RACP Foundation Research Awards

FINAL REPORT

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<th>Project / Program Title</th>
<th>Whanau Pakari: a multi-disciplinary intervention programme for children and adolescents with weight issues</th>
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<tr>
<td>Name</td>
<td>Dr Yvonne Anderson</td>
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<tr>
<td>Award Received</td>
<td>2014 New Zealand Research Development Scholarship</td>
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<td>Report Date</td>
<td>1 January 2015</td>
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<tr>
<td>Chief Investigator / Supervisor</td>
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<td>Administering Institution</td>
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<td>Funding Period</td>
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<td>Start Date:</td>
<td>7 January 2014</td>
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<td>Finish Date:</td>
<td>7 January 2016</td>
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PROJECT SUMMARY

Conventional models of child obesity assessment and intervention often do not reach those most in need. The Taranaki District Health Board and Sport Taranaki have collaborated to improve child and adolescent obesity intervention in Taranaki, New Zealand, resulting in the multidisciplinary intervention programme "Whanau Pakari".

The programme is supported by a healthy lifestyles coordinator, dietitian, physical activity advisor, psychologist and clinical oversight from a Paediatrician. It involves a wider multi-disciplinary approach, crossing multiple sectors together to address child obesity. It has been successfully running since January 2012. Given the need to assess efficacy of any new service in this area, a randomised controlled trial is embedded within the service, which is being undertaken in collaboration with the University of Auckland.

PROJECT AIMS / OBJECTIVES

Project Aims:

1) To determine the efficacy of an innovative multi-disciplinary intervention for obese children.
2) To assess whether the intervention is appropriate and accessible to Maori when compared with previous standard of care.
3) To determine whether an assessment of motivation or "readiness for change" can be used to predict improved outcomes when compared with those not ready for change.
4) To inform relevant parties regarding future service planning for obese children.

Primary hypothesis: In obese and overweight children assessed as psychologically "ready for change", delivery of a 12-month multidisciplinary (diet composition/food recommendations,
Physical activity, lifestyle education) intervention programme results in a significant reduction in BMJ standard deviation score.

**Design:** Randomised controlled clinical trial. Obese children and adolescents aged 5-16 years assessed as "ready to make lifestyle changes" have been included in this study if referred to the intervention service "Whanau Pakari". Randomisation is by minimisation to either a 12 month multi-disciplinary intervention programme (physical activity, nutrition and psychology sessions), or 6 monthly follow-up.

**Main outcome measures:** Primary outcomes: Reduction in BMI standard deviation score (SDS).

**Secondary outcomes:** Improvements in quality of life, dietary behaviour and physical activity, improvement in glycaemic control (as evidenced by fasting glucose and HbA1c), insulin resistance, and fasting lipids.

(Aims/objectives yet to be achieved as project is ongoing).

**SIGNIFICANCE AND OUTCOMES**

There is no childhood obesity intervention programme as comprehensive running in New Zealand currently. Therefore this research has the potential to advance service delivery for the management of weight issues in children and adolescents throughout New Zealand. The Ministry of Health NZ have been updated of progress since Whanau Pakari's inception and have expressed strong interest in the outcomes of the research, scheduled for late 2016.

Additional studies which have commenced alongside Whanau Pakari:

A multi-centre audit to explore the effectiveness of current interventions in obese New Zealand children and adolescents (see below).

"Healthy Brains": does reduction in BMI SOS improve cognitive function? Assessments are onQoinQ for this study- a total of 59 participants have now been referred.

**PUBLICATIONS / PRESENTATIONS**

2014:


Manuscript: "Effectiveness of current interventions in obese New Zealand children and adolescents" Submitted for publication, in review.

Manuscript: "The impact of "readiness for change" on obesity intervention: design and rationale of the Whanau Pakari randomised controlled clinical trial for children and adolescents" Submitted for publication, in review.

Australia and New Zealand Obesity Society (ANZOS) conference Sydney October 2014:

Abstract (Poster): "Whanau Pakari: Perceptions versus reality - how active are obese New Zealand children?"

Abstract (Poster): "Whanau Pakari: eating behaviours of obese children and adolescents in Taranaki"

Abstract (Poster): "Whanau Pakari: a multi-disciplinary intervention programme for child and adolescent obesity in Taranaki - results of the baseline assessments"

Abstract (Poster): "Effectiveness of current interventions in obese New Zealand children and adolescents."
Abstract (Oral): "Whanau Pakari: a multi-disciplinary intervention for obese children and adolescents - improved accessibility for Maori, but clear health disparities"

Abstract (Oral): "Whanau Pakari: A multi-disciplinary intervention for children and adolescents with obesity - reports of pain (including headache) and sleep duration"

Australasian Paediatric Endocrine Group (APEG)/Asia Pacific Endocrine Society (APPES) combined meeting Darwin October 2014:

Abstract (Poster): "Effectiveness of current interventions in obese New Zealand children and adolescents"

Three abstracts accepted for Agencies for Nutrition Action (ANA) conference in Auckland, May 2015 (two orals, one poster).