personnel were fully aware of the possibility of this complication, the symptoms to be expected, and the necessity for urgent hospital admission for possible early laparotomy.

Reconstruction of the ileostomy (usually for stenosis or retraction) continues to be necessary in $8 \%$ of patients but other stomal problems, particularly with the peristomal skin, have definitely decreased. A very great improvement in the field of stoma care has occurred recently. Delayed healing of the perineal wound continues to be frequent; the finding that only half the wounds were healed in less than six months and about $75 \%$ in a year is the same as in previous studies. One in every eight patients who left hospital with a perineal wound required further inpatient treatment for it; this readmission rate is again similar to previous figures.

An important aspect of the follow-up of these patients needs to be emphasized. The dangers of the development of carcinoma in the rectal stump when this has been left after colectomy and ileostomy and in the retained rectum after colectomy and ileorectal anastomosis have already been reported. ${ }^{5}{ }^{5}$ In this series the follow-up of these two groups of patients, particularly the former, was not as thorough as is warranted by these facts. The difficulties of recalling patients who fail to keep outpatient appointments are well known, but all patients who have been treated surgically for ulcerative colitis and in whom the rectum has not been excised should be seen at six-monthly intervals for examination, which should include sigmoidoscopy and prefer-
ably rectal biopsy examination to detect premalignant mucosal changes.

This paper intended to present an up-to-date picture of the results of surgery for inflammatory bowel disease in an unselected group of patients. The survey showed the continuing existence of several problems relating to the treatment of these patients which require more detailed consideration. These will be discussed more fully at a later date.

I am very grateful to the surgeons of the North-east Metropolitan Hospital Region for permission to study the case records of patients under their care.

My thanks are due to Mrs. S. M. Ritchie, M.B., B.S., for help in the field work and to the medical records officers of the region for their co-operation.
I acknowledge with thanks the helpful criticism of Dr. J. E. Lennard-Jones in the preparation of this paper.
The survey was undertaken with the aid of a grant from the Ileostomy Association of Great Britain and Ireland.

## References

${ }^{1}$ Ritchie, J. K., Gut, 1971, 12, 528.
${ }_{3}^{2}$ Ewart, W. B., and Lennard-Jones, J. E., Lancet, 1960, 2, 60.
${ }^{3}$ Ritchie, J. K., British fournal of Surgery, 1972, 59, 345.
${ }_{5}^{4}$ Ritchie, J. K., Proceedings of the Royal Society of Medicine, 1972, 65, 73. ${ }^{5}$ Aylett, S., British Medical fournal, 1971, 2, 203.

# Psychiatric Morbidity and Referral on Two General Medical Wards 

G. P. MAGUIRE,<br>D. L. JULIER,<br>K. E. HAWTON,<br>J. H. J. BANCROFT

British Medical fournal, 1974, 1, 268-270

## Summary

Psychiatric morbidity among 230 medical inpatients was determined by a two-stage screening procedure, using the General Health Questionnaire and Standardized Psychiatric Interview. Of these patients, $23 \%$ were considered psychiatrically ill, affective disonders being the commonest illnesses encountered; and 27 ( $12 \%$ ) were psychiatrically referred. While referral was related to severity of psychiatric illness and previous psychiatric illness, the degree to which the psychiatric illness obtruded or created problems in management appeared more crucial in determining referral. In half of those with psychiatric illness the problems did not appear to have been detected or dealt with. It is suggested that medical clerking should routinely include questions about mood and psychological responses to illness.

[^0]
## Introduction

Psychiatric services to the general medical wards are usually based on referrals initiated by physicians. ${ }^{1-4}$ Yet medical staff probably fail to recognize, treat, or refer many of those patients who might benefit from psychiatric help, ${ }^{56}$ even when they liaise closely with a psychiatrist. ${ }^{7}$ Despite this evidence there has been little direct study of the problem. ${ }^{8}$ We therefore set out to study psychiatric morbidity and referral among the inpatients of two general medical wards in a teaching hospital.

## Patients and Methods

All patients consecutively admitted to two medical wards during November and December 1971 were included, provided they were judged independently by the medical teams to be well enough to participate, and had not been admitted after a suicide attempt. The male and female medical wards chosen for study were the responsibility of four physicians, who, in addition to their particular interests in cardiovascular, endocrine, metabolic, and renal diseases, took their share of acute medical admissions.

Our psychiatric assessment was carried out in two stages. Firstly, patients were asked to complete the General Health Questionnaire ${ }^{9}$ as soon as possible after admission. All those who scored over 11 -that is, within the range of probable psychiatric morbidity-were given the Standardized Psychiatric Interview ${ }^{10}$ by an experienced psyohiatrist.

During this interview the psychiatrist determined the presence of any symptoms or signs of psychiatric illness and rated each along a 5 -point scale, the higher the score the more severe and frequent the particular sign or symptom. Finally, he made an overall rating of psychiatric morbidity. A morbidity score of 0 indicated absence of psychiatric illness; a score of 1 , borderline psychiatric illness; a score of 2, definite but mild psychiatric illness; a score of 3, moderate psyohiatric illness; and a score of 4, severe psychiatric illness.

Three indices of psychiatric morbidity were thus obtained for each patient who scored over 11 on the General Health Questionnaire-a General Health Questionnaire score; a total interview score (interview score $=2(\mathrm{C})+\mathrm{S}$, where $\mathrm{C}=$ ratings of clinical signs and $S=$ ratings of symptoms); and an overall rating of psychiatric morbidity.

At the end of each interview the psychiatrist indicated if psychiatric referral was required and expressed an opinion about the relationship between the physical illness and any psychiatric illness found. The medical case notes were then independently studied.

## Results

THE SAMPLE
During the study period 230 patients ( 120 women; 110 men), were admitted and 170 ( 100 women; 70 men), completed the General Health Questionnaire. Of the remainder, 43 were judged too ill, 12 were missed, and 5 refused. The mean age of the women was 59.3 years (S.D. $=19.3$ ) and of the men 55.6 years (S.D. $=18.7$ ).
Of the diagnoses (table I), "degenerative" disease included cerebral arterial disease, myocardial ischaemia, myocardial infarction, emphysema, and osteoarthritis. The "psychosomatic" group comprised those conditions held by some to have a strong psychological component-that is, asthma, peptic ulcer, irritable colon, ulcerative colitis, regional ileitis, essential hypertension, rheumatoid arthritis, and skin diseases.
table I-Diagnosis by Principal Disease and Principal System in 230 Patients


## PSYCHIATRIC MORBIDITY

A total of 77 patients scored 12 or more on the General Health Questionnaire, while 45 patients ( $20 \%$ of the sample) obtained psychiatric morbidity scores of 2 or more on the subsequent Standardized Psychiatric Interview. The psychiatric illness was considered mild in 25 patients, moderate in 13 , and severe in 7.
The study of the case notes showed that a further eight patients had been diagnosed by other psychiatrists as being psychiatrically ill. Six had scored 11 or less on the General Health Questionnaire, one had been unfit, and the other was missed. Thus a total of $23 \%$ of the medical inpatients who had not taken an overdose were thought to be suffering from psyohiatric illness. Affective disorders accounted for $80 \%$ of all the diagnoses (table II). In $38 \%$ of this group we judged the mood disturbance to represent an adverse psychological response to physical illness.
table II-Principal Diagnosis on Standardized Psychiatric Interview (S.P.I.)

| Principal Diagnosis | No. of Patients | \% of all S.P.I. Diagnoses | Proportion of Patients as a $\%$ of Total Sample |
| :---: | :---: | :---: | :---: |
| Affective disorders: Depressive illness Anxiety states Phobic states | 25 10 1 | \} 80 | 16 |
| Organic psychoses: <br> Acute <br> Chronic | 3 3 | $\} \quad 13$ | 3 |
| Other conditions: <br> Severe personality disorder Alcoholism | 2 | $\} \quad 7$ | 1 |
| Total | 45 | 100 | 20 |

table iII-Relationship of Psychiatric Morbidity to Type of Disease

| Disease | Score on General Health Questionnaire |  | Total Interview Score on Standardized Psychiatric Interview |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mean | No. of Patients | Mean | No. of Patients |
| Psychosomatic | $25.2 \pm 19.8$ | 12* | $30 \cdot 1 \pm 15 \cdot 1$ | $8 \dagger$ |
| No disease .. | $17.6 \pm 13.4$ | 8 | $18.5 \pm 13.2$ | 6 |
| Neoplastic . . | $16.8 \pm 14.0$ | 25 17 | $15.6 \pm 10.5$ $18.8+15.4$ | 12 |
| Metabolic .. | $15.3 \pm 13.0$ | 17 | $18.8 \pm 15.4$ | 11 |

*Psychosomatic group $v$. the rest: $t=3.53 ; \mathrm{P}<0.001$.
$\dagger$ Psychosomatic group $\boldsymbol{v}$. the rest: $t=2.13 ; \mathrm{P}<0.05$.

Examination of the relationship between psychiatric illness and particular physical illnesses showed the "psychosomatic" group to be more disturbed psychiatrically (table III).

## RECOGNITION OF PSYCHIATRIC MORBIDITY

The study of the case notes showed that the medical staff had recognized the existence of psychiatric problems in 22 (49\%) of those 45 patients we identified as psychiatrically ill, but we failed to find any evidence in the notes of the remaining 23 patients that their psychiatric morbidity had been detected.

## PSYCHIATRIC REFERRAL AND TREATMENT

We considered that 28 of the 77 patients we interviewed required psychiatric referral. Nevertheless, the 27 patients actually referred ( $12 \%$ of our sample) included only 16 of this group. We could find no evidence in the notes of the remaining 12 patients that their problems had been detected by the medical staff, treated, or dealt with, in any other way. These patients had: depressive illness related to interpersonal problems and unconnected with any physical illness (four patients); unresolved grief (two); depressive illness related to cancer (two); anxiety state or depressive illness in the absence of any abnormal physical findings (two); and severe but masked depressive reactions to physical illness (two).

## FACTORS AFFECTING REFERRAL

Psychiatric referral was clearly related to the severity of psychiatric disturbance (table IV). Even so, 11 of those 20 patients who obtained psychiatric morbidity ratings of 3 or 4 were not referred. Patients whose notes mentioned past psychiatric illness were much more likely to be referred (table V). Nevertheless, only 22 of the 60 patients ( $26 \%$ ) whose notes contained reference to current behaviour or mood disturbance were referned for a psychiatric opinion. Their referral appeared to have been very strongly determined by how far their behaviour had obtruded or created problems for the medical staff.
talbe Iv-Psychiatric Referral by Indices of Psychiatric Disturbance

|  | Score on General Health Questionnaire |  |  | Overall Morbidity Score on Standardized Psychiatric Interview |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-11 | $\begin{aligned} & 12 \text { and } \\ & \text { Over } \end{aligned}$ | Total | 0-2 | 3-4 | Total |
| Referred Not referred | 88 | $\begin{aligned} & 16 \\ & 61 \end{aligned}$ | $\begin{array}{r} 21 \\ 149 \end{array}$ | 7 5 | 9 11 | 16 61 |
| Total | 93 | 77 | 170 | 57 | 20 | 77 |
|  | $x^{2}=\underset{P<0.01}{9.23 ; \text { D.F. }}=1 ;$ |  |  | $x^{2}=\underset{P<0.01}{9.63 ; \text { D.F. }}=1 ;$ |  |  |

table v—Factors Affecting Psuchiatric Referral

|  |  | Mention in notes <br> of past pychiatric <br> illness | No mention of <br> psychiatric <br> illness | Total <br> No. of <br> Patients <br> Referred <br> Not referred <br> Total | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 | 12 | 27 |  |  |

Psychiatric referral was significantly related to mention of past psychiatric illness: $\mathrm{X}^{2}=51 \cdot 20 ;$ D.F. $=1 ; \mathrm{P}<0.001$.

Of these patients, 12 had appeared obviously and frequently weepy or agitated. The remaining 10 had complained excessively, refused to co-operate, or been very noisy. Though there were no indications of similar difficulties in the other 5 patients referred, their general practitioner's letters had highlighted co-existent psychiatric problems. In sharp contrast, all those in the non-referred group appeared to have co-operated in treatment, been quiet in behaviour, and able to mask their psychiatric difficulties. Of the other possible factors affecting referral, neither age, sex, or length of physical illness were obviously related to psychiatric referral.

## Discussion

Our study confirms the existence of a substantial psychiatric morbidity among medical inpatients, ${ }^{811}$ and the predominance of depressive illness. ${ }^{6}$ We believe our figure of $23 \%$, which is lower than other rates, ${ }^{6}$ is an underestimation; though we were unable to screen $26 \%$ of the admissions, we have calculated our morbidity rates as a percentage of the whole sample of patients who had not taken an overdose. Funthermore, since the General Health Questionnaire failed to detect six patients with definite psyohiatric illness it may have missed several more.

The high rate of psychiatric morbidity in the psychosomatic group did not appear to be related to any panticular "psychosomatic" disorder, and is difficult to explain. Comparison of their medical histories with those of "non psychosomatic" patients suggests that this group were physically less severely ill. Possibly, therefore, their psycholological disturbance played some part in determining their selection for admission.

Our experiences suggest that two factors were mainly responsible for the "hidden" morbidity: the situation in which the medical staff worked and their fears that inquiry about psychological responses to illness might precipitate emotional distress. The house physicians had to contend with a high admission rate, a short duration of stay, and an acutely ill population. Not surprisingly they tended to concentrate exclusively on the physical well-being of their patients, and as in other work ${ }^{512-14}$ inquired or dealt with emotional reactions only when
these were obviously abnormal, interfered with medical management, or had been highlighted as problems by the referring general practitioners. We believe that a few screening questions about mood and psychological response to illness could be useful, without adding appreciably to the time involved in clerking.

Fears that inquiry about a patient's emotional state might be damaging seemed to apply especially to patients suffering from cancer. Both medical and nursing staff appeared actively to avoid questioning such patients. Paradoxically this avoidance seemed to have contributed to the "hidden" psychiatric problems encountered in two of the patients with cancer.

A crucial question is what happens to those patients whose psychiatric illness remains undeteoted, especially in view of claims that mood disturbance hinders recovery from physical illness, ${ }^{15} 16$ and adversely influences mortality rates. ${ }^{1718}$ While Goldberg and Blackwell ${ }^{19}$ suggest that two-thirds will recover psychiatrically without treatment, the nature and severity of our "hidden" morbidity cause us to think that a much lower proportion of our sample will do so. We are conducting a follow-up study to clarify this. If it confirms our supposition, the efficacy of psychiatric intervention in this setting will need to be shown.

Finally, in view of the numbers that would be concerned, we consider that it is unrealistic to suggest that all psyohiatric problems be psychiarrically referred. Instead, we would recom_ mend that psychiatrists engaged in liaison work should concentrate on the difficult task of attempting to distinguish those psychiatric problems most usefully referred from those best dealt with by the medical staff, medical social worker, or general practitioner.

We would like to thank Dr. J. Badenoch, Dr. T. D. R. Hockaday, Dr. J. G. G. Ledingham, and Dr. G. de J. Lee for permission to study patients under their care and the nursing and medical staff of the wards concerned who tolerated our presence with great patience. We are particularly grateful to Mrs. F. M. Insell and her colleagues for their help in retrieving the medical case notes.

## References

${ }^{1}$ Shepherd, M., Davies, B., and Culpan, R., Acta Psychiatrica et Neurologica Scandinavica, 1960, 35, 518 .
${ }^{2}$ Fleminger, J. J., and Mallett, B. L., fournal of Mental Science, 1962, 108, 183.
${ }^{3}$ Kenyon, F. E., and Rutter, M. L., Comprehensive Psychiatry, 1963, 4, 80.
${ }^{4}$ Bridges, P. K., Koller, K. M., and Wheeler, T. K., Acta Psychiatrica et Neurologica Scandinavica, 1966, 42, 171.
${ }^{5}$ Schwab, J. J., Clemmens, R. S., Freeman, F. R., and Scott, M. L., Psychosomatic Medicine, 1965, 27, 112.
${ }^{6}$ ' Lipowski, Z. J., Psvchosomatic Medicine, 1967, 29, 201.
${ }^{7}$ Macleod, J. G., and Walton, J. H., Lancet, 1968, 2, 789.
${ }^{8}$ Johnson, D., Psychiatric Investigation of Patients admitted to two Medical Wards. D.P.M. dissertation, University of Edinburgh, 1970.

- Goldberg, D. P., Detection of Psy chiatric Illness by Questionnaire, Maudsley Monograph No. 21. London, Oxford University Press, 1972.
${ }^{10}$ Goldberg, D. P., Cooper, B., Eastwood, M. R., Kedward, H. B., and Shepherd, M., British fournal of Preventive and Social Medicine, 1970, 24, 1.
${ }^{11}$ Helsborg, H. C., Acta Psychiatrica et Neurologica Scandinavica, 1958, 33, 303.
${ }^{12}$ Meyer, E., and Mendelson, M., Fournal of Nervous and Mental Diseases, 1960, 130, 78 .
${ }^{13}$ Denney, D, Quass, R. M., Rich, D. C., and Thompson, J. K., Archives of General Psychiatry, 1966, 14, 530.
${ }^{14}$ Mezey, A. G., and Kellett, J. M., Postgraduate Medical fournal, 1971, 47, 315.
${ }^{15}$ Querido, A., British fournal of Preventive and Social Medicine, 1959, 13, 33.
${ }^{16}$ Cay, E. L., Vetter, N., Phillip, A. E., and Dugard, P., fournal of Psychosomatic Research, 1972, 16, 425.
${ }_{11}^{17}$ Kimball, C. P., American fournal of Psychiatry, 1969, 126, 348.
${ }^{18}$ Bruhn, J. G., Wolf, S., and Phillips, B. U., Journal of Psychosomatic Research, 1971, 15, 305.
${ }^{19}$ Goldberg, D. P., and Blackwell, D., British Medical fournal, 1970, 2, 439.


[^0]:    University Department of Psychiatry, Warneford Hospital, Oxford OX3 7JX
    G. P. MAGUIRE, M.R.C.PSYCH., D.P.M., Clinical Tutor in Psychiatry D. L. JULIER, M.R.C.P., M.R.C.PSYCH., Senior Research Psychiatrist K. E. HAWTON, M.B., D.P.M., Registrar in Psychiatry J. H. J. BANCROFT, M.D., M.R.C.PSYCH., First Assistant in Psychiatry

