Integration of medical and social services for elderly people in the community reduced costs and use of health services

Bernabei R, Landi F, Gambassi G, et al. *Randomised trial of impact of model of integrated care and case management for older people living in the community*. *BMJ* 1998 May 2;316:1348–51.

Question

In frail, elderly people living in the community, does the integration of medical and social services with case management programmes reduce functional decline, admissions to institutions, and the use and costs of health services?

Design

1 year randomised controlled trial.

Setting

A town (Rovereto) in northern Italy.

Patients

200 adults (mean age 81 y, 71% women) who were ≥ 65 years of age and received home health services or home assistance programmes.

Intervention

Patients were allocated to integrated care (ie, general practitioners [GPs], and a community geriatric evaluation unit used case management and care planning to integrate the provision of social and medical services) ($n = 100$) or standard care ($n = 100$), which included GP ambulatory and home visits, nursing and social services, home aids, and meals on wheels.

Main outcome measures

Physical and cognitive function, admission to an institution, and use and costs of health services.

Main results

After results were adjusted for baseline values (ie, sex, marital status, living alone, financial status, physical and cognitive function, medical conditions, and medications used), integrated care led to better functional outcomes than did standard care (Activities of Daily Living [ADL] adjusted mean score 2.0 *v* 2.6, $p < 0.001$;

Instrumental ADL adjusted mean score 4.1 *v* 4.4, $p < 0.05$; Short Portable Mental Status Questionnaire adjusted mean score 2.8 *v* 3.4, $p < 0.05$; and Geriatric Depression Scale adjusted mean score 10.9 *v* 12.8, $p < 0.05$). Integrated care led to fewer admissions than did standard care to an acute hospital ($p < 0.05$), nursing home or hospital ($p < 0.01$), or emergency room ($p < 0.03$); no effect was seen for admissions to a nursing home ($p = 0.3$) (table). Older people who received integrated care had a shorter length of stay in a nursing home (1087 *v* 2121 days) or acute hospital (894 *v* 1376 days) than did those who received standard care. Integrated care led to a 23% saving in total/capita healthcare costs.

Conclusion

In frail, elderly people living in the community, case management and care planning that sought to integrate social and medical services reduced functional decline, admissions to institutions, and costs.

Integrated care v standard care for admissions to institutions during 1 year in frail, elderly people living in the community

Institution	Integrated care	Standard care	Hazard ratio (95% CI)
Nursing home or hospital	38%	58%	0.69 (0.53 to 0.91)
Acute hospital	36%	51%	0.74 (0.56 to 0.97)
Emergency room	6%	17%	0.64 (0.48 to 0.85)
Nursing home	10%	15%	0.81 (0.57 to 1.16)*

*Not significant.

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For correspondence: Dr R Bernabei, Istituto di Medicina, Interna e Geriatria, Università Cattolica del Sacro Cuore, 00168 Rome, Italy. Fax +39 6 3151911.

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Commentary

The question is frequently raised of how best to provide health care for older adults, both in terms of benefit to the patient and cost to the service provider. Bernabei *et al* present data on a topic that is often speculated upon rather than researched in a systematic way, perhaps because of the difficulty of collecting sound quantitative data that reflect service effects as opposed to, for example, specific treatment effects.

The authors took advantage of changes in national health policy to evaluate a new integrated social and medical care and case management package. Perhaps it was an omission that they did not give more detail about the location of their study (other than the town's name and population of 35 000) to enable the reader to

compare factors such as referral rates or number of clinical staff employed in specific settings with details for their own clinical catchment area. It must also be noted that not all patients required mental health input, although the authors indicate that their population required services because of "multiple geriatric conditions...dementia, immobility, incontinence, and stroke deficits."

The authors succeeded in conducting a randomised controlled study of the model of integrated care and case management. This involved liaison between GPs, 2 case managers, and a "community geriatric evaluation unit," which included a geriatrician, a social worker, and several nurses. For many people who work in mental health services with older adults, this

integrated model may not be novel, but it is encouraging to see data that suggest that such an approach may be effective.

The reduction in cognitive decline may have been the result of the reduction of psychological deficits in depressed or anxious patients who felt better supported by the integrated system, rather than a real delay in decline of actual cognitive function in patients with dementia. None the less, the fact that such an improvement was brought about simply by a different approach to the provision of services could be useful for mental health clinicians working with all older adults.

Donna Maria Coleston-Shields, PhD,
ClinPsyD, CPsychol
University of East Anglia
Norwich, UK