

# Long-term care: reducing morbidity in residents and staff

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Staff in nursing homes specialising in the care of the elderly mentally ill were trained to screen for psychiatric morbidity by members of the local psychogeriatric service. They were then involved in the planning and delivery of appropriate treatment, both medical and behavioural. Residents in the homes were screened again six months later and marked reduction in morbidity was found.

The Wirral Health Authority serves a population of approximately 65 000 people aged 65 and over, of whom about 7000 are in residential care. It has a psychogeriatric service of three full-time consultants, below the College recommended level of 1:15 000. However, the service has developed to compensate for this, with community nurses working in teams of six plus an occupational therapist, half time physiotherapist and nursing and occupational therapist aides. Each consultant works with a team as described, and covers sectors based on general practitioner (GP) practices.

This study was to determine the prevalence of depression and other psychiatric morbidity in residents of those homes specialising in the care of the elderly mentally ill (EMI) (which have effectively become the 'continuing care' facility for the Wirral, there being no long-term or continuing care NHS beds), and to develop an effective strategy to identify and reduce this morbidity. These homes are all privately owned and managed and, prior to this survey and the follow-up study described, did not have any regular psychiatric follow-up after initial assessment and placement unless specifically referred by the relevant GP. It was felt likely that many treatable problems were being 'coped with' and only referred for formal assessment, if at all, after deterioration to severe or unmanageable levels.

## The study

Residents were given screening scales to assess cognitive ability, presence of depression and

behavioural problems, by nursing and care staff in each EMI registered home. Scales used were: the Folstein's Mini Mental State, ELDRS (Evans, 1993) and the CAPE behavioural rating scale. They were given by nursing and care staff in each EMI registered home after training by members of the local psychogeriatric service. Training occurred in small groups (up to eight) and took approximately 30 to 60 minutes. During the following weeks each resident was also seen individually by one of us (ME) and a formal assessment of mental state made, in order to test the validity of the scales in this population. This rater did not have the results of the scales before assessment of each patient was completed. Each resident and the home in general, were also assessed by the other members of the community team: nurses, occupational therapists and physiotherapists. Recommendations for medical treatment were made to the GP. Recommendations (and training if necessary) for behavioural treatment such as how to manage aggressive outbursts, were made to the care staff, and suggestions such as provision of extra hand-rails, specialised seating etc. to the home managers. Because of the known increase in morbidity and mortality in depressed elderly people (Murphy *et al*, 1988) a placebo control group was not considered necessary. Any advice given was the same as that offered to patients referred to the psychogeriatric service outside this study.

The six month review was carried out by the same team involved in the earlier visits. Residents were again given the ELDRS, MMSE and CAPE behavioural rating scale by nursing and care staff in each of the homes reassessed. It was not found necessary to retrain the staff in using the questionnaires although this was offered. Each resident was then seen individually for a formal assessment of mental state by medical and nursing staff. The general environment of the home itself was also assessed by the community team as a whole.

## Findings

One hundred and sixty-seven residents were screened and then interviewed by the community team and given a full mental state examination (by ME). There were 72 men and 95 women, average age 78 years two months, range 65 years to 95 years and ten months. As expected, depression was the most common treatable psychiatric condition found, with a prevalence of 31.7%.

The ELDRS showed a high specificity and sensitivity in this population compared with psychiatric interview: 114 residents were not considered to be depressed, 17 of whom had been identified as possible cases of depression by ELDRS. Fifty-three were diagnosed depressed at psychiatric interview, five of whom had not been identified by the screening scale.

On analysis:

Sensitivity: 90.6% (95% CI: 77.2%–96.6%)

Specificity: 85.1% (95% CI: 77.2%–91.1%)

Positive predictive value: 76.2 (95% CI: 63.8–86.0)

Negative predictive value: 95.1 (95% CI: 88.9–98.4)

These results show a high recognition of cases with some overdiagnosis of depressive symptoms not considered by one of us (ME) to reach the level of a depressive illness.

At six month follow-up, one of the homes had had problems with its staff and registration, resulting in major changes in both staff and remaining residents. This home was not included in the follow-up. One hundred and fifty-two residents in the remaining four homes were reassessed by medical and nursing staff of the community psychogeriatric team.

There were 69 men and 83 women, average age on entry to the study 78 years 11 months, range 65 years to 95 years 10 months. Results are shown in Table 1.

Of the original sample, 27 (18%) had died during the six month follow-up period. Of the 47 subjects diagnosed clinically as having a depressive illness, eight (17%) had died, 28 (60%) had recovered with three showing improved cognitive function of 3–7 points on the MMSE. Eight (17%) were still considered depressed although there was often some improvement noticed by care staff, and three (6%) had become cases of dementia. There was an incidence of four new cases of depression in

Table 1. Initial diagnoses v. diagnoses six months later after treatment recommendations had been made,  $n=152$

| Initial diagnosis            | <i>n</i> | Follow-up diagnosis     | <i>n</i> |
|------------------------------|----------|-------------------------|----------|
| Dementia                     | 86       | Dementia                | 65       |
|                              |          | Dementia and depression | 4        |
|                              |          | Dead                    | 17       |
| Dementia and depression      | 23       | Dementia                | 15       |
|                              |          | Dementia and depression | 3        |
|                              |          | Dead                    | 5        |
| Depressed                    | 20       | Not depressed           | 9        |
|                              |          | Dementia                | 3        |
|                              |          | Improving depression    | 5        |
|                              |          | Dead                    | 3        |
| Chronic schizophrenia        | 9        | Chronic schizophrenia   | 8        |
|                              |          | Dead                    | 1        |
| Schizophrenia and depression | 4        | Chronic schizophrenia   | 4        |
|                              |          |                         |          |
| Acute relapse schizophrenia  | 1        | Chronic schizophrenia   | 1        |
| Other                        | 9        | Other                   | 8        |
|                              |          | Dead                    | 1        |

Other=manic depressive psychosis (3), physical problems (2), epileptic psychosis (1), post encephalitic psychosis (1), Parkinson's disease (1), wrongly placed (1).

the sample as a whole. Prevalence of depression reduced from 28% to 9.6% of survivors over the six month period following intervention.

Psychopathology found ranged from mild to severe. One female resident was recommended for admission under section 2 of the Mental Health Act (1983) following her mental state examination although she eventually agreed to accept treatment as an informal patient.

Dependency needs as recorded by the CAPE behavioural scale showed little change but disturbed behaviour was reduced, particularly in those with dementia and depression who responded to treatment. Anecdotal reports from staff described marked improvement in behaviour seen, for example a man suffering from dementia who had also been irritable and aggressive prior to diagnosis and treatment of depression, became more approachable and able to interact in a pleasant way with staff and other residents.

The changes seen in the homes during this study were improved staff morale, satisfaction and abilities; improved care especially in recreational activities giving stimulation and distraction to the residents and possibly prevention of the development of problems

through boredom; and less evidence of depression, withdrawal or aggression among the residents.

### Comment

The results of this study, although of a shorter follow-up period, compare favourably with the results from a similar intervention study reported by Ames (1990) who followed up residents in local authority residential homes 12 months after making treatment recommendations for behavioural, social or physical treatments. He found disappointingly few of his recommendations had been carried out and even less persevered with. Consequently he found no significant change in the mental health of the residents.

The major difference between these studies appears to be in methodology. The staff of the homes were themselves asked to complete rating scales on the behaviour, cognitive level and presence of depressive symptoms. Once the formal mental state assessment had been carried out by ME, the staff were involved in discussion of the findings and development of an individual care plan for each patient. If physical treatment, e.g. antidepressants or change in dosage or type of tranquillisers, was indicated, the letter to the GP was copied to the nursing home. The home staff were then able to ensure that medication changes as recommended did occur. Compliance was also good as all staff in these homes were trained to give out medication and to ensure it was taken appropriately and not secreted or discarded elsewhere.

The possibility that depression may be a factor in accepting placement in long-term residential care needs to be considered prior to placement and before major decisions such as selling or giving up the family home are made. Once in residential care, physical health is cared for by local GPs but functional psychiatric morbidity, especially depression, is rarely considered unless extreme and overt in its presentation.

There is a lack of understanding of the mechanism by which depression develops and is maintained among the elderly living in care. Foster *et al* (1991) found an incidence rate of 14% in 12 months although the homes taking part in this study showed a rate of under 4% in the six months after intervention. A study in Australia (Thomas & Hayley, 1991) showed that a positive attitude to residential

care prior to admission was an important predictor of affective well-being. Pain has been found to be strongly associated with the prevalence of depression in residential care (Parmalee *et al*, 1991) and in the community (Evans *et al*, 1991).

The supportive alliance which developed between the community teams and nursing homes in their areas led to increased morale and interest among the homes' staff, leading to increased interaction and activities with the residents. This led to an improved quality of life for both staff and residents and was probably a major factor in the decreased incidence of depression seen.

Behavioural disturbance is the commonest reason for referring a nursing home resident for psychiatric consultation (Loebel *et al*, 1991) although such behaviour is also frequently treated by the GP with major tranquillisers. While this may be appropriate, the present study found depression to be a major factor in the development and maintenance of behavioural disturbance, especially aggression, in demented residents. Treatment of the depression with antidepressant medication led in some cases to a reduced need for major tranquillisers, improvement in socialisation, improvement in observed quality of life for the patient and increased staff satisfaction.

The nursing homes specialising in the care of the 'elderly mentally ill' such as those taking part in this study, have effectively taken the place of the continuing care wards, once a major feature of psychiatric hospitals. Legally there must always be a registered mental nurse (RMN) on duty in the home but such a nurse is often more involved in management than in direct patient care. It is therefore possible for treatable psychiatric conditions to develop or deteriorate without recognition by care staff. Prior to the development of this type of community care such patients in a hospital ward would receive psychiatric review at regular intervals by an experienced doctor.

We strongly feel that these patients should be offered psychiatric review before placement (the only legally required assessment at the present time is of dependency needs and finances) and continuing follow-up during their stay. The scales used during this study identified the majority of problems found by full assessment and could be used to direct limited psychiatric resources towards those residents most likely to have treatable problems.

Arie (1992) has called long-term care the "Achilles heel of care of the aged". Most people admitted to care are "doomed to die there or in an acute hospital following transfer during a terminal illness" (Ames, 1992). Effective strategies are needed to ensure care includes detection and treatment of both physical and psychiatric problems thus improving the quality of life for residents and staff.

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