Why do general practitioners recognize major depression in one woman patient yet miss it in another?

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SUMMARY. The aim of this study was to establish whether psychiatric patient characteristics and the presence of physical illness affected general practitioners' recognition of major depressive illness in women patients. The 30-item general health questionnaire was used as a first stage screening instrument for psychiatric morbidity and each patient selected was interviewed, usually within three days of consulting their general practitioner, using the combined clinical interview. A sample of 72 women with major depressive disorder was obtained from patients consulting 36 general practitioners mainly from the south west Thames region of England, each general practitioner providing one patient he or she had correctly recognized as being depressed and one patient whose depression had not been recognized. Few differences were found between the groups with recognized and unrecognized depression in their psychiatric or physical features. More patients with unrecognized depression experienced physical illness and were tired. Patients with serious physical disease were five times more likely not to be recognized as depressed than those without physical disease. Patients with recognized depression described a more distinct quality to their depressed mood. Women with unrecognized major depression are similar to those women whose major depression is recognized by their general practitioner. These findings require further elaboration by process and content analysis of the women's consultations.

Keywords: depression; missed diagnosis; delayed diagnosis; diagnostic techniques; women's health.

Introduction

MAJOR depressive disorder is a common condition in primary care.[1-3] Primary care physicians in the United States of America[4-7] and the United Kingdom[3,8] recognize only half of all major depression experienced by patients presenting to them. This is particularly unfortunate since two thirds of patients with major depression in general practice respond to drug treatment in six weeks or less.[9] There is a need to understand what factors influence the recognition of depression by general practitioners.

Schulberg and McClelland[10] described doctor-related factors thought likely to be associated with the failure of a physician to recognize depression: lack of knowledge regarding depressive symptoms and their management; a preoccupation with possible organic pathology; failure to elicit relevant affective, cognitive, and/or somatic symptoms; a tendency to underrate the severity of depression; and an awareness of the presence of depression, but a belief that treating it is not the responsibility of primary care doctors. Schulberg and McClelland[10] do not consider the possibility that patients whose depression is unrecognized may differ from those whose depression is recognized in their demographic, psychiatric or physical features. However, Freeling and colleagues[8] found differences between patients with recognized and unrecognized depression for totals on the Raskin three-area scale,[11] the depression score on the clinical interview for depression,[12] symptom duration, two items of the Hamilton depression rating scale[13] and four items on the clinical interview for depression.[12] Physical illness was present in nearly 30% of the patients with unrecognized depression and their depression seemed related to the physical illness (physical illness was present in only 5% of those with recognized depression). However, the study design was such that the group with unrecognized depression were selected mainly by general practitioners who were poor at recognizing depression and the group with recognized depression by general practitioners who were good at recognizing depression. The differences between the groups of patients could therefore have reflected differences between the two types of doctor.

The aim of this study, carried out in 1986–88, was to compare the psychiatric and physical features of women with recognized and unrecognized major depression using a design that enabled comparison within rather than between general practitioners. An attempt was made to control for doctor characteristics such as 'interest and concern' or 'conservatism,' both of which have been reported to account for two thirds of the variance in general practitioners' ability to detect psychiatric illness.[14] A pair of depressed women, one whose depression was recognized, the other whose condition was unrecognized, were obtained from each general practitioner. Only women with major depression were included in order to reduce the number of possible confounding demographic factors.

Method

Fifty seven general practitioners in 15 practices were invited to participate in the study. Seven doctors declined, one retired, one went on sabbatical and one was not included by oversight. The remaining 47 doctors (in the 15 practices) comprised 33 men and 14 women whose mean age was 45 years (range 28–70 years); their year of qualification ranged from 1940 to 1981. All were principals except one who was a locum. The practices were situated in health centres, purpose-built surgeries and premises converted for practice use in urban, suburban or semi-rural areas from Battersea to Hampshire. Partnership size ranged from two to 13 doctors.

Consecutive adult patients attending weekday morning and evening surgery sessions were eligible for the study if they were: aged 16–65 years; able to comprehend and read English; able to read the questionnaires; and able to understand the purpose of the study. Eligible patients were invited by a research assistant (part of the study team) to complete the 30-item general health questionnaire[15] in the waiting room before their consultation and to provide written consent for their consultation to be videotaped

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and studied. Consent for the videotape to be studied could be withdrawn up to 48 hours after the consultation.

After each surgery session, the research assistant and general practitioner completed an encounter form and recorded all new or known diagnoses and actions taken for all patients, using memory and the medical notes. The research assistant compared this form with patients' general health questionnaire scores and offered a research interview, by telephone or verbally in the surgery, to all those who had been newly recognized as depressed and those who had not been recognized but had scored 11 or more on the 30-item general health questionnaire. Recognition was defined as the general practitioner reporting the presence of depressive symptoms and having taken action: arranging to review the patient within the next two weeks; prescribing a drug specifically for depression; managing the depression without drugs; or referring the patient for management of depression within or outside the practice.

The general practitioners were aware of the purpose of the study. Each had at least one 'practice' surgery session with the video camera operating and the research assistant collecting but not retaining data. The day of the week on which filming commenced varied between practices.

The interviews were conducted by a general practitioner researcher (A T), at the patient's home or at the surgery according to the patient's preference, usually within three days of the index consultation and always within one week. The combined clinical interview was used.[16–18] This is based on the present state examination[19] with multiple depression rating scales and questions asking for classificatory, historical and demographic data. It contains the Hamilton rating scale for depression,[13] the clinical interview for depression,[12] the Raskin three area scale for depression,[11] the Newcastle diagnostic index,[20] the research diagnostic criteria,[1] as well as global scales for severity and change in depressive illness, history of present and previous illness, and relationship with physical illness.

The process continued until both a woman with newly recognized major depression (satisfying the research diagnostic criteria[1]) and a woman with unrecognized major depression had been identified for each general practitioner or until 20 hours of consultations had been videotaped. The first patient identified in each group was selected for study. The diagnosis of major depression was made by A T following the interview. The videotaped consultations of selected patients were set aside to be analysed three months later using specially designed schedules for consultation analysis.[21] The results of this analysis will be reported elsewhere.

Statistical analysis

Data from the combined psychiatric interviews were recorded and analysed using *SAS*[22] at the University of London computer centre. The results are expressed as the mean of the difference in score between the two patients attending the same general practitioner. A mean of zero thus corresponds to no difference between the two groups.

The *t* distribution methods for paired data were used to calculate 95% confidence intervals. For the presence of physical illness, the results are expressed as an odds ratio. This is the ratio of the odds of having unrecognized depression for patients with physical illness to the odds of having unrecognized depression for patients without physical illness. If the odds of being unrecognized are the same, whether or not there is concurrent physical illness, the ratio will be one. Thus, if the 95% confidence interval does not contain one the odds are significantly different at the 5% level.

Results

A total of 2123 eligible patients attended the surgeries of the 47 general practitioners during study periods in the practices and 1756 (82.7%) consented to take part.

The general practitioners newly recognized 122 patients as being depressed, of whom 41 scored less than 11 on the 30-item general health questionnaire. Of the 430 patients who had scored 11 or more on the general health questionnaire, 81 were thus newly recognized patients while 98 were already known by their general practitioner to have psychiatric morbidity and 251 were not recognized as being depressed. Sixty women who were newly recognized as being depressed and 69 women who scored 11 or more on the general health questionnaire but were not recognized as being depressed were interviewed. Of these women 42 in the recognized group and 48 in the unrecognized group had probable or definite major depressive disorder. Only 36 general practitioners provided both an unrecognized and a newly recognized woman with major depression. These 72 women are the subject of the analyses which follow.

The mean age of the 36 women with unrecognized depression was 36.2 years (standard deviation (SD) 13.4 years) and the mean age of the recognized group was 40.5 years (SD 12.1 years). The two groups were similar with respect to race, marital status, housing tenure, age of leaving full time education and working status.

Table 1 compares the overall ratings for the severity of psychiatric morbidity for the two groups of women, and their scores on diagnostic subscales. None of the differences is statistically sig-

Table 1. Ratings of severity of depressive illness and scores on diagnostic subscales for women with unrecognized and recognized depression.

	Mean score		
	Unrecognized depression (n = 36)	Recognized depression (n = 36)	Mean difference in score (95% CI)
Hamilton rating scale for depression (total)	16.9	17.3	0.5 (–1.7 to 2.7)
Clinical interview for depression (total)	21.0	21.8	0.9 (–1.3 to 1.7)
Raskin three area scale (total)	8.1	8.6	0.4 (0.0 to 0.9)
Newcastle diagnostic index	2.5	2.9	0.4 (–0.3 to 1.1)
Clinical interview subscale:			
Anxiety	9.9	10.0	0.1 (–1.1 to 1.3)
Hamilton subscales:			
Anxiety	6.5	6.7	0.2 (–0.8 to 1.3)
Sleep disturbance	2.3	2.5	0.3 (–0.7 to 1.2)
Cognitive disturbance	2.4	2.2	–0.2 (–0.8 to 0.4)
Diurnal variation	2.0	1.6	–0.4 (–1.2 to 0.3)
Retardation	5.5	5.5	0.1 (–0.6 to 0.7)

n = number of women. CI = confidence interval.

nificant at the 5% level, and the confidence intervals show that while minimal differences may exist they are likely to be too small to be of practical importance.

Only two of the individual items on the clinical interview for depression showed statistically significant differences between the groups at the 5% level. Tiredness was more prevalent in the group with unrecognized depression than in the group with recognized depression (mean score 4.2 and 3.6, respectively; mean difference in score –0.6; 95% confidence interval (CI) –1.0 to –0.1). Distinct quality of mood, which represents the degree to which the patient regarded her depressed mood as different from the normal experience of depression and sadness, was more prevalent in the group with recognized depression (mean score 2.9 in group with unrecognized depression and 3.7 in group with recognized depression; mean difference in score 0.8; 95% CI 0.2 to 1.4).

Table 2 shows that there was a significant trend in the odds that a patient with concurrent physical illness would not be recognized as depressed (chi square = 7.15 $P<0.01$). Patients with mild physical illness were nearly three times more likely to have their major depression missed than those who had no physical illness. Patients with serious physical disease were five times more likely to have their major depression missed than those without physical disease, and this difference was significant.

Women with unrecognized and recognized major depression showed no other differences in their personal history, family history, current social stress and attendance at the general practitioner in the previous three months.

Discussion

An important finding of this study is that depression in those patients that are recognized is only slightly more severe than in those that are unrecognized. The differences found are consistent with those of Freeling and colleagues.[8] The difference in the total clinical interview for depression score was 0.9, which corresponds to an increase from very mild to mild in any one of the nine items included in the total.

The group with unrecognized depression were more tired and less likely to describe their depressed mood as qualitatively different from marked sadness. These differences, while significant, were small. More of the patients with unrecognized depression were also experiencing physical illness than patients with recognized depression. Other studies[3,8] have found that concurrent physical illness is more prevalent in patients with unrecognized major depression and it is possible in these cases general practitioners are preoccupied with the physical conditions to the exclusion of the depression.[10]

This study was designed to look at differences between pairs of depressed women attending the same general practitioner, only one of whom was recognized as depressed. Thus, a small sample of 36 pairs of patients was selected and the confounding effects of doctor characteristics removed. It is possible with a sample of this size that some differences in the nature of the illness of patients with recognized and unrecognized depression were not detected. However, it is likely that these differences are small and could not explain why the doctor fails to recognize one of the pair as depressed and not the other.

A third of the patients recognized by the general practitioners in this study as depressed did not fulfil the research diagnostic criteria for probable or definite major depression. It is possible that this lack of specificity is related to the general practitioners' knowledge of the purpose of the study. It is interesting that some general practitioners, despite knowing the purpose of the study, only provided women with unrecognized major depression and that other general practitioners seemed not to miss major depression in their women patients. Smeeton found that rates of mental illness in general as recorded by general practitioners varied widely from practice to practice.[23] The combined clinical interview lasts for one and a half hours and elicits over 300 psychiatric features. There was little difference in these features between women patients with recognized and unrecognized major depression, apart from the presence of concurrent physical illness. The extent to which the general practitioners involved in this study were aware of these features, after the much shorter time available to them, will have depended upon the process of their individual consultations. This will be investigated and may clarify whether or not general practitioners search for a unidimensional, rather than a multidimensional diagnosis, as has been suggested by Jenkins and colleagues.[24]

Table 2. Relationship between physical illness and recognition of depression.

Present state examination physical disease	Number of patients: Unrecognized depression	Number of patients: Recognized depression	Odds ratio (95% CI)
No physical illness	10	21	1.00
Mild but significant[a]	14	10	2.94 (0.97 to 8.89)
Serious[b]	12	5	5.04 (1.39 to 18.24)

CI = confidence interval. [a]For example, influenza. [b]For example, duodenal ulcer.

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