Effectiveness of long-term psychodynamic psychotherapy: a meta-analysis

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CRD summary
The authors concluded that long-term psychodynamic psychotherapy is an effective treatment for patients with complex mental disorders. The evidence appears to support the authors’ conclusions, but pooling of diverse outcome data from clinically variable studies mean that the conclusions may not be reliable.

Authors' objectives
To evaluate the effects of long-term psychodynamic psychotherapy (PDP) in adults with complex mental disorders.

Searching
MEDLINE, PsycINFO and Current Contents were searched from 1960 to May 2008 using the reported terms. In addition, articles and textbooks were screened and authors were contacted. Unpublished studies were sought through Internet searches and contact with researchers.

Study selection
Randomised controlled trials (RCTs) and observational studies that evaluated long-term (at least 1 year or 50 sessions) individual PDP (as defined by Gunderson and Gabbard, see Other Publications of Related Interest) in a clearly described sample of adults (aged 18 years or older) with mental health disorders were eligible for inclusion. Studies had to report before-and-after or follow-up data for reliable outcome measures, and also present sufficient data to enable the calculation of an effect size. Concomitant treatments were allowed.

The review assessed overall outcome, target problems, general psychiatric symptoms, personality functioning and social functioning; details of the methods used to classify outcomes reported in individual studies and the instruments used were reported. The included studies involved patients with a wide variety of mental disorders. In the review, patients were grouped into the following categories: personality disorders, chronic mental disorders, multiple mental disorders, complex depression and anxiety disorders, and complex mental disorders (comprising all categories combined). The mean duration of included long-term PDP interventions was 95 weeks, the mean number of sessions was 151 (median 74) and the mean length of follow-up was 93 weeks. Control treatments, where they existed, included cognitive-behavioural therapy, cognitive-analytic therapy, dialectical-behavioural therapy, family therapy, supportive therapy, short-term psychodynamic therapy and psychiatric treatment as usual.

The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Validity was assessed using a modification of the Jadad scale which replaced blinding of the therapist and patients with outcomes assessed by blinded assessor or reliable self-reported instrument.

Two reviewers independently assessed validity. Inter-rater reliability was satisfactory.

Data extraction
Data were extracted and effect sizes (d) post-treatment and at the longest follow-up were extracted. Effect sizes were calculated separately for all review outcomes; Hedge’s d statistic for small samples was used where required. Where studies assessed outcomes using more than one measure, the mean effect size for that outcome was calculated. The overall outcome was calculated by averaging effect sizes of the other outcome categories in the review. Where studies evaluated more than one form of long-term PDP, each treatment was entered separately into the analyses. Intention-to-treat data were extracted where possible. Authors were contacted if required.

Two reviewers independently extracted the data and assessed effect sizes, and resolved any disagreements through consensus. Inter-rater reliability was satisfactory.
Methods of synthesis
Pooled effect sizes and 95% confidence intervals (CIs) were calculated using random-effects models. Differences between RCTs and observational studies were assessed using point biserial correlations (rp); the authors stated that, according to Cohen, an rp of 0.371 represented a large effect size. Different types of studies were combined when tests showed no significant difference in outcomes. Statistical heterogeneity was assessed using the Q statistic and the I\(^2\) statistic. Subgroup analyses examined the influence of the presence of a control group and type of mental disorder. Correlation analysis was used to examine the influence of predictors of moderator variables and total Jadad quality score. Details of data that were excluded from the meta-analyses were reported. Publication bias was assessed using fail-safe N analysis (the number of studies required to change significant results to non significant).

Results of the review
Twenty-three studies (n=1,310; 1,053 patients treated with long-term PDP and 257 receiving comparative treatments) were included: 11 RCTs (n=1,016) and 12 observational studies (n=294).

No evidence of publication bias was found: there was no significant correlation between effect size and sample size, and the fail-safe N ranged from 42 to 921. There was no statistically significant correlation between effect size and Jadad quality score, effect size of long-term PDP post-treatment and study design, or effect size and the concomitant use of psychotropic medication. Data from all studies were therefore combined.

Eight controlled studies compared long-term PDP with other forms of psychotherapy. Long-term PDP was associated with statistically significant improvements in overall effectiveness (d 0.96 versus 0.47, rp 0.60, 95% CI: 0.25, 0.81, p=0.005), target problems (d 1.16 versus 0.61, rp 0.49, 95% CI: 0.08, 0.76, p=0.04) and personality functioning (d 0.90 versus 0.19, rp 0.76, 95% CI: 0.33, 0.93, p=0.02) than other forms of psychotherapy. The effect sizes were large but not significant for social functioning (rp 0.39, 95% CI: -0.13, 0.74, p=0.19).

For patients with complex mental disorders, long-term PDP was associated with statistically significant improvements in overall effectiveness (rp 0.68 equivalent to Cohen's d 1.18, 95% CI: 0.7, 3.4), target problems (rp 0.69 equivalent to Cohen's d 1.19, 95% CI: 0.7, 3.5) and personality functioning (rp 0.96 equivalent to Cohen's d 6.9, 95% CI: 3.0, 14.6) compared with other forms of psychotherapy. The effect sizes were large but not significant for general psychiatric symptoms (rp 0.40) and social functioning (rp 0.45).

Large effect sizes were also reported for other types of mental disorders.

Many other results were also reported.

Authors' conclusions
The evidence showed that long-term PDP is an effective treatment for patients with complex mental disorders.

CRD commentary
The review question was stated clearly. Several relevant sources were searched and some attempts were made to minimise publication bias; publication bias was assessed and no evidence of it found. It was unclear whether any language restrictions had been applied, so the potential for language bias could not be assessed. While appropriate methods were used to minimise reviewer error and bias during the validity assessment and data extraction processes, the use of such methods at the study selection stage was not described. Validity was assessed using a modified Jadad scale, but this scale has been validated for RCTs and not for observational studies and so may not have been the most appropriate scale to use in this review. Only prospective studies meeting certain specified minimal criteria were included and the influence of quality score on the results was explored. The use of random meta-analyses models implies that significant heterogeneity was present. Data from a variety of outcome measures were pooled for each study and then these mean effect sizes were pooled. This made it difficult to interpret the results. Evidence about the comparative efficacy of treatments was based on a relatively small number of studies. The evidence appears to support the authors' conclusions, but pooling of diverse outcome data from clinically heterogeneous studies mean that the conclusions may not be reliable.
Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated the need for further research into the effects and cost-effectiveness of short- and long-term psychotherapy in specific mental disorders, and a need to compare RCTs and observational studies that use comparable treatments and patient groups.

Funding
Not externally funded.

Bibliographic details

Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
Humans; Psychoanalytic Therapy; Psychotherapy /methods; Time Factors; Treatment Outcome

AccessionNumber
12008106267

Date bibliographic record published
03/11/2008

Date abstract record published
23/12/2008

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.