Outcome, attrition, and family-couples treatment for drug abuse: a meta-analysis and review of the controlled, comparative studies

Stanton M D, Shadish W R

Authors' objectives
To synthesise drug abuse outcome studies that include family-couples therapy treatment.

Searching
Three previously conducted reviews of the literature were examined. For more recent research, a database, compiled by William R. Shadish, of published and unpublished family-couples outcome studies was searched (see Other Publications of Related Interest). A computer scan of the bibliography from the research plus an update of the computerised searches of Dissertation Abstracts International and Psychological Abstracts was conducted. All of this was in addition to ongoing communications over the proceeding 25 years with colleagues who have been involved in research on the topic.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs). Only studies that compare family or couples therapy with other treatment were included in the final meta-analysis.

Specific interventions included in the review
Various forms of family therapy (FT); FT and methadone; family psychoeducation; cognitive behavioural individual and group therapy; behavioural couples therapy; methadone alone; methadone and individual counselling; methadone, individual counselling, Bowen family therapy and psychiatric consultation; paid and unpaid family therapy and methadone; paid family movies; group treatment for relatives; peer group therapy.

Participants included in the review
Adult or adolescent individuals who abuse, or are addicted to, one or more illicit drugs.

Outcomes assessed in the review
An outcome measure of drug use (by urinalysis or self report). Only the effect size for the longest follow-up period assessed within a given study were included in the meta-analysis (ranged from immediately posttreatment to 4 years).

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 of the authors performed the selection.

Assessment of study quality
A design quality rating scale developed by Gurman and Kniskern (1978), for family-couples therapy outcome studies, was revised to incorporate several design variables of particular relevance for researchers examining treatment outcomes with people who abuse substance. The resulting quality rating scale took into account such criteria as: whether major independent variables are contaminated; whether the comparison treatments are equivalent in terms of their length and the extent to which they are valued; whether the researcher is also the therapist within the study; whether the length of follow-up is adequate (1 year or more); whether there was a standardisation of therapy through the use of treatment manuals; whether an objective method was used to assess the outcome measure (e.g. urinalysis); and whether the study has a high treatment drop-out or attrition rate. The scores for the quality categories were poor (0.0-14.0 points), fair (14.5-19.0), good (19.5-24.0), and very good 24.5-30.0).

The authors do not state how the papers were assessed for quality, or how many of the authors performed the quality assessment.
Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
The effect size estimation was calculated by computing a standard mean difference statistic for all continuous data. For dichotomous data the odds ratio was first computed and then converted to a standardised mean difference statistic. Studies were weighted according to the inverse of their variance.

How were differences between studies investigated?
Differences between categories of studies (e.g., between results from adults vs those of adolescents) were tested with Q tests, which are distributed as and tested against chi-square. No overall test for heterogeneity in the included studies was conducted.

Results of the review
Fifteen RCTs with a total of 1,571 cases (each of which could be an individual, a couple, or a family) involving an estimated 3,500 patients and family members.

Eight of the 15 studies attained the highest design quality rating of very good; 5 of the others were rated good, and 2 were rated fair. The mean for the group was 23.97, and the median was 25.00. Thus the design quality of these studies tended to be very good.

Clients receiving family-couples therapy manifested significantly lower drug use after treatment than did clients on alternative interventions (reported d=0.48, SE=0.07). Across six studies, family therapy produced significantly better outcomes than nonfamily-orientated individual counselling approaches (reported d=0.55, SE=0.09). Three studies compared group therapy (that did not include family members) with family therapy. The results favoured family therapy (reported d=0.51, SE=0.17). Seven studies compared family therapy with treatment as usual, with family therapy yielding significantly larger effects (reported d=0.38, SE=0.09). Four studies compared family psychoeducation with family therapy, resulting in a favourable result for family therapy (reported d=0.66, SE=0.13). According to two studies, family therapy did not appear to be significantly better than relatives’ groups in reducing drug use (reported d=-0.04, SE=0.16). One study compared two forms of family therapy (paid and unpaid) with a family movie condition. The family therapy results were significantly better than the movie condition. Family therapy was found to be as effective for adults as for adolescents. Because family therapy frequently had higher treatment retention rates than did non-family therapy modalities, it was modestly penalised in studies that excluded treatments drop-outs from their analyses, as family therapy apparently had retained a higher proportion of poorer prognosis cases. Re-analysis, with drop-outs regarded as failures, generally offset this artefact. Two statistical effect size measures to contend with attrition (drop-out d and total attrition d) were also presented.

Cost information
The authors state that family therapy appears to be a cost effective adjunct to methadone maintenance.

Authors’ conclusions
The major conclusions from this review are the following:

1. Studies that compared family-couples therapy with non-family modalities, such as individual counselling-therapy and peer group therapy, showed superior results for family therapy.

2. The conclusions expressed above holds equally true for people who abuse drugs and are adolescents as for those who are adults.
3. Comparisons of family therapy with other forms of family intervention in general give an edge to family therapy over family psychoeducation, along with a more ambiguous result for relatives' groups.

4. As with the field of family-couples therapy as a whole, effectiveness and efficacy comparisons between different 'schools' of family therapy are not conclusive.

5. The controlled studies on family-couples approaches for drugs have, for the most part, attained a good level of design quality.

6. Compared with other studies and approaches to psychotherapy and drug abusers, family therapy conditions have attained relatively high rates of engagement and retention in treatment.

7. Differences between treatment conditions as to their client drop-out rates pose a potential problem but only if the rates differ substantially (e.g. by more than 10%).

8. There is some evidence that the exclusion from the data analyses of all cases lost to measurement (drop-outs, those who could not be located for follow-up, etc.) does not significantly alter effect size.

**CRD commentary**

This is a clearly presented review that incorporates specific inclusion criteria and a quality assessment. However, the literature search was rather limited, in that only two electronic databases were searched and therefore important information may have been missed. No information was presented on how decisions on inclusion of studies and data extraction were made. In addition, there was no statistical test for heterogeneity conducted and therefore it is not possible to assess the appropriateness of pooling the data. The authors' conclusions seem to follow from the results.

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

The authors did not state any implications for practice or further research.

**Bibliographic details**


**PubMedID**

9283299

**Other publications of related interest**


6. Sowder B, Dickey S and Glynn TJ. Family therapy: a summary of selected literature (Department of Health,

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Adult; Combined Modality Therapy; Couples Therapy; Family Therapy; Female; Humans; Male; Patient Dropouts
/psychology; Substance-Related Disorders /psychology /rehabilitation; Treatment Outcome

**AccessionNumber**
11997003647

**Date bibliographic record published**
31/01/2000

**Date abstract record published**
31/01/2000

**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.