Psychological distress: outcome and consultation rates in one general practice

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SUMMARY. This paper reports a one-year follow-up of random samples of 90 male and 96 female patients attending one general practitioner. There was no statistically significant difference between men and women in the total score on the 28-item general health questionnaire or any of the subscores. However, the diagnostic labels applied to the two sexes were strikingly different as was the prescribing of psychotropic drugs. Outcome of psychological distress was assessed in terms of change in total general health questionnaire score. Two thirds of the patients (65%) showed normal scores at the beginning and end of the follow-up period, 19% changed from abnormal to normal and 8% changed from normal to abnormal. The remaining 9% had persistently high scores though less than half had been given a psychiatric diagnosis. They had very high consultation rates persisting over several years and three-quarters were known to have chronic physical illness. It seems possible that some patients with persistently high consultation rates who present with chronic, mainly somatic, symptoms may be or may become psychologically distressed to a significant degree and that this psychological distress goes unrecognized in the presence of physical disease.

Introduction

RELATIVELY few studies of the outcome of psychiatric illness have been carried out in the primary care setting,[1] partly because of problems of subjectivity in such research but mainly because psychiatric illness is difficult to classify, particularly in the community.

Doctors have different perceptions of what constitutes psychiatric illness but problems of observer bias can be partly overcome by the use of self-report measures of psychiatric symptomatology such as the general health questionnaire.[2-6] The use of a questionnaire is often more acceptable to the patient than to the doctor[7] and can unmask psychiatric illness in patients who avoid presenting emotional symptoms to their general practitioner.[8-11]

The general health questionnaire is a self-reporting screening questionnaire which identifies individuals who have a high probability of suffering from psychiatric illness.[12] It has high reliability and correlates well with the clinical assessments of consultant psychiatrists.

In a study of emotional disturbance in newly-registered general practice patients, Corser and Philip[13] found that high-scorers on the general health questionnaire had more episodes of illness, more severe ratings of psychiatric problems and were more likely to have a formal psychiatric diagnosis. Goldberg and Bridges[14] pointed out that the higher the general health questionnaire score the more likely it was that the patient could be diagnosed and the less likely it was for the disorder to remit spontaneously. Johnstone and Goldberg[15] demonstrated the efficacy

of the general health questionnaire in the secondary prevention of minor psychiatric morbidity in general practice and found the effects of detection to be 'beneficial and immediate'.

Patients in general practice often present problems which are a mixture of physical, psychological and social elements and these problems may be transient or represent illness in its earliest stages. This and the continuing relationship with patients and their families may lead the general practitioner to a different perspective of illness and a different therapeutic decision from his hospital colleague.[16] The continuing relationship may also serve to emphasize awareness of the suffering which patients experience in the psychological and social aspects of their lives and justify general practice management of psychological distress as opposed to diagnosed mental illness.

The general health questionnaire is an acceptable here-and-now measure of emotional distress[13] but a raised score does not necessarily equate with a clinical diagnosis of psychiatric illness. Also, distress is not felt only by the mentally ill and the management of this distress is not the responsibility of the psychiatrist alone.

This paper reports a one-year follow-up by a single observer of random samples of male and female patients attending one general practitioner. Outcome of psychological distress was assessed in terms of the change in total general health questionnaire score with analysis of consultation rates and prescribing of psychotropic drugs. The aim of the study was to determine whether patients with persistently distressing psychological symptoms (as measured by the total score on the general health questionnaire) constitute a distinguishable group with higher than average consultation rates.

Method

Using a table of random numbers, samples were drawn from patients aged over 17 years and under 65 years attending one general practitioner in a group practice over a period of five months. The results of the original study involving these patients have already been reported.[17] Samples were selected so that all the consulting sessions in a week were represented by a 10% random sample of patients attending that session and no patient was included more than once. Home visits, which account for approximately 8% of the workload, were excluded.

Patients were asked to complete the 28-item general health questionnaire while waiting to see the doctor and to answer questions on social and employment status. Social status was determined using the list in the Royal College of General Practitioner's *Classification and analysis of general practice data.*[18]

A record was kept of the total number of consultations, referrals and psychotropic drugs prescribed, by any of the six doctors in the practice, for one year after recruitment at which time the patient was requested to complete a second general health questionnaire without seeing the doctor. In order to identify which patients had higher than average consultation rates the total number of consultations in the five years prior to recruitment was also determined for each patient by a retrospective search of the records.

Statistical tests

For data recording the numbers of patients with a given attribute the chi-square test was used to test for the significance of the

difference between two proportions, using Yates's correction for two by two tables. When each patient had a score on a variable, for example general health questionnaire score, the t-test or one-way analysis of variance was employed.

Using the sampling method described the probability of an individual being selected is proportional to the individual's consulting rate. Therefore, statistical tests were repeated where appropriate after re-weighting to compensate for this. This recalculation, together with a study of scatter diagrams, did not suggest that the results had been biased by the sampling scheme. In the interests of simplicity, only the unweighted results are presented here.

Results

Ten of the 115 men in the original sample[17] had left the practice during the follow-up year. Of the remaining 105 men, 14 did not respond and one returned an incomplete second questionnaire, giving a valid response from 90 men (86% response rate). Similarly, five of the 112 women in the original sample had left. Of the remaining 107, 10 did not respond and one returned an incomplete questionnaire giving a valid response from 96 women (90% response rate). There were no statistically significant differences between responders and non-responders in respect of age, social status, total number of consultations or number of consultations with a psychiatric diagnosis during the follow-up year.

Age and social status of respondents

The mean age of the men was 43.3 years (range 19–64 years) and of the women 37.1 years (range 18–64 years). The percentage distribution of the respondents by social status was professional 2%, intermediate 6%, skilled non-manual 23%, skilled manual 24%, semi-skilled 30% and unskilled 15%.

Mean initial scores

There were no statistically significant differences between the men and women in total general health questionnaire score or any of the subscores at the beginning of the study (Table 1).

Table 1. Mean scores on the general health questionnaire (GHQ) at the beginning of the study.

	Mean GHQ score (standard error)	
	Men (n = 90)	Women (n = 96)
Total	5.7 (0.7)	6.8 (0.7)
Somatic symptoms	6.4 (0.5)	7.0 (0.5)
Anxiety	6.1 (0.5)	6.4 (0.5)
Social disturbance	8.5 (0.4)	8.9 (0.3)
Severe depression	2.9 (0.5)	2.3 (0.4)

n = number of respondents.

Consultation rates

The 90 men had a total of 597 consultations over the one-year period and the 96 women had 850, of which 108 were for antenatal care only. The mean total consultation rate of 8.9 (standard error 0.7) for the women was significantly higher than that for the men (6.6, SE 0.5, t-test, $P<0.02$), but when antenatal consultations were excluded the rate for the women became 7.7 (SE 0.6) and the difference was no longer statistically significant.

Fifty seven men (63%) and 47 women (49%) were known to have chronic/recurrent health problems (chi square = 3.9, 1 degree of freedom, $P<0.05$). Twenty men (22%) received a diagnosis of psychiatric illness at least once in the follow-up year compared with 35 women (36%) (chi square = 4.5, 1 df,

$P<0.05$). There were 141 psychiatric consultations for the 20 men in the follow-up year (mean 7.1) and 178 for the 35 women (mean 5.0) but this difference was not significant.

Diagnoses and prescribing

The diagnostic labels of psychiatric illness applied to the two sexes were significantly different (Table 2) and there were similar differences in the numbers of patients of each sex who received psychotropic drugs at least once in the follow-up year (Table 3).

Table 2. Diagnostic labels given to the patients receiving a diagnosis of psychiatric illness in the follow-up year.

	Number (%) of patients	
	Men (n = 20)	Women (n = 35)
Depression	13 (65)	10 (29)
Anxiety state	2 (10)	18 (51)
Other	5 (25)	7 (20)

$\chi^2 = 10.2$, 2 df, $P<0.01$.   n = total number of patients.

Table 3. Psychotropic drugs prescribed to the patients receiving a diagnosis of psychiatric illness in the follow-up year.

	Number (%) of patients	
	Men (n = 20)	Women (n = 35)
Antidepressants	9 (45)	12 (34)
Benzodiazepine anxiolytics[a]	4 (20)	17 (49)
Both	4 (20)	6 (17)
No drugs prescribed	3 (15)	0 (0)

$\chi^2 = 8.4$, 3 df, $P<0.05$.   n = total number of patients.
[a]Benzodiazepines are often prescribed for relatively short periods and these figures do not necessarily reflect long-term usage.

Outcome

Outcome was assessed by comparing the general health questionnaire scores at the beginning and at the end of the follow-up year (Table 4). There was no significant difference in the outcome pattern between men and women. Two thirds of patients (65%) showed normal scores at the beginning and the end of the follow-up period and 9% had persistently high scores. The patients were divided into four groups — normal/normal, abnormal/abnormal, abnormal/normal and normal/abnormal. Normal represents a total general health questionnaire score of eight or less while abnormal represents a score of more than eight. A cut-off point of nine was chosen as previous work in the same practice[17] had indicated that this threshold gave the best trade-off between sensitivity and specificity in this practice population. Plots of the data confirmed that this choice of cut-off score had not significantly biased the results. The four groups identified were also compared in terms of the number of patients given a psychiatric diagnosis during the year, prescrib-

Table 4. Comparison of total general health questionnaire scores at the beginning and at the end of the follow-up year.

Total GHQ score at beginning	Total GHQ score at end	Mean number (%) of patients	
		Men (n = 90)	Women (n = 96)
<8 (normal)	<8 (normal)	61 (68)	59 (61)
>8 (abnormal)	>8 (abnormal)	7 (8)	10 (10)
>8 (abnormal)	<8 (normal)	15 (17)	20 (21)
<8 (normal)	>8 (abnormal)	7 (8)	7 (7)

n = total number of patients.

ed a psychotropic drug during the year and known to suffer a chronic illness (Table 5). In the group with persistently abnormal scores less than half had been given a psychiatric diagnosis or prescribed psychotropic drugs. This group had the highest percentage of patients with known chronic physical illness.

The consultation rates for the study year and the five years before recruitment were determined for each of the four groups defined above (Table 6). Patients with persistently abnormal general health questionnaire scores also showed high consultation rates persisting over several years.

Discussion

In using the sampling method described it was recognized that the probability of an individual being selected would be proportional to the individual's consulting rate. While this problem could have been avoided by random sampling from the practice list, this solution was rejected as the lists of individual doctors are not kept separate and patients are free to consult any of the partners or the trainee as they wish. In addition, the population of interest was 'attending' patients and sampling from the list of patients at risk would have resulted in a lower response rate.

Table 5. Comparison of the groups by the number given a psychiatric diagnosis during the year, prescribed a psychotropic drug during the year and known to suffer a chronic illness.

	Number (%) of patients			
	Normal/ normal ($n = 120$)	Abnormal/ abnormal ($n = 17$)	Abnormal/ normal ($n = 35$)	Normal/ abnormal ($n = 14$)
Given psychiatric diagnosis	13 (11)	7 (41)	19 (54)	6 (43)[a]
Given psychotropic drug	15 (12)	7 (41)	22 (63)	6 (43)[b]
Known to suffer chronic non-psychiatric illness	55 (46)	13 (76)	20 (57)	4 (29)[c]
Known to suffer chronic psychiatric illness	6 (5)	2 (12)	4 (11)	3 (21)

n = total number of patients. [a]$\chi^2 = 34.3$, 3 df, $P<0.001$.
[b]$\chi^2 = 39.3$, 3 df, $P<0.001$. [c]$\chi^2 = 8.9$, 3 df, $P<0.05$.

No statistically significant differences were found between men and women in mean initial scores on the general health questionnaire or in any of the subscales, yet the diagnostic labels applied to those thought to be suffering from psychiatric illness were very different and women were more than twice as likely to receive benzodiazepine anxiolytics as men. The prevalence of diagnosed psychiatric illness was significantly higher in women than men, which is in keeping with most published data; Briscoe[19] suggests that women are more likely to express their feelings, both pleasant and unpleasant, than men.

On the other hand the men with psychiatric illness had on average more consultations with a psychiatric diagnosis than the ill women. Men were also more likely than women to have chronic or recurrent health problems (63% versus 49%). Though a small series, there is some support for the clinical speculation that the ill men seen were on average more disturbed and needed to be seen more frequently than the ill women. It may be, however, that men in the practice are less likely to consult for psychological symptoms than women and the sample of consulting men may be biased by the inclusion of a high proportion of men with chronic health problems, representative of consulting men, but not of men within the practice.

Dividing the patients into four outcome groups according to the change in their general health questionnaire score supported the hypothesis that patients with persisting high levels of distressing psychiatric symptoms (abnormal/abnormal) constitute a distinct group with higher consultation rates than the other groups. These high rates were found to persist over several years. The group which may represent patients recovering from mental disturbance (abnormal/normal), and the group which may represent patients becoming mentally disturbed (normal/abnormal) both showed a more moderate and less persistent rise in consultation rate. The slight increase in consulting frequency in the years prior to recruitment seen in the patients who could be regarded as ill/becoming well (abnormal/normal) is in keeping with the observations of Widmer and Cadoret in the USA,[20] who commented that a 'pattern of increased office visits with a constellation of varied functional somatic complaints' often indicates that depression is developing.

The high demands of the group with persisting psychiatric symptoms have important implications for workload and patient care and Buchan and Richardson[21] have shown that consultations with such patients take longer than average, especially when they are follow-up visits. Less than half of this group

Table 6. Mean consultation rates in the year of the study and in the five preceding years for the four groups of patients.

	Mean number of consultations per patient per year (number of patients[a])					
	Five years before study	Four years before study	Three years before study	Two years before study	Year before study	Study year
Women[b]						
Normal/normal	5.5 (51)	4.5 (52)	4.9 (53)	5.6 (54)	6.9 (57)	6.2 (59)
Abnormal/abnormal	8.3 (8)	8.5 (8)	7.9 (8)	11.1 (8)	13.0 (9)	13.2 (10)
Abnormal/normal	5.6 (19)	6.5 (19)	5.8 (19)	6.3 (19)	8.6 (20)	9.3 (20)
Normal/abnormal	7.8 (6)	5.1 (7)	7.3 (7)	6.0 (7)	5.6 (7)	8.0 (7)
	NS[c]	NS	NS	NS	$P<0.05$	$P<0.01$
Men						
Normal/normal	2.9 (55)	3.3 (55)	3.0 (56)	4.1 (57)	4.4 (58)	5.5 (61)
Abnormal/abnormal	5.0 (6)	6.3 (6)	2.4 (6)	7.3 (7)	9.0 (7)	11.4 (7)
Abnormal/normal	3.6 (12)	5.5 (13)	8.1 (15)	8.1 (15)	7.7 (15)	9.1 (15)
Normal/abnormal	2.4 (7)	2.7 (7)	3.3 (7)	3.4 (7)	5.7 (7)	6.1 (7)
	NS	NS	$P<0.01$	$P<0.05$	NS	$P<0.05$

[a]Number of patients who were registered with the practice for the whole of the year and so had complete record of attendance.
[b]Antenatal consultations excluded. [c]Analysis of variance.

were given a psychiatric diagnosis during the follow-up year but the percentage of patients with chronic non-psychiatric illness was high.

It seems possible that some patients with persistently high consultation rates who present with chronic, mainly somatic, symptoms may be or may become psychologically distressed to a significant degree and that this psychological distress goes unrecognized in the presence of physical disease. Knox and Neville in a survey in a similar practice showed that 14% of consultations with a non-psychiatric diagnosis had significant psychiatric content and that there was likely to be some under-reporting owing to psychiatric disturbance going unrecognized (unpublished results). Goldberg and Bridges,[14] studying new episodes of psychiatric illness in the community, pointed out that most were associated with physical illness or were somatized presentations of psychiatric illness. They found pure psychiatric presentations to be quite rare, accounting for only 5% of new illness. A high index of suspicion is required to detect psychiatric illness in patients with known physical illness and here the general health questionnaire, which is simple to use and acceptable to patients, would appear to have a clinically useful role as a probability estimate of caseness.[22]

While the findings of this study do not constitute proof, they justify more detailed investigation of consulting patterns in patients with psychiatric illness, with symptoms such as giddiness, lassitude or multiple aches and pains which may be psychosomatic and also with major chronic or recurring health problems. In addition to clinical assessment and questionnaire measures of psychiatric symptomatology, investigations should include a standard measure of patient personality, such as the Eysenck personality questionnaire,[23] and an assessment of factors which are perceived by the patient to be social problems.

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