

The prognosis of depressive disorder in elderly primary care patients

An exploratory observational study: course at 6 and 12 months

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Objective - To assess the course of depression or borderline depression and its determinants in elderly primary care patients.

Design - An observational cohort study with three measurements, at inclusion and after 6 and 12 months.

Setting - 14 general practitioners (GPs) in the western region of the Netherlands.

Patients - From a baseline random sample of 582 consecutive elderly patients 65+ years of age, a total of 39 patients with depression and 60 with borderline depression were available for this cohort study.

Main outcome measures - Diagnostic assessment was carried out in the patients' homes by trained interviewers according to the Diagnostic Interview Schedule (plus additional questions to assess minor depression).

Results - Of the 39 patients with depression at baseline, 20 had depression after 6 months, and 18 after 12 months. Of the 60 patients

with borderline depression at baseline, 53 had no evidence of depression after 6 months, and 54 had no evidence after 12 months. However, 7 patients had depression at 6 months and 6 patients at 12 months. Two determinants were related to a depressed state at 6 or 12 months among the patients with borderline depression: recognition by the GP and living with a partner.

Conclusion - The results suggest that once elderly patients suffer from depression, this condition remains present for a long time. The prognosis for borderline depression was better, although 20% became depressed at 6 and/or 12 months. Future studies should aim to identify this group of patients.

Key words: depression, elderly, general practice, cohort study.

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Depression has considerable impact on the mortality, morbidity, and quality of life of older adults (1). It is therefore considered to be the most important psychiatric problem for patients between 65 and 80 years of age. The management of this condition in the elderly mainly takes place in a general practice setting (2). Due to the high prevalence of between 5 and 10% in morbidity studies in general practice (3), it would be helpful for purposes of rational care planning to gain more insight into the chronicity of depressive symptoms in elderly patients, and to identify the determinants. Depressive symptoms are symptoms associated with the psychiatric diagnosis of depression (according to the DSM-III or the guideline of the Dutch College of General Practitioners).

As the subject of depression in elderly non-referred patients has scarcely been studied (4), we undertook an exploratory study based on the following research questions: What is the course and what are the

determinants of depressive symptoms among elderly patients in general practice?

MATERIAL AND METHODS

Design

This was an exploratory observational cohort study with a baseline and two follow-up measurements (T_0 , T_1 , T_2), which has been approved by the Medical Ethics Committee of Leiden University Academic Hospital.

Patient selection

Practices. The study was carried out in general practice settings in the western region of the Netherlands. All 14 general practitioners (GPs) in the town of Leidschendam participated in the study. Six of the participating GPs worked in a single practice; the others in duo-partnership practices. Eleven GPs had at least 10 years of experience in general practice.

Recruitment of patients. 1. The participating GPs invited all patients aged 65 years and over, who consulted them in July 1992, to participate ($n = 706$). 2. A total of 124 patients were excluded for various reasons, leaving a baseline sample of 582 patients. One difference between participants and non-participants was age (mean age 73.7 and 76 years). 3. The 582 patients were interviewed to determine the presence or absence of depression: 448 patients did not suffer from depression, and 134 did. The sample with depression consisted of 46 patients, whereas there were 88 with sub-clinical or borderline depression (67 patients with a score of 11 or more on the Geriatric Depression Scale, GDS (5), and an additional 21 patients whom the GP considered to be depressed).

Measurement instruments

To assess depression, trained interviewers used the Diagnostic Interview Schedule (DIS) at the patients' homes at baseline (T_0) and at 6 and 12 (T_1 , T_2) months (6,7), including additional questions from the Montgomery Åsberg Depression Rating Scale (MÅDRS). Depression was considered to be present when there was evidence of at least one of the three following sub-types: major depression, dysthymia (a chronic, but mild form of depression), and minor depression. Major depression and dysthymia were diagnosed on the basis of the DSM-III criteria. Minor depression is not defined as such in the DSM-III but is considered to be an important sub-type in the elderly (8). In the present study it was considered to be present when the relevant criteria in the Dutch College of General Practitioners' guidelines were met and the appropriate answers were given to questions in the MÅDRS. The DIS is a widely accepted structured psychiatric interview (9).

Data from the DIS were analysed with the Dutch computer diagnostic program, on the basis of the DSM-III, combined with a previously determined algorithm for minor depression (overall outcome: major depression, dysthymia, minor depression, no depression) (10).

Finally, we used the category "borderline depression" at baseline. This was diagnosed in patients with a score of 11 or more on the GDS, a self-rating questionnaire which was filled in at the patients' home or when the GPs considered a patient to be depressed at baseline without falling into one of the depression categories (major, minor, dysthymia). The GDS may be a means of predicting future depression (11).

Determinants

At baseline we registered a number of determinants that are possibly related to a depressed state at 6 or

12 months: age (younger than 75 years of age, or 75 years of age and over), gender (male/female), marital status (partner yes/no), housing (living alone yes/no). In order to obtain information about the actions taken by the GPs, the first author (H van M) interviewed the participating GPs at baseline, and at 6 and 12 months, and discussed with them the results of the patient interviews. Dichotomous variables, all measured three times (T_0 , T_1 , T_2), were whether or not the GP had: recognized the patient as being depressed during the previous 6 months, discussed the depression with the patient, prescribed drugs, including antidepressants, or referred a particular patient during the same period.

Analysis

Differences (Δ) between percentages of depressed patients at 6 or 12 months for different levels of the above-mentioned determinants were evaluated with the 95% confidence interval (CI) for the difference. As the expectation was that the number of patients with depression at 6 or 12 months would be small, controlling for confounders would be difficult, so only univariate analyses were performed.

There was a substantial loss to follow-up with regard to the patient interviews, particularly for patients with dysthymia. Patients for whom the information provided by the GP gave clear indications of a depression status at 6 or 12 months were included in the analysis. In the depression group, seven patients with missing information were assumed to have depression at 6 and 12 months, because all seven had a long history of depression and according to their GP they were still depressed at both periods. Three patients with depression at baseline, no depression at 6 months, but with missing data at 12 months, were definitely without depression at 12 months according to their GP, and were therefore assumed to be no longer depressed then.

In the borderline depression group, five patients with missing data at 12 months and no depression at 6 months were assumed not to be depressed at 12 months in line with the GPs' opinion (no depression). Patients with (borderline) depression were actively encouraged to seek help from their GP.

RESULTS

Secondary non-response: for three patients with depression there was no follow-up because of an administrative error, and four were unavailable for subsequent interviews. Therefore, 39 patients with baseline depression were available at both 6 and 12 months (seven major depression, 24 dysthymia, and eight minor depression). Sixty of the 88 patients with

		+33% (13)
Depression T ₁	+51% (20) T ₂	-18% (7)
		+13% (5)
	-49% (19) T ₂	-36% (14)
		+2% (1)
Borderline T ₁	+12% (7) T ₂	-10% (6)
		+8% (5)
	-88% (53) T ₂	-80% (48)

Fig. 1. Depression status at 6 and 12 months (T₁, T₂) of patients with a baseline (T₀) assessment of depression (n = 39) or borderline depression (n = 60).

borderline depression at baseline were available for follow-up analysis at both 6 and 12 months (11 refused; nine had developed a terminal illness; four had died; two had developed dementia; two could not be contacted for administrative reasons, i.e. a change of address).

Fig. 1 presents the depression status at 6 and 12 months of patients with a baseline assessment of

depression or borderline depression. While 13 patients (13/39 = 33%) with depression at baseline had depression at both 6 and 12 months, 14 (14/39 = 36%) had no depression at both measurements. The depression status of the other patients fluctuated: five had depression at 6 months but not at 12 months, and seven had no depression at 6 months but were depressed at 12 months.

Of the 60 patients with borderline depression at baseline, one (2%) had depression at both 6 and 12 months. Six patients had depression at 6, but not at 12 months.

Five patients had depression at 12, but not at 6 months (one major depression and four dysthymia). Of the 60 available patients, 12 had depression at 6 or 12 months (12/60 = 20%).

A comparison of the course of depression in the two samples shows that patients with depression at baseline more often had depression at least at one follow-up point than patients with borderline depression at baseline. With no depression during follow-up there were only 14/39 (36%) in the depression group versus 48/60 (80%) in the borderline group ($\Delta = 44\%$, 95% CI: 26–62%).

Table I relates determinants to percentages of depressed patients at 6 or 12 months for both baseline

Table I. Percentages of patients with depression and borderline depression at baseline (T₀) and after 6 or 12 months (T₁, T₂) according to determinants (n = 39, n = 60).

		Depression T ₀		Borderline T ₀	
		n	Depression at T ₁ or T ₂ (%)	n	Depression at T ₁ or T ₂ (%)
Age	<75 yrs.	21	15 (71)	36	6 (17)
	≥75 yrs.	18	10 (56)	24	6 (25)
Sex	Female	32	21 (66)	42	7 (17)
	Male	7	4 (57)	18	5 (28)
Living	Alone	19	10 (53)	23	2 (9)
	With partner	20	15 (75)	37	10 (27)
Home	Independent	28	19 (68)	49	11 ² (22)
	For elderly	11	6 (55)	11	1 (9)
<i>GPs' actions</i> ¹					
Recognition	Yes	32	19 (59)	36	9 ² (25)
	No	7	6 (86)	24	3 (13)
Discussion	Yes	17	12 (71)	25	6 (24)
	No	22	13 (59)	35	6 (17)
Drugs	Yes	12	7 (58)	21	6 (28)
	No	27	18 (67)	39	6 (15)
Antidepressants	Yes	8	4 (50)	41	8 (19)
	No	31	21 (68)	19	4 (21)
Referral	Yes	4	3 (75)	2	1 (50)
	No	35	22 (63)	58	11 (19)
Any action	Yes	20	14 (70)	58	11 (19)
	No	19	11 (58)	2	1 (50)

¹ At baseline, 6 or 12 months.

² Statistically significant. CI does not include 1.

depression and borderline depression. No statistically significant differences were observed in the depression group between the percentage of patients with or without any of the determinants during the course of the year. In the borderline depression group, the difference in the percentage of patients with depression at 6 or 12 months between those who were recognized by their GP (9/36 = 25%) and those who were not recognized (3/24 = 13%) reached statistical significance ($\Delta = 12\%$, 95% CI: 3–23%); the difference between those who lived alone (2/23 = 9%) and those who lived with a partner (10/37 = 27%) also reached statistical significance ($\Delta = -18\%$, 95% CI: -37–0%). Treatment provided by the GPs appeared to make no statistically significant difference between the percentage of borderline patients who had become depressed at 6 or 12 months.

DISCUSSION

This explorative cohort study suggests that depression among elderly patients in general practice is often chronic. This chronicity is supported by the findings related to the patients with borderline depression: most did not become depressed. The prevalent "lake" of depression is mainly filled with chronic patients and only a few incidental cases. These findings support the validity of the depression concepts.

The samples of patients in the study were limited in size, but as there is a general lack of international data, these are among the first to demonstrate the course of depression in an elderly cohort. The analysis of determinants related to chronicity was also limited by the small sample size and, consequently, the large confidence intervals. Clinically significant associations may not have been detected. As the baseline cohort was drawn from patients sampled in routine care, these findings are only representative for that specific sampling framework. Theoretically, an open community sample may have given a different estimate of chronicity (worse), because severely depressed patients may be more likely to stay at home instead of consulting their GP. A study among older people in inner London showed no relationship between the severity of depression and contact with primary care (12).

Partly perhaps as a result of the screening, some patients were treated by their GP whereas most were not, which may well have influenced the outcomes. However, a certain degree of dependency between patients, GPs, and researchers is practically and ethically inevitable in this type of observational research. Whether the treatment for depression given to elderly patients in general practice is as effective as that provided in clinical settings, has also been questioned

in the few studies that have been performed in primary care (13,14). As was found in our study, primary care patients come from diagnostically heterogeneous groups, mainly consisting of patients with minor forms of depression, and it is not clear which type of treatment is most appropriate for these patients (15). Even with specially trained practice nurses, it is difficult to introduce antidepressant therapy in sufficiently high dosages among elderly patients in general practice (16).

The diagnostic interview schedule is a valid and widely used instrument in psychiatric research among the elderly (17). Knowledge of the course of depression among elderly (65+) patients in general practice who are not referred to specialist care is limited. In studies based on self-report questionnaires, half of the patients with depressive symptoms at baseline have recovered at follow-ups ranging from 9 to 36 months (18).

There is still poor understanding of the determinants that influence the course of depression in the elderly in primary care (19). A 1-year follow-up of elderly Finns living in the community demonstrated that only female diabetics had a poor illness course due to chronic depression. Poor health may be related to minor depression (8), but fortunately the majority of patients from the group with borderline depression who had depression at 6 or 12 months were recognized by their GP.

The conclusion is that depression among elderly patients in general practice frequently has a more or less chronic course. Although this finding is not surprising from the point of view of daily practice, our study is the first to demonstrate it and to emphasize the fact that this is a vulnerable group of patients who may be in need of extra care and attention from their surroundings and from their GPs. Depression will not simply disappear.

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