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Food intake and exercise study in older adults

A thesis presented in fulfilment of the
requirements for the degree of Master of
Science Degree in Nutritional Science at
Massey University

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1998

Abstract

This study aimed to explore the relationships between food intake, body composition and exercise levels of a group of people (8 men and 34 women) currently exercising with the Sport North Harbour programs. Food intake was estimated by three day records and a calcium food frequency questionnaire. Participants kept two week exercise diaries using the PEPSA scoring system to record levels of activity. In addition bioelectrical impedance analysis was carried out and data collected on supplement use, nutrition education, alcohol intake and gardening and housework undertaken in the last four weeks.

Mean exercise levels for the group were approximately one hour per day with walking the most popular form of exercise. Fat free mass (FFM) for women was found to decline with age despite this level of exercise. The quality of food intake was similar to that obtained from the LINZ study participants 45 years and older. 35% of women and 12% of men under-reported energy intake according to the FAO/WHO/UNU criteria. No relationships were found between energy intake, energy expenditure or levels of FFM. Extremely good correlations ($r > 0.9$) were found between the PEPSA system and other validated methods of recording activity levels.

Despite these older adults exercising to provide health benefits they were not choosing a desirable food intake which would specifically provide health benefits; over 50% took dietary supplements. It is recommended that nutrition be included as an integral part of programs to promote exercise in older adults.

Acknowledgements

To my supervisor Dr Clare Wall for her enthusiasm and motivation.

To my family Simon, Evan and Chloe Bucherer for their support and patience.

To the participants of the study who were so willing and helpful throughout the data collecting process.

To Sport North Harbour for their help in posting out information and publishing the results of the study in their newsletter “Healthier Lifestyles”.

To Dr Lindsay Plank for supplying data on bioelectrical impedance collected at Auckland Hospital.

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List of Abbreviations

%	percent
Ω	ohms
BMI	body mass index
BMR	basal metabolic rate
kcal	calories
FFM	fat free mass
g	grams
kg	kilograms
m	metres
MJ	megajoules
n	number
NS	not significant
r	Pearson correlation coefficient