

COMPARISON OF FOOD DIARY AND FOOD FREQUENCY QUESTIONNAIRE METHODS IN ELDERLY

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All dietary methods have limitations so selecting the best method depends on the information sought and the subjects being studied. Food frequency questionnaires (FFQs) rely on memory and the ability to estimate serving sizes, while food diaries (FD) do not. One of the difficulties associated with assessing dietary intakes in elderly is declining memory.

This study compared two methods of dietary intake among a sub-sample (24) of elderly subjects who were part of a larger study that examined health and lifestyle issues. From this sample, there were 13 men (aged 65-74 years), and 11 women (aged 67-82 years). Each participant completed a semi-quantitative FFQ that referred to eating habits over the past 12 months. Following this, each person was asked to weigh and record their dietary intake for seven consecutive days. Nutrient intakes from both methods were analysed using Australian Food Composition Tables (NUTTAB91).

Nutrient	Men (n=13)		Women (n=11)	
	FD	FFQ	FD	FFQ
Energy (KJ)	8623 ± 1707	6207 ± 1860*	5555 ± 1419	6039 ± 1495
Protein (g)	92.0 ± 22.4	56.7 ± 18.0**	66.1 ± 14.3	56.7 ± 20.2
Fat (g)	73.5 ± 16.7	42.8 ± 18.8**	46.3 ± 18.7	50.3 ± 15.2
Carbohydrate (g)	249.3 ± 82.5	197.9 ± 64.9	158.2 ± 46.1	183.7 ± 50.4
Alcohol (g)	7.8 ± 12.2	11.1 ± 11.1	3.5 ± 5.6	8.4 ± 7.4
Dietary fibre (g)	28.5 ± 12.7	24.1 ± 7.4	18.7 ± 4.6	25.3 ± 6.6*

Mean ± SD.

Significantly different from the food diary method (Wilcoxon Rank Sum test)

* P<0.05; ** P<0.01.

In men, intakes of energy, protein and fat were lower in the FFQ method. However, in women there were no significant differences in macronutrient intakes except for dietary fibre. A gender difference was observed in both methods with men showing the greatest differences. The results may suggest that men tend to underestimate their dietary intake using the FFQ, perhaps because of difficulty estimating amounts eaten in relation to reference serving sizes.

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