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RESEARCH ARTICLE

NUTRITIONAL GUIDE FOR A MODERN WOMAN: A STRATEGY FOR HEALTH EDUCATION

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ABSTRACT

In the present article, we introduce a Health Education instrument that stems from a reflection on the lay knowledge, salutogenic habits and daily nutritional practices of modern women in our current society. We developed a guide aimed at modern women, where the different food groups and food hygiene and safety measures are addressed. The guide includes eleven original pictograms that help the reader to locate and look up specific issues. The guide employs the label reading and interpretation principles, following the nutrition traffic-light internationally instituted, for it renders scientific information on nutrition clear and accessible to the general population. We believe that using this guide as a central strategy in health promotion will lead its users to adopt essential changes in their eating patterns and, in so doing, contribute to prevent diseases associated to bad eating habits. We also emphasize the role of mass media in spreading the conveyed information.

INTRODUCTION

Nutrition labels are a fundamental tool when it comes to purchasing food products, for they represent an information link between the consumer and the product. An *effective labelling* system has enough educational potential to presumably contribute to reduce the prevalence of obesity via promotion of healthier food choices (Cavada, Paiva, Helbig and Borges, 2012). Following Oliveira, Toral, Gubert and Monteiro (2012), information on food nutritional facts is not restricted to nutritional labels; consumers have at their disposal an array of different formats (*e.g.*, leaflets, panels at points-of-purchase, posters, the Internet, mass media) where such information is made known. The mass media have a potentially relevant role in public awareness – they are a privileged channel of health promotion and health education vis-à-vis the health services' effectiveness whenever they turn the spotlight onto issues like overweight and obesity (Dias, 2005; Grilli, Ramsay and Minozzi, 2002). Currently, several studies underline the empirical fact that a vast majority of consumers are indeed mindful enough to read the information presented on nutritional labels before purchasing a given food product. The practice of reading the nutritional facts printed on the food package increases as a function of the consumer's level of literacy (Ferraz, 2001; Oliveira, Toral, Gubert and Monteiro, 2012).

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Ferraz (2001) argues that reading nutritional labels at home, though not an ideal practice, may eventually contribute to modify consumers beliefs and attitudes on a given food product and, in the future, change their attitude at the moment of purchase. In general, consumers mention lack of time and insufficient knowledge as factors that dissuade them to examine nutritional labels at the time they are purchasing their groceries, in that the information provided exhibits a considerable degree of complexity that could not possibly pass muster as a "lay decoder" of health behaviours. Such complexity may, in all likelihood, constitute a barrier to health education. That obstacle is further compounded when the nutritional panel is on the side or on the back of the package because, by being not immediately visible to the consumer perusing the shelves, it can only be read after the product is removed from the stand. Information on the alleged nutritional benefits of the product is, however, exhibited on the main panel of the packaging, which can mislead consumers in their daily choices (Dias, 2005; Ferraz, 2001; Longo-Silva, Toloni and Taddei, 2010; Sonnenberg, Gelsomin, Levy, Riis, Barraclough, and Thorndike, 2013). In light of that state of affairs, it falls to nutritionists to provide all necessary guidance so that consumers can, in the future, conduct their choices in a conscious and responsible manner, in accordance with their preferences and needs. The existing "information hiatus" could be mitigated through health promotion strategies and programmes that, in face of the added complexity of the information presented on nutritional labels, were specifically designed to foster an assertive reading of nutritional information and, consequently, trigger a change in the consumer habits of laypeople in general (Dias, 2005, 2015).

With such goal in mind, we set to develop “Eating Guides” (which use dates back to the 1970’s). The purpose of those guides is to simplify complex nutritional information, and make it easier for the general population to understand scientific knowledge on nutrition by means of practical, clear, concise and concrete messages, tailored to differentiated age groups and national cultures. Those guides, presented in a diversified range of formats, provide information on the different food groups and respective portions, in order to facilitate the selection and purchase of those healthy food items that are essential for guide’s target age-group. When developing an eating guide, it is crucial to previously identify which health problems are associated with diet, to estimate the magnitude of the identified health problems, and to set priorities. It is also necessary to evaluate eating patterns on the basis of different nutritional methods and, finally, to integrate eating guides on national health and food education policies and initiatives (Dias and Duque, 2016a; Dias and Duque, 2016b; Dias, Faria and Ibrahim, 2013; Dias, Oliveira and Bastos, 2015). Eating guides should aim at preventing a diet where caloric deficits/excesses occurs, taking macronutrients into account; at promoting an appropriate intake of vitamins and minerals; and also at underlining the importance of regularly carrying out some sort of physical exercise. Last but not least, one should take into consideration the visual aspect of the guide and the maximization of its acceptance by the target-public, its promotion via several mass media, and the guide’s potential as an original tool for promoting healthy eating habits – a tool that fosters understanding and dissemination of basic notions on food and nutrition (Barbosa, Colares and Soares, 2008; Galeazzi, Silva, Júnior, Palma, and Marins, 1999; Sacks, Rayner, and Swinburn, 2009; WHO, 2009).

The first eating guide published in Portugal (in the 1970’s) was revised in 2003 so as to reflect new energetic guidelines, as well as the distribution of macro- and micro-nutrients, divided into seven groups and 21 sub-groups of food products, following the nutritional composition of Portuguese people’s eating habits. Home-handly measuring instruments (e.g., glass, tablespoon) and discrete units (e.g., one egg, one bread roll) were adopted as standard units of measure, in order to define equivalent daily portions per food group. In our current guide, the pictorial representation we have elected to use was the circle – an illustration of the concept known as “the food wheel”. The image of a circle can easily be associated to that of a plate, which is an established and important symbol in Portuguese culture (Dias and Duque, 2016a; Dias and Duque, 2016b; Barbosa, Colares and Soares, 2008). Despite their usefulness as relevant tools in the hands of well-informed consumers, eating guides are not, in themselves, enough, for our current society converges towards a nutritional pattern made up of high levels of salt, total fats, cholesterol, and refined carbohydrates, and of low levels of unsaturated fatty acids and fibre. In order to facilitate informed food choices by the consumers, the UK’s Food Standards Agency (FSA) recommends, since 2006, to the food industry that food manufacturers add a colour code (red, yellow/amber, green) on the front of food packaging (Food Standards Agency, 2009). Colours are to be interpreted by analogy with traffic-lights, and indicate the amount of fat, saturated fat, salt, sugar and calories of the product. The system is called *Traffic Light Labelling*, and the colour code aims at informing, at a glance, whether a

specific nutrient is present in high (red), medium (yellow) or low (green) amounts in a given food product (Longo-Silva, Toloni and Taddei, 2010). The nutritional traffic-light was clearly successful, for consumers say that a colour-coded labelling system makes them more likely to identify healthier items than alternative macrometric labelling systems, such as percentage-based information or healthy choice stickers (Longo-Silva, Toloni and Taddei, 2010; Sacks, Rayner and Swinburn, 2009; Sonnenberg *et al.*, 2013).

Methodological Procedures

Eating guides, food labelling and the nutritional traffic-light are invaluable tools in promoting informed and healthy food choices by the consumers. When we also take into account the evolution of science and technology, it is therefore necessary that pedagogic instruments aimed at improving eating habits are specifically developed with the most relevant family member in mind: the woman. Our current project – *Nutritional Guide for a Modern Woman* – targets not only women as individuals integrated in the workforce, but women as those individuals that, within their respective households, assume the role of *elected mediators* in setting healthy eating habits for the entire family. The *Nutritional Guide for a Modern Woman* was developed based on data collected by the INSA [National Health Institute Doctor Ricardo Jorge] and the APN [Portuguese Association of Nutritionists], and with the invaluable support of the “Hyper-Healthy Movement” – an initiative carried out by a Portuguese supermarket chain. The guide has several sections, where each new section is introduced by a clearly visible pictorial separator. All separators are numbered and organised in a structured way that allows the reader to easily make a brief consult on any issue (Tinoco and Paiva, 2011). It begins with an introduction that addresses the guide’s themes, its target-group, the relevance of nutritional labelling, and the nutritional traffic-light. It contains nine separate sections: *Cereal, Bread, Dairy, Canned goods, Vegetables, Fruit, Meat, Fish and Frozen foods*. The item *Bread* is treated autonomously from the cereal group, not only because it is a major staple food, and a highly popular one at that, but also because its supply encompasses a huge variety of different breads.

Besides nutritional information, each section of the guide informs on whether each of the food products under analysis – that the reader is likely to find in her food shop – possesses a nutritional label, how should such label be correctly interpreted, and also a few suggestions that will help the reader to be more aware, and therefore make healthier food choices. The final sections of the guide address concerns on Food Hygiene and Safety, alerting the reader to aspects she should consider when acquiring food products in supermarkets, during transportation (so as to maintain the ideal conditions required for each food product) and at home, in order to prevent pathologies associated with poor manipulation of food products. Prior to buying a given food product, the reader is invited to pay attention to food hygiene and safety criteria on how to transport the purchased goods from the supermarket to her home. As to what takes place at home, the guide offers advice on food hygiene and safety, on the best way to organise the refrigerator, on how to set up a safe pantry, which steps to follow in order to adequately defrost food products at home, and a few cooking tips, so that the reader may adopt a healthier

cooking style, with minimal nutritional loss. The guide can be personalised: it provides a “blank section” that the reader may use to jot down any information she deems pertinent (e.g., a shopping list she can use in her daily and weekly shopping runs). This section may prove a crucial help for nutrition therapy. In addition to the information it provides, organised in a distributed manner so as to facilitate the act of looking up specific issues, the proposed eating guide includes pictorial representations – *pictograms* – that we believe to be helpful in enhancing the target-group’s (and the general public’s) understanding of the notions conveyed, namely by making it easy to remember the information read (Barbosa, Colares and Soares, 2008).

Oftentimes, one needs to have a considerable level of literacy in order to find and understand the information one needs or wishes to be aware of. It is also a fact that, in many circumstances, laypeople do not have the required level of literacy to understand the messages that are brought to them by experts; this creates an obstacle to the relational communication that should take place between patients and nutritionists. In an attempt to bypass that obstacle, we have created pictograms, which advantage is that of improving memorisation and comprehension of the information presented in the health education instrument that the proposed eating guide attempts to become. The purpose of those pictograms is to provide supplemental information to the contents expressed by the nutritionist, thus allowing patients with lower literacy levels to fully understand, and more easily adhere to, the therapy prescribed, and ultimately adopt healthy eating habits (Dias and Pedrosa, 2013; Kim *et al.*, 2011). The guide shows a pictogram in the cover; it also features one pictogram per section, visually introducing the food group therein addressed. The separator that precedes the Food Hygiene and Safety section of the guide is also illustrated with a pictogram.



Figure 1. Example of a pictogram introducing a new section



Figure 2. Cover pictogram

The pictogram shown on the cover of the guide depicts a food package similar to a milk carton. On that package, we see a traffic-light, with its three typical colours. The green light is placed on the topmost position of the traffic-light and its size is bigger than those of the remaining two colours; the yellow light is depicted as a middle-sized sign; the red sign is shown at the bottom of the traffic-light, and has a less expressive diameter. This visual representation is intended as a mean for the patient to associate each colour-size representation to the relative proportions (of recommended food products) she should ingest (Heller, 2008). Besides the mentioned pictorial elements, the cover illustration also shows a female figure, who exhibits in her hand a green smiley face, in an attempt to appeal to the ingestion of food products (e.g., vegetables) which display the colour green on the nutrition label, thus aiming to promote healthier food choices and a change in eating habits (Galeazzi, *et al.*, 1999).

Discussion / Conclusion

The *Nutritional Guide for Modern Women* is a pioneer tool in the area of nutrition, with huge pedagogical importance for the general population, as it contains accessible and enlightening information that could change laypeople’s eating and purchasing behaviours. In this way, it allows a relational and pedagogical communication between the nutritionist and the patient, enabling learning and behaviour change. Because the human being is much more than just a bio-physiological body, health practitioners need to acquire communication and relationship skills, on top of their scientific knowledge. It falls to the health practitioner to develop a set of specific humanistic skills, such as the ability to communicate in a clear and easily understandable manner, to pay attention to the patient perception/comprehension, to be sensitive to the patient’s reality, to explore the patient’s doubts and anxieties, and, above all, to be capable of listening to the patient’s ideas and anguishes, so as to jointly define a set of strategies likely to facilitate the patient’s adaptation to a new lifestyle and his/her commitment to therapy. Moreover, the health practitioner has to provide all the tools and information sources to the patient, so that she can be empowered and make her decisions autonomously. The approach set by nutritional labels is an essential tool for the consumer to make informed and wise decisions concerning which diet is more appropriate to her needs and preferences. Being in possession of relevant information allows her, not only to change her eating habits, but also those of her household. It enhances health promotion through the use of objective and easy-to-follow strategies, and is an important element in health education directed to changing eating behaviours – not only for women *qua* homemakers, but for the whole of society, because women still are the “main vector” when it comes to disseminate change to all family members. Despite the major changes that have occurred concerning women’s role in society, the role of homemaking continues to be predominantly ascribed to women, implying, at times, in its social construction, a socially pejorative meaning. Although the proposed eating guide brings several benefits, both to the reader/user and to the health practitioner, there is room for further reflection, namely aimed to adapt the guide to the heterogeneity of the entire population. We may thus conclude that no health practitioner can address the core of their patients’ issues resorting exclusively to her/his knowledgeable, scientific and pre-elaborated narrative.

Practitioners will only be successful in getting their patients to change eating habits and adhere to prescribed therapies if they know how to effectively communicate relationally and truly respect their patients biological nature, socio-cultural background and believes, which is to say, if they respect each patient as a whole, placing her/him in her/his holistic environment. Only thus will the ultimate goal – the success of the therapy – be achieved.

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