

# Validity and reproducibility of the FFQ (FFQW82) for dietary assessment in female adolescents

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## Abstract

**Objective:** To assess the validity and reproducibility of a self-administered FFQ with eighty-two food items (FFQW82) for assessing the habitual diet in female adolescents.

**Design:** The validity of the FFQW82 for assessment of nutrient intake was evaluated by comparison with a 7 d weighed food record (7d-FRR) reported as 'gold standard'. Reproducibility of the FFQW82 was assessed at an interval of 1 month (test-retest method). The first survey (FFQW82 and 7d-FRR) was conducted in April 2007 and the second FFQW82 survey was conducted in May 2007. Daily consumption of energy from eleven food groups and nine nutrients were calculated from both instruments for breakfast, lunch, dinner and the whole day. Crude and energy-adjusted Pearson correlation coefficients were calculated using log-transformed data. **Setting:** Middle school, Tokyo, Japan.

**Subjects:** Female adolescents aged 12-13 years.

**Results:** Sixty-three female adolescents completed both surveys. The relative difference between the energy intake calculated by the FFQW82 and the 7d-FRR for the whole day, breakfast, lunch and dinner was 8%, 10%, 15% and 10%, respectively. As for validity, the correlation coefficient of total energy intake for the whole day was 0.31. The result for breakfast was relatively higher (0.59) compared with that for lunch (0.40) and dinner (0.32). For macronutrients, the energy-adjusted correlation coefficient ranged from 0.28 (carbohydrates) to 0.53 (protein). Reproducibility of total energy intake was 0.62 and ranged from 0.46 (fat) to 0.69 (carbohydrate) for macronutrients.

**Conclusions:** These results suggest that the FFQW82 has proved to have some potential with regard to reproducibility among our study population.

## Keywords

FFQ

Validity

Reproducibility

Female adolescents

Nutrition assessment