An overview of family interventions and relapse on schizophrenia: meta-analysis of research findings

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Authors' objectives
1. To analyse studies that would present the best evidence on the efficacy and/or effectiveness of psychosocial interventions with relatives in the reduction of relapse in schizophrenic patients. 2. To perform a meta-analysis of the research findings by pooling data from the selected trials to improve estimates of effect size.

Searching
MEDLINE was searched from 1966 to July 1992, for previous reviews using the MeSH terms 'family' and 'schizophrenia' combined with textword plus abstract search 'review', and for primary studies using the terms 'schizophrenia' and 'family therapy'. Material published in the English, French, Spanish, Italian, Portuguese and German languages was included. An extended search of identified English language publications was carried out from 1988 to July 1992 by exploding the terms 'family' and 'schizophrenia'. Reference lists of review articles and primary studies were examined to identify other studies.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) were included.

Specific interventions included in the review
Psychosocial interventions delivered in more than five sessions and not restricted to in-patient care.

Participants included in the review
Patients with a standardised diagnosis of schizophrenia and/or schizoaffective disorders were included.

Outcomes assessed in the review
The outcomes were relapse, levels of expressed emotion, compliance with drugs and hospital admission.

How were decisions on the relevance of primary studies made?
The studies were reviewed by one author. A sample of 69 studies were reviewed by a second person and the Kappa score was 0.83 with a standard error of 0.12. In addition, the reliability of the inclusion criteria was tested with 11 studies and disagreement was found in only 1 trial (Kappa 0.82, standard error 0.30).

Assessment of study quality
Study quality was assessed using a scale that consisted of 22 items including design architecture, therapeutic response, participants, therapeutic manoeuvre and statistical analysis. Studies were ranked on a scale of 1 to 24; the range for this review was 16 to 22. 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 studies were combined by meta-analysis.

How were differences between studies investigated?
The tests were grouped according to follow-up time. The Breslow-Day test for homogeneity was used, and was found to be non significant at 6 months, 9 months or 2 years.

Results of the review
Six RCTs with 350 patients (181 and 169 in control and experimental groups, respectively).

Relapse rates. Analysis was carried out in 2 ways: the first was with data from the original studies as reported, whilst the second was an effectiveness analysis that included analysis on a basis of intention to treat. In this analysis, drop-outs were handled in what would be the worst case scenario, i.e. those in the treatment group were assumed to have had a relapse and those in the control group were assumed to be free from relapse. The results of the effectiveness analysis are listed here.

6 months: odds ratio (OR) 0.65 (95% confidence interval, CI: 0.21, 1.51, p<0.27).
9 months: OR 0.59 (95% CI: 0.35, 1.00, p<0.07).
Number-needed-to-treat: 2 to 5.
24 months: OR 0.80 (95% CI: 0.47, 1.42, p<0.44).
Expressed emotion status (3 studies): OR 0.38 (95% CI: 0.18, 0.87, p<0.06).
Drug compliance (3 studies): OR 0.35 (95% CI: 0.16, 0.73, p<0.44).
Hospital admission (2 studies): OR 0.43 (95% CI: 0.16, 1.12, p<0.04).

Cost information
None. The concept of decreased cost in the treatment group is discussed.

Authors' conclusions
Family intervention proved to be an efficacious treatment when relapse was taken as the primary outcome in the meta-analysis, i.e. it worked for those who received the treatment. Results were not as promising when all cases were included in the analysis. The overall status of high expressed emotion among the experimental group was lower than that found in controls. The compliance with drugs was better in those undergoing family treatment, and hospital admission rates were also lower.

CRD commentary
The MEDLINE search appears comprehensive, but there is no indication of an effort to identify unpublished work. The authors list the excluded studies and their reasons for exclusion. The authors provide extensive descriptive detail of the definitions of relapse and the interventions included in each trial. The discussion portion of the review outlines a number of the difficulties with outcome measures experienced in this field.

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