The effectiveness of long-term psychoanalytic therapy: a systematic review of empirical studies

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CRD summary
The authors concluded that long-term psychoanalytic therapy or psychoanalysis was an effective treatment, with moderate to large effects on symptom reduction and personality change that appeared to be maintained years after treatment termination. Given the low quality of available evidence, concerns about the methods of analysis and high levels of clinical heterogeneity, the authors’ conclusions should be treated with caution.

Authors' objectives
To evaluate the effectiveness of long-term psychotherapy in adults with clinical indications for psychoanalytic therapy.

Searching
PubMed, EMBASE, the Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, PsycLIT and the ACP Journal Club were searched from 1970 to May 2007 for articles in any language. Search terms were reported. Cross-references in the retrieved studies were located. A review of psychoanalytic therapies was handsearched (see Other Publications of Related Interest field).

Study selection
Randomised controlled trials (RCTs), cohort studies or surveys of long-term (at least one year and at least 50 sessions) individual psychoanalysis or psychoanalytic psychotherapy in ambulatory adults aged between 18 and 65 years, were eligible for inclusion. Studies were required to include patients with the usual clinical indications for psychoanalytic psychotherapy (i.e. Diagnostic and Statistical Manual of Mental Disorders diagnoses (Axis I or II) or otherwise specified symptoms or personality problems). Studies had to measure symptom reduction or change in personality to be eligible for inclusion. Studies of participants with psychotic disorders, somatic disorders, eating disorders or rare disorders (i.e. Munchhausen syndrome by proxy) and studies in clinical or day-care settings were excluded.

Included studies were of psychoanalytic psychotherapy over a mean period ranging from one to six years, with approximately 140 sessions per year for psychoanalysis and approximately 60 sessions per year for psychotherapy. Many participants presented with more than one disorder. Included studies were of participants with moderate or severe pathologies. Outcomes reported were: personality changes; symptom reduction; treatment effectiveness and treatment satisfaction measured using interviews; a variety of standardised tests or rating scales. Outcomes were measured by the therapist, patient, an observer, or some combination of these three. Where stated, follow-up ranged from one to six years.

Two reviewers independently selected the studies for inclusion, with disagreements resolved by discussion with a third reviewer.

Assessment of study quality
Methodological quality of the included studies was assessed using a checklist devised specifically for this study, following Cochrane guidelines and Leichsenring's criteria (2004). This checklist assessed study validity in the areas of study design, patient characteristics, intervention, outcome data, analyses and dropouts. Criteria differed slightly according to study design, giving a maximum research quality score (RQS) of 93 for RCTs, 80 for cohort studies with matched control groups, and 62 for single or multiple cohort studies. The presence of follow-up was considered as a separate quality criteria.

Methodological quality was assessed by two reviewers.

Data extraction
Effect sizes of pre- to post-intervention change and pre-intervention to follow-up change were extracted for each study. The effect sizes from individual studies were extracted for each study to calculate an overall mean effect size. The number of participants showing at least moderate improvement was also extracted and used to calculate a percentage success rate.

The authors did not state how the data were extracted for the review.

**Methods of synthesis**

Pooled mean effect sizes were calculated with range and standard deviation (SD). Separate analyses were carried out for pre to post-therapy outcomes and pre-therapy to follow-up. Each individual effect size was weighted according to the sample size. Success rates were pooled across studies taking into account the sample size. Separate analyses were conducted for symptom and personality assessments, for psychoanalysis and psychoanalytic psychotherapy, for therapist assessment and patients' assessment, and for moderate pathology and severe pathology.

**Results of the review**

The authors report that 27 studies were included for the review (n=5,063 patients; 3,632 receiving psychotherapy and 1,431 receiving psychoanalysis). However, findings appear only to have been reported for 17 studies (n=1, 940 patients) included in the meta-analyses; one RCT (n=42 patients), 13 prospective cohort studies (n=1,013 patients), two retrospective cohort studies (n=774 patients) and one survey (n=111 patients). The findings from seven studies that did not meet quality criteria were presented in tables and text. There were some discrepancies between the figures reported in the text and in the tables. The methodological research quality scores (RQS) of the included studies were: 77 for the RCT; 28 to 49 for the prospective cohort studies; 31 and 27 for the retrospective cohort studies; and 29 for the survey.

**Psychotherapy**: Psychoanalytic psychotherapy showed a large overall mean effect in participants with mixed or moderate pathology at the end of treatment (mean effect size 0.78, range 0.11 to 1.64; SD 0.45; six studies, n=298 patients) and at follow-up (weighted mean effect size 0.94; range 0.46 to 2.10; SD 0.69; five studies, n=541 patients). The mean effect size of psychoanalytic psychotherapy on patients with severe pathology was also large at the end of therapy (weighted mean effect size 0.94, range 0.33 to 1.20; SD 0.36; three studies, n=90 patients) and at follow-up (weighted mean effect size 1.02; one study, n=25 patients). Psychoanalytic psychotherapy showed a large effect on reducing symptoms in patients with mixed/moderate pathology (weighted mean effect size 1.03; SD 0.59; n=572 patients) but only a moderate effect on personality change (weighted mean effect size 0.54; SD 0.33; n=599 patients). Patients with severe pathology reported a large effect on personality change (weighted mean effect size 1.11; SD 0.02; n=67 patients).

**Psychoanalysis**: Psychoanalysis showed a large overall mean effect in participants with moderate or mixed pathology at end of treatment (weighted mean effect size 0.87, range 0.39 to 1.38; SD 0.41; three studies, n=112 patients) and at follow-up (mean effect size 1.18, range 1.06 to 1.44; SD 0.17; two studies, n=106 patients). Psychoanalysis showed a large effect size for symptom reduction (mean effect size 1.38; SD 0.27; n=150 patients) and a moderate effect on personality change (0.76; SD 0.27; n=186 patients) in patients with mixed pathology. There were no results on effect sizes for psychoanalysis for patients with severe pathology.

Success rates of psychotherapy and psychoanalysis for symptom reduction and personality change were reported in the review.

**Authors' conclusions**

Long-term psychoanalytic therapy or psychoanalysis was an effective treatment, with moderate to large effects on symptom reduction and personality change that appeared to be maintained years after treatment termination.

**CRD commentary**

The review addressed a clear question. Inclusion criteria were well-defined. Several relevant databases were searched for articles in any language, minimising the risk of language bias. However, specific attempts did not appear to have been made to identify unpublished data, therefore publication bias could not be ruled out. Appropriate steps were taken in the study selection and validity assessment processes to minimise the risk of reviewer error and bias. It was unclear...
whether similar steps were taken at the data extraction stage, so reviewer error and bias cannot be ruled out. A validity assessment was carried out. The majority of included studies were cohort studies without a matched control group, and many had significant methodological weaknesses, which introduced the risk of bias. The authors acknowledged certain limitations with the review (i.e. lack of robust data, clinical heterogeneity, low quality and use of simple statistical analyses). The methods for pooling the results were flawed; due to a paucity of data, only mean effect sizes were calculated. Statistical heterogeneity did not appear to have been assessed and tests of statistical significance were not reported. This meant that the reader was unable to assess the significance of the findings for themselves. Given the absence of sufficient data to conduct suitable meta-analyses, and the high level of clinical heterogeneity between included studies, the results may have been better treated through a narrative synthesis. In light of the low quality of available evidence and concerns about the methods of analysis, the authors’ conclusions should be treated with caution.

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

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

**Research:** The authors stated that further cohort studies adhering to strict research standards are needed.

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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.