

Parental involvement in interventions to improve child dietary intake: a systematic review

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CRD summary

The authors concluded that limited conclusions could be drawn about the best method of involving parents in changing child diet to promote health. Review methods were incompletely reported, but overall the authors' conclusions appeared to reflect the evidence.

Authors' objectives

To evaluate the effectiveness of involving parents in interventions aimed at improving child and adolescent dietary intake.

Searching

PubMed, PsycINFO and The Cochrane Library were searched for studies published in peer-reviewed English-language journals between 1980 and December 2008; search terms were reported.

Study selection

Randomised controlled trials (RCTs) were eligible if they evaluated interventions that included parental involvement and were aimed at preventing obesity or chronic disease or health promotion in children (aged two to 12 years) or adolescents (13 to 18 years). Studies had to measure behaviour change and report statistics for results data. Parental involvement was defined as provision by parents of direct or indirect support or assistance to children/adolescents in changing their dietary intake. Studies were excluded if they targeted only overweight or obese children or children with specific medical conditions that could impact on weight and diet.

The included studies evaluated direct (parents' presence requested at educational sessions, family behaviour counselling and parent training sessions) and indirect (information that did not require parental response and invitations to parents to participate in study-sponsored and at-home activities) parental involvement interventions. Most studies focused on dietary improvement or obesity prevention; other studies focused on changing risk factors or diet plus physical activity. Most studies were set in schools; others were conducted in community settings. Most studies were conducted in USA. Most studies were in children aged six to 11 years; others involved adolescents and pre-school children. Most studies measured dietary intake using 24-hour food recalls or food frequency questionnaires. In most studies the child reported dietary intake. Studies differed in the number, duration and frequency of sessions. Sessions were delivered by different people (mostly health professionals or school staff). Interventions were based on different behaviour theories, mostly social cognitive or social learning theories.

Two reviewers selected studies and resolved disagreements on inclusions by discussion with all co-reviewers.

Assessment of study quality

Validity was assessed using the 26-item extended CONSORT checklist for non-pharmacologic RCTs. The authors did not state how many reviewers assessed validity.

Data extraction

Data were extracted onto a standardised form. Studies were classified as positive if dietary change was in the desired direction, mixed if changes were present in some but not all subgroups, no effect if there was no change in the child's diet and negative if a detrimental effect was seen (although none of the studies reported negative findings).

The authors did not state how many reviewers extracted data.

Methods of synthesis

Studies were grouped by study aim and type of parental involvement and combined in a narrative synthesis.

Results of the review

Twenty-four RCTs were included (n=approximately 35,316). Most studies had more than 1,000 participants. Study quality varied considerably. Four studies met more than 70% of items on the CONSORT checklist. The most common flaws were lack of: information on assessment of adherence to protocol; sample size calculation; randomisation methods; blinding; drop-outs; and reporting of adverse events.

Studies aimed at improving child dietary intake (four studies): One study reported significant positive changes in dietary outcomes in parental involvement groups. Two studies reported mixed results with outcomes that varied by gender. One study reported positive changes in dietary knowledge, but no changes in dietary intake.

Indirect parental involvement (19 studies): Seven studies reported significant changes in the desired direction in parental involvement groups. Seven studies reported mixed results. Five studies reported no significant intervention effects.

Direct parental involvement (five studies): Two studies reported significant changes in the desired direction in parental involvement groups. Three studies reported mixed effects.

Authors' conclusions

Limited conclusions could be drawn about the best method of involving parents in changing child diet to promote health.

CRD commentary

The review question was clearly stated and inclusion criteria were appropriately defined. Several relevant sources were searched, but no attempts were made to minimise publication or language bias. Methods were used to minimise reviewer errors and bias in the selection of studies; it unclear whether similar steps were taken in data extraction and validity assessment. Study validity was assessed and results were reported; study quality was generally poor. In view of the differences between studies a narrative synthesis was appropriate.

There were limitations in reporting of review methods but overall the authors' conclusions appeared to reflect the evidence.

Implications of the review for practice and research

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

Research: The authors stated that more research was needed into the effectiveness of direct methods of parental involvement as they showed more promise. Studies should be good quality, adhere to CONSORT guidelines of reporting, have relevant control groups, evaluate different intensities of interventions, report parent participation rates and develop standardised measures to evaluate diet using reliable and valid methods.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.