Systematic review of the effectiveness of parent-training programmes in improving behaviour problems in children aged 3-10 years: a review of the literature on parent-training programmes and child behaviour outcome measures

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Authors' objectives
To determine how effective are parent-training programmes in improving behavioural problems in children between the ages of 3 and 10 years.

Searching
The author searched the electronic databases (1970 to 1997) of MEDLINE, EMBASE, PsycLIT, Biological abstracts, CAB Abstracts, CINAHL, Sociofile, ERIC, Dissertation Abstracts, Reuter Textline, Social Science Citation Index, Healthstar, and Data DHSS. Search terms used were 'Parent$ (education or training)', 'Behavio$ (problem$ or disorder$)', and 'Conduct disorder$'. Reference lists of identified articles and bibliographies of systematic and non-systematic reviews were also searched to identify additional relevant studies. There were no language restrictions. Studies pre-dating 1970 were excluded from the review.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs), quasi-RCTs, and quantitative overviews. RCTs had to include randomisation of participants in both the experimental and control groups. Studies comparing two different therapeutic modality groups, but without a control group, were excluded from the review.

Specific interventions included in the review
Parent-training interventions including educational, skills-training, and relationship programmes based on psychoanalytic, family systems, Adlerian, humanistic, and behavioural theories. Control groups received either waiting list, no-treatment, or placebo intervention.

Participants included in the review
Children between the ages of 3 and 10 years whose primary problem was conduct disorders including at least one externalising problem (e.g. temper tantrums, aggression, non-compliance). Studies of children whose primary disorder was an internalising problem were excluded from the review (e.g. attention deficit disorder with hyperactivity, autism).

Outcomes assessed in the review
Child behaviour measured using parent (verbal or written) reports and independent observation (at school, clinic and home). Studies had to include at least one standardised child behaviour outcome measure.

How were decisions on the relevance of primary studies made?
One author selected the studies for the review.

Assessment of study quality
The studies were reviewed using the method of JAMA (see Other Publications of Related Interest no.1). One author performed the validity assessment. Uncertainties concerning the validity were resolved through consultation with a public health practitioner.

Data extraction
One author performed the data extraction using a data extraction sheet.
Data were extracted in the overview studies for the categories of study identification, focus of study (intervention), characteristics of the study, literature search strategy and findings of the study. Data were extracted in the RCTs for the categories of study identification, type of parent-training programme (intervention), characteristics of the study and methods used, duration of treatment, outcome measures, period of follow-up, and findings for child behaviour outcome measures for the study.

Where sufficient data were provided, effect sizes were calculated (in 6 RCTs). Where data were not sufficient, percentage mean changes and Z scores were presented.

Methods of synthesis
How were the studies combined?
The studies are discussed in a narrative review and not statistically combined due to an unacceptable level of heterogeneity in the primary studies.

How were differences between studies investigated?
The author does not state how differences between the studies were investigated.

Results of the review
Twenty-one studies met the inclusion criteria (18 RCTs and 3 overviews).

1. Effect sizes in 6 RCTs ranged from 0.3 to 1.3, indicating that all the parent-training programmes reviewed were effective in producing positive improvements in parental perceptions of their children's behaviour.

2. Group-based parent-training programmes have a positive impact on the behaviour of children between the ages of 3 and 10 years.

3. Group-based parent-training programmes are more successful in improving the behaviour of children compared with methods that involve working with parents on an individual basis. This finding was consistent across both parent-report outcome measures and, to a lesser extent, independent observations of children's behaviour.

4. Parent-report outcome measures also showed that community-based group parent-training programmes produced more changes in children's behaviour than individual clinic-based programmes, and that community-based programmes may be up to six times as cost-effective and more acceptable to many parents.

5. There is still insufficient research to demonstrate which aspect of group parent-training programmes is the decisive factor in bringing about change. The only study using a placebo control group in which parents presented and discussed their concerns about parenting with other group members, and in which no set parent-training curriculum was used, showed that there were no significant differences in the results between the placebo and the treatment group.

6. While all group-based programmes produced changes in children's behaviour, the more behavioural type of programme in which the parent was trained to use reinforcement effectively, appeared to produce the best results when compared with Parent-Effectiveness Training (PET) and Adlerian programmes.

Authors' conclusions
The author states that much of the research on the effectiveness of group-based parent-training programmes is methodologically flawed. However, the results of both overviews and RCTs were similar and showed the effectiveness of behaviourally-oriented parent-training programmes in improving behaviour problems in children. The results also indicate that Adlerian and PET type programmes are effective, albeit to a lesser extent, and that community-based group programmes may produce better changes in children's behaviour and be more cost-effective and user-friendly than individual clinic-based programmes.

CRD commentary
This is a good review. The author has clearly stated the research question and the inclusion and exclusion criteria. The literature search appears to be very thorough. The quality of the included studies was formally assessed and the author has discussed the validity of both groups of studies at length. The author has also reported on how the articles were selected and how the data selection and extraction were performed.

The data extraction is reported extensively in tables and text and the narrative synthesis of the study results was appropriate. Effect sizes were calculated, but it is difficult to provide a clinically meaningful interpretation from these figures. Although there were no formal tests for heterogeneity, the author narratively assesses the heterogeneity between studies and other methodological and data limitations of the review. The author's conclusions appear to follow from the results.

**Implications of the review for practice and research**

Practice: The author does not state any implications for practice.

Research: The author states that more research is still needed on the long-term outcomes of parent-training programmes, the extent to which changes in children's behaviour is carried over in to other settings such as the school, and which parents benefit from which type of programme. Some consideration of the public health implications of parent-training programmes is also now needed.

**Bibliographic details**


**Other publications of related interest**


**Indexing Status**

Subject indexing assigned by CRD

**MeSH**

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**Record Status**

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.