Functional disability in residents of Auckland rest homes

Jonathan J Baskett FRACP, Senior Lecturer; **Ruth Bonita** PhD, Masonic Senior Research Fellow; **Joanna B Broad** Masonic Research Analyst; **David E Richmond** FRACP, Masonic Professor of Geriatric Medicine, University Geriatric Unit, Department of Medicine, University of Auckland School of Medicine, Auckland

Abstract

Object: to measure the extent of disability in residents of Auckland rest homes and to document any differences between religious and welfare homes and commercial homes.
Methods: analysis of a 36 item questionnaire on 2087 residents in 32 religious and welfare homes and 3126 residents in 191 commercial homes (98.7% response rate).
Results: residents in commercial homes were significantly more disabled than those in religious and welfare homes: 24% compared with 12% were incontinent, 62% and 31% confused, and 78% and 49% respectively needed assistance with mobility and selfcare. Of special concern were 7% and 3% who were doubly incontinent, 7% and 2% confused to the point of disturbing other residents, and 4% and 2% who met the criteria for hospital care.
Conclusions: a significant number of residents were disabled and required help in important aspects of simple self care. Informed advice, variety, and choice in type of care are mandatory before entering a rest home. Homes must employ trained staff who can identify and minimise problems so as to ensure optimal quality of life for residents.

NZ Med J 1991; 104: 200-2

Introduction

Rest homes, also referred to as old people's homes or residential homes, provide care for the frail elderly who can no longer live at home, with families, with friends or in a boarding house or private hotel. Rest homes are not set up to provide full nursing care: that is for hospitals to do. Facilities vary in terms of the physical environment provided together with the training, experience and numbers of staff per residents. Guidelines on standards of care have been issued by the Department of Health, and minimum standards are required by the Old People's Homes Regulations, 1987.

The level of dependency of residents in institutional care in various parts of New Zealand has been described [1-6]. Knowledge is required about the nature and extent of some of the major disabilities found in elderly people in residential care in Auckland to assist the process of planning for future care of people requiring rest home accommodation. In New Zealand two major categories of such homes exist: religious and welfare homes, and commercial or private sector homes. This study describes the major disabilities of residents in the two types of homes.

Method

Between January and June 1988 a survey was made of all residents in rest homes in the Auckland region as part of a larger study of all people in long term care. The methods and conduct of the study have been described elsewhere [6,7]. Briefly, a 36 item questionnaire based on a widely used and validated instrument developed by Booth [8] gathered demographic details and information about disability in residents. The functional state of each resident was recorded according to their status over the previous two weeks. The more dependent rating was selected if the condition had been variable over this time.

The Department of Health in New Zealand has developed a composite dependency scale which is recommended by the Department of Social Welfare for assessing dependency levels of those patients applying for subsidies to assist with payment in rest homes. This composite dependency scale comprises three level scales: scale 1 – self care and mobility (mobility, dressing, feeding, bathing and toileting, care of appearance); scale 2 – incontinence (urinary and faecal); scale 3 – cognitive function (memory, orientation to time and place, awareness, behaviour).

Each scale has a range of up to six scores which are summed and the result grouped into one of five categories of increasing levels of dependency. The data on the overall dependency of residents has been published [6,7].

This paper focuses on the individual scales and two other disabilities, poor vision and hearing, which are not included in the composite dependency scale. In addition it examines four areas of assessment which may also significantly alter the amount of care required in homes: sociability, need for night care, wandering and behaviour. Data were further analysed to determine any differences between religious and welfare homes and commercial homes.

Results

At the time of the survey there were 227 old peoples' homes in the Auckland region with 6036 licensed beds. Thirty-two religious and welfare homes (2209 beds) and 191 commercial rest homes (3827 beds) participated representing an overall response rate of 98.7%. Overall, 88% of all designated beds were occupied at the time of the survey (94.4% in religious and welfare, and 81.6% in commercial rest homes). Assessments were recorded for 2087 residents of religious and welfare homes and 3126 residents of commercial homes.

Missing data due to incompletely filled questionnaires accounts for slight discrepancies between the numbers reported and the actual numbers studied. This problem was not great however, the frequency with which data were missing ranging between 13 and 22 per question in the total of 5213 studied.

Residents in commercial homes were significantly more dependent in self care, more incontinent, and had reduced cognitive function compared with those in religious and welfare homes ($p < 0.0005$). Figure 1 compares the levels of self care and mobility in the two different types of homes. In those activities half (51%) of all residents in religious and welfare homes but less than a quarter (22%) in commercial homes were rated as independent. These residents could walk without aids, get to and use the toilet without help, dress, eat, take care of their appearance and shower/bath without assistance. At the other end of the scale, 8% and 18% of residents in religious and welfare and commercial homes respectively required more than moderate assistance, meaning they required at least two people to assist in mobility tasks, or required a wheelchair and considerable help in all aspects of selfcare.

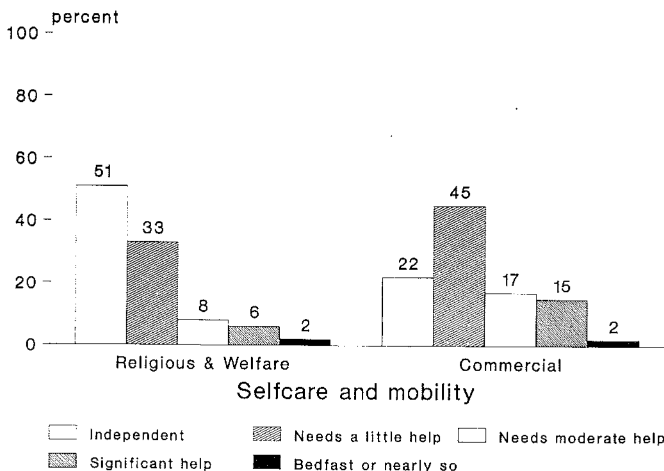

Figure 1.—Levels of dependency in selfcare and mobility in residents in Auckland rest homes, 1988. (Scale 1 of the Department of Health composite dependency scale.)

Figure 2 shows the distribution of dependency relating to continence. Although the majority (88% of residents in religious and welfare homes and 76% of people in commercial rest homes) were continent, 9% and 17% respectively had at least some problems with urinary continence, and 3% and 7% were incontinent of urine and faeces at least once a week. All differences were statistically significant ($p < 0.0005$).

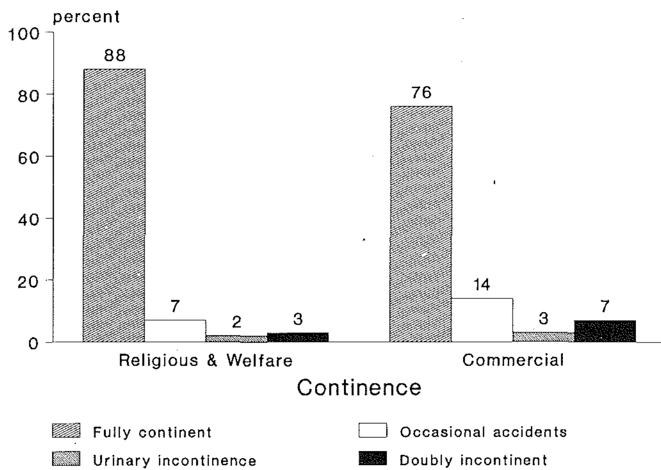

Figure 2.—Continence levels in residents of rest homes in Auckland, 1988. (Scale 2 of the Department of Health composite dependency scale.)

Figure 3 shows levels of dependence relating to cognitive function. More detailed analysis of the data from the questionnaire showed that a majority (88%) of residents in religious and welfare homes observed accepted social standards at the time of the survey compared with 70% of residents in commercial rest homes. However 22% in commercial homes exhibited behaviour which disturbed or offended other residents compared with 9% of residents in religious and welfare institutions. Similarly, 12% and 5% were subject to occasional wandering, 3% and 1% to persistent wandering, and 14% and 9% respectively were reported to be solitary and detached ($p<0.0005$).

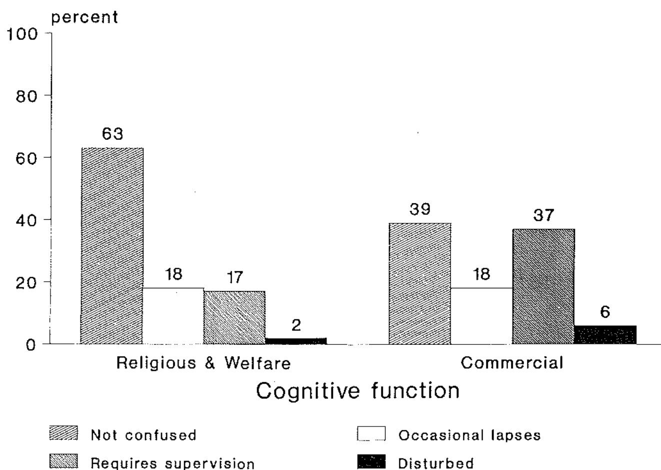

Figure 3.—Levels of cognitive function in residents of rest homes in Auckland, 1988. (Scale 3 of the Department of Health composite dependency scale.)

Table 1.—Frequency of night care required in religious and welfare (R & W) and in commercial rest homes in Auckland, 1988

	R & W n=2077 %	Commercial n=3121 %
Rarely or never require night care	77	58
Occasional assistance at night	13	18
Assistance required at least once per night	5	11
More than once per night	5	13

Table 1 indicates the amount of night care required by residents in all rest homes. One in ten residents in religious and welfare homes required assistance at night compared with one in four residents in commercial homes. In addition, 13% and 18% of residents in religious and welfare and commercial homes respectively, required occasional assistance at night ($p<0.0005$).

In both types of home approximately 90% could see at least well enough to read large print and 92% could hear well enough with or without a hearing aid. Ten percent had very poor vision and 8% were isolated by deafness. The differences between residents in religious and welfare homes and commercial homes in these two disabilities were not statistically significant.

Discussion

This study shows, as would be expected, that significant disability and dependency exists in residents in homes for the elderly in Auckland. Because of the size and scope of the study, the information depended on observations of one or more responsible rest home staff members but we have no reason to doubt the competence of staff involved to complete the questionnaire satisfactorily. This was confirmed by the findings of the validation of a repeat random sample of responses reported in a previous publication [7].

Residents in commercial homes were significantly more dependent than those in religious and welfare homes in all disability assessed except vision and hearing. We believe that this difference reflects admission policies over the few years before the study. At that time, because of different subsidy and funding restrictions, religious and welfare organisations could only charge a fee which was less than the national superannuation allowance. Because of this financial restraint staff to resident ratios were relatively low and these institutions therefore could not look after many dependent residents. Commercial homes, on the other hand, could charge a higher fee and, where necessary, employ more staff if dependency levels in residents were relatively high.

Half of the residents in religious and welfare homes and three quarters in commercial homes were dependent in self care and mobility, yet a proportion, 8% and 17%, needed a level of physical assistance one might expect from a hospital. Provided cognitive function is preserved, however, some of these residents, despite their lack of mobility, are often much easier to look after than a confused, wandering person.

Using Department of Health criteria, which scores for all levels of disability, 4% in commercial homes and 2% in religious and welfare homes should have been in hospital care. The authors concede that it may be appropriate at times for a resident to remain in a rest home despite the fact that he or she may need full nursing care. This applies particularly to those who are dying and who regard the institution as their home, and feel they are amongst friends. When this situation does exist, however, provision must be made for the situation to be carefully monitored, preferably by the regional geriatric service, and the monitor must be satisfied that the rest home is capable of providing the level of care needed.

It is important to document the reasons for disability in rest homes and the degrees to which these exist for several reasons. Firstly, a baseline measurement of ability should be recorded for each resident against which future deterioration (or improvement) may be measured. Secondly, disability can be improved upon, and some is even reversible, and so rest home staff and medical attendants must be expert, vigilant, and able to recognise the difference between an outcome of the ageing process and that which is due to super imposed illness or even to a counterproductive environment. Thirdly, an expectation that rest homes will look after the individual needs of each client must be matched by recognition of the resources required to do this, and of the need for choice and diversity between homes. In some cases it appears that residents are not living in the most appropriate or stimulating environment, but this may be because a more suitable place does not yet exist especially those catering for disabilities such as confused wandering, or antisocial behaviour.

Our study has identified that 88% of residents in religious and welfare homes, and 76% in commercial rest homes are continent. Any degree of incontinence, urinary or faecal, should be taken seriously and we were surprised to find that 3% (n=62) of residents in religious and welfare homes and 7% (n=212) in commercial homes were reported to be doubly

incontinent. We used the Department of Health definition of incontinence, ie, inappropriate voiding of urine (or faeces) more than once a week. We did not gather information as to whether double incontinence occurred every day but even if double incontinence existed weekly we would regard this as unacceptable and needing further investigation. In a study of 174 residents in 30 local authority residential homes for the elderly in the United Kingdom with urinary incontinence an appropriate diagnostic and management programme brought about a significant improvement, particularly in nocturnal incontinence. The majority of this group had a chronic dementia and a clinical diagnosis of unstable bladder [9].

The influence of environmental factors, prescription drugs, and intercurrent illness on behaviour and social graces in residents will continue to concern responsible rest home owners, licensing authorities, general practitioners and specialist geriatric and psychogeriatric services. Three percent of residents in religious and welfare homes and 8% in commercial rest homes were reported to exhibit behaviour which may distress other residents. This suggests that some residents may frequently be subjected to unacceptable behaviour to the point that their own quality and enjoyment of life could be seriously affected. Further research is now necessary to identify the nature of such behavioural disturbances and to make recommendations as to how this can be kept to a minimum.

In conclusion, considerable disability existed in Auckland rest homes during the period of this study, significantly more in commercial than in religious and welfare homes, and it would appear that a small percentage of residents probably should have been in hospital care. It is difficult to achieve high standards of care for disabled elderly people in institutions unless environment, staff training and consultant input are optimal. With the Home Care 60s Plus scheme now operating widely in Auckland more frail elderly may now be supported at home. This could mean that rest homes will have to be prepared to cope with a higher proportion of even more disabled residents in the future. Not only will it be more expensive for rest homes to provide this care, but greater input will be needed from consultant specialists from geriatric and psychogeriatric services, and from general practitioners who have undertaken further training in care of the elderly. Thus it is of considerable importance that opportunities for improvement are made available to home owners and staff. Such opportunities might be in the form of seminars and training days, evaluation of rest home environments and social programmes, and greater specialist consultant availability. It is probable that much can still be done to keep the effects of disability of people living in rest homes to a minimum and thus maintain the dignity and quality of life of each resident.

Acknowledgments: this research was funded by a Medical Research Council grant and by the Order of Freemasons of New Zealand. The authors wish to thank the staff of the homes and hospitals who participated in this survey for their willing assistance, and Sarah Thomson for her efficient coordination of the survey. The support of the New Zealand Private Rest Home Association, and the New Zealand Private Hospitals' Association of Religious and Welfare Organisations, is also acknowledged.

Correspondence: Dr J J Baskett, University Geriatric Unit, North Shore Hospital, Private Bag, Takapuna, Auckland 9.

1. Campbell AJ, Shelton EJ, Carodoc-Davies T, Fanning JC. Dependency levels of elderly people in institutional care in Dunedin. NZ Med J 1984; 97: 12-15.
2. Campbell AJ, Bunyan D, Shelton EJ, Caradoc-Davies T. Changes in levels of dependency and predictions of mortality in elderly people in institutional care in Dunedin. NZ Med J 1986; 99: 507-9.
3. Sainsbury R, Fox KM, Shelton EJ. Dependency levels of elderly people in institutionalised care in Canterbury. NZ Med J 1986; 99: 375-6.
4. King BE, Fletcher MP, Main LP. Institutional provisions for the aged: a survey of one region. Wellington: Health Services Research and Development Unit, Department of Health, 1985 (Special Report Series; no 74).
5. King BE. The elderly in Taranaki: the six percent in care. Wellington: Elderly, Disabled and Handicapped Programme, Department of Health, 1987.
6. Bonita R, Broad JB, Richmond DE, Baskett JJ. Dependency levels of people in aged care institutions in Auckland. NZ Med J 1990; 103: 500-3.
7. Bonita R, Broad JB, Thomson S, Baskett JJ, Richmond DE. Long term care in Auckland: a study of elderly people in public and private institutions. Auckland: University of Auckland, 1989.
8. Booth T. Home truths: old people's homes and the outcome of care. Aldershot: Gower, 1985.
9. Tobin G, Brocklehurst J. The management of urinary incontinence in local authority residential homes for the elderly. Age Ageing 1986; 15: 292-8.