

EVALUATION THE OVER-REPORTING OF ENERGY INTAKE IN A FOOD FREQUENCY QUESTIONNAIRE (FFQ) FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM)

Karina Romeu Montenegro, Roberta Aguiar Sarmiento, Jussara Carnevale de Almeida

Introduction: FFQ have been widely used in nutritional epidemiology to assess usual dietary intake, but its information needs to be confirmed. Aims: To evaluate the over-reporting of energy intake (EI) in a FFQ for patients with T2DM. Patients and Methods: We selected outpatients with T2DM without dietary intake assessment realized previously for FFQ validation study (GPPG 09030). The patients answered for a FFQ with a food portfolio as a support. The EI reported was converted into daily intake and the energy expenditure (EE; estimative based on weight, height, age, and physical activity level) was used as reference. The ratio of EI:EE was calculated and its cutoff values between 0.76-1.24 were considered acceptable-reporting. AUC ROC, sensitivity (SS), specificity (EP), and predictive values were calculated (over-reporting as outcome) to evaluate the performance of EI. Results and Conclusions: Seventy-two patients provided complete data for this study (58% women; 63±9 years; BMI=29.6±3.9kg/m²; HbA1c=8.9±2.0%): 34 patients (47%) reported plausible data, 08 patients (11%) under-reporting, and 30 patients (42%) over-reporting the EI. BMI, age, HbA1c, education, and female proportion were not different between patients according to reporting classification. The AUC for the EI was 0.91 (95% CI 0.85-0.97); P<0.001 and the report of values higher than 1935 kcal/day did predict over-reporting [SS=100% (95%CI 95-100%); EP=71% (95%CI 61-79%)]. The positive and negative predictive values obtained were 77% (95%CI 69-84%) and 100% (95%CI 93-100%), respectively. In conclusion, almost half of patients with T2DM over-reported their EI as compared to EE estimative and this may be usefully to evaluation of FFQ data in clinical practice, but needs to be confirmed by indirect calorimetry.