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**An evaluation of 'Feed the Need' and other food assistance programmes on
dietary intake and classroom success in a low decile school in South
Auckland, New Zealand.**

A thesis presented in partial fulfilment of the requirements for the degree of

Masters of Science
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Abstract

Background: Feed the Need (FTN) is a charitable organisation that provides lunches to low decile schools during winter. Limited literature investigates the effects of such programmes on dietary intake and classroom success in New Zealand children.

Aim: To assist Manurewa South School in demonstrating the effects of FTN on dietary intake at school, and classroom success in year five and six students.

Methods: Self-administered food records were completed by 82 year five and six students from Manurewa South School during one week of FTN (i.e. 'FTN week') and again two months after FTN's conclusion (i.e. 'control week'). Mean intake of energy and all macronutrients were estimated in both weeks, and compared to school-day requirements (40% of the Nutrient Reference Values). Meals offered to students by FTN were also analysed against school-day requirements. Key food sources were identified and intake was compared between the FTN and control weeks. Furthermore, attendance and classroom behaviour were analysed using the 'Positive Behaviour 4 Learning' screening initiative. Finally, focus groups were undertaken with three staff and six student representatives to understand perceptions of food assistance programmes available.

Results: During the FTN week students consumed more energy, protein, carbohydrate, fat, saturated fat and dietary fibre ($p < 0.05$). School-day dietary fibre requirements were not met during the control week but were achieved during FTN by girls (9.13 ± 7.39 g/day). During both weeks consumption of carbohydrate, protein and saturated fat exceeded school-day recommendations. FTN meals exceeded school-day recommendations for carbohydrate, protein and saturated fat. Sources of food included the dairy, home, school, FTN and 'other'. No difference in energy intake sourced from the home or dairy was observed between the weeks ($p > 0.05$). Attendance rates and behaviour did not differ between the two weeks ($p > 0.05$). Focus groups demonstrated concerns over the tenure and cultural appropriateness of FTN.

Conclusions: FTN increased energy, macronutrient, and dietary fibre intakes in students. Nutritional adequacy of FTN meals should be moderated, in particular the saturated fat content. Guidelines should be established to ensure nutritionally adequate meals are served by programmes like FTN.

Attendance and behaviour remained unaffected in this study. Longitudinal studies are required to determine the effects of FTN on attendance rates in school.

Key Words: Feed the Need, food assistance programmes, food insecurity, nutrition, public health, South Auckland, New Zealand

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Abbreviations

AI	Adequate Intake
AMDR	Acceptable Macronutrient Distribution Range
BMI	Body Mass Index
CNS	Children’s Nutrition Survey
EAR	Estimated Average Requirement
ECLS-K	Early Childhood Longitudinal Study – Kindergarten
EER	Estimated Energy Requirement
FAP	Food Assistance Programme
FG	Focus Group
FR	Food Record
FSM	Free School Meal
FTN	Feed the Need
KS1	Key Stage 1
KS2	Key Stage 2
NAGS	National Administration Guidelines
NRV	Nutrient Reference Value
NSC of Dietary Behaviours	The National Survey of Children and Young People’s Physical Activity and Dietary Behaviours in New Zealand
NSLP	National School Lunch Programme
NZEO	New Zealand European and Other
PB4L	Positive Behaviour 4 Learning
SBP	School Breakfast Programme
SES	Socioeconomic Status
SSB	Sugar Sweetened Beverage
UK	United Kingdom
USA	United States of America
WHO	World Health Organisation

“Overcoming poverty is not a gesture of charity. It is the protection of a fundamental human right, the right to dignity and a decent life” (Mandela, 2005, para. 12)