A review of treatment efficacy for individuals with anger problems: conceptual, assessment, and methodological issues

Edmondson C B, Conger J C

Authors' objectives
To provide a comprehensive analysis of the treatment of anger problems.

Searching
The authors do not provide details of the sources searched or the strategies used.

Study selection
Study designs of evaluations included in the review
Studies (published between 1970 and 1994) which compared groups of subjects in different treatment conditions (for anger), one of which was a control condition.

Specific interventions included in the review
Relaxation, cognitive, cognitive-relaxation, social skills, and cognitive-relaxation-social skills treatments for anger.

Participants included in the review
Participants were generally angry subjects or normal individuals who received a treatment designed to reduce anger. Participants were at least 18 years of age. Studies of developmentally disabled individuals and spouse or child abusers were excluded from the review because of the unique issues associated with these populations. Many of the studies used analogue populations (subjects who were recruited for treatment based on their scores on a questionnaire) rather than self-referred clinical populations.

Outcomes assessed in the review
A reduction in anger measured by:

1. Anger experience.
3. Anger behaviour - observation.
5. Anger physiology - observation.

Various outcome assessment instruments were used in the included studies. The validity, reliability and comparability of those instruments was not discussed.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors do not report the method used to assess quality, or how the quality assessment was performed.
Data extraction
The authors do not report who, or how many of the authors, performed the data extraction.

Effect sizes were computed on the post-treatment group differences between treatment and control groups for each dependent variable that assessed aspects of anger response.

Mean difference effect sizes were computed using the d-statistic described in Hedges and Olkin (see Other Publications of Related Interest). Effect sizes were computed on unadjusted post-test means and standard deviations when they were reported. If these were not available, then the appropriate t or F value was used either to compute an effect size, or to provide an estimate of pooled standard deviation, which was used with post-test means to compute the effect size.

Methods of synthesis
How were the studies combined?
Effect sizes were averaged within treatment and assessment method and are reported as mean ES. The number of studies used in the calculation of that average ES is also reported along with the standard deviation (SD).

How were differences between studies investigated?
The authors do not report how any differences between the studies were investigated.

Results of the review
Ten studies were included in the review which included 17 treatment groups. It is unclear which of the 18 named studies are included in the review, hence it is not possible to calculate the number of participants.

The overall average ESs for the different treatments are medium to large (according to Cohen's classification of effect sizes (Cohen, 1992, see Other Publications of Related Interest)). The relaxation, social skills and cognitive-relaxation treatments had higher ESs than the cognitive treatment (Mean ES were 0.82, 0.80, 0.76, and 0.64, respectively).

For anger experience, relaxation treatment produced the most change, followed by cognitive-relaxation, cognitive, and social skills treatments (Mean ESs 1.19, 1.04, 0.98, 0.90 respectively).

For anger behaviour - self report, relaxation treatment effects the most change, followed by cognitive-relaxation, social skills treatments, and cognitive treatment (Mean ESs 0.79, 0.72, 0.71, 0.29 respectively).

For anger behaviour - observation, social skills treatments produces the most change, followed by cognitive treatment (Mean ESs 1.08, 0.34 respectively). Relaxation and cognitive-relaxation treatments were not assessed for this outcome.

For anger physiology - self-report, relaxation treatment produces the most change, followed by cognitive-relaxation, social skills, and cognitive treatments (Mean ESs 1.21, 0.76, 0.58, 0.57 respectively).

For anger physiology - observation, social skills treatment produces the most change, followed by cognitive, cognitive-relaxation, and relaxation treatments (Mean ESs 0.86, 0.77, 0.36, 0.30 respectively). Effect sizes for the non-anger outcome are not reported.

Authors' conclusions
It is difficult to recommend one treatment approach over any other approach based on this effect size analysis because different anger treatments produced large effect sizes for some aspects of anger and only small effect sizes for others. It might be more productive to recommend different treatment approaches for different aspects of anger problems and different types of anger-prone people.

CRD commentary
Overall, this review is of relatively poor quality. The authors have listed inclusion and exclusion criteria for the review and have stated their research question. Although the inclusion criteria state that included studies should compare...
groups of participants, some included studies are of individuals. The literature search is not reported so it is not possible
to know whether additional relevant studies have been missed.

The authors have not reported on how the articles were selected, or how the quality of the chosen studies was assessed.
There is also no report as to who, or how many individuals, selected the articles and extracted the data. The data from
each study is presented in a table which is impossible to match with the list of studies either selected (18) or included
(10) in the review. There is no discussion about the heterogeneity between the studies which include a wide range of
participants and treatments. The outcome measures are reported in effect sizes which are useful to compare between
the outcomes listed in the review but are not translatable into clinical measurements which practitioners would use.

It is probable that there is bias in the review because there is no information reported about the selection or quality
assessment of the included studies, therefore it is unclear whether it was appropriate to combine the data and the results
from these studies should be viewed with caution.

The authors also present and discuss their own methodology in this paper, but it is not possible to compare this
methodology with the results presented in the review, so it is not assessed further in this abstract.

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

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

Research: The authors state that future anger treatment studies should investigate the impact of the length and number
of sessions on treatment outcome. They further state that future studies of anger treatment outcome investigate the
interaction between the type of anger problem and the type of treatment.

**Bibliographic details**

Edmondson C B, Conger J C. A review of treatment efficacy for individuals with anger problems: conceptual,

**Other publications of related interest**


**Indexing Status**

Subject indexing assigned by CRD

MeSH

Anger; Behavior Therapy; Cognitive Therapy; Relaxation; Relaxation Therapy; Social Behavior

**AccessionNumber**

11997008466

**Date bibliographic record published**

31/03/2000

**Date abstract record published**

31/03/2000

**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.