Counseling outcomes from 1990 to 2008 for school-age youth with depression: a meta-analysis


CRD summary
The results of this review suggested that counselling and psychotherapy interventions were effective treatments for depression in school-age children and adolescents. The unknown quality of the included studies mean that the results should be interpreted with some caution and the reliability of the authors' conclusions is unclear.

Authors' objectives
To evaluate the effectiveness of counselling and psychotherapy for school-aged youth with depression.

Searching
PsycINFO and MEDLINE were searched for peer-reviewed studies in English from 1990 up to 2008; search terms were reported. Several journals were handsearched from 1990 to 2008. Reference lists of review and synthesis articles and retrieved clinical trials were checked to identify additional references.

Study selection
Clinical trials (of at least nine participants) that evaluated counselling or psychotherapy interventions directly aimed at reducing symptoms of depression in school-aged children/adolescents diagnosed with significant depressive symptoms were eligible for inclusion. Eligible trials had to provide sufficient data using pre- and post-test means measured using standardised instruments. Studies of other childhood mental health conditions and studies that explored drug treatment only were excluded from the review.

Over two thirds of the included studies were conducted in the USA; most studies took place in schools or outpatient clinics. The authors stated that included participants were aged from six to 17 years old. Treatment approaches used in the interventions involved group therapy, individual therapy, mixed therapy and family therapy. Many of the interventions consisted of cognitive behavioural therapy and adolescent skills training. The median number of discrete counselling and therapy sessions held per study was 12 sessions; the median length of the therapeutic sessions was 60 minutes (range 35 to 120 minutes). The comparator treatments were inactive waiting list, placebo or active comparison/treatment as usual. Symptoms of depression were measured using a variety of depression questionnaires.

Two reviewers performed the study selection; any disagreements were resolved by a third reviewer.

Assessment of study quality
The authors did not state that they formally assessed methodological quality, but reported data on randomisation and the blinding of outcome assessors.

Data extraction
Data were extracted by at least two reviewers for each study to calculate effect sizes. Multiple outcome measures from single studies were combined into a single effect size representing a single study. Any disagreements in the coding of the data were resolved through consensus. The results were stratified on comparator treatments (waiting-list control, placebo, treatment as usual, and single-sample group studies with pre- and post-test comparisons).

Methods of synthesis
The effect sizes (at last possible follow-up) from each study were averaged with independent effect sizes from the other studies. The effect sizes were corrected for sample size bias using the d co-efficient. The average d-statistics and 95% confidence intervals (CI) were calculated using an inverse variance random-effects model. Statistical heterogeneity was estimated using the Cochran's Q-statistic and I². The authors evaluated publication bias using funnel plot analysis.

Results of the review
Forty-two studies (3,472 participants) were included in the review comprising 35 randomised controlled trials, five
single-sample pre-and post-test designs and two non-randomised studies. The comparator treatments were waiting-list (18 studies), placebo (two studies), and treatment as usual (18 studies).

**Interventions compared to waiting-list** (18 studies, 1,520 participants): Significant benefits were found with counselling and psychotherapy compared with waiting lists control participants (average $d=0.55$, 95% CI 0.41 to 0.69; $I^2=0\%$). At a median follow-up of six months (range one to 12 months follow-up), a small significant effect was found for the continuation of benefit. Significant benefits were also found for the intervention in school-based programmes and in seven clinic-based settings.

**Intervention compared to placebo** (two studies, 122 participants): There were no significant differences observed between the intervention groups and placebo in these two studies ($d=0.01$, 95% -0.37 to 0.38; $I^2=0\%$).

**Intervention compared to treatment as usual** (18 studies, 1,358 participants): Significant benefits of counselling and psychotherapy were observed compared to treatment as usual ($d=0.29$, 95% CI 0.16 to 0.43; $I^2=14\%$). At a median follow-up of nine months (range six to 24 months) in nine studies, significant benefits were observed with interventions compared with treatment as usual. Six studies reported results from school-based treatment with a significant benefit for interventions over treatment as usual.

Five single-sample group designs (62 participants) also showed significant benefits for counselling/psychotherapy in school-age children/adolescents with depression ($d=0.36$, 95% CI 0.17 to 0.54, $I^2=14\%$).

**Authors' conclusions**
The results suggested that counselling and psychotherapy were effective treatments for depression in school-age children and adolescents at the end of treatment and after follow-up in school-based and clinical settings.

**CRD commentary**
The review addressed a clear question. Criteria for the inclusion of studies were clearly stipulated and reproducible. Two relevant databases were searched. Although unpublished studies were excluded from the review, the authors investigated the potential for publication bias using validated methods. The restriction of the review to studies published in English meant there was a risk of language bias. Steps were taken to minimise reviewer errors and biases for data extraction and study selection.

There was no formal assessment of the quality of included studies, which meant that the reliability of the results was unclear. The results were appropriately stratified on the basis of the comparator treatments. The decision of the authors to combine the results appeared to be justified, given the lack of statistical heterogeneity observed across the results. The reviewers acknowledged the limitations of the review including small numbers of placebo-controlled studies and the lack of long-term follow-up used.

The unknown quality of the included studies mean that the results should be interpreted with some caution and the reliability of the authors' conclusions is unclear.

**Implications of the review for practice and research**
**Practice:** The authors stated that counselling and psychotherapy interventions could be used in the treatment of depression and may be as important as the use of antidepressant medication.

**Research:** The authors stated that more research was required to identify or create interventions that maintain larger effects of treatment over a longer time period after the cessation of the treatment programme.

**Funding**
Not stated

**Bibliographic details**
Original Paper URL
http://www.readperiodicals.com/201110/2477428571/abstract

Indexing Status
Subject indexing assigned by CRD

MeSH
Depressive Disorder; Humans; Adolescent; Counseling; Psychotherapy

AccessionNumber
12011007286

Date bibliographic record published
24/02/2012

Date abstract record published
18/08/2012

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.