Training informal caregivers of patients with stroke improved patient and caregiver quality of life and reduced costs


In patients with stroke, does training caregivers in basic nursing tasks and facilitation of personal care techniques improve patient and caregiver outcomes and reduce costs?

METHODS

**Design:** randomised controlled trial.

**Allocation:** concealed.

**Blinding:** blinded (data collectors, outcome assessors, data analysts, and monitoring committee)*.

**Follow up period:** 12 months after stroke onset.

**Setting:** a stroke rehabilitation unit in London, UK.

**Patients:** 300 patients (median 76 y, 53% men) admitted to the stroke unit and their caregivers. Patients had to be independent in activities of daily living (ADL) before the stroke, medically and neurologically stable, and expected to return home with residual disability. Caregivers were defined as the main person (other than the health, social, or voluntary care provider) who helped with ADL and advocated for the patient; they could have no notable disability (Rankin score 0-2) and had to be willing to provide support after discharge.

**Intervention:** structured caregiver training (n = 151) or usual care (n = 149), which comprised information on management of stroke; involvement in goal setting and discharge planning; informal instruction on facilitating transfers, mobility, and ADL; and information on community services and benefits. Structured caregiver training comprised usual care plus 3–5 sessions (30–45 min each) and an at home session of instruction and relevant hands-on training (tailored to individual patients) on pressure ulcer prevention, continence, nutrition, positioning and lifting, mobility and transfers, gait facilitation, ADL, and communication.

**Outcomes:** patient mood (Hospital Anxiety and Depression [HAD] scale), quality of life (EuroQol scale), death or institutionalisation, and disability (intention to treat analysis).

**Patient follow up:** complete data for mortality, institutionalisation, and disability (intention to treat analysis).

*Information provided by author.

MAIN RESULTS

At 12 months, patients in the caregiver training group had improved mood and quality of life (table), but did not differ from the usual care group for mortality, institutionalisation, or function. Caregivers in the training group had improved mood and quality of life and reduced burden of care compared with the usual care group (table). The groups did not differ for caregiver function. Mean costs of care over 1 year were lower in the training group than in the usual care group (table).

**CONCLUSION**

Training informal caregivers of patients with stroke improved patient and caregiver mood and quality of life and reduced costs but did not affect patient mortality, institutionalisation, or functioning.

A modified version of this abstract appears in ACP Journal Club.

Caregiver training vs usual care for patients with stroke and their caregivers*

<table>
<thead>
<tr>
<th>Outcomes at 12 months</th>
<th>Caregiver training vs usual care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver training</td>
<td>Patients</td>
</tr>
<tr>
<td>Median anxiety scores (HAD)</td>
<td>3 v 4.5</td>
</tr>
<tr>
<td>Median depression scores (HAD)</td>
<td>3 v 4</td>
</tr>
<tr>
<td>Median quality of life scores (EuroQol)</td>
<td>65 v 60</td>
</tr>
<tr>
<td>Burden of care (CBS)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Costs</td>
<td>£10133 v £13794</td>
</tr>
</tbody>
</table>

*HAD = Hamilton Anxiety and Depression scale, 21–0, 0 = good; EuroQol scale, 0–100, 100 = good; CBS = Caregiver Burden Scale; 88–22, 22 = good.

1p Values for all results < 0.009.

Commentary

Han and Haley previously highlighted the lack of research into how best to support informal carers of stroke patients.1 The inclusion of the caregiver role within the Royal College of Physicians Intercollegiate Guidelines for Stroke reinforces the need to formally support caregivers,2 this element is likely to be strengthened in the second edition due to be published in July 2004.

The interventions in the study by Kalra et al appear to match the 5 main needs and concerns of caregivers identified by Bakas et al. information, emotions and behaviours, physical care, instrumental care, and personal responses to caregiving.3 Although the improvements in mood and quality of life in both patients and caregivers in the training group are important, it is perhaps unsurprising that the groups did not differ for patient mortality, institutionalisation, or function. Caregivers received a total input of 1.5–3.75 hours across approximately 10 aspects of stroke care. Although this may be sufficient to promote psychological and social wellbeing in both caregivers and patients, it might be ambitious to assume that such input would affect more physical outcomes.

The study findings clearly show a positive effect of caregiver training on the ability of caregivers to cope with long term caring. Practitioners should be encouraged to develop similarly organised training programmes.

David Stevenson, RGN, MSc
Harrogate Health Care, NHS Trust
Harrogate, UK