Cognitive impairment in elderly people: population based estimate of the future in England, Scotland, and Wales

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Financing long term institutional care for elderly people is a contentious political issue. Cognitive impairment is the main reason for such care,¹ and to inform the policy debate we constructed a population based set of estimates of the future number of elderly people and the characteristics of cognitive impairment among them on the basis of a national survey of disability in adults by the Office of Population Censuses and Surveys.² We report future trends based on stable age specific rates of cognitive impairment and disability.

Methods and results

In 1985-6 the Office of Population Censuses and Surveys collected data from 7486 people aged 65 and older in private households and communal settings in Britain.³ Reanalysis of the original data identified respondents with moderate or severe dementia or a similar degree of cognitive dysfunction. There is evidence that 90% of those identified are likely to have a psychiatric abnormality and that 85% of them would have dementia.² We combined age specific estimators of sociodemographic characteristics, disability, informal care, and use of health services in a spreadsheet with population estimates based on the 1991 census.⁴

The prevalence of moderate or severe cognitive impairment rises steeply with age—from 2.3% in those aged 65 to 74, to 7.2% in those aged 75 to 84, and to 21.9% in those aged 85 and older.² In 1996 the model estimated that there were about 563 000 cases of cognitive impairment across Britain. Figure 1 shows the projected trends (as a percentage change from 1996 estimates) in the British population aged 65 and older and in the number of elderly people with cognitive impairment. Between 1996 and 2006 population increases are small (3.2%), but the number of elderly people who are cognitively impaired rises by 11%, mainly because of changes in the proportion of those older than 85. In the medium term the trends are parallel, but they diverge dramatically after 2036.

The model also predicts aging within the group of those who are cognitively impaired. In 1996, 41% of elderly people with cognitive impairment were estimated to be aged 85 and over, but this rises to 45% by 2006 and to 52% by 2036. Aging within the group has important consequences since the risk of living in an institution rises sharply with age. Assuming that age specific rates of elderly people with cognitive impairment living in institutions remain at those of the mid-1980s, the number of such people in institutions would increase by 14% between 1996 and 2006. Currently, 36% of elderly people with moderate or severe cognitive impairment are estimated to be living in institutions.³ A further 36% need constant care or supervision but are living in the community, supported chiefly by their spouses or children.

Fig 1 Projected changes in numbers of people aged ≥65 and in those with cognitive impairment in Britain by year, from 1996

Comment

Our estimates are based on the assumption that age specific rates of cognitive impairment and disability will remain stable. Given the lack of evidence on the direction of key trends,⁵ especially rates of disability and informal caring, this scenario provides a prudent basis for policy discussions. The uncertainties associated with this scenario increase with the length of forward projection.

The current rise in the number of elderly people with moderate and severe cognitive impairment will outpace the increase in the elderly population as a whole; aging within the group is likely to lead to even higher growth in the numbers for whom nursing and residential care are the current options. Policymakers should be aware of the implications of trends among those aged 85 and older. They should also note that large numbers of patients living in the community would be eligible for nursing home or residential care under policies which grant entitlement based on dependency. The number of elderly people with cognitive impairment living in the community who require constant care and supervision is equal to the number of those currently cared for in nursing and residential homes.

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