A systematic review of cognitive-behavioural interventions for adolescents with anger-related difficulties

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CRD summary
The review investigated the effectiveness of cognitive-behavioural interventions for adolescents with anger-related difficulties. The author concluded that such interventions were effective in managing anger-related difficulties in adolescents. Aspects of the review methodology and the quality of the included studies mean that the reliability of the authors' conclusions is uncertain.

Authors' objectives
To review the effectiveness of cognitive-behavioural interventions for adolescents with anger-related difficulties.

Searching
PsycINFO, ERIC, SCIRUS, FRANCIS, CINAHL, MEDLINE, Web of Science and IBSS databases and American Psychiatric Publishing journals were searched. The search strategy was developed from previous publications. Search terms were provided. The electronic search was supplemented by handsearches of five relevant journals. Studies conducted between 1998 and 2007 and published in English in books or in peer-reviewed journals were eligible for inclusion.

Study selection
Studies of interventions with a cognitive-behavioural emphasis were eligible for inclusion if they aimed to achieve at least one of the named outcomes (anger reduction, reduction of aggressive or antisocial behaviour, increased anger-related social skills, increased self control) in adolescents aged 11 to 18 years. All study designs other than case-studies were eligible. Studies that included other age groups were eligible if they presented results for the adolescent group separately. Interventions could be short or long term and group or individually targeted. Studies of interventions delivered to adults, adolescents with learning disabilities, that sought to alter systemic factors and were delivered in combination with other therapies were not eligible for inclusion.

The included studies involved boys and girls aged 11 to 18 from schools, mental health or criminal justice settings mostly in North America. Around three-quarters of the participants were male. Interventions ranged in duration from 30 minutes to two hours, included four to 26 sessions and lasted from two to 26 weeks. Any follow-up ranged from four weeks to nine months. The control interventions included no treatment, treatment as usual, other therapies and other CBT therapies.

One reviewer performed the selection.

Assessment of study quality
Quality was assessed using the EPPI-Centre Weight of Evidence tool of methodological coherence, appropriateness of study design for answering the review question and relevance of each study to the review question.

One reviewer performed the validity assessment.

Data extraction
Where reported, the effect size from each study was extracted. Otherwise, where data were available, Cohen's d was calculated for each study as a measure of effect size.

One reviewer performed the data extraction.
Methods of synthesis
The results were summarised in a narrative synthesis grouped according to outcome.

Results of the review
Fourteen studies (more than 495 participants) were included in the review: seven controlled studies (276 participants), of which six were randomised; and seven before/after studies (more than 219 participants; one study did not report the total number).

Most of the controlled studies were medium to high quality. Most of the before/after studies were medium to low quality. Sample sizes ranged from seven to 157 participants.

Most of the included studies found an immediate beneficial effect of the cognitive-behavioural intervention. Effect sizes, where reported, ranged from 0.03 to 1.16 for anger (nine studies), 0.28 to 3.46 for aggression (11 studies), 0.4 to 0.59 for behaviour (nine studies), 0.33 to 0.62 for anger-related social skills (three studies) and 0.33 to 1.77 for self-control (three studies).

Six studies reported longer-term follow-up. The two studies with four- to six-week follow-up found no significant improvements; the four studies with three to nine months’ follow-up found beneficial effects of the intervention. It was not possible to calculate an effect size in most of these studies.

Authors’ conclusions
Cognitive behavioural interventions were effective in managing anger-related difficulties in adolescents.

CRD commentary
The review addressed a clear question. Participant, intervention and outcome inclusion criteria were stated. The search strategy appeared comprehensive. The restriction to papers published in English risked language and publication bias. As only one reviewer performed study selection, validity assessment and data extraction, it was possible that these processes were subject to errors or reviewer bias. Given the wide range of study designs and settings, use of a narrative synthesis was appropriate.

Although the quality of the included studies was assessed, the tool used related less to the internal validity of each study and more of the relevance of the study to the review. Because of this, and the limitations of some review methods, the reliability of the author's conclusions is uncertain.

Implications of the review for practice and research
Practice: The author did not state any implications for practice.

Research: More work was required to investigate the role of cognitive-behavioural interventions in adolescent females, the effectiveness of programmes of different lengths, the relative effectiveness of individual and group therapies and the need to investigate longer-term effects of CBT.

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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.