



Childhood Obesity Prevention Programmes:

Do they put children at increased risk for eating pathology?

Frances A. Carter
Cynthia M. Bulik

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Background

- Increasingly, obesity prevention is being seen as “the only realistic solution”
- Recognised as an international public health priority



But...

- Interrelatedness of obesity and disordered eating behaviour and attitudes
- Specific concerns noted:
 - body image dissatisfaction?
 - low self-esteem?
 - disordered eating?
 - stigmatisation?
 - perpetuation of prejudice and discrimination?

- Childhood obesity prevention programmes must first “do no harm” (O’Dea 2005)



Why Examining This Issue

- Clinical observations
- Parenting magazines-parents uncertain
- Obesity prevention programmes-questions from parents

Method

- Cochrane Collaboration Review of Effectiveness of interventions designed to prevent obesity in children (Summerbell et al 2005)

Cochrane Review

- 22 studies identified
- Designed to prevent obesity in childhood through use of:
 - Diet (n=2)
 - Physical activity (n=6)
 - Both (n=14)
- Overall, well conducted studies

Question One

How well have psychological variables been assessed by childhood obesity prevention programmes?

Broad interpretation of psychological variables

Psychological Variables as Outcome Measures

Disorders

- Nil assessed

Symptoms

Underweight, Excessive Weight Loss

- All reported, in a variety of ways (e.g., BMI, % overweight, % body fat)
- Means and standard deviations reported: consistent with study aims
- Problems with means
- Few looked at sub-groups as defined at baseline, and mostly overweight, but not end point

What Clinicians and Parents Want to Know

- How commonly participants lost an excessive or concerning amount of weight or were underweight following the intervention
- The data are available, but haven't been presented in this way

Monitoring

- Minority looked at "extreme dieting" (n=2) or "adverse effect on growth" (n=1)
- But, no data reported



Binge Eating

- Only one study assessed this, and did not use usual definition of a binge
- "In the past month, have you ever eaten so much food in a short period of time that you would be embarrassed if others saw you?"



Difficulties with Assessment of Binge Eating

- Problems with this definition of binge eating:
 - doesn't match diagnostic criteria
 - assessment of 'excessive'
 - no frequency data
 - *no assessment of 'lack of control'
- Haven't taken full advantage of ED research (e.g., lack of control)

Weight Control Behaviours

Range of Behaviours

- Only one study assessed a range of behaviours including vomiting and purging in general
- ? Reported data
- Cautions about collecting these data

Attempts to Distinguish Healthy and Unhealthy Behaviours



Assumptions About Good and Bad Outcomes

- Appealing to distinguish between healthy and unhealthy, for example...
- Harder to get consensus on some behaviours, e.g.,
 - exercise
 - healthy eating/dietary restraint
- ?Especially difficult to assess via self-report (relies on persons judgement)

Attempts to Distinguish Healthy and Unhealthy Behaviours

- Minority of studies assessed (n=3)
- *Moderate* = exercising, eating fewer fatty foods or sweets, cutting back on consumption; *Unhealthy* = starving for a day or more, skipping meals (n=2)
- Items unstated (n=1)

Dietary Restraint, Dieting

- History of measures
- Few assessed (n=2 studies), items sometimes unstated
- Issues with interpretation
- For example,
 - "if I feel fat I try to eat less"
 - "how often have you... tried to lose weight?"
- Pathology?

Excessive Exercise

- Same findings as for BMI:
 - fabulous measures, tons of data, but
 - not presented in a way that allows you to say, "how common is excessive exercise?"
- May be rare, but presentation of data would be reassuring
- Haven't taken advantage of ED research (e.g., how driven people are)

Body Image and Satisfaction

- Minority of studies assessed
- Used either silhouette method (n= 3 studies) or physical appearance subscale of Self-Perception Scale (n=2 studies)



Body Image Assessment: Example



Silhouette Method: Interpretation

- Nothing “wrong” with silhouette method
- But, care needs to be taken in interpretation:
 - doesn't tell you how accurate people are or how they feel about their bodies
 - “psychological improvement?”

Mood

- Not assessed
- Surprising given believed link between exercise and short term mood impact



Other Psychological Variables

- Self esteem and related variables (n=3)
- Food related attitudes (n=3)
- Physical activity psychosocial variables (multiple measures by many studies)
- Media internalisation (n=3)
- Parental attitudes and behaviours (n=3)

Question One-Summary

- Measures consistent with aims of studies
- Psychological variables poorly assessed
- Few assessed key eating disorder symptoms,
- Even those that have assessed, have often used problematic measures or failed to report data they do have in a helpful way

Question Two

What is the impact of childhood obesity prevention programmes on eating pathology and other psychological measures?



Adverse Impact of Interventions

- One measure in one study found a significant adverse association with the active intervention
- At follow-up more likely to be engaging in unhealthy weight control behaviours (Story et al 2003)
- But, also doing significantly *'better'* on range of other measures, e.g., less dissatisfied, healthy behavioural choices, moderate behaviours

Advantageous Impact of Interventions

- Over-concern with weight and shape (n=2)
- Body image and satisfaction (n=1 significant, n=2 trend)
- Self-esteem and related concepts (n=1)
- Food related attitudes (n=1)

- Physical activity psychosocial (n=1 significant, n=1 trend)
- School grades (n=1)
- Parental attitudes and behaviour (n=3)

Remaining Findings

- No significant difference



Conclusions

- The existing evidence does not support the view that childhood obesity prevention programmes are associated with unintended psychological harm
- If anything, they seem to be advantageous
- However, conclusions are premature because variables have been so poorly assessed

Future Directions

- Report the data that you have
- Use better measures
- Improved cooperation with eating disorders researchers needed
- Include psychological measures, especially eating pathology, but care needed (e.g., purging behaviours)
- ? Qualitative and quantitative
- ? Stepped approach to assessment
- ? Clinical interviews for some
- Follow up for longer
- ? More treatment arms/power