

Repeatability and validity of a food frequency and dietary habits questionnaire in children.

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Aim: This work aimed to assess the relative validity and repeatability of a semi-quantitative food frequency questionnaire (FFQ) in children. **Methods:** Dietary intakes and habits were assessed using the FFQ that contained all basic foods and food-groups, as well as beverages and a 3-d dietary record as the reference method. Eighty-two healthy children (47 girls and 35 boys), 11-12 years old, were recruited from public schools and asked to fulfil the FFQ and also to provide non-consecutive 3-d dietary records. The repeatability of the FFQ was assessed by repeated administration in the same children two weeks after the first completion. Data analysis was based on Wilcoxon non-parametric pairwise comparisons test and Spearman's correlation coefficient, after energy intake adjustment. **Results:** There were no significant differences between the two examinations for most foods and food groups' frequency consumption, as well as between the reported dietary and everyday living habits known to affect obesity status. W-test values ranged between -1.77 to -0.13 (all p-values >0.1). Moreover, hours of TV viewing were associated with increased saturated fatty acid (SAFA), dietary cholesterol and sodium intake, while eating outside home was inversely associated with monounsaturated fatty acids and calcium intake. Breakfast skipping was associated with increased total fat and SAFA dietary intake, while children that reported having breakfast also had increased carbohydrates and vitamin C intake. Additionally, significant correlations were observed for some energy dense foods, such as burgers, pizza, salty snacks, ice cream, and fried potatoes and total energy intake. Spearman correlations between the aforementioned factors ranged from -0.45 to 0.55 (all p-values<0.05). No gender differences were observed in all analyses reported. **Conclusion:** The applied questionnaire is a repeatable and valid tool to investigate the association between dietary habits, total energy intake and dietary nutrients.