

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

Kalra L, Evans A, Perez I, et al. Training carers of stroke patients: randomised controlled trial. *BMJ*. 2004;328:1099-1103.

QUESTION

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: Randomized controlled trial.

Allocation: Concealed.*

Blinding: Blinded {data collectors, outcome assessors, and monitoring committee}†.*

Follow-up period: 3 and 12 months after stroke onset.

Setting: A stroke rehabilitation unit in London, England, UK.

Patients: 300 patients (median age 76 y, 53% men) admitted to the stroke unit and their caregivers. Patients had to be independent in activities of daily living (ADLs) before the stroke, medically and neurologically stable, and expected to return home with residual disability (i.e., need for supervision or physical assistance for core ADLs). Caregivers were defined as the main person (other than the health, social, or voluntary care provider) who helped with ADLs and advocated for the patient. They had to be free of notable disabilities (Rankin score 0 to 2) and willing to provide support after discharge.

Intervention: Structured caregiver training ($n = 151$) or usual care ($n = 149$). Structured caregiver training comprised usual care plus instruction and relevant hands-on training (tailored to individual patients) regarding prevention of pressure ulcers, continence, nutrition, positioning and lifting, mobility,

transfers, gait facilitation, ADLs, and communication. Usual care comprised information on management of stroke; involvement in goal setting and discharge planning; informal instruction on facilitating transfers, mobility, and ADLs; and advice and contact information on community services and benefits.

Outcomes: Patient mood (Hospital Anxiety and Depression [HAD] scale), quality of life (EuroQol scale), death or institutionalization, and function (modified Rankin scale, Barthel index, and Frenchay Activities index); caregiver emotional health (HAD scale), quality of life (EuroQol scale), Caregiver Burden Scale (CBS), and function and social activities (Frenchay Activities index); and costs.

Patient follow-up: Varied by outcome, but complete data were available on mortality, institutionalization, and disability (intention-to-treat analysis).

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, institutionalization, 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, institutionalization, or functioning.

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*See Glossary.

†Information provided by author.

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

Outcomes at 12 mo	Caregiver training vs usual care [§]	
	Patients	Caregivers
Median anxiety scores (HAD)	3 vs 4.5	3 vs 4
Median depression scores (HAD)	3 vs 4	2 vs 3
Median quality of life scores (EuroQol)	65 vs 60	80 vs 70
Burden of care (CBS)	Not applicable	32 vs 41
Costs	£10 133 vs £13 794	

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

[§]P values for all results ≤ 0.01 .

COMMENTARY

Caregivers often have major challenges in caring for a loved one with stroke. Many studies describe the negative effects of such experiences on caregivers' life circumstances and quality of life. Any intervention that can relieve this distress is worthy of serious consideration. The trial by Kalra and colleagues marks an important development in that it describes statistically and clinically significant improvements in patient and caregiver outcomes resulting from a training program for caregivers. Furthermore, the authors found a reduction in costs that was largely because of earlier discharge from hospital.

It is notable that caregiver training was provided not only in hospital but also after patients were discharged. The benefits of training could have been a result of individual caregiver instruction that addressed practical and relevant problems and was tailored to the environment in which care would be provided. This approach seems to complement the existing early supported discharge service literature (1), which indicates that improved outcomes may be achieved when rehabilitation is

targeted at functional problems in the home environment. In-hospital caregiver training and early supported discharge seem to support a practical, functional approach to rehabilitation.

Although these findings are promising, the authors acknowledge that they are from a single-center trial of a complex intervention within a relatively affluent urban population. It is possible that local factors were important to the success of the intervention. More trials are needed to identify the specifics of the interventions before major policy changes are likely to ensue. In the interim, stroke unit staff should aim to involve caregivers in the rehabilitation process and provide practical instruction to help them in their caring role.

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Reference

1. Langhorne P. *Stroke*. 2003;34:2691-2.