumed without notice (Ibid). Moreover, the underestimation increased proportionally with the level of fat and salt contained in foods. This can potentially lead to substantial weight gain in the long-term if eaten regularly, and may also significantly hinder the ability of those trying to lose weight to make informed choices without calorie disclosure (Tangari and Burton, 2008). Therefore, providing nutrition information will assist those on a diet with managing their calorie intake as well as encourage them to adhere to their regime (Burton et al., 2009).

Menu labelling is also able to increase individual’s health concerns by encouraging people to think about what and how much they eat outside their home. This is especially important during a time when eating out is seen increasingly as a casual occasion (Benelam, 2009). Nutritional information at the point of purchase can drive the demand for healthier meals among consumers and force restaurateurs to produce a bigger variety of those items (Glanz et al., 2007). Moreover, people seem to welcome the labelling policy, as 72% surveyed by the National Consumer Council said that nutritional information provided on takeaway menu boards would be useful (Allder, 2008).

As illustrated through the literature presented thus far, there are some clear positive implications that nutrition menu labelling can have on consumer choices. Therefore, it can potentially be an effective tool in assisting to tackle the obesity epidemic in both the UK and US.
Limited effects of menu labelling found in research studies

Despite the arguments in support of nutritional labelling, it is important to bear in mind that the concept itself has not been fully developed or implemented. The challenges menu labelling faced since its introduction will now be critiqued in relation to its effectiveness, accuracy and detail of information presented.

As previously suggested, despite Yamamoto et al (2005) highlighting the improvement of some healthier food choices by consumers when provided with nutritional labelling; they also discovered that the majority of orders (eighty percent) by consumers did not necessarily change with provision of nutritional information. Moreover, only a third of people who considered themselves as overweight changed to a healthier meal (Ibid). It is also noteworthy that while the male obesity rate is still on the increase (Ogden et al., 2012), it has been reported that men are less likely to read labels (Krukowski et al., 2006; Josiam and Foster, 2008). Other studies have also shown that participants who had more than three fast food meals a week were less likely to look at labels, and were less willing to do so, even if provided with such information; compared to those who had less than four fast food meals a month (Wethington et al., 2014). Problematically, this suggests that the population who would be a primary target of the labelling campaign is the less likely group to benefit from it. Two arguments within the literature on nutritional labelling may help to explain this observation.

Firstly, it could be argued that consumers lack the capacity to interpret menu labels; indicated by research in the US which suggests that only sixty percent of people knew their daily calorie allowance (Krukowski et al., 2006). In general consumers struggle to understand and evaluate nutrition information (Cowburn and Stockley, 2005). Secondly, people are reluctant to take notice of calorie information in restaurants. Despite some positive reactions from the public towards menu labelling, some forty five percent of consumers said they would neither use calorie information on the restaurant menu nor find it important (Krukowski et al., 2006). This occurs primarily due to the factors that dominate people’s choices when eating out above nutrition value, such as: taste, hunger, convenience, price and cravings (Yamamoto et al., 2005; Lando et al., 2007). Furthermore, a trip to a restaurant being viewed as a ‘treat’ could provide another explanation for this public resistance (Fitzpatric et al., 1997). This image needs to be transformed if menu labelling is to become successful in such establishments.
The accuracy of the labels on restaurant menus can be questioned in cases when the original menu item is modified due to clients’ demands, special requests and allergies (Fotouhinia-Yepes, 2013). This will be mostly the case of a formal sit-down dining establishment, in opposed to fast food restaurant; where the standards and portions cannot be significantly changed during the service. Such alteration in the original nutrition profile makes the menu labelling irrelevant and informed choice can only be made with the help of an on-site dietician. Additionally, the limited space allocated for the nutrition values on the menu is not sufficient to list the amounts of all nutrients, compared to packaged foods (Almanza et al., 1997); which contributes to this overall lack of accuracy and consistency. This represents a significant limitation. Furthermore, while most people may find calorie and fat disclosure satisfying (Thomas and Mills, 2006), some might rather want to see the other nutrition information such as the amount of salt (Mackison et al., 2009); which suggests that unless full nutritional information is stated, the nutritional labelling on menus may not meet all consumers demands and needs.

Suggestions to improve effectiveness of nutrition labelling on menus

Overall, nutrition menu labelling has a great potential to contribute to people’s healthier diets. However, in order to have a significant impact on people’s food choices the limitations presented above need to be addressed.

In order to fully utilise the potential of menu labelling, firstly, the public should be better informed on how to read the information and appropriately measure their intake (Krukowski et al., 2006). Being able to understand such information may encourage those who choose to ignore it to start counting calories on a regular basis (Chance et al., 2014). To achieve this caterers and government bodies should provide basic nutrition education (Luba, 1985). Workplaces should expand healthier food options in cafeterias and incorporate dietary wellness programmes (Mozaffarian and Capewell, 2011). In schools this approach may include dietary curriculums for students and additional training talks for teachers and parents (Ibid). Useful information on how to use labelling to aid healthier food choices can already be found on the British Nutrition Foundation and NHS websites (British Nutrition Foundation, 2013; NHS, 2013c). Moreover, it is important to improve the nutritional knowledge of employees in catering establishments, to ensure that they can assist customers in understanding labels, and advise on potential changes in nutritional content when dishes have been modified to cater for special dietary needs (Zick et al., 2010). This may also help in resolving the issue of limited space on menus (Harnack, 2006). As it is practically
impossible to list all the nutritional information in one place, employees' knowledge of certain components such as salt and sugar would help customers who require this information make a better informed choice. An employee could also refer to a booklet created to accompany the menu, containing detailed nutritional description.

A voluntary labelling campaign designed for large chain restaurants, proposed by the FSA in the UK as well as US law, does not cover the whole range of catering establishments. Therefore, clear widespread legislation proposing the mandatory menu labelling along with national standards regarding the way in which information is presented need to be developed to ensure that caterers who sell food high in fat, salt and sugar reveal the real values of their meals (Glayzer and Mitchell, 2008). Achieving uniformity in presenting nutritional values on menus will reduce public confusion and may encourage more customers to use the labels (Krukowski et al., 2006).

Symbolic and definitive forms of labelling on packaged foods, such as ‘traffic light’ labelling in some supermarkets, or the ‘love life’ labelled range from Waitrose are already being used as popular nutrition indicators by consumers (NHS, 2013b; The Food and Drink Innovation Network, 2011). A study in Australia tested the effectiveness of ‘traffic light’ labels in schools and found a reassuringly positive response (Pettigrew et al., 2012). Furthermore, a research study conducted by Ellison et al. (2014) suggests that symbolic rather than numeric representation of nutritional information could increase the effectiveness of menu labelling and improve health choices among population. Menu labelling could also be taken a step further by ranking menu items in the order of increasing calories instead of simply stating calorie value, which may make it easier to compare items. In their study of labelling presentation, Liu et al. (2012) found this format to be the most effective in improving consumer food choices.

**Research Limitations**

This article has reviewed and critiqued literature which has addressed the potential of menu labelling to influence people’s food choices when consuming away-from-home foods. Its primary focus was focussed upon the consumer perspective and how labelling can be improved to benefit them. However, the perspective of the suppliers of food is another area that could be addressed in further detail. It is important to remember that labelling has to work for both parties, as businesses have to make the information for the customers convenient, comprehensive and clear, while keeping the costs under control and considering
other factors, such as presentation of the menu, accuracy of labelling and time needed to make regular changes (Ogden et al., 2012). Therefore, further research is needed to study and match the perspectives of both, restaurateurs and customers, in order to find a mutually feasible solution.

Conclusion

Overall, the literature has revealed that there are clear positive effects that nutrition menu labelling can have on consumers food choices, which can also assist in tackling the obesity epidemic. This includes helping people track their calorie intake and in some cases encourage certain consumers to think more deeply about their food choices. However, menu labelling still has a long way to go before its format and contents can satisfy everyone’s needs. Concerns over clarity, accuracy and relevance of the presented information must be tackled to make labelling more effective. Creating a unified numerical and symbolic format of labelling combined with provision of public education can solve some of the problems associated with labelling. However, further research is needed to identify what information and how exactly it should be presented, in order to attract public’s attention to the issue of overeating. It should also be noted that despite having a great potential in helping to deal with public obesity, nutrition menu labelling should not be viewed as a panacea against this epidemic. Other strategies promoting healthy eating must be used to achieve better results.

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