Abstract

Objective: To test the reliability of dietary intake data measured with an online food frequency questionnaires (FFQ) applied to a university population by comparing the results with those from a paper and pencil version. Materials and methods: A total of 50 students were recruited from the second-year Food Technology course at the Universitat Politècnica de València (Comunidad Valenciana, Spain) in the academic year 2008-2009. The students were between the ages of 20-32. The participants completed both presentation modes of the FFQ (paper and pencil and online) in a cross-over study with a time interval of 3-week. To study the effect of ordering of the questionnaires, participants were randomly assigned to group A (paper and pencil FFQ first) and group B (online FFQ first). Both self-administered semi-quantitative presentations of the FFQ included 84 food items divided into six groups (dairy products; eggs, meat and fish; vegetables, legumes and fruits; bread, cereals and similar; oils, fats and sweets; beverages and pre-cooked). Participants were asked how frequently and how much each food item they had consumed in the previous year. Results: The response rate was 78% (39 students, 23% men and 77% women). For the total sample, the median dietary intakes were higher for the paper and pencil FFQ than the online version for energy (2,077 vs. 1,635 kcal/day), proteins (96 vs. 88 g/day), carbohydrates (272 vs. 211 g/day), and fat (70 vs. 58 g/day), respectively. These differences were statistically significant. However, there were not significant differences between the two presentations when the consumption by groups of food was calculated, except for “beverages and pre-cooked” group. Conclusions: The pilot testing showed that this online FFQ is a useful tool for estimating the intake of food groups in this university population. On the other hand, the differences found in the results of the absolute quantities of energy and nutrients intakes were not clear. These differences could be due to the problems that the participants had for reporting portion size in the paper and pencil FFQ as photographs of portion sizes were not presented.

Keywords

Food frequency questionnaire, Diet, University population, Online.