Review: Behavioral interventions show the most promise for the chronic fatigue syndrome


Question
In patients with the chronic fatigue syndrome (CFS), what is the effectiveness of evaluated interventions?

Data Sources
Published and unpublished studies in any language were identified by searching 19 databases, including MEDLINE, EMBASE/Excerpta Medica, PsycLIT, ERIC, Current Contents, and the Cochrane Library (to 2000). The Internet was searched using a meta-search engine; references of retrieved articles were scanned; and individuals and organizations were contacted through a Web site dedicated to the review and through members of 2 advisory panels.

Study Selection
Studies were selected if they were randomized controlled trials (RCTs) or controlled clinical trials of any intervention used in the treatment or management of CFS in adults or children. Studies in which diagnoses were based on another syndrome with criteria similar to CFS, such as those of myalgic encephalomyelitis, the chronic fatigue immune deficiency syndrome, or chronic Epstein-Barr virus infection, were included, but studies of fibromyalgia were not.

Data Extraction
Data were extracted on study validity (allocation concealment [RCTs], control group and adjustment for confounders [controlled studies]), baseline comparability of groups, blinding, follow-up, dropouts, objectivity of outcome assessment, analysis, sample size, and cointerventions; intervention; diagnostic criteria; duration of follow-up; and outcomes (psychological, physical, quality-of-life and health status, physiologic, and resource use).

Main Results
44 studies were included (32 studies enrolled adults, 1 enrolled children, and 2 enrolled adults and children; 9 studies did not give age information) (n = 2801; age range 11 to 87 y; 71% women) with 31 different interventions; 36 studies were RCTs. The studies were grouped by type of intervention (behavioral, immunologic, pharmacologic, supplements, complementary or alternative, and other interventions). 18 trials (41%) showed an overall beneficial effect of the intervention (≥ 1 clinical outcome improved). The results from the RCTs are in the Table.

Interventions from RCTs for the chronic fatigue syndrome*

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Number of RCTs</th>
<th>Number of patients</th>
<th>Overall effect (improvement vs no difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral</td>
<td>8</td>
<td>883</td>
<td>6 vs 2</td>
</tr>
<tr>
<td>Graded exercise</td>
<td>3</td>
<td>350</td>
<td>3 vs 0</td>
</tr>
<tr>
<td>CBT</td>
<td>5</td>
<td>533</td>
<td>3 vs 2</td>
</tr>
<tr>
<td>Immunologic</td>
<td>9</td>
<td>440</td>
<td>4 vs 5</td>
</tr>
<tr>
<td>Pharmacologic</td>
<td>12</td>
<td>896</td>
<td>2 vs 10</td>
</tr>
<tr>
<td>Supplements</td>
<td>5</td>
<td>174</td>
<td>2 vs 3</td>
</tr>
<tr>
<td>Complementary or alternative</td>
<td>2</td>
<td>84</td>
<td>1 vs 1</td>
</tr>
</tbody>
</table>

*CBT = cognitive behavioral therapy; RCTs = randomized controlled trials. Intervention duration ranged from 2 weeks to 1 year (mean 16 wk); follow-up ranged from 2 weeks to 5 years.

Commentary
The well-done review by Whiting and colleagues does not help physicians much. In the included studies, the treatment of CFS was done by mental health and other specialists. Thus, as physicians, we must consider the data in terms of whether to refer. Qualified support exists for graded exercise and cognitive behavioral therapies, but it is unknown whether the treatment effect lasts longer than a few months, and some studies reported high dropout rates.

I was struck by the erratically positive results across many unrelated studies. I suggest that the provider–patient relationship is the common feature, although it was not reported by the authors and I have never seen it reported with controlled interventions in these populations. However, variations in the relationship may account for the variably positive results with so many unrelated treatments. The provider–patient relationship, in any event, is an appropriate focus for physicians in managing patients with CFS and can be useful in arranging referral to mental health specialists (3).

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References