A multidisciplinary community based rehabilitation programme improved social functioning in severe traumatic brain injury


**QUESTION:** In patients with severe traumatic brain injury (TBI), is a multidisciplinary community based outreach rehabilitation programme more effective than information only?

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**Community outreach programme v information only in traumatic brain injury at a mean of 24.8 months†**

<table>
<thead>
<tr>
<th>BICRO-39 scores (score range)</th>
<th>Median change scores (range)</th>
<th>p Value‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score (0 = functioning well, 30 = not functioning well)</td>
<td>Outreach Information</td>
<td></td>
</tr>
<tr>
<td>Maximum gain index (–5, 5)</td>
<td>2.5 (–1.7 to 6.2) 0.9 (–4.1 to 6.8)</td>
<td>&lt; 0.05</td>
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<tr>
<td>Self organisation (0 = no help, 5 = cannot do)</td>
<td>0.4 (–2.8 to 2.2) 0.1 (–1.5 to 3.1)</td>
<td>&lt; 0.03</td>
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<tr>
<td>Psychological wellbeing (0 = symptoms never experienced, 5 = almost always)</td>
<td>0.6 (–2.0 to 2.6) 0.2 (–1.8 to 1.3)</td>
<td>&lt; 0.05</td>
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†Probability levels for group comparisons (Mann-Whitney U tests).

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**COMMENTARY**

In 1998, Chesnut et al.¹ published an evidence-based analysis of TBI rehabilitation. They were able to draw few positive conclusions about the efficacy of rehabilitation because of the dearth of available evidence. The important study by Powell et al. provides a welcome counterpoint because it supports the usefulness of ongoing community based rehabilitation for patients with TBI. Particularly noteworthy are the design—it is one of the few randomised controlled trials related to community based rehabilitation—² the inexpensive intervention, the similarity of the intervention to other publicly funded community based rehabilitation programmes, and that change occurred many years after TBI.

Several limitations exist in the study. First, the 2 primary outcome measures that were used had substantial ceiling and floor effects (BI and 2 subscales of the BICRO-39). Use of other available measures of community integration might have avoided this problem.¹ Second, the outreach group did not make substantive gains in terms of returning to paid employment, school, or child care, or improving non-family social contact—2 key indicators of successful community integration. It is possible, as the authors suggest, that obstacles beyond the control of therapist or patient are the reason for this. However, altering some of the elements of the treatment may have a positive effect. This study contributes to the growing body of evidence suggesting that multifaceted rehabilitation approaches provide the best outcomes,³ but also shows what more needs to be done.

The take-home message is that functionally based rehabilitation shows promise for improving day to day life for patients with severe TBI even many years after injury. Although further evidence is needed to substantiate these findings and address questions about the content, intensity, duration, and timing of rehabilitation, time since injury should not preclude referral to community based services.

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