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**THE EFFECT OF A NUTRITION AND
HEALTH EDUCATION PROGRAMME ON
THE DIETARY CHOICES
AND BODY COMPOSITION MEASURES IN
10-12 YEAR OLD
NEW ZEALAND CHILDREN**

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of the requirements for the degree of
Masters of
Science in Nutritional Science
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DECLARATION

The work presented in this thesis is the original work of the author except as acknowledged in the text. I hereby declare that I have not submitted this material either in part or whole for a degree at this or any other institution.

Christina Denton

ABSTRACT

Childhood dietary patterns are formed at a young age and influenced by a number of factors including the media, family members and school environment. With the increasing prevalence of childhood overweight and obesity it is therefore important to educate children on appropriate dietary and lifestyle behaviours.

This research aimed to investigate: (1) the effects of a 12-week nutrition and health education programme on the dietary intakes of children aged 10-12 years; and (2) the effects of the education programme on children's body composition measures including height, weight and body mass index values.

Two New Zealand intermediate schools were chosen for the study and consisted of two hundred and forty four children (aged 10-12 years) in the intervention school and one hundred and six children in the control school. At baseline and at 3 months, dietary intake and body composition was assessed in the children. The intervention school also received a 12-week health and nutrition education programme taught by class teachers and consisting of nine different modules looking at healthy lifestyle and nutrition behaviours. Dietary intakes were measured by a food frequency questionnaire (FFQ) that collected information on the daily frequency of foods consumed within the last 4 weeks. Height and weight measurements were collected and this allowed body mass index (BMI) values to be calculated. The food frequency questionnaire has been previously validated against twenty four hour dietary records and the New Zealand Food Composition Database 2000 (NZFCD).

There were no significant differences between the two groups for body composition values. Both groups displayed some significant differences ($p \leq 0.05$) among dietary intake between baseline and follow-up with changes in median number of servings per day. A larger number of changes were seen among intervention subjects and may have been attributed to the school education intervention programme however no definite conclusions can be made. Other influences such as ethnicity, socioeconomic status and other lifestyle factors may have affected results but these were not investigated. Although results were inconclusive, significant findings from the study are encouraging for future studies. Limitations and future recommendations are provided.

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DEDICATION

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Appendix C: Intervention education programme (class modules)

GLOSSARY

The following terms and abbreviations are used throughout the thesis:

DEXA	dual energy x-ray absorptiometry
BMI	body mass index
SF's	skinfolds
mg/d	milligrams per day
mg	milligrams
g	grams
kg	kilograms
kcal	kilocalories
cm	centimetre
m ²	metres squared
HDL	high density lipoprotein
LDL	low density lipoprotein
RDI	recommended daily intake
FFQ	food frequency questionnaire
NZFCDB	New Zealand Food Composition Database
USA	United States of America
UK	United Kingdom
NZ	New Zealand
MISH	Millennium Institute of Sport and Health
NZEO	New Zealand European and Other
CNS	National Children's Nutrition Survey