Differences in food intake and diet quality in vegans, vegetarians and omnivores in Belgium

Amy Mullee^{1,2}, Laura Fiers³, Willem De Keyzer³, Tom Deliens⁴, Peter Clarys⁴, Patrick Mullie⁴, Peter Deriemaeker⁴, Barbara Vanaelst⁵, Rachel Wasson², Tobias Leenaert⁶, Stefaan De Henauw⁵, Marc J. Gunter², Inge Huybrechts^{2,4}

¹School of Public Health, Physiotherapy and Population Science, University College Dublin (UCD), Dublin, Republic of Ireland, ²International Agency for Research on Cancer (IARC), Lyon, France, ³University College Ghent, Department of Bio- and Food Sciences, Ghent, Belgium, ⁴Faculty of Physical Education and Physiotherapy, Department Movement and Sport Sciences, Vrije Universiteit Brussel, Brussels, Belgium, ⁵Ghent University, Department of Public Health, UZ-Ghent, Ghent, Belgium, ⁶EVA vzw, Ghent, Belgium

Introduction

- There is a risk that when animal products are insufficiently substituted by nutritious plant-based foods, a vegetarian or vegan diet could possibly lead to inadequacies for certain nutrients.
- Little is known about the quality of the diet of Belgian vegans and (semi-)vegetarians in comparison with Belgian omnivores and their compliance with the food based dietary guidelines (FBDG).

Figure 1. Belgian Food Based Dietary Guidelines Pyramid adapted from Vigez (1)

Aim

To examine the diet quality of vegans, vegetarians, semi-vegetarians and omnivores using a diet quality index (DQI) especially developed alongside the Belgian FBDG.

Methods

Males and females aged 14-83 years; n=3,039 from the 2004 Belgian food consumption survey (2) and n=1,803 recruited through a Belgian vegetarian organization and Universities in Ghent completed an online questionnaire including a self-reported food frequency questionnaire.

Results

Figure 3. Mean diet quality index (DQI) score for male and females. Different superscripts indicate statistical difference between dietary patterns in men and women, respectively ($p < 0.05$)

- None of the dietary pattern groups were fully compliant with the FBDG.
- All dietary pattern groups did meet the minimum recommendation for protein sources.
- Recommendations for dairy or calcium-fortified drinks were not met in any of the dietary pattern groups, although vegans, vegetarians, and semi-vegetarians consumed at least 1.7 times more milk or soya drinks than omnivores.

Conclusion

Vegans, vegetarians and semi-vegetarians appear to adequately compensate for the absence or reduced intake of animal protein, and conform to the FBDG as much as, or better than omnivores. However, none of the dietary patterns complied with all the Belgian dietary recommendations.

References

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