

Rural Clinical School

Treating childhood overweight & obesity through General Practice

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Oct 2009

Outline

- Background
- Research
 - objective
 - systematic review methodology
- Implications of systematic review
- Aim of treatment in primary care
- Feasibility study

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Treatment of childhood overweight & obesity in General Practice

Prevalence in General Practice:

- 30% of 2-18 year olds in GP BEACH data (Cretikos et al, 2007)

Counselling rate:

- 1 in every 60 overweight or obese children presenting in General Practice received "management for their weight". BEACH data (Cretikos et al, 2007)

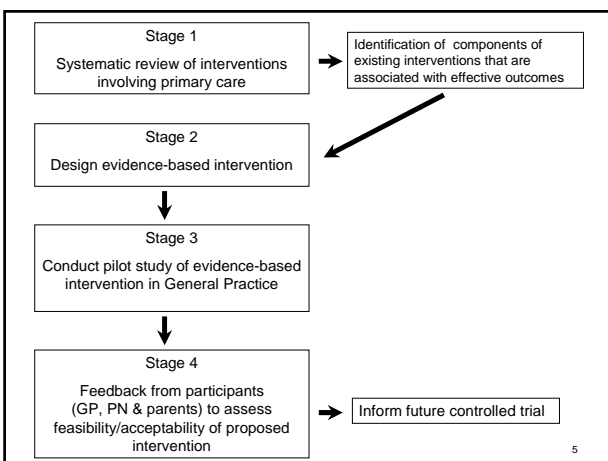
⇒ Substantial unmet need in General Practice

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Research objective

To design and pilot an evidence-based intervention to treat overweight and obese children presenting in General Practice.

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Systematic Review Key Questions

Question 1
 What does the existing literature report on interventions involving Primary Care?

Question 2
 What **components** of interventions are associated with **effective** outcomes?

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Inclusion & exclusion criteria

Included:

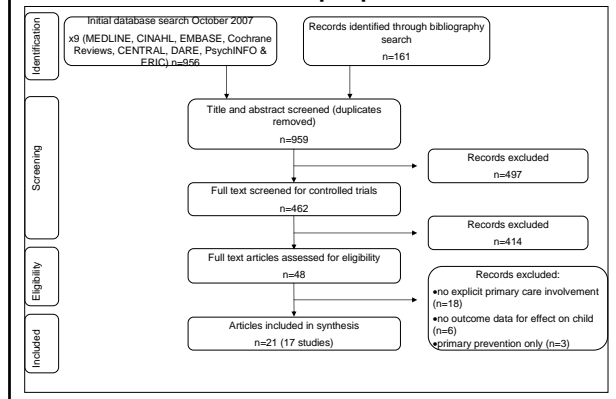
- controlled intervention trial, RCT or non-RCT
- that aimed to treat overweight or obesity
- infants, children or adolescents
- involved primary care, setting or HP

Excluded:

- primary prevention interventions
- surgical or pharmacological treatment
- published prior to 1990
- not published in English.

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Flow of papers



Definition of effect in the systematic review

Effectiveness defined as:

Statistically significant improvement in any outcome when compared to control group (at intervention completion, ie not over time)

Outcome measures:

- Anthropometric / Body Composition
- Metabolic / Metabolic risk
- Behavioural
- Psychosocial

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Outcome measures

Author	Anthropometric/Body Composition				Metabolic										Behavioural			Psychosocial				
	Weight (kg)	% overweight	BMI	Waist-hip ratio	Cholesterol	Triglycerides	Fasting glucose	HbA1c	Insulin	Insulin resistance	LDL cholesterol	HDL cholesterol	Total cholesterol	LDL cholesterol	HDL cholesterol	Physical activity	Behaviour	Quality of life	Parental involvement	Healthcare utilization	Healthcare costs	
McCallum et al 2007																						
Golley et al 2007																						
Patrick et al 2006																						
Nemet et al 2005																						
Savoie et al 2007																						
Saelens et al 2002																						
Kajavainen et al 2007																						
Schwartz et al 2007																						
Nova et al 2001																						
Muller et al 2001																						
Nuutinen 1991																						
Eliakim et al 2004																						
Korsten-Reck et al 2005																						
Gillis et al 2007																						
Graf et al 2006																						
Israel et al 1994																						
Lange-Tillerson et al 2005																						

Implications of systematic review 1. Delivery by Primary Care

- Interventions involving primary care are effective:
 - in short and long-term
 - over a variety of measures
 - no adverse effects
- Supports role of primary care medical professionals in assessment, referral **and** delivery of interventions
- Outcomes benefit from:
 - specific HP training prior to intervention
 - involvement of allied health

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Implications of systematic review 2. Behaviour change

- Behaviour change targets:
 - incorporating both healthier diet and activity into the daily routine,
 - decreasing sedentary behaviour,
 - maintaining a calorie restricted diet,
 - attending physical activity sessions and
 - achieving a healthier diet.
- Methods to affect behaviour change:
 - counselling
 - education
 - provision of written resources
 - motivation or support

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Implications of systematic review

3. Contact intensity

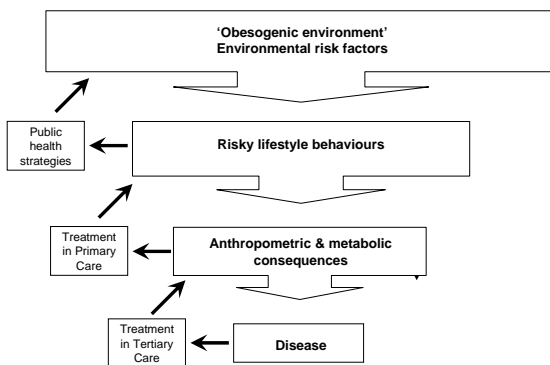
- No indication that intervention length is a predictor of effect
- Large range of intensities: from one contact in six months (MI) to three per week
 - Low intensity interventions mostly reported behaviour change
 - Intense interventions involving physical activity sessions reported metabolic improvements
 - Anthropometric changes were only reported in interventions delivered in five or more contacts

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What is the aim of treating childhood overweight and obesity in Primary Care?

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Logic model



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The aim of treating childhood overweight and obesity is:

to improve short & long-term health outcomes

Achieve this in primary care by identifying & addressing risky behaviours

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Potential intervention evaluation outcomes in primary care

Short-term	Medium-term	Long-term
acceptability & satisfaction	improved knowledge & skills & self-efficacy of participant	change in anthropometric risk profile
readiness to change / motivation & goal setting	actual behaviour change	improved metabolic profile

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Intervention research

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Acknowledgements

UNSW Rural Clinical School & scholarship is funded by:

Department of Health & Ageing

Project funding from:

UNSW Research Capacity Building Program