Bipolar disorder is a complex, recurrent mood disorder, and its impact on everyday life can be devastating. Although pharmacological interventions remain the primary tool in its management, medicines cannot control all aspects and consequences of the disorder. Psychosocial interventions target issues untouched by pharmacological treatments, such as medication adherence, awareness and understanding of the disorder, early identification of prodromal symptoms, and coping skills. When combined with long-term pharmacological treatment, psychosocial interventions may enable individuals to take a more active role in the management of their disorder, and lead to improvements in mood stability, occupational and social functioning, and quality of life.1–4

We conducted a systematic review to determine whether psychosocial interventions could be effective in reducing relapse in people with bipolar disorder. The review was commissioned by the UK National Institute for Health Research’s Health Technology Assessment Programme, which has published a full report.5

Method

Inclusion criteria

We reviewed randomised or quasi-randomised controlled clinical trials with a follow-up period of at least 3 months’ duration that investigated the effectiveness of any psychosocial intervention used for the prevention of relapse in bipolar disorder. A psychosocial intervention was considered to be any non-pharmacological intervention that aimed to improve the psychological and social functioning of the patient, in either an individual or a group setting. To be included in this review, the intervention had to be used for the maintenance treatment of bipolar disorder – i.e. target the prevention of further episodes, after patients were already stabilised following an acute bipolar episode. Included studies had to assess individuals with either type I or type II bipolar disorder, or a combination of the two. Type I disorder is defined as the occurrence of one or more manic episodes, often accompanied by one or more major depressive episodes; type II disorder is defined as the occurrence of one or more major depressive episodes, accompanied by at least one episode of hypomania.6

Outcomes

The primary outcome measure was all relapses, defined either as the number of hospitalisations in each group, the number of patients who received additional treatment, or as stated by the primary study authors. Relapses were defined ‘as stated by authors’ only when the authors provided no definition of relapse, or when definitions other than hospital admission or institution of additional treatment were used, e.g. emergence of a new acute episode, often defined according to DSM–IV criteria, scores on depression or mania rating scales, or a combination of the two. Although the authors’ own definitions of relapse may have varied between trials, the definitions were similar enough to permit meaningful comparisons when using a relative measure of effect, although caution should be used when comparing absolute rates. Secondary outcome measures were manic and depressive relapses (also defined either as the number of hospitalisations in each group, the number of patients who received additional treatment, or as stated by the authors); adverse events leading to discontinuation; other treatment-related adverse events; and suicide or suicide attempts.

Search strategy

The databases Medline (1966 to 2005), PreMedline (September 2005), EMBASE (1980 to 2005), CINAHL (1982 to 2005), BIOSIS (1985 to 2005), PsyCINFO (1872 to 2005), the Science Citation Index (1900 to 2005), Latin American and Caribbean Health Sciences Literature (LILACS) (1982 to 2005) and the Cochrane Central Register of Controlled Trials (2005/3) were searched using appropriate terms. A methodological search filter was used to help identify randomised and quasi-randomised controlled trials. Information on studies in progress, unpublished research or research reported in the grey literature was sought by searching...
a range of other databases, including Inside Conferences (1990 to 2005), ISI Proceedings: Science and Technology (1993 to 2005), the National Research Register (2005;3) and the National Technical Information Service (1990 to 2005). The search was not restricted by language. In addition, internet searches were carried out and selected conference abstracts were searched by hand. Further details of the search strategy can be obtained from the authors.

The titles and abstracts of all papers identified by the search were screened, and the full paper manuscripts for all potentially relevant studies were obtained and screened according to pre-specified criteria. Because the literature search was broad, covering all treatments for bipolar disorder, broad inclusion criteria were applied during study selection, with those specific to psychosocial interventions applied at the final stage (Fig. 1). All papers that did not meet the inclusion criteria were excluded and the decisions for exclusion documented. Disagreements over the inclusion decision were resolved by consensus, or with the decision of a third reviewer. Where there was insufficient information reported to make a decision, or insufficient data for the study to be included, study authors were contacted for further details; if details were not forthcoming the studies were excluded.

Data extraction and quality assessment
Data extraction and quality assessment were conducted by one reviewer and checked independently by a second reviewer. Disagreements were resolved by consensus or with the decision of a third reviewer. Data were extracted into a pre-defined Microsoft Access database. The methodological design of all included trials was assessed according to quality criteria adapted from those in the Centre for Reviews and Dissemination’s guidance for undertaking systematic reviews.

Data analysis
The data were analysed using Stata version 8.2 and StatsDirect version 2.4.1 for Windows. Dichotomous data were analysed by calculating the odds ratio and 95% confidence intervals for each trial. For studies that presented data for more than one period of follow-up, data from the longest follow-up time point were used. Where there was more than one study for a comparison, the odds ratios were pooled using a fixed effect model (the Mantel–Haenszel method) and the corresponding confidence intervals were calculated. Statistical heterogeneity was assessed using the chi-squared test and expressed as $I^2$. The $I^2$ statistic describes the proportion of total variance across trials that is due to heterogeneity rather than chance.

For the main analysis, odds ratios were calculated using the number of patients analysed as the denominator. The potential impact of the missing data was explored using sensitivity analyses. Sensitivity analysis was used to test best-case and worst-case scenarios for the primary outcome (all relapses). For the best-case scenario, the number of patients randomised was used as the denominator (i.e. assuming all patients who had not been analysed had not had a relapse). For the worst-case scenario, the number of patients randomised was used as the denominator and the difference between the number analysed and number randomised was added to the numerator (i.e. assuming all patients who were not included in the analysis had relapsed).

Studies in which patients (although receiving maintenance therapy) were randomised during the acute phase of bipolar disorder were not included in the main analysis, but were included in secondary analyses of the primary outcome (all relapses) only. Where there was only a single study for a comparison, and that study was one that would have been included in a secondary analysis only, then results for that study were presented as for the main analysis. Where provided, data were analysed for manic and depressive relapses separately. For studies where mixed relapse was clearly defined as at least one manic episode (and additional depressive episode), the number of patients experiencing a mixed relapse was added to the number of patients with a manic relapse. Where available, data for suicide and adverse events were analysed for each comparison.

Results
Included trials
We identified 1225 potentially relevant references, 39 of which proved to be unobtainable. Twelve trials examined the effectiveness of psychosocial interventions and are included in this review (Fig. 1). The included studies evaluated cognitive–behavioural therapy (five studies), family therapy (two studies), psychoeducation (three studies), care management (one study) and integrated group therapy (one study) as adjuncts to usual pharmacological treatment. All studies were of patients with type I bipolar disorder or types I and II combined: none of the included studies presented data for patients with type II disorder alone. Details of the included studies and their methodological quality are presented in online Tables DS1 and DS2. Sample sizes and length of treatment and follow-up varied across studies. Although the overall methodological quality of some studies was sound, with all but...
Waiting-list control. Two trials were excluded from the main analysis of the outcome 'all relapses' because they randomised participants who were in an acute phase of bipolar disorder. One reasonably good-quality trial (OR = 0.16, 95% CI 0.07–0.40) was of good quality and much larger than any of the other CBT trials, found no effect of CBT relative to TAU (OR = 0.24, 95% CI 0.12–0.48). When the two excluded trials were added to the analysis, the beneficial effect of CBT on all relapses as stated by authors (OR = 0.16, 95% CI 0.07–0.40) remained statistically significant (OR = 0.42, 95% CI 0.21–0.86). However, these studies introduced between-study differences, and significant statistical heterogeneity was detected (I^2 = 72%).

Comparision | Intervention group relapse rate, % | Control group relapse rate, % | OR (95% CI) | Weighting, %
--- | --- | --- | --- | ---
All relapses (as stated by authors) | | | | |
CBT v. TAU | | | | |
Cochran (1984) | 3/14 | 8/14 | 0.20 (0.03–1.35) | 21.76 |
Lam et al (2000) | 3/12 | 10/11 | 0.03 (0.001–0.47) | 27.10 |
Lam et al (2003) | 30/47 | 43/52 | 0.37 (0.13–1.03) | 51.14 |
Pooled OR | | | | |
Family therapy v. crisis management | | | | |
Mikowitz et al (2003) | 11/31 | 38/70 | 0.46 (0.19–1.11) | 100 |
Family therapy v. individual psychosocial therapy | | | | |
Rea et al (2003) | 13/28 | 13/25 | 0.80 (0.27–2.36) | 100 |
Group psychoeducation v. non-structured group meeting | | | | |
Colom et al (2003) | 40/60 | 55/60 | 0.18 (0.06–0.52) | 66.59 |
Colom et al (2003) | 15/25 | 23/25 | 0.13 (0.02–0.48) | 33.41 |
Pooled OR | | | | |
All relapses (admission to hospital) | | | | |
CBT v. TAU | | | | |
Cochran (1984) | 2/14 | 5/14 | 0.30 (0.05–1.91) | 100 |
Family therapy v. individual psychosocial therapy | | | | |
Rea et al (2003) | 8/28 | 10/25 | 0.60 (0.19–1.89) | 100 |
Group psychoeducation v. non-structured group meeting | | | | |
Colom et al (2003) | 16/60 | 21/60 | 0.56 (0.25–1.26) | 66.04 |
Colom et al (2003) | 2/25 | 9/25 | 0.15 (0.03–0.81) | 33.96 |
Pooled OR | | | | |
Individual psychoeducation v. TAU | | | | |
Perry et al (1999) | 12/33 | 15/35 | 0.76 (0.29–2.02) | 100 |
Care management v. TAU | | | | |
Simon et al (2005) | 12/212 | 17/229 | 0.75 (0.35–1.61) | 100 |
Integrated group therapy v. TAU | | | | |
Weiss et al (2003) | 8/21 | 10/24 | 0.86 (0.26–2.85) | 100 |
CBT, cognitive–behavioural therapy; TAU, treatment as usual.

One reasonably good-quality trial (n=103, with 30 months follow-up) provided data for manic and depressive relapses, comparing CBT with TAU. Although this study found no statistically significant difference between treatment groups for the prevention of manic relapses (OR = 0.48, 95% CI 0.21–1.13), there were significantly fewer depressive relapses in the CBT group than in the TAU group (OR = 0.32, 95% CI 0.13–0.74).

Family therapy
Two studies investigated family therapy. One, a small study with some limitations in quality (n=53), found no statistically significant difference between family therapy and individual psychosocial therapy for relapse defined as admission to hospital.
(OR=0.6, 95% CI 0.19–1.89) or as stated by the authors (OR=0.80, 95% CI 0.27–2.36). The second study, which was larger and of better quality, found that family therapy was not statistically significantly better than crisis management for relapse as stated by the authors (OR=0.46, 95% CI 0.19–1.11), nor for prevention of manic or depressive relapse as stated by the authors (manic relapse, OR=0.93, 95% CI 0.31–2.82; depressive relapse, OR=0.41, 95% CI 0.15–1.12). The failure to detect any treatment difference may be due to the small sample sizes. Furthermore, the control treatments used in both these trials of family therapy were to some extent active therapies, and therefore the results indicate that family therapy might have some beneficial effect; further investigation is warranted.

### Psychoeducation

A total of three randomised trials that investigated the efficacy of psychoeducation were identified for the review. Two trials of reasonable quality, both with 24 months of follow-up, and the larger of which used assessor masking, investigated group psychoeducation in comparison with unstructured group meetings. The pooled odds ratios were statistically significant in favour of group psychoeducation for all relapses defined as admission to hospital (OR=0.21, 95% CI 0.12–0.45). The third trial, which also used assessor masking, but did not provide adequate details of methods of allocation concealment, compared individual psychoeducation with TAU. The results show no significant difference between groups for the prevention of all relapses defined as admission to hospital (OR=0.75, 95% CI 0.35–1.61). Although the study was of good quality, it should be noted that this result included participants who entered the study while still in an acute phase of bipolar disorder, which might have influenced relapse rates. There was no statistically significant difference in the rate of depressive relapses, defined as admission to hospital, between the treatment groups (OR=0.57, 95% CI 0.33–0.98).

### Table 2 Manic and depressive relapses in trials of psychosocial interventions for the treatment of bipolar disorder

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Intervention group relapse rate, n/N</th>
<th>Control group relapse rate, n/N</th>
<th>OR (95% CI)</th>
<th>Weighting, %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manic relapses (as stated by authors)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBT v. TAU</td>
<td>Lam et al (2005)</td>
<td>23/46</td>
<td>31/46</td>
<td>0.48 (0.21–1.13)</td>
</tr>
<tr>
<td>Family therapy v. crisis management</td>
<td>Miklowitz et al (2003)</td>
<td>5/31</td>
<td>12/70</td>
<td>0.93 (0.31–2.82)</td>
</tr>
<tr>
<td>Group psychoeducation v. non-structured group meeting</td>
<td>Colom et al (2003)</td>
<td>28/60</td>
<td>45/60</td>
<td>0.29 (0.13–0.63)</td>
</tr>
<tr>
<td></td>
<td>Colom et al (2003)</td>
<td>12/25</td>
<td>20/25</td>
<td>0.23 (0.06–0.81)</td>
</tr>
<tr>
<td>Pooled OR</td>
<td></td>
<td></td>
<td></td>
<td>0.27 (0.14–0.53)</td>
</tr>
<tr>
<td><strong>Manic relapses (admission to hospital)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual psychoeducation v. TAU</td>
<td>Perry et al (1999)</td>
<td>9/33</td>
<td>20/35</td>
<td>0.28 (0.10–0.78)</td>
</tr>
<tr>
<td>Care management v. TAU</td>
<td>Simon et al (2005)</td>
<td>39/169</td>
<td>58/182</td>
<td>0.64 (0.40–1.03)</td>
</tr>
<tr>
<td><strong>Depressive relapses (as stated by authors)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBT v. TAU</td>
<td>Lam et al (2005)</td>
<td>17/44</td>
<td>32/48</td>
<td>0.32 (0.13–0.74)</td>
</tr>
<tr>
<td>Family therapy v. crisis management</td>
<td>Miklowitz et al (2003)</td>
<td>6/31</td>
<td>26/70</td>
<td>0.41 (0.15–1.12)</td>
</tr>
<tr>
<td>Group psychoeducation v. non-structured group meeting</td>
<td>Colom et al (2003)</td>
<td>24/60</td>
<td>43/60</td>
<td>0.26 (0.12–0.56)</td>
</tr>
<tr>
<td></td>
<td>Colom et al (2003)</td>
<td>6/25</td>
<td>16/25</td>
<td>0.18 (0.05–0.61)</td>
</tr>
<tr>
<td>Pooled OR</td>
<td></td>
<td></td>
<td></td>
<td>0.24 (0.12–0.45)</td>
</tr>
<tr>
<td><strong>Depressive relapses (admission to hospital)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual psychoeducation v. TAU</td>
<td>Perry et al (1999)</td>
<td>18/33</td>
<td>13/35</td>
<td>2.03 (0.77–5.35)</td>
</tr>
<tr>
<td>Care management v. TAU</td>
<td>Simon et al (2005)</td>
<td>73/134</td>
<td>74/136</td>
<td>1.00 (0.62–1.62)</td>
</tr>
</tbody>
</table>

CBT, cognitive–behavioural therapy; TAU, treatment as usual.

a. Superscripts after year of study publication show reference numbers.
b. Test for heterogeneity: I²%
c. Test for overall effect: z

**Care management**

One good-quality, assessor-masked randomised trial with a large sample size (n=441) and 12 months follow-up investigated the efficacy of care management compared with TAU. The results for all relapses showed no significant difference between care management and TAU for all relapse, defined as admission to hospital (OR=0.75, 95% CI 0.35–1.61). Although the study was of good quality, it should be noted that this result included participants who entered the study while still in an acute phase of bipolar disorder, which might have influenced relapse rates. There was no statistically significant difference between care management and TAU for manic or depressive relapses defined as admission to hospital (manic relapse, OR=0.64, 95% CI 0.40–1.03; depressive relapse, OR=1.00, 95% CI 0.62–1.62).
Integrated group therapy

One small, poor-quality quasi-randomised trial with no masking that investigated the efficacy of integrated group therapy compared with TAU found no statistically significant difference between the treatments for all relapses defined as admission to hospital (OR = 0.86, 95% CI 0.26–2.85). The trial did not provide any data for manic or depressive relapses separately. The study reported one suicide attempt in the TAU group and none in the integrated therapy group.

Clinical findings

In general, the studies investigating psychosocial interventions were small, and there were few data for each comparison and outcome, making it difficult to draw any firm conclusions. The available evidence did suggest that cognitive–behavioural therapy, in combination with usual treatment, is effective for the prevention of relapse in patients with stable disorders. However, some of the studies included in the pooled analysis were of limited quality. There is reasonably good evidence that group psychoeducation is more effective than non-structured meetings for preventing all relapses, manic relapses and depressive relapses. In contrast, evidence from a single small trial found that although individual psychoeducation was more effective than TAU for the prevention of manic relapses, it was no more effective than TAU for prevention of all relapses or depressive relapses. Given that non-structured meetings are a more active control than TAU, one would expect, if anything, a larger treatment effect in the comparison with TAU, but this was not the case. Reasons for this are unclear; however, the poorer quality and small sample size of the study comparing psychoeducation with TAU may be contributing factors. Alternatively, differences in ‘dosage’ and duration of psychoeducation between studies or – perhaps more importantly – the individual v. group context in which the interventions were delivered might have been responsible.

Neither of the trials of family therapy found a significant treatment effect; however, the control treatments used in both these trials were to some extent active therapies and therefore the possibility that family therapy might have some beneficial effect cannot be discounted; further research is required. There was no evidence that care management or integrated group therapy is effective in the prevention of relapse, but this reflects a lack of evidence rather than any evidence of a lack of effect.

Unfortunately, the two best-quality trials randomised patients to treatment groups while they were experiencing an acute episode, and therefore do not provide direct information about prevention of relapse in the euthymic stage only. Interestingly, both the trial of CBT and the trial of care management found that these psychosocial interventions did not provide additional benefit to standard pharmacological therapy when used for the treatment of an acute episode and maintenance therapy. This may suggest that CBT or care management or other psychosocial interventions are only effective in stable patients. However, this evidence is by no means conclusive. A recent randomised controlled trial, restricted to patients with type I or type II bipolar disorder experiencing a current major depressive episode, found intensive psychotherapy (CBT, family-focused therapy or interpersonal social rhythm therapy) to be more effective than a brief psychoeducational intervention in reducing time to recovery and increasing the likelihood that patients would be well in any study month. The suggestion that, in general, psychosocial interventions as adjuncts to pharmacological treatment can be effective in individuals with bipolar disorder is in keeping with the results of previous systematic reviews, and evidence for CBT and psychoeducation in particular has been noted. However, it also should be noted that the majority of the available studies evaluating psychosocial interventions were carried out by researchers who are proponents of and experts in these interventions, and it is possible that treatment effects might not be as great when the interventions are applied and evaluated by others.

A recent review and meta-analysis of randomised controlled trials compared psychological therapies plus standard psychiatric
Future research

There is growing interest in the development of psychosocial interventions for patients with bipolar disorder but these have not yet been investigated thoroughly. There is some evidence that cognitive–behavioural therapy, group psychoeducation and possibly family therapy may be beneficial as adjuncts to pharmacological maintenance treatments for the prevention of relapse in stable patients. Well-conducted trials of all psychosocial interventions as adjuncts to pharmacological maintenance treatments are required. Such trials would be properly randomised and powered, the assessor masked, and ideally would use a standardised control. A more detailed analysis of the different components of the psychosocial interventions would be helpful in determining which aspects of the interventions are most effective, by which indirect routes they might have their effect, and for whom they are most effective.

References


Word pictures of depression: low mood
Sharon McConville

When a doctor asks whether a patient is ‘low in spirits’ or ‘low in mood’, what does he mean? For me, it was a very visceral feeling, compared it to feeling like an empty shell or a dark cave.

‘I feel like I am always going to have this hollow emptiness inside me. I feel like I am a shell within which there is infinite darkness, like a cave of which one can see only the mouth but which has a dark, slimy-walled interior extending deep into the cold bowels of the earth. It is musky in there and untold horrors lurk in its deepest recesses. There is a stagnant, slimy water which lies upon the floor has been in that same state for years, removed from the cycle of transpiration, evaporation and condensation by its separation from the outside reality. There are parts of me which are just like this water: bitter and unpalatable, discoloured, stale. I used to be frightened by caves but intrigued at the same time by the possibility that treasures might lie within. I used to be frightened by caves but intrigued by the possibility that to explore them might yield great riches. Now the intrigue has faded: I expect to find not jewels and gold but black rock, threatening-looking stalactites and glutinous sludge. Thinking about my soul leaves me cold rather than excited. Nothing could be heartwarming enough to heat me to the core. Where is my heart, this part of me which has ached and broken and now is as numb with cold as if it had been preserved in liquid nitrogen? Will it ever thaw? One thing is certain: if it does, it will be even more painful than warming frost-bitten fingers on a winter’s day.’

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### Table DS1 Characteristics of included trials

<table>
<thead>
<tr>
<th>Study</th>
<th>Mean age (years)</th>
<th>Sample size (n)</th>
<th>Female (%)</th>
<th>Single (%)</th>
<th>Ethnicity</th>
<th>Diagnosis</th>
<th>Treatment</th>
<th>Comparator</th>
<th>Length of follow-up (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochrane (1984)11</td>
<td>32.5b</td>
<td>28</td>
<td>61</td>
<td>79</td>
<td>White</td>
<td>NC</td>
<td>Bipolar I and II</td>
<td>CBT: 1 h/week for 6 weeks</td>
<td>TAU</td>
</tr>
<tr>
<td>Lam et al (2000)12</td>
<td>39</td>
<td>25</td>
<td>52</td>
<td>68</td>
<td>NR</td>
<td>Yes</td>
<td>Bipolar I</td>
<td>CBT: 12–20 sessions over 6 months</td>
<td>TAU</td>
</tr>
<tr>
<td>Lam et al (2005)13</td>
<td>44</td>
<td>103</td>
<td>56</td>
<td>NR</td>
<td>Yes</td>
<td>Bipolar I</td>
<td>CBT: mean of 14 (s.d.=5.3) sessions over 6 months</td>
<td>TAU</td>
<td>30</td>
</tr>
<tr>
<td>Scott et al (2001)15</td>
<td>39.2</td>
<td>42</td>
<td>60</td>
<td>67</td>
<td>NR</td>
<td>No</td>
<td>Bipolar I and II</td>
<td>CBT: Maximum of 25 sessions (45 min each)</td>
<td>Waiting-list control: Varied</td>
</tr>
<tr>
<td>Scott et al (2006)14</td>
<td>41.2</td>
<td>253</td>
<td>65</td>
<td>60</td>
<td>NR</td>
<td>No</td>
<td>Bipolar I and II</td>
<td>CBT: 20 sessions and 2 booster sessions</td>
<td>TAU</td>
</tr>
<tr>
<td>Miklowitz et al (2003)16</td>
<td>35.6</td>
<td>101</td>
<td>63</td>
<td>NR</td>
<td>White</td>
<td>NC</td>
<td>Bipolar I and II</td>
<td>Family-focused therapy: 21 hour-long sessions (12 weekly, 6 bweekly, 3 monthly)</td>
<td>Crisis management: 2 hour-long sessions in first 2 months, then as needed</td>
</tr>
<tr>
<td>Rea et al (2003)17</td>
<td>25.6</td>
<td>53</td>
<td>57</td>
<td>85</td>
<td>White</td>
<td>Yes</td>
<td>Bipolar (mainly mania)</td>
<td>Family therapy: weekly, then biweekly, then monthly</td>
<td>Psychosocial therapy: weekly, then biweekly, then monthly</td>
</tr>
<tr>
<td>Colom et al (2003)19</td>
<td>Adult1d</td>
<td>120</td>
<td>63</td>
<td>NR</td>
<td>NR</td>
<td>Yes</td>
<td>Bipolar I and II</td>
<td>Group psychoeducation: 21 sessions of 90 min each</td>
<td>Non-structured group meeting: 20 weekly group meetings without psychoeducation</td>
</tr>
<tr>
<td>Colom et al (2003)20</td>
<td>34.9</td>
<td>50</td>
<td>62</td>
<td>NR</td>
<td>NR</td>
<td>Yes</td>
<td>Bipolar I</td>
<td>Group psychoeducation: 21 sessions 90 min each</td>
<td>Non-structured group meeting: 21 sessions of 90 min each without psychoeducation</td>
</tr>
<tr>
<td>Perry et al (1999)18</td>
<td>44.5</td>
<td>69</td>
<td>68</td>
<td>38</td>
<td>White</td>
<td>Yes</td>
<td>Bipolar I and II</td>
<td>Individual psychoeducation: 7–12 hour-long sessions (median 9, range 0–12)</td>
<td>TAU</td>
</tr>
<tr>
<td>Simon et al (2005)21</td>
<td>44.2</td>
<td>441</td>
<td>68</td>
<td>48</td>
<td>White</td>
<td>No</td>
<td>Bipolar I and II</td>
<td>Care management varied. Group: 5 hour-long weekly, then 1 h bimonthly</td>
<td>TAU</td>
</tr>
</tbody>
</table>

CBT, cognitive–behavioural therapy; NC, not clear; NR, not reported; TAU, treatment as usual.

a. Superscripts after year of publication refer to reference number in the main References list.
b. Median age (mean not reported).
c. Three participants (9%) had rapid cycling bipolar disorder.
d. Age not further specified.
## Table DS2  Quality assessment of included trials

<table>
<thead>
<tr>
<th>Studya</th>
<th>Random assignment reported</th>
<th>Sequence generation adequate</th>
<th>Allocation concealed</th>
<th>Groups similar at baseline</th>
<th>Eligibility criteria specified</th>
<th>Assessors masked</th>
<th>Point estimates and variability presented for primary outcome</th>
<th>Analyses include an intention-to-treat analysis</th>
<th>Sample size calculation reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochran (1984)1</td>
<td>Yes</td>
<td>NC</td>
<td>NC</td>
<td>Yes</td>
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<td>No</td>
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NC, not clear.
a. Superscripts after year of publication refer to reference number in the main References list.
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Suzanne Beynon, Karla Soares-Weiser, Nerys Woolacott, Steven Duffy and John R. Geddes
Access the most recent version at DOI: 10.1192/bjp.bp.107.037887

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