How do consumers conclude on the nutrient content of foods? Results from an eye-tracking study on pan bread labels

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The success of nutrition labeling depends on the ability of consumers to detect, read and understand nutritional information. Despite the growing inclusion of nutrition information on food labels many people do not often use nutrition information due to the difficulty in finding it on the label. For this reason, one of the major challenges is to design nutrition labels which could be easily read and understood and which rapidly catch consumers' attention.

The aim of the present work was to evaluate, by means of eye-tracking technique, what information consumers take into account when evaluating the salt content of pan bread labels and to study the influence of nutritional labelling format on consumers' attention and processing of nutrition information.

Sixteen pan bread labels were designed according to a four 2-level factors full factorial design with the following variables: label background design, type of product, nutrition information format and traffic light system. The labels were presented to 52 consumers, who were asked to decide whether the sodium content of each label was medium or low. Participants' eye movements were recorded using an eye tracker. In order to analyze the results, areas of interest on the labels were defined and the attention measures were calculated.

Results showed that most consumers looked at nutrition labelling to conclude on the salt content of the labels. However, the average percentage of consumers who looked at the actual sodium content was much lower. It was observed that when the traffic light system was included on the labels, some consumers extracted information from it without using conventional nutrition information. Nutrition information format affected consumers' processing of nutrition information. Among other effects, the inclusion of traffic light system increased consumers' attention towards some kind of nutrition information and facilitated its processing.

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