Interventions addressing general parenting to prevent or treat childhood obesity

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CRD summary
This review concluded that the promotion of authoritative parenting was an effective strategy for the prevention and management of childhood obesity. Limitations in the conduct of the review and uncertain quality of the included studies mean that the results of the review should be interpreted with caution.

Authors' objectives
To provide an overview of interventions which addressed general parenting in order to prevent or treat childhood obesity.

Searching
PubMed, PsycINFO and Scopus were searched to February 2010. Search terms were reported. Relevant reference lists were screened.

Study selection
Studies that included an intervention for the prevention or treatment of overweight or obese children or adolescents (up to 18 years old) were eligible for inclusion. Studies had to address general parenting skills, use anthropometric measurements at baseline and follow-up to measure effectiveness. Studies had to be published in English to be included in the review. Studies that aimed to change the children's broader environment (such as the emotional climate of the family) were excluded.

Included studies were conducted in the USA, Australia, Canada and the UK. Mean age of participants ranged from 21 months to 11.3 years (where reported). Most interventions were conducted in the five to 11 age group. Three studies did not report the ethnic origin of the participants; one reported including only native American participants; in the remaining three studies, over 80% were white. In all but one study, all the participants were overweight or obese. Interventions were delivered using different methods, but all included group sessions for parents. The included studies used four different standardised general parenting programs: Living with Children; Positive Parenting Program (Triple P); Active Parenting curriculum; Family Links Nurturing Program. Four studies focused on parents and children, and three mainly focused on parents. Duration of the intervention ranged from nine weeks to six months.

Two reviewers were involved in study selection.

Assessment of study quality
There was no formal quality assessment.

Data extraction
Effect sizes (Cohen's d) were used to express differential changes in weight measurements across the intervention and control groups. Effect sizes of 0.00 to 0.32 were rated as small, 0.33 to 0.55 as moderate, and 0.56 and above as large.

Data were abstracted by one reviewer and checked by another reviewer.

Methods of synthesis
Studies were combined in a narrative synthesis.

Results of the review
Seven intervention studies were included in the review (n=361 participants, range 12 to 111). Six studies were randomised controlled trials; one study was a pre-test/post-test study. Follow-up periods ranged from 20 weeks to three years.

All seven studies showed statistically significant intervention effects on one or more anthropometric outcome measure.

In five studies, the effect sizes were calculated for differences in weight change between groups. The effect sizes of these studies were small to moderate, ranging from -0.20 to 0.60.

Two studies, which lacked an appropriate control group, the effect sizes were calculated for weight changes over time. The effect sizes of these studies were moderate, ranging from 0.28 to 1.22.

Authors' conclusions
The promotion of authoritative parenting was an effective strategy for the prevention and management of childhood obesity.

CRD commentary
The review question and inclusion criteria were clear. Relevant databases were searched. Only studies published in the English language were included, which raised the issue of language bias. Two reviewers were involved in the process of study selection and data extraction, which helped to minimise reviewer bias and error.

No formal quality assessment was performed, so the quality of the included studies was unclear. It was clear from the study details presented that several studies included small sample sizes, short follow-up and/or lacked a control group.

Methodological limitations in the review and uncertain quality of the included studies mean that the results should be interpreted with caution.
Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors recommended the further development and testing of theory and practice-based general parenting interventions for the treatment of childhood obesity. They also suggested that future studies should include a control condition which excluded the general parenting intervention component, and that there should be long-term follow-up.

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