

Prevalence of mental illness in a rehabilitation unit for older adults

D C Shah, M Evans, D King

Summary

The prevalence of psychiatric disorders was studied in 78 elderly people in a rehabilitation unit for older adults. The patients were assessed using the Evans Liverpool depression rating scale, Hospital Anxiety and Depression scale and Mini-Mental State Examination. Twenty-eight (35.9%) patients were found to be depressed, 15 of these also had raised anxiety. Thirty-one (41.0%) patients had significant cognitive impairment and 14 of these had associated depression. Only 33 (42%) had no evidence of either cognitive impairment or mood disorder. On discharge, 20 (25.6%) patients were on anti-depressant treatment but only 50% of those had this diagnosis recorded on the discharge summary. Our results showed higher prevalence of depression in this situation compared with the reported prevalence of 20-30% in the acute hospital setting. We recommend that all patients undergoing rehabilitation should be routinely screened for depression as it is common and treatment will improve the overall outcome.

Keywords: depression; elderly; rehabilitation; psychiatric morbidity; screening

Depression is common in older adults, with a reported prevalence of 20-30% in the acute hospital setting,^{1 2} and it may present in various atypical forms. The types of presentation most often misdiagnosed are somatised depression, where the patient complains of physical rather than psychological symptoms of depression, and masked depression, where they may actively deny any mood problems, even to themselves. It is not known why depression may present with somatic symptoms.³⁻⁶ The common complaints are tiredness, lethargy, and loss of appetite and poor concentration. Depression can present with anxiety with associated complaints of palpitations and breathlessness - in fact pure anxiety states without associated depression are rare in the elderly. Depression can reduce tolerance for an established physical problem, especially a painful one, leading to increased attendance at primary care and inability to cope with activities of daily living. Alternatively, the depression may lead to changes in behaviour which bring about physical problems, such as non-

ELDRS questionnaire

Questions to ask the patient:

- 1 Have you been feeling sad or weepy recently? YES/NO
- 2 What is your opinion of yourself compared with other people? Are you as good as other people your age, better, worse, or the same? Patient has low opinion of himself: YES/NO
- 3 Is there anything you feel guilty about or blame yourself for? What? (Only include unjustified or unreasonable guilt) YES/NO
- 4 Do you worry about many things? Does this bother you? YES/NO
- 5 Have you enough energy to do the things you want to do? NO/YES
- 6 Did you get satisfaction or enjoyment from your life as it was before you came into hospital? NO/YES
- 7 What do you think the future holds for you? Patient pessimistic about future: YES/NO
- 8 Do you sometimes feel life is not worth living? YES/NO
- 9 Have you ever felt you would rather be dead? YES/NO
- 10 Have you ever thought of harming yourself? YES/NO

Questions to ask relatives or nursing staff:

- 11 Is the patient socially isolating, eg, stopped going out or meeting people, doesn't mix with other patients on the ward or join in conversations? YES/NO
- 12 Does the patient complain of loneliness? YES/NO
- 13 Has the patient been eating less well or lost any weight (in absence of known medical reason)? YES/NO
- 14 Has the patient had trouble sleeping: going to sleep, waking up early or taking medication for sleep? YES/NO
- 15 Has the patient been irritable, bad tempered or snappish? YES/NO

Score one for each positive answer (or negative answer for questions 5 & 6); scores ≥ 6 indicates need for further investigation.

Box 1

compliance with medication, poor nutrition and reduced mobility.⁷

There are no diagnostic tests for depression. The ELDRS (Evans Liverpool depression rating scale, box 1) is specifically designed to screen for depression in physically ill elderly patients, including those with cognitive impairment, with a specificity of 95.5% and sensitivity of 87.5%⁸ against structured psychiatric examination. The observer-rated section of ELDRS allows corroborative information to be gathered, which is important when the patient

Department of
Medicine for the
Elderly, Wirral
Hospitals NHS Trust,
Wirral, UK
D C Shah
D King

Elderly Mental Health
Directorate, Wirral
and West Cheshire
Community NHS
Trust, UK
M Evans

Correspondence to
Dr DC Shah, Victoria
Central Hospital, Mill Lane,
Wallasey, Merseyside
L44 5UF, UK

Submitted 15 July 1998
Accepted 6 September 1999

Table 1 Psychiatric diagnoses ($n=78$)

	<i>Depression</i>	<i>Depression and anxiety</i>	<i>Anxiety</i>	<i>No mood disorder</i>	<i>Total</i>
Cognitive impairment	4	10	2	15	31
No cognitive impairment	9	5	0	33	47
Total	13	15	2	48	78

Symptoms of depression

- a depressed mood, often worse in the morning
- lack of concentration
- lack of energy, tiredness and lethargy
- poor appetite
- agitation, anxiety
- loss of interest (anhedonia)
- sleep disturbances
- negative thoughts, pessimistic outlook and self blame

Box 2

may be denying or somatising their psychological problems.

Depression and dementia are also frequently seen together. Depression can present with poor concentration and memory problems which, in a severe form, can be misdiagnosed as dementia. Correct diagnosis of this pseudo-dementia is important as it is reversible with correct treatment.⁹ Patients with a dementia may become depressed, particularly if they have insight into their condition. The mood problem will adversely affect the cognitive deficit; again this can be reversed with antidepressant treatment. Therefore, patients with a diagnosis of dementia should be carefully examined for evidence of depression.

In the Rehabilitation Unit for Older Adults, patients are admitted after stroke, hip replacement, other surgery, and with various major medical problems, eg, post-myocardial infarction, bronchopneumonia. The NIH Consensus statement¹⁰ on diagnosis and treatment of depression in later life states that it frequently occurs in patients with numerous social and physical problems which obscure the diagnosis and complicate the management. They advise vigorous treatment with a therapeutic dose of antidepressants for a sufficient length of time to maximize recovery and thus reduce morbidity.

Materials and methods

All patients admitted over a period of 3 months to the rehabilitation ward for older adults, were

entered into the study ($n=92$). The ELDRS questionnaire,⁸ Hospital Anxiety and Depression scale (HAD)¹¹ and Mini-Mental State Examinations (MMSE)¹² were administered on or soon after admission by one observer (DS).

A diagnosis of depression was made if a patient scored six or more on ELDRS or more than 10 on HAD in the presence of clinical evidence of depression, ie, withdrawn and depressed mood, sleep disturbances, loss of appetite and other symptoms suggestive of depression (box 2). The diagnosis of depression was recorded in the case notes to inform the consultant for appropriate action. The patients' place of residence and mobility before admission and on discharge were also recorded. The case notes were audited on discharge to determine if the discharge letters detailed any significant mental illness and if any treatment had been commenced.

Results

Ninety-two patients were seen initially, 14 of whom were excluded from the analysis (three died, one exhibited severe communication difficulties and 10 could not complete the questionnaires). Of the remaining 78 patients, 45 (58%) were given a psychiatric diagnosis (table 1).

Twenty-eight (36%) patients were diagnosed as suffering from depression or depression with anxiety. Of these, 16 were already on antidepressants, as were eight further patients without mood disorder when seen. On discharge, 20 patients were on antidepressant treatment but only 50% had this diagnosis recorded on the discharge summary.

Fourteen patients screened positive for depression on the ELDRS and six on the HAD while eight patients showed evidence of depression on both ELDRS and HAD. ELDRS picked up a significantly higher proportion of depressed patients compared to HAD ($p=0.05$). Administration of both scales did not significantly improve the diagnosis of depression compare to ELDRS alone.

Mental state was also noted to affect outcome in terms of mobility and place of discharge, with a worse prognosis seen in those with dementia plus mood disorder (tables 2 and 3), although numbers are too small for further analysis by physical condition. Those without cognitive impairment were more likely to return to live at home, either alone or with their spouse, although this did not reach significance.

Table 2 Outcome by mobility

	<i>On admission</i>				<i>On discharge</i>			
	<i>Independent</i>	<i>Stick</i>	<i>Zimmer frame</i>	<i>Not mobile</i>	<i>Independent</i>	<i>Stick</i>	<i>Zimmer frame</i>	<i>Not mobile</i>
Dementia	3	4	4	4	0	1	10	4
Dementia and mood disorder	7	1	2	6	4	0	4	8
Mood disorder	4	5	3	2	3	2	7	2
Well	4	4	15	10	10	7	15	1
Total	18	14	24	22	17	10	36	15

Table 3 Outcome by place of discharge

	On admission				On discharge			
	Alone	With spouse	RH	NH	Alone	With spouse	RH	NH
Dementia	6	8	1	0	2	5	2	6
Dementia and mood disorder	8	6	2	0	1	3	2	10
Mood disorder	10	3	1	0	7	2	2	3
Well	22	11	0	0	14	8	7	4
Total	46	28	4	0	24	18	13	23

RH = residential home; NH = nursing home

Discussion

The problem of differentiating between 'appropriate' distress, dysphoria, and depression in the elderly physically ill is well recognised.¹³ Somatic symptoms of depression such as loss of appetite, poor sleep, reduced energy and poor concentration can all be caused by physical illness. The symptoms may be attributed to a physical problem and depression missed, alternatively depression may be diagnosed erroneously. Although every effort should be made to minimise risk of either error, if doubt remains a trial of treatment with one of the safer antidepressants, such as the selective serotonin reuptake inhibitors (SSRIs), will elucidate the correct diagnosis and not delay correct treatment of the depressed patient. It must be remembered that antidepressant effect may take up to 8 weeks to occur in this age group.¹⁴

The elderly respond well to the SSRIs.^{15 16} These drugs are effective, well tolerated and comparatively safe, particularly in the elderly who are frequently on multiple medications. It should, however, be kept in mind that the elderly are more prone to side-effects.¹⁷

The results from this study show the worst outcome in terms of entry into residential or nursing care in those patients with dementia and depression. Successful treatment of depression has been shown to improve outcome and reduce length of stay,¹⁸ and may have been a factor in the results in the depressed group being similar to those in the psychologically well group.

When treating depression, supportive listening and discussion of the patient's worries is essential and should not be forgotten. In some cases antidepressants are not necessary, eg, depression caused by loneliness may be alleviated by attendance at a day centre or provision of regular home helps.¹⁹

Although the HAD diagnosed pure anxiety in two patients, it is likely that this was also a symptom of depression, which frequently presents as anxiety and/or irritability in the elderly: some studies find anxiety a more common complaint than sadness.²⁰ Anhedonia (lack of pleasure or enjoyment in life) should be enquired for as well as depressed mood.

Recommendations

- patients admitted to rehabilitation units should be screened for depression
- educate doctors and nursing staff to suspect and enquire for depressive symptoms
- treatment of depression should be as intensive as treatment of the physical problems

Box 3

Learning points

- patients with dementia often have concomitant depression.
- elderly patients may present with physical symptoms rather than psychological problems
- depression is commonly associated with physical illnesses
- treating depression improves the outcome of rehabilitation

Box 4

Screening tests such as ELDRS carry no risk to the patient whereas non-diagnosis and therefore no treatment of depression causes increased morbidity and mortality.²¹⁻²³ Screening must go hand-in-hand with education of both health service professionals and the general public about the potential for successful treatment of depression (box 3).

Conclusion

Rehabilitation is a process in which the medical, social and psychological needs of the patient are met to enable them to reach their maximum potential. This study shows the high prevalence of psychiatric morbidity on rehabilitation wards and emphasises the effect of screening tests in diagnosing depression – a treatable condition with high morbidity and mortality if untreated.

Depression is common among older adults. With the demographic shift towards an ageing population it will further increase what will be a high demand for health and social care. The early detection and treatment of depression can be improved by education of general medical and nursing staff, aided by routine administration of depression screening scales.

The prevalence of cognitive impairment increases with age and is often the deciding factor leading to admission to residential care. Concomitant depression can worsen the cognitive impairment and reduce skills in the activities of daily living. Minimising the problems by adequate treatment of depression may delay entry to care.

1 Hammond MF, Evans ME, Lye M. Depression in a medical ward. *Int J Geriatr Psychiatry* 1993;8:957-9.

2 Fenton FR, Cole MG, Engelsman N, Mansouri I. Depression in older medical inpatients. *Int Clin Psychopharmacol* 1993;8:333-6.

3 Evans ME. Depression in elderly physically ill inpatients: a 12 months prospective study. *Int J Geriatr Psychiatry* 1993; 8:587-92.

4 Stem RA, Bachman DL. Depressive symptoms following stroke. *Am J Psychiatry* 1991;148:351-6.

- 5 Finch EJ, Ramsay R, Katona CL. Depression and physical illness in the elderly. *Clin Geriatr Med* 1992;8:275-87.
- 6 Collins E, Katona C, Orrell M. Diagnosis and management of depression in old age. *Focus on Depression* 1994;2:1-5.
- 7 Brodaty H. Think of depression—atypical presentations in the elderly. *Aust Fam Physician* 1993;22:195-203.
- 8 Evans ME. Development and validation of a brief screening scale for depression in the elderly physically ill. *Int Clin Psychopharmacol* 1993;8:329-31.
- 9 Kiloh LG. Pseudodementia. *Acta Psychiatr Scand* 1961;37:336-51.
- 10 Anonymous. Diagnosis and treatment of depression in late life: summary of the NIH consensus statement. *Maryland Med J* 1993;42:192-4.
- 11 Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983;67:361-70.
- 12 Folstein MF, Folstein SE, McHugh PR. "Mini Mental State". A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res* 1975;12:189-98.
- 13 Silverstone PH. Measuring depression in the physically ill. *Int J Meth Psychiatr Res* 1991;1:3-12.
- 14 Georgotas A, McCue R. The additional benefit of extending an antidepressant trial past seven weeks in the depressed elderly. *Int J Geriatr Psychiatry* 1989;4:191-5.
- 15 Evans ME, Lye M. Depression in the physically ill, an open study of treatment with the 5-HT reuptake inhibitor fluoxetine. *J Clin Exp Gerontol* 1992;14:297-307.
- 16 Donoghue J, Tylee A. The treatment of depression: prescribing patterns of antidepressants in primary care in the UK. *Br J Psychiatry* 1996;168:164-8.
- 17 Bazire S. *Psychotropic Drug Directory: the professionals pocket handbook and aide-memoire*. Wiltshire: Quay Books Division, Mark Allen Publishing Ltd, 1995; p 104.
- 18 Verbosky LA, Franco KN, Zrull JP. The relationship between depression and length of stay in the general hospital patient. *J Clin Psychiatry* 1993;54:177-81.
- 19 Wilson K. Rehabilitation of the elderly depressed. *Adv Old Age Psychiatry* 1992;4:5-7.
- 20 Rohrbaugh RM, Siegel AP, Giller EL. Irritability as a symptom of depression in the elderly. *J Am Geriatr Soc* 1988;36:736-8.
- 21 Robinson JR. The natural history of mental disorder in old age: a long term study. *Br J Psychiatry* 1989;154:783-9.
- 22 Baldwin RC, Jolley DJ. The prognosis of depression in old age. *Br J Psychiatry* 1986;149:574-83.
- 23 Murphy E. The prognosis of depression in old age. *Br J Psychiatry* 1983;142:111-9.

Medical Anniversary

Marcello Malpighi, 10 March 1628

Marcello Malpighi (1628-1694) was born near Bologna, Italy, into a family of small landowners. He graduated in Bologna and became a successful lecturer there before moving to the chair of medicine in Pisa, thereafter to Sicily and a final return to Bologna. He made seminal observations on the structure and function of the kidney and upon the capillary circulation. In 1691, his friend Pope Innocent XII invited him to serve as his personal physician at the Quirinale Palace where he died. — *DG James*