Prevalence of depression in general practice patients over 75 years of age

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SUMMARY. The prevalence of depression among 74 male and 211 female patients aged 75 years or over registered with a group general practice was assessed, using the geriatric depression scale. Test scores of 0–10, suggesting no depressive illness, were observed in 63 (85%) men and 172 (82%) women. Mild depression (scores 11–20) was observed in 10 (14%) men and 36 (17%) women and severe depression (scores 21–30) in one (1%) man and three (1%) women. No significant statistical association was found with age or sex, suggesting that elderly men and women are equally prone to depression.

A general practitioner found clinical manifestations of depression in 29 of the patients (10%). The geriatric depression scale scores were compared with clinical diagnoses of depression. Those with high scores were more likely to be depressed and vice versa. Thirty two elderly patients (11%) with no clinical manifestation of depression recorded high scores on the geriatric depression scale. These patients may be described as 'psychiatric cases'. Uncertainty about the importance of early identification of these cases necessitates further screening and regular follow-up of elderly patients.

Introduction

DEPRESSION is a common clinical condition among the elderly,[1] and general practitioners play a key role in keeping patients with this psychiatric problem in the community.[2] The condition is associated with physical incapacity, loneliness, poverty and the acute realization of a poor outlook for future life.[1,3] Elderly people with depressive disorders cannot be relied upon to report their symptoms to the doctor[4] and therefore need to be screened. Surprisingly there have been no reports of epidemiological studies on this subject in the UK in the past two decades.[2] The need for such a study was reported in the second national morbidity study,[5] but owing to the difficulties and expense of screening no such study has been undertaken.[4] However, studies in the USA and Canada report the prevalence of depression among the elderly to be between 13% and 50%[6,7] compared with approximately 30% as reported in a study of selected patients in London.[8,9]

The lack of adequate information on the subject in the UK prompted us to evaluate the prevalence of depression in the elderly by screening patients aged 75 years and above registered with a group practice of five doctors in Newcastle upon Tyne.

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Method

Consecutive patients aged 75 years and above on the practice age–sex register were visited and asked whether they were prepared to be interviewed by a research worker.

The research worker used the geriatric depression scale[10] to screen for depression as part of her geriatric surveillance programme. As a result of the test the patients were divided into three groups: not depressed (test score 0–10), mildly depressed (11–20) and severely depressed (21–30). The non-parametric information statistic[11,12] was used to evaluate the statistical significance of age and sex factors on the depression score.

A general practitioner saw all the elderly patients and assessed them for clinical evidence of a depressive disorder. The past medical history and treatment were reviewed for evidence of depression.

The patients were arranged in a 2 x 2 matrix: high versus normal scores and clinically depressed versus not depressed. Thus each patients was included in one of the four cells. The tetrachoric correlation coefficient,[13] a non-parametric analogue of Pearson's product moment correlation coefficient, was used to measure the correlation between the dichotomized geriatric depression scale score (high/normal) and the clinical expression of depression (depressed/not depressed).

Results

Of the 298 elderly patients approached 285 agreed to be interviewed. Of these 211 (74%) were women and 74 (26%) were men. The number of patients rated as not depressed, mildly depressed and severely depressed on the geriatric depression scale by age and sex is shown in Table 1. The test–retest reliability of the scale was found previously to be 0.85 ($P<0.001$).[10] Eleven men (15%) and 39 women (18%) were rated as depressed, while severe depression was observed in only four patients. Since so few patients were rated as mildly or severely depressed these groups were combined for statistical analysis. There was no significant association between the depression score and the age and sex of the patients.

Table 1. Prevalence of depression with age and sex among 285 elderly patients studied.

	Number (%) of patients			
Age (years)	Not depressed	Mildly depressed	Severely depressed	Total
Men				
75–79	30 *(83)*	5 *(13)*	1 *(3)*	36
80+	33 *(87)*	5 *(13)*	0 *(0)*	38
Total	63 *(85)*	10 *(14)*	1 *(1)*	74
Women				
75–79	74 *(81)*	16 *(18)*	1 *(1)*	91
80+	98 *(82)*	20 *(17)*	2 *(2)*	120
Total	172 *(82)*	36 *(17)*	3 *(1)*	211

Clinical assessment of the elderly patients revealed evidence of a depressive disorder for 29 patients (10%). Only 12 of these patients were receiving medical treatment for the condition. The 2 x 2 matrix correlating geriatric depression scale scores and a clinical diagnosis of depression is shown in Table 2. The tetrachoric correlation coefficient indicated a high correlation between a clinical diagnosis of depression and a high score ($r = 0.75$). Eleven patients (4%) who recorded a normal score were diagnosed as clinically depressed. However, that only two of these patients required treatment showed that the screening procedure was effective. Thirty two patients (11%) with a high score were not diagnosed as clinically depressed by the general practitioner and they may be described as 'psychiatric cases'.

Table 2. Correlation between geriatric depression scale scores and clinical diagnosis of depression.

	Number of patients		
Score	Clinically depressed	Not clinically depressed	Total
High score (11–30)	18	32	50
Normal score (0–10)	11	224	235
Total	29	256	285

Discussion

There is a real need for a sensitive and specific screening instrument to detect depressive illness in the elderly.[2,5] The exact prevalence of depression in the community is difficult to establish as the screening criteria published so far have not met with universal acceptance.[2,14,15] The geriatric depression scale was designed in the USA specifically for rating depression in the elderly. The reliability and validity of this scale are comparable to the Hamilton rating scale and the Zung self-rating depression scale and correlate well with research diagnostic criteria.[10] This study found a high correlation between a clinical diagnosis of depression and high scores on the geriatric depression scale. The research worker had no difficulty in using the scale and the questionnaire was well accepted by the elderly.

In this study only 15% of elderly men and 18% of elderly women were found to be depressed. The prevalence of depression in the elderly in North America is reported to vary between 13% and 50%.[6,7] A recent study in London reported that 19% of elderly men and 37% of elderly women were depressed,[9] and these figures are higher than the prevalence reported here. However, our study was selective and did not include those patients who did not attend surgery or the housebound elderly.[16] Our study showed no statistical association between age or sex and score on the geriatric depression scale, unlike the finding in North America that elderly women aged 80 years and under were more often affected than men of the same age.[6,7]

The patients in this study who recorded a normal score but were diagnosed as clinically depressed demonstrate the difficulty general practitioners experience in interpreting the normal ageing processes of declining health and energy, and sleep difficulties.[2] In a previous study it was found that general practitioners had fewer false positives than the general health questionnaire but they did miss 'psychiatric cases'.[17] Thirty two 'psychiatric cases' were missed in this study. The importance of early identification of these cases with high scores in the screening test has not been conclusively demonstrated and longitudinal studies are needed. Uncertainty about the natural history of those with a high score is yet another reason for screening all elderly patients and ensuring periodic follow up.

It is important to screen elderly general practice patients for depression in order to determine the true prevalence of the condition, to organize appropriate intervention,[7] to prevent misuse of tranquillizers and to prevent abuse of alcohol. Such screening will also assist the planning of appropriate resource allocation for primary health care. General practice has been identified as providing considerable support for the psychiatric services in hospitals.[18] Therefore, if general practitioners do not promote the care of the elderly at home the pressure on acute hospital services will continue to increase as will inappropriate community care for the elderly with psychiatric disorders.

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Acknowledgement

We gratefully acknowledge support from Joint Care Funding.

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