Newly identified psychiatric illness in one general practice: 12-month outcome and the influence of patients' personality

A F WRIGHT

A J B ANDERSON

SUMMARY

Background. *Relatively little is known about the natural history and outcome of psychological problems in patients who present to general practioners. Only a small proportion of such patients are seen by specialists. Clinical experience suggests that patient personality is one of the factors influencing outcome in patients diagnosed as having psychiatric illness.*

Aim. *This study set out to examine prospectively the progress and 12-month outcome of patients with newly identified psychiatric illness, and the association of patients' personality with outcome.*

Method. *One hundred and seventy one patients with clinically significant psychiatric illness attending one practice in a Scottish new town were followed up prospectively (96 presented with psychological symptoms and 75 with somatic symptoms), and were compared with a group of 127 patients with chronic physical illness. Patients were assessed in terms of psychiatric state, social problems and personality using both computer-based and pencil and paper tests in addition to clinical assessments at each consultation during the follow-up year and structured interview one year after recruitment.*

Results. *Most of the improvement in psychiatric state scores on the 28-item general health questionnaire occurred in the first six months of the illness. Of the 171 patients with psychiatric illness 34% improved quickly and remained well, 54% had an intermittent course but had improved at 12-month follow up while 12% pursued a chronic course without improvement. The mean number of consultations in the follow-up year was 8.4 for patients presenting with psychological symptoms, 7.2 for those presenting with somatic symptoms and 6.6 for patients with chronic physical illness. The Eysenck N score proved a strong predictor of the outcome of new psychiatric illness.*

Conclusion. *Only one in three patients with newly identified psychiatric illness improved quickly and and remained well, reflecting the importance of continuing care of patients with psychological problems. This study has confirmed the feasibility of simple personality testing in everyday practice and shown a link between Eysenck N score and the outcome of new psychiatric illness. The predictive value of the Eysenck N score in general practice requires further research.*

Keywords: psychiatric morbidity; diagnosis; outcome; personality.

A F Wright, MBE, MD, FRCGP, general practitioner, Glenrothes, Fife. A J B Anderson, MA, MSc, CStat, senior lecturer, Department of Mathematical Sciences, University of Aberdeen.

Submitted: 1 February 1994; accepted: 1 June 1994.

Introduction

GENERAL practitioners and primary care teams are responsible for the diagnosis and management of most psychiatric illness in the community.[1] It has been estimated that general practice consultations for identified psychiatric disorder outnumber outpatient attendances by approximately 10 to one and psychiatric admissions by 100 to one.[2] In spite of its importance in the community relatively little information is available on the natural history of the psychiatric illness seen almost exclusively by general practitioners.

It is known that many patients who consult their general practitioner have an important psychological component to their illness. Bridges and Goldberg studied nearly 500 patients in the Manchester area attending their general practitioner with a new illness.[3] One third satisfied the criteria for psychiatric illness with only 54% having purely physical illness. It has also been shown that general practice patients attending with psychiatric illness not only have more consultations but that consultations with such patients take longer than average.[4,5]

In terms of outcome, early work suggested two main groups of patients: those with short-lived disorders probably related to environmental stress, and those with longer illnesses associated with long standing disadvantage.[6] Early studies have been criticized for small unrepresentative samples, retrospective data collection and excessive reliance on general practitioner assessment. Later work by Huxley and colleagues showed the link between social factors and improvement in neurotic illness.[7] Similarly, the work of Casey and colleagues demonstrated that the role of personality in psychiatric illness is likely to be of no less importance in general practice than in hospital populations.[8]

In 1969 Gray proposed a three-dimensional model of diagnosis for general practice assessing illness in physical, psychological and social terms.[9] Following adoption by the Royal College of General Practitioners[10] this approach has become standard in general practice teaching and is also favoured by psychiatrists such as Williams and colleagues who in 1980 proposed three axes for the classification of non-psychotic illness in the community, namely symptoms, social problems and personality.[11]

The aim of the present study was to examine prospectively the progress and 12-month outcome of patients from one practice with newly identified psychiatric illness and to study the association of patients' personality with outcome. Comparisons have also been made with a cohort of patients from the same practice suffering from chronic physical illness and not complaining of psychiatric symptoms at recruitment. The study was approved by the local ethics committee.

Method

The study was carried out in one six-partner general practice in Glenrothes, a Scottish new town, over three years (1987–89), patients being recruited over a period of 18 months and each patient being followed up for one year. Consecutive patients aged 18 years or over presenting a new psychiatric problem to one doctor (A W) were selected on the basis of clinical judgement, taking account of symptoms, past knowledge of the patient and changes in usual behaviour. Any patient who had consulted

for a psychiatric problem in the previous six months was excluded. Patients gave their informed consent for inclusion in the study. Patients were classified as making a psychological or somatic presentation on the basis of how they presented the new problem and whether they spontaneously complained of symptoms of psychiatric illness such as depression or anxiety. For example, in general practice depressed patients often selectively present with symptoms such as headache, excessive tiredness, multiple aches and pains, or dizziness though they will admit to psychological symptoms of depression if asked directly.[12]

A comparison group of consecutive patients attending for the routine care of chronic physical illness such as diabetes or hypertension and not complaining spontaneously of psychiatric symptoms was also identified. Recruitment of patients to the study ceased after 18 months by which time no further patients with chronic physical illness could be identified.

Patients were free to consult any of the practice's six doctors over the one year follow-up period. A standard form was completed by the six doctors at each consultation with the study patients during the study year. The normal booking rate of appointments for the practice was eight patients per hour and all the doctors were accustomed to consulting to this time scale; consultations were classified as 'long' if they were estimated to have continued for longer than seven minutes though the length of consultations was not measured with a watch.

Patients completed a number of questionnaires at recruitment, six months later and after one year when a previously piloted semi-structured clinical interview was also carried out by the recruiting doctor with patients with psychiatric illness. The pilot study had confirmed that the classification of outcome for patients with psychiatric illness used by Mann and colleagues (improved, variable or chronic)[13] was easily understood by patients. Those classified as 'improved' had become well again within six months and had remained well. Patients classified as 'chronic' continued to feel unwell throughout the study period. Patients classified as 'variable' felt improved at the one-year interview but reported relapses extending into the second six-month period. Outcome was recorded blind to the results of the other tests carried out at one year but took account of patients' views, the pattern of consultations recorded in the medical records and the standard consultation forms.

The three axes — symptoms, social problems and personality — were assessed at different stages of the study.

A pencil and paper test, the Eysenck personality questionnaire,[14] was used to assess patient personality at the midpoint of the follow-up year. It was felt that by this time substantial improvement in psychiatric state could be expected which would minimize the possible effect of illness on this assessment. To assess psychiatric state two computer questionnaires were used. The first, the 28-item general health questionnaire,[15,16] whose validity and reliability as a screening test in general practice have been well established, was completed at recruitment, at six months and at one year. The second, the interactive psychosocial assessment for use in general practice (IPSAG-CIS), a computerized version[17] of the clinical interview schedule,[18] was completed at recruitment and at one year. This semi-structured interview is widely used for psychological assessment of people in the community and gives more detailed diagnostic information than the general health questionnaire. Social factors were assessed on computer using the social problems questionnaire[19] which has been well validated against interview and widely used in the United Kingdom and overseas. This questionnaire was completed at recruitment and at one year. Thirty minutes was allowed for completion of the full set of questionnaires and this appeared to be ample.

Software for the clinical interview schedule was supplied by the Institute of Psychiatry in London and that for the general health questionnaire and the social problems questionnaire was written by A W using *DBASE* (Borland), a commercial database programme. For the computer tests patients sat at a computer screen in a quiet room and answered a series of multiple choice questions using the keyboard. Questions asked depended on answers to previous questions and each response was registered before it was possible to pass on to the next question so that individual questions could not be overlooked

Statistical analysis

Sample sizes were such that means were approximately normally distributed; classical parametric methods such as *t*-tests, *F*-tests and confidence intervals were therefore used. However, all tests were confirmed by non-parametric analogues (Wilcoxon, Mann-Whitney and Friedman tests, as appropriate). In the case of counts such as number of social problems or number of encounters, log-linear modelling was used to check findings even when more basic formats are used in presentation. This process expresses the logarithm of the mean of the count in terms of explanatory variables in a manner akin to multiple regression and enables interactions to be explored. Possible influences of patient characteristics on final scores on the general health questionnaire and clinical interview schedule and the 12-month changes in these were examined by multiple regression analysis, the distributional requirements of such an approach being adequately met.

Results

Three hundred and thirty four patients agreed to participate in the study (one refused), and of these 298 completed the one-year follow-up period. Of the 36 patients who did not complete the follow up, 16 declined to continue with the tests, 13 had left the practice before the end of the year, five had become too ill to continue and two had died. Thus data are reported for 89.2% of recruited patients (94.9% of patients for whom follow up was possible).

There were no statistically significant differences in sex or social class between the 298 patients who completed follow up and the 36 who did not. However, those who completed follow up were significantly older than those who did not (mean age 46.3 years versus 38.9 years; $t = 3.0$, $P<0.01$). Of the 16 patients who chose not to complete the tests nine belonged to the psychological and seven to the somatic group.

Characteristics of groups

Data are presented on 171 patients with identified psychiatric illness and 127 patients suffering from chronic physical illness. Of the patients with psychiatric illness 96 presented mainly psychological symptoms (26 men, 70 women) and 75 with somatic symptoms (19 men, 56 women). Of the 127 patients with chronic physical illness 69 were men and 58 women. The proportion of women in the groups with identified psychiatric illness was significantly greater than in the comparison group of patients with chronic physical illness (chi square = 24.3, 2 degrees of freedom, $P<0.001$). The mean ages differed by group — mean age of those presenting psychological symptoms 39.8 years, of those presenting somatic symptoms 44.5 years and of those with chronic physical illness 52.2 years ($F = 30.6$, $P<0.001$).

There were no statistically significant differences in social class[20] between the groups nor in the proportions who were cigarette smokers (overall, 124 patients were cigarette smokers (41.6%)). Of the 298 patients 228 were married at recruitment (76.5%), 26 were single, 18 widowed, 14 divorced and 12 separated. Sixteen of the patients in the group presenting psychological symptoms were divorced or separated (16.7%), as were six of the patients presenting somatic symptoms (8.0%) and four of

those with chronic physical illness (3.1%); these proportions differed significantly ($\chi^2 = 12.6$, 2 df, $P<0.01$).

Change in social problems and test scores

The percentage of patients in each group reporting no social problems at the beginning and end of the follow-up year is given in Table 1. The group presenting with psychological symptoms showed a significant increase in the proportion reporting no social problems at end of follow-up year. As the distribution of social problems was markedly skewed, log-linear modelling was used for the analysis. The mean number of reported social problems at the start of the year was 0.99 for the group presenting with psychological symptoms, 0.61 for the group presenting with somatic symptoms and 0.36 for the group with chronic physical illness ($P<0.001$). There was no evidence of sex difference after adjusting for groups which were significantly different. At one-year follow up the means were 0.78 social problems for the group presenting with psychological symptoms, 0.52 for the somatic presentation group and 0.36 for the group with chronic physical illness. Again there was no evidence of sex difference after adjusting for group.

The test scores on the general health questionnaire are given in Table 2. Most of the improvement in psychiatric state occurred in the first six months of the illness. This is reflected in the statistics labelled quadratic which give the difference in yearly rate of change between the six-month periods. The scores on the clinical interview schedule are also shown on Table 2. The groups presenting with psychological and somatic symptoms showed high scores initially compared with the group with chronic physical illness; by the end of the year this difference was considerably reduced. When only the two psychologically ill groups were compared no statistically significant difference in psychiatric state scores was found between those presenting with psychological symptoms and those presenting with somatic symptoms.

The scores on the Eysenck personality questionnaire are shown in Table 2. The Eysenck P score was found to be lower in the higher social class groups and lower in women than men but these differences were not statistically significant. Likewise there were no significant differences for E, N or L scores between the sexes and among social groups.

Regression analysis revealed that improvements in scores on both the clinical interview schedule and the general health questionnaire were significantly related to both Eysenck N and P scores (all $P<0.001$), even after taking account of group and initial score. Furthermore, patients whose outcome was categorized as improved ($n = 58$) showed significantly lower Eysenck N and P scores (both $P<0.001$) than those whose outcome was variable or chronic ($n = 113$) even after adjusting for type of presentation (psychological or somatic symptoms). Dividing the sample randomly into two halves suggested that the N score can be a useful predictor of outcome status; for example, for men presenting with psychological or somatic symptoms, use of 14 as a cut-off score correctly allocated patients to the outcome groups

Table 1. Change in the proportion of patients reporting no social problems over the study year.

Patients	% of patients with no social problems: Start of year	End of year	Difference (%)
Presenting with:			
Psychological symptoms ($n = 96$)	*49.0*	*62.5*	*13.5**
Somatic symptoms ($n = 75$)	*65.3*	*73.3*	*8.0*
With chronic physical illness ($n = 127$)	*76.4*	*76.4*	*0*

n = number of patients in group. McNemar test for paired data: * $\chi^2 = 6.3$, 1 df, $P<0.05$.

Table 2. Scores on the general health questionnaire, clinical interview schedule and Eysenck personality questionnaire.

	Mean score (standard error) for patients: Presenting with psychological symptoms ($n = 96$)	Presenting with somatic symptoms ($n = 75$)	With chronic physical illness ($n = 127$)	F ratio over groups
General health questionnaire				
Start of year	16.9 (0.7)	12.0 (0.7)	5.6 (0.5)	92.8***
Six months	6.6 (0.8)	5.8 (0.7)	4.5 (0.5)	2.8
End of year	5.4 (0.7)	5.1 (0.6)	4.3 (0.5)	1.2
Difference over year	11.5 (0.8)	6.9 (0.8)	1.3 (0.5)	64.8***
(t-test)	(15.1***)	(8.4***)	(2.6**)	
Quadratic[a]	9.2 (1.3)	5.5 (1.0)	0.8 (0.7)	18.2***
(t-test)	(6.6***)	(5.4***)	(1.2)	
Clinical interview schedule				
Start of year	27.7 (1.2)	18.8 (1.1)	11.2 (0.8)	70.7***
End of year	17.5 (1.3)	13.6 (1.0)	10.8 (0.9)	10.9***
Difference over year	10.2 (1.1)	5.2 (0.9)	0.4 (0.6)	35.8***
(t-test)	(8.8***)	(5.8***)	(0.7)	
Eysenck personality questionnaire[b]				
P score	2.4 (0.2)	1.8 (0.2)	1.7 (0.2)	4.2*
E score	10.7 (0.6)	10.0 (0.6)	11.0 (0.5)	1.0
N score	16.0 (0.5)	13.8 (0.6)	11.5 (0.5)	18.9***
L score	10.6 (0.5)	11.9 (0.5)	11.1 (0.4)	1.7

n = number of patients in group. [a]Difference in half-yearly rate of change between the six-month periods. [b]P score measures psychoticism, E extraversion–introversion, N neuroticism (stability–instability) and L dissimulation (lie score). ***$P<0.001$; **$P<0.01$; *$P<0.05$.

improved (low N) or variable or chronic (high N) about 80% of the time.

Course of the illness

The course of the illness as assessed by the outcome at the one-year interview is given in Table 3. Only one in three patients had become well within six months and had remained well. There was little difference between the groups presenting with psychological or somatic symptoms. Outcome is also demonstrated by the change in scores on the clinical interview schedule (Table 2).

The total number of consultations and the number estimated to be 'long' for each group is given in Table 4. As the distributions were markedly skewed, log-linear modelling was used for the analysis. For the total number of consultations, there was no evidence of a sex difference; there was, however, strong evidence of relationship with group ($P<0.001$), with Eysenck N score ($P<0.001$) and with outcome (improved versus variable or chronic) ($P<0.001$).

For long consultations, there was a striking sex and group interaction ($P<0.001$) almost entirely owing to women in the group with chronic physical illness having 70.7% more long consultations than men whereas for the group presenting with somatic symptoms men had 59.0% more long consultations than women.

Discussion

Although psychiatric morbidity is common in general practice, the lack of longitudinal studies from general practice limits our understanding of the natural history of episodes of psychiatric illness in the community, especially those episodes which do not result in referral to specialist services.

Research from a single practice raises questions of the generalizability of results to other areas where the style of practice may be different and where the expectations of patients may differ as may the motivation of doctors and the educational support available to them. The sample studied, a naturalistic series of patients with identified psychiatric illness, can be regarded as informative of experience in one medium-sized practice. Data have been published previously from the same practice on the prevalence of psychiatric illness[21] and on the incidence and presentation of somatic symptoms by patients with psychiatric disorder.[22]

This study showed that 34% of patients with psychiatric illness were improved at 12 months (compared with 24% found by Mann and colleagues[13]), 54% had an intermittent course (52%) and only 12% had a chronic, unremitting course (25%). Some of the difference between the two studies may be explained by the composition of the samples though patients may have been more likely to report a favourable outcome to their own doctor as in the present study. Mann and colleagues used a sample selected on theoretical grounds to be representative of those attending general practitioners with non-psychotic psychiatric disorders detected using the general health questionnaire and confirmed by research psychiatrists. Both studies included only those patients whose psychiatric morbidity was recognized by the general practitioner. In the present study patients were identified by the general practitioner's management decision rather than by research validated diagnosis. This naturalistic, inductive rather than deductive approach is likely to reflect the actual process of care of a group of patients for whom research based diagnoses are not made.

No statistically significant difference was found between the groups presenting with psychological and somatic symptoms in psychiatric state scores, and in both groups most of the improvement in scores occurred in the first six months. Similarly, there was no significant difference between the groups in terms of the outcome as measured at the final interview at one year. It may be that patients in the group presenting with somatic symptoms have similar levels of distress but that they are less 'psychologically-minded'. The patients with somatic presentation may be as severely ill as the group with psychological presentation but are known to be less likely to be recognized.[16] The 75 patients presenting with somatic symptoms identified in this study are probably an underestimate of the number of patients presenting in this way as defined by research psychiatrists. A large multi-practice study of new episodes of illness found that somatization illnesses were in fact the commonest way in which psychiatric disorder presented to general practitioners.[3]

The groups presenting with psychological and somatic symptoms had a similar, high consultation rate, higher even than that of patients with chronic physical illness who represent an important component of the everyday workload of general practitioners. Consultations were also more likely to be prolonged in the patients with psychiatric illness than in patients with chronic physical illness, particularly among the subgroup presenting with psychological symptoms, confirming earlier work.[4]

Patient personality has long been recognized as a crucial determinant of illness outcome. Dependency and low self-esteem have been related to unipolar depression, and obsessionality to bipolar depression,[23] while life events and personality traits have been shown to be important in obsessive compulsive neurosis.[24]

Table 3. Outcome groups at the one-year follow-up interview.

	% of patients		
Outcome	Presenting with psychological symptoms (n = 96)	Presenting with somatic symptoms (n = 75)	Total (n = 171)
Improved	*32.3*	*36.0*	*33.9*
Variable	*55.2*	*52.0*	*53.8*
Chronic	*12.5*	*12.0*	*12.3*

n = number of patients in group.

Table 4. Number of consultations in follow-up year (excluding final interview).

	Mean no. of consultations for group (95% CI)		
	Presenting with psychological symptoms (n = 96)	Presenting with somatic symptoms (n = 75)	With chronic physical illness (n = 127)
Total	8.39 (7.43 to 9.35)	7.17 (6.09 to 8.25)	6.63 (5.80 to 7.47)
Long	2.32 (1.92 to 2.72)	1.60 (1.15 to 2.05)	1.10 (0.76 to 1.45)
Men	2.35	2.21	0.82
Women	2.27	1.39	1.40

CI = confidence interval. n = number of patients in group.

Research in the community has related personality factors to depressive symptoms.[25]

Mann and colleagues devised a standardized assessment of personality suitable for use outside hospital which involved the interview of an informant to classify features of personality by type and degree of abnormality.[26] Skilled interviewers are rarely available in general practice but self-completed questionnaires designed to measure these factors[14] are available for use in the community. They aim to gauge individual characteristics such as attitudes and behaviour patterns which are relatively stable and characteristic of the individual. General practitioners are familiar with different personality types among their patients and the need to take account of this in diagnosis and management. Since it is less easy to classify these personality types in a clinically useful way different clinicians have different systems.[27]

A strong association was found between high Eysenck N scores and poor outcome. While the Eysenck N score, measuring neuroticism on a scale from stability to instability, is assumed to measure a personality trait independent of current mood state,[14] these results must be interpreted with caution. All such instruments are probably affected to some degree by the presence of clinically significant depression or anxiety. In this study personality testing was done six months after recruitment thus minimizing possible bias owing to the low mood state present at recruitment. The predictive value of Eysenck N scores in general practice requires further investigation.

The use of the computer and the completion of questionnaires dealing with psychological symptoms and other personal questions proved acceptable to patients and most were prepared to repeat the tests when asked. It also proved possible to use the technique in service general practice during normal working days as had been predicted by Poyser.[28] Experience from this research suggested that the individual symptom scores of the clinical interview schedule and the domainal scores of the social problems questionnaire may be useful in structuring follow-up consultations and exploring individual social problems; this requires further research.

General practitioners are auditing their care of chronic physical illness such as diabetes, hypertension or asthma but seem less inclined to tackle performance review of psychiatric illness which forms a substantial part of their work. One of the reasons for this reluctance may be that they are generally less familiar with the existence of valid objective measures which could be used in the same way as glycosylated haemoglobin in diabetes or peak flow readings in asthma. Psychological testing might make possible a clinical review of the outcome as well as the process of care for patients with the commoner psychiatric illnesses.[29] Crossley and colleagues have published a method of assessing psychological care by general practitioners using the general health questionnaire.[30]

The main difficulty in using psychological tests in clinical practice is not in scoring questionnaires but in interpreting the results. Despite this uncertainty, simple questionnaires that are practical in use, acceptable to patients, that can confirm clinical assessments and give indications of outcome are surely worth further clinical evaluation. The use of suitable instruments offers the possibility of improving the care of the large number of patients with mental health problems who are treated in general practice without referral to specialist services.

References

1. Shepherd M, Cooper M, Brown AC, Kalton G. *Psychiatric illness in general practice.* 2nd edition. Oxford University Press, 1981.
2. Royal College of General Practitioners, Office of Population Censuses and Surveys and Department of Health and Social Security. *Morbidity statistics from general practice. Third national study, 1981–82.* London: HMSO, 1986.
3. Bridges K, Goldberg DP. Somatic presentations of DSM-III psychiatric disorders in primary care. *J Psychosom Res* 1985; **29:** 563-569.
4. Buchan IC, Richardson IM. *Time study of consultations in general practice. Scottish health services studies no. 27.* Edinburgh: Scottish Home and Health Department, 1973.
5. Westcott R. The length of consultations in general practice. *J R Coll Gen Pract* 1977; **27:** 552-555.
6. Kedward HB. The outcome of neurotic illness in the community. *Soc Psychiatry Psychiatr Epidemiol* 1969; **4:** 1-4.
7. Huxley PJ, Goldberg DP, Maguire GP, Kincey VA. Prediction of the course of minor psychiatric disorder. *Br J Psychiatry* 1979; **135:** 535-543.
8. Casey PR, Dillon S, Tyrer PJ. The diagnostic status of patients with conspicuous psychiatric morbidity in primary care. *Psychol Med* 1984; **14:** 673-683.
9. Gray DJP. Care of the handicapped child in general practice. *Trans Hunterian Soc* 1969; **28:** 3-47.
10. Royal College of General Practitioners. *The future general practitioner.* London: British Medical Journal, 1972.
11. Williams P, Tarnopolsky A, Hand D. Case definition and case identification in psychiatric epidemiology: review and assessment. *Psychol Med* 1980; **10:** 101-114.
12. Wright AF. *Depression: recognition and management in general practice.* 2nd edition. London: Royal College of General Practitioners, 1993: 22.
13. Mann AH, Jenkins R, Belsey E. The twelve month outcome of patients with neurotic illness in general practice. *Psychol Med* 1981; **11:** 535-550.
14. Eysenck HJ. *Manual of the Eysenck personality questionnaire.* Sevenoaks: Hodder and Stoughton, 1984.
15. Goldberg DP. *The detection of psychiatric illness by questionnaire.* Oxford University Press, 1972.
16. Goldberg DP, Blackwell B. Psychiatric illness in general practice . A detailed study using a new method of case identification. *BMJ* 1970; **2:** 439-443.
17. Lewis G, Pelosi AJ, Araya R, Dunn G. Measuring psychiatric disorder in the community: a standardized assessment for use by lay interviewers. *Psychol Med* 1989; **22:** 465-486.
18. Goldberg DP, Cooper B, Eastwood MR, *et al.* A standard psychiatric interview for use in community surveys. *Br J Prev Soc Med* 1970; **24:** 18-23.
19. Corney RH, Clare AW. The construction, development and testing of a self-report questionnaire to identify social problems. *Psychol Med* 1985; **15:** 637-649.
20. Royal College of General Practitioners. *Classification of diseases, problems and procedures 1984. Occasional paper 26.* London: RCGP, 1984.
21. Wright AF, Perini AF. Hidden psychiatric illness: use of the general health questionnaire in general practice. *J R Coll Gen Pract* 1987; **37:** 164-167.
22. Wright AF. A study of the presentation of somatic symptoms in a general practice by patients with psychiatric disturbance. *Br J Gen Pract* 1990; **40:** 459-463.
23. Hirschfeld RMA, Cross CK. Epidemiology of affective disorders. Psychosocial risk factors. *Arch Gen Psychiatry* 1992; **39:** 35-46.
24. McKeon J, Roa B, Mann A. Life events and personality traits in obsessive-compulsive neurosis. *Br J Psychiatry* 1984; **144:** 185-189.
25. Hirschfeld R, Klerman G. Personality attributes and affective disorders. *Am J Psychiatry* 1979; **136:** 67-70.
26. Mann AH, Jenkins R, Cutting JC, Cowen PJ. The development and use of a standardised assessment of abnormal personality. *Psychol Med* 1981; **11:** 839-847.
27. Casey PR, Tyrer PJ. Personality disorder and psychiatric illness in general practice. *Br J Psychiatry* 1990; **156:** 261-265.
28. Poyser J. Patient interviewing. In: Sheldon M, Stoddart N (eds). *Trends in general practice computing.* London: Royal College of General Practitioners, 1985.
29. Wright AF. Should general practitioners be testing for depression? *Br J Gen Pract* 1994; **44:** 132-135.
30. Crossley D, Myres MP, Wilkinson G. Assessment of psychological care in general practice. *BMJ* 1992; **305:** 1333-1336.

Acknowledgements

We are grateful to the partners in the practice for their cooperation and to the Health Promotion Research Trust for generous financial support.

Address for correspondence

Dr A F Wright, 5 Alburne Crescent, Glenrothes, Fife KY7 5RE.