



Do health claims affect consumption, as measured in the laboratory or in the field?

K.A. Brown¹, K.H. Hart¹, G. Sommers-Jones², B. Egan¹, G.M.R. Fiates³, M.M. Raats¹, S. Hieke and the CLYMBOL consortium

¹Faculty of health and medical sciences, University of Surrey, Guildford, GU2 7XH, UK, ²Department of nutrition and dietetics, Faculty of medicine, nursing and health sciences, Monash University, Melbourne, Australia and ³Nutrition department, Federal University of Santa Catarina, Florianopolis, Brazil

Health claims appear on pre-packaged foods and refer to any claim that states, suggests or implies a relationship exists between a food category, a food or one of its ingredients, and health¹. Claims can support informed consumer choice and encourage healthy eating. However, few studies have investigated whether health claims directly influence consumption (dietary intake).

The 'breakfast study' was run, as part of the CLYMBOL project (<http://www.clymbol.eu>), to investigate the influence of a health claim carrying breakfast cereal on consumption. Forty-eight male and female participants, aged 20–64 years were enrolled into a randomised, parallel, single-blinded study. Participants were exposed to either a control breakfast cereal (control group: label featuring cereal picture + weight + ingredients) or a health claim breakfast cereal (HCE group: label featuring cereal picture + health claim + weight + ingredients). An approved article 14 health claim was displayed in a heart shape and read: "Oat beta-glucan has been shown to lower blood cholesterol. High cholesterol is a risk factor in the development of coronary heart disease"². All participants were invited to the University of Surrey to take part in a fasted laboratory-based cereal taste test. Participants were then invited to take a packet of cereal home to continue tasting for a minimum of four days. Consumption was measured by i) covert weighing in the laboratory tasting session and ii) self-reported estimated four-day food diaries completed pre and post cereal exposure.

There were no significant differences between the control and HCE groups in demographics, pre-exposure dietary intake, how nutritious participants viewed the cereal or how 'good' participants thought the cereal was for their heart. Participants reported a moderate liking for the cereal (mean 58.3 (SD = 24.3, when measured on a scale from 0 (not good at all) to 100 (very good)). No significant difference was seen between the control and HCE group in laboratory measured cereal consumption. Repeated health claim exposure over four days had a minimal impact on field measured nutrient consumption from pre to post intervention whether assessed within or between groups.

This study is one of the few to investigate the influence of health claims directly on consumption. Results indicate health claims have limited influence on consumption, yet it should be noted this was a pilot study limited by testing one health claim (heart), on one carrier product (breakfast), in a small sample. Nevertheless, future research should consider using consumption rather than a proxy of consumption (e.g., purchase behaviour or intention to consume) to assess health claim impact, since methodological difficulties may be outweighed by the greater public health relevance of any findings.

This work was supported by the 7th EU Framework Programme CLYMBOL project (contract no. 311963).

1. EC. Regulation (EC) No 1924/2006 of the European parliament and of the council of 20 December 2006 on nutrition and health claims made on foods. *OJ*, 30.12.2006, L (404): 9. Available from: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02006R1924-0121129&qid=1460122464823&from=hr>
2. EFSA NDA. Scientific opinion on the substantiation of a health claim related to oat beta-glucan and lowering blood cholesterol and reduced risk of (coronary) heart disease pursuant to Article 14 of Regulation (EC) No 1924/2006. *EFSA Journal* 2010, 8(12): 1885. Available from: http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1885.pdf