

Papers and Originals

Psychiatric Illness in General Practice. A Detailed Study Using a New Method of Case Identification*

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Summary: A self-administered questionnaire (the General Health Questionnaire) aimed at detecting current psychiatric disturbance was given to 553 consecutive attenders to a general practitioner's surgery. A sample of 200 of these patients was given an independent assessment of their mental state by a psychiatrist using a standardized psychiatric interview. Over 90% of the patients were correctly classified as "well" or "ill" by the questionnaire, and the correlation between questionnaire score and the clinical assessment of severity of disturbance was found to be +0.80.

The "conspicuous psychiatric morbidity" of a suburban general practice assessed by a general practitioner who was himself a psychiatrist and validated against independent psychiatric assessment was found to be 20%. "Hidden psychiatric morbidity" was found to account for one-third of all disturbed patients. These patients were similar to patients with "conspicuous illnesses" in terms both of degree of disturbance and the course of their illnesses at six-month follow-up, but were distinguished by their attitude to their illness and by usually presenting a physical symptom to the general practitioner.

When 87 patients who had been assessed as psychiatric cases at the index consultation were called back for follow-up six months later, two-thirds of them were functioning in the normal range. Frequency of attendance at the surgery in the six months following index consultation was found to have only a modest relationship to severity of psychiatric disturbance.

It is argued that minor affective illnesses and physical complaints often accompany each other and usually have a good prognosis.

Introduction

The general practitioner has unusual advantages in making assessments of the amount of psychiatric morbidity in a community, but the results of individual surveys differ so widely that it is difficult to draw any firm conclusions from them (Paulett, 1956; Davies, 1958; Kellner, 1963). Logan and Cushion (1958) carried out a general morbidity survey in 106 general practices, and Shepherd *et al.* (1966) a psychiatric survey in 46 general practices; both found wide variations between practices. In seeking to explain the ninefold difference between practices, Shepherd *et al.* showed that no less than 51% of the variation could be accounted for in terms of ecological and observer factors.

There is therefore a need for a measuring instrument that will eliminate observer variation so that meaningful compar-

isons can be made about the amount of psychiatric illness found in different areas, and in a general practice setting the most suitable instrument is a self-administered questionnaire. The questionnaire most frequently used in general practice work has been the Cornell Medical Inventory (Brown and Fry, 1962; Herst, 1965; Rawnsley, 1966) but Shepherd *et al.* (1966) showed in a study of 2,245 general practice patients that the correlation between the questionnaire score and the general practitioner's psychiatric assessment was only +0.19, and in 1,484 mental hospital outpatients they showed that no fewer than 30% of these patients would have been "missed," since their scores fell within the normal range.

The present survey therefore used the General Health Questionnaire (G.H.Q.), which was specially designed for identifying psychiatric illness in general practice patients (Goldberg, 1969). It consists of 60 questions dealing with recent symptoms and can be completed by patients in about 10 minutes as they wait to see the doctor. The early questions deal with apparently physical symptoms, but it goes on to more overtly psychiatric items. Scoring is very simple and takes only a few seconds. The questionnaire aims at giving information about the present mental state rather than about personality traits or the liability to fall ill in the future, and at the time of the survey it was known to discriminate effectively between psychiatric patients and normal controls.

The first aim of the survey was to validate the questionnaire in a general practice setting. To do this required that patients completing the questionnaire should be seen shortly afterwards by an experienced psychiatrist, who would make an independent clinical assessment using a standardized interview that was also specially designed for use in general practice (Goldberg *et al.*, 1970). This would increase the reliability of the clinical assessment for correlation with the G.H.Q. score. A high correlation would indicate that the G.H.Q. was a valid instrument for future use in making comparative assessments of psychiatric morbidity between practices.

The second aim of the survey was to assess what Kessel (1960) termed "conspicuous psychiatric morbidity" in a practice where the general practitioner was himself a psychiatrist, and where his assessments could be compared with both independent clinical assessments by a research psychiatrist and with the scores on the questionnaire. In this respect the survey took advantage of an unusual situation where a research psychiatrist (D.P.G.) from the general practice unit of the Institute of Psychiatry was able to work with a psychiatrist (B.B.) who had just entered general practice. Since we had received an identical psychiatric training, discrepancies between us could also be used to illustrate the traditional advantages and limitations of the different professional roles occupied by the general practitioner and the psychiatrist. The former had previous knowledge of the patient but was short of time, while the psychiatrist knew nothing about each new case but could use the greater time at his disposal to probe the patient for emotional disturbances that could be related to his physical symptoms.

The third aim of the survey was therefore to assess what

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we have termed the "hidden psychiatric morbidity" of the practice, and to describe the nature of these cases and their response to recognition and treatment. Hidden psychiatric morbidity refers to those patients who were not thought psychiatrically disturbed by the general practitioner, but who were found to be psychiatric cases at more leisurely interview, having been detected by the screening questionnaire.

The final aim of the survey was to assess the prognosis of conspicuous and hidden illness by systematic six-month follow-up and to investigate the determinants of frequency of attendance of all patients seen on the survey during a period of six months.

Method

The study was carried out in a suburban London practice of 3,000 patients in the care of two partners, shortly after Dr. Blackwell joined the practice as junior partner. All patients who attended one of Dr. Blackwell's surgeries between January and June 1968 filled in the questionnaire while waiting to see the doctor. Each patient handed the completed questionnaire to the general practitioner, who put it aside without looking at it. At the end of his interview with the patient he recorded the presenting complaint in his daybook and his diagnostic classification and psychiatric severity rating, using the following five-point rating scale: 0 = no psychiatric disturbance detected; 1 = mild subclinical emotional disturbance; 2 = clinically significant psychiatric illness—mild; 3 = psychiatric illness—moderate; and 4 = psychiatric illness—marked.

The "diagnostic" assessment made by the general practitioner was not a clinical diagnosis in the usual sense of the term, but an assessment of the importance of psychological factors in determining that visit to the surgery. This was because it is unrealistic to attempt a formal diagnosis with every patient at a surgery (Kessel, 1962) and so a classification was adopted that ranges from entirely physical complaints to entirely psychiatric complaints (Mowbray *et al.*, 1961) as follows: A, entirely physical complaint or illness; B, physical condition in a "neurotic personality"; C, physical illness with associated psychiatric disturbance; D, psychiatric illness with somatic symptoms; E, unrelated physical and psychiatric illness; F, entirely psychiatric illness; G, miscellaneous, not ill, unclassifiable; and H, parents of sick children.

Only after making these two assessments did the general practitioner look at the questionnaire and record the scores in a daybook. Whenever the psychiatrist was free the next patient seen was asked to see the "family health doctor" in an adjoining room. The only selection was that over the period of the survey half the 200 patients sent in to the psychiatrist had scores in the "normal" range and half had scores in the "psychiatric case" range. A pilot study of the first 50 attenders had shown that in a general practice setting the best discrimination between "cases" and "normals" was obtained by calling those with 11 or fewer symptoms "probable normals" and those with 12 or more symptoms "probable cases."

On seeing each new patient the psychiatrist knew only that the chance of his being a probable case was exactly the same as the chance of being a probable normal. No other information was given apart from the patient's name, and the general practitioner kept the questionnaire himself. The patients were then given the standardized interview (Goldberg *et al.*, 1970) that was designed for use by a psychiatrist working in a community setting, and which has been shown both to be acceptable to general practice patients and to have a high reliability between psychiatrists ($r = +0.92$). Each interview took from half to one hour to complete and would be impractical for routine use by general practitioners. In addition to this interview the psychiatrist made the same diagnostic (A—H) and severity (0—4) ratings used by the general practitioner.

The final phase consisted of writing to all patients diagnosed as psychiatric cases six months after their first assessment and interviewing them once more. On this occasion a research assistant recorded the frequency of attendance of all patients who had attended the surgery six months beforehand, using the daybook and the N.H.S. notes to accomplish this task.

Results

During the survey period 553 different individuals completed the questionnaire and an additional 31 patients refused to do so for various reasons, so that it was completed by 94.7% of all attenders. Women outnumbered men 64% to 36%, and half the population were aged 30-50 years, the remainder being symmetrically distributed each side of these age limits. When the questionnaires were scored accurately for the computer it was found that the 200 patients seen by both general practitioner and psychiatrist in fact consisted of 102 "probable cases" and 98 "probable normals."

Validity of the Questionnaire

The first aim of the survey was to validate the questionnaire as a case identifier. On the basis of the standardized clinical interview, the research psychiatrist assigned each of the 200 interviewed patients to a position on the five-point clinical severity rating scale without any knowledge of their questionnaire scores. The relation between clinical assessment and questionnaire score is shown as Fig. 1, where each of the 200 patients is represented by a dot.

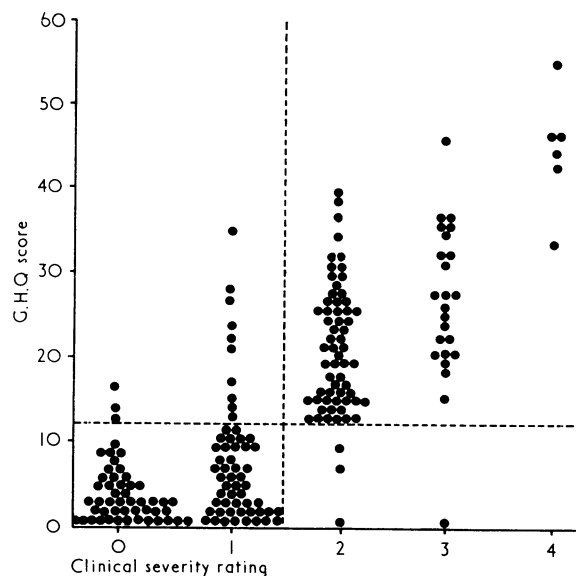


FIG. 1.—Relationship between score on the questionnaire and an independent psychiatric evaluation of severity of disturbance for 200 patients.

There is a good relationship between the score on the questionnaire and the clinical severity rating (product moment correlation = +0.80). Another way of looking at these results is to divide the psychiatric assessments into "normals" (0 and 1) and "cases" (2, 3, and 4), and to divide the questionnaire

TABLE I.—Questionnaire Score Against Psychiatric Assessment for 200 Patients

	Assessment by Psychiatrist at Interview	
	Normal (Ratings 0 and 1) n = 107	Psychiatric Case (Ratings 2, 3, and 4) n = 93
Probable cases on questionnaire (high scorers) n = 102	"False Positives" n = 13 (6.5%)	"True Positives" n = 89 (44.5%)
Probable normals on questionnaire (low scorers) n = 98	"True Negatives" n = 94 (47%)	"False Negatives" n = 4 (2%)

into low scores (11 and below) and high scores (12 and above). This is shown in Table I. Thus 91.5% of the patients are correctly classified by the questionnaire (true negatives and true positives). When evaluating any screening test in medicine, Reid (1960) pointed out that one should consider separately how many actual cases the test misses (its "sensitivity") and how many actual normals it incorrectly identifies as cases (its "specificity"). These qualities may be easily worked out for the present questionnaire.

$$\text{Sensitivity} = \frac{\text{No. of actual cases with high scores}}{\text{Total number of actual cases}} = \frac{89}{93} = 95.8\%$$

$$\text{Specificity} = \frac{\text{No. of normals with low scores}}{\text{Total number of normals}} = \frac{94}{107} = 87.8\%$$

Thus the G.H.Q. is an indicator of psychiatric illness of acceptable validity, with high sensitivity and specificity as a screening test.

Conspicuous Psychiatric Morbidity of Practice

The general practitioner's diagnostic assessments for the 553 consecutive attenders are as follows:

A. Entirely physical complaint or illness	45.6%	} 24.4%
B. Physical illness in a neurotic personality	8.3%	
C. Physical illness with associated psychiatric disturbance	1.8%	
D. Psychiatric illness with somatic symptoms	9.4%	
E. Unrelated physical illness and psychiatric illness	5.4%	
F. Entirely psychiatric illness	7.8%	
G. Miscellaneous, not ill, unclassifiable	4.5%	
H. Parents of sick children	16.8%	

Only a minority of those thought psychiatrically disturbed by the general practitioner are classified as entirely psychiatric. Thus about one-quarter (24.4%) of all patients were thought to be psychiatrically disturbed (categories C, D, E, and F), but only 7.8% were in category F.

The general practitioner's overall psychiatric severity ratings for the 553 patients were as follows: 0, 66.7%; 1, 13.0%; 2, 15.0%; 3, 3.1%; 4, 1.4%. The fact that fewer patients (19.5%) were thought to be disturbed at this consultation than, in fact, received psychiatric "diagnoses" (24.4%) is accounted for because some patients with psychiatric illnesses were attending for a follow-up visit to report improvement, while others attended for a psychological complaint but were not thought sufficiently disturbed to be counted as "cases." When this occurred they were given a psychiatric diagnosis but a "subclinical" severity rating; three-quarters of those thought disturbed were rated as having "mild" disturbances.

To assess the reliability of the conspicuous morbidity detected by the general practitioner, it was important to discover the overall extent of agreement with the psychiatrist concerning severity of disturbance and the more precise areas of disagreement in diagnostic classification. The general practitioner made assessments of overall severity of disturbance on the same five-point scale as the psychiatrist. When the two sets of assessments were compared for the 200 patients that were seen by both, agreement was good with a correlation coefficient of +0.75. There was exact agreement in 111 patients, and in the others there was a consistent tendency for the psychiatrist to rate patients as slightly more disturbed than they were thought to be by the general practitioner. In 31 patients the high score came as a surprise to the general practitioner, and these individuals account for a substantial proportion of the disagreements between the two rates. The areas of agreement and disagreement concerning the diagnostic classification are shown in Table II.

The nature of these ratings does not allow statistical treatment of this Table, but even with an eight-way classification there was complete agreement concerning almost two-thirds (64.5%) of the patients. In particular, agreement was very high in entirely psychiatric illness (Category F). Where disagreement did occur it was at least readily under-

standable: of the 83 patients thought "entirely physical" (category A) by the general practitioner, the psychiatrist agreed in only 41. The longer interview revealed minor personality disorders in 19 (category B), and psychiatric disturbance in a further 23 (categories C, D, and E).

TABLE II.—"Diagnostic" Classification Adopted with the Ratings Made by Each Doctor for 200 Patients

	Psychiatrist								Total	
	A	B	C	D	E	F	G	H		
General Practitioner	A	41	19	5	9	9	0	0	0	83
	B	2	9	3	4	3	0	0	0	21
	C	0	0	3	0	0	0	0	0	3
	D	0	0	2	24	2	0	0	0	29
	E	0	0	2	8	8	0	0	0	18
	F	0	2	0	0	0	25	0	0	27
	G	0	0	0	0	0	0	7	0	7
	H	0	0	0	0	0	0	0	12	12
	Total	43	31	15	45	22	25	7	12	200

Concordance was least satisfactory for unrelated psychiatric and physical illness (category E) and physical illness in a neurotic personality (category B). Disagreements about the former are perhaps hardly surprising, since whether two conditions are related or not is often very difficult to assess even with a prolonged interview, while the lack of agreement about what constitutes a neurotic personality highlights the unsatisfactory nature of a label that is often used yet seldom defined.

Hidden Psychiatric Morbidity of Practice

Among the 200 patients seen by the psychiatrist there were 93 psychiatric cases, of which 31 were unknown to the general practitioner before he saw the results of the questionnaire. This shows that even though the general practitioner was himself a psychiatrist and on his mettle to detect disturbance because of the survey, he failed to detect one-third of the disturbed patients recognized by the psychiatrist.

This assessment of the proportion of patients with hidden illness can also be verified by comparing the numbers recognized by the general practitioner with the G.H.Q. results. Of the high scorers on the G.H.Q. seen by the psychiatrist, 87% were found to be cases. Of the 178 high scorers seen by the general practitioner, one would therefore expect 155 (87%) cases. In addition 4% of the low scorers seen by the psychiatrist were found to be cases (false negatives). Of the 375 low scorers seen by the general practitioner, one would therefore expect an additional 15 (4%) cases, giving a total of 170 cases. This represents 30.8% of the 553 patients. But since the general practitioner in fact identified only 188 cases (19.5%), the ratio of one unknown case to every two known cases is the same.

The detailed psychiatric interview in the 31 cases of hidden psychiatric morbidity overlooked by the general practitioner revealed illness characteristics and patterns of complaint which helped explain the difficulty encountered in detection. These patients preferred to present their problems in somatic terms, and did so for two main reasons.

First, there was a small group—only two patients in this series—who had developed a new and alarming physical symptom—for example, a lump in the breast—and were distressed about the possible implications of their new symptom. The presentation of the symptom rather than the associated distress was obviously appropriate behaviour. In the other group of patients their complaint of some trivial illness or long-standing symptom could be thought of as a way of seeking reassurance and support in a socially acceptable rela-

tionship when it was difficult for the patient to present the underlying problem in an undisguised form.

In seven instances the cause of complaint was a long-standing disability, such as tinnitus, acne, or dyspepsia, about which concern was expressed at the time of the affective illness but which persisted with relatively little concern when this had been treated. Whenever a case of hidden illness was detected the general practitioner was informed, and he instituted treatment which often resulted in great improvement in the physical symptom. In the next section the outlook of these cases is compared with the outlook of those patients with conspicuous psychiatric illness.

Results of the Six-month Follow-up

From a total of 101 psychiatric cases seen in the main and pilot studies 87 returned and were given the standardized interview again: eight had moved away or could not be traced and six declined to be seen again.

Table III shows that two-thirds of the patients who were disturbed at index consultation were no longer disturbed when seen six months later. It also shows that the prognosis of these illnesses, when assessed six months later, was the same for the hidden cases as it was for the conspicuous cases. There remain the findings on frequency of attendance. Over the whole group of 553 patients, women attended slightly more frequently than men (mean frequency 3.4:2.9). There was no clear relation with age, but patients diagnosed entirely psychiatric attended more often than those diagnosed entirely physical (4.6:2.8); other diagnoses were intermediate between these figures.

TABLE III.—Results of Six-month Follow-up in Conspicuous and Hidden Illness

	No. of Cases at Index Consultation	No. of Cases at Follow-up Consultation	Percentage still ill at Follow-up Consultation
Conspicuous psychiatric illness	62	21	33.9
Hidden psychiatric illness ..	25	8	32.0
Total	87	29	33.3

The findings on the relation between the severity of emotional disturbance and frequency of attendance are of some interest, since it is commonly supposed that the two variables are closely related. The relationship is explored in Table IV. There is some tendency for the more disturbed patients to attend more frequently, but the variances are large and increase with the severity of disturbance. The product moment correlation between the two variables is modest (+0.281) and, while this is significant at the 0.01 level, it indicates that intensity of emotional disturbance as assessed by the general practitioner accounts for only 8% of the variance of frequency of attendance in the ensuing six months.

TABLE IV.—Severity of Psychiatric Illness and Frequency of Attendance

	No. in Group	Mean Frequency of Attendance in Six Months Following Index Consultation	Variance
Normals	369	2.85	4.00
Subclinical disturbance	72	3.39	6.04
Mild cases	83	4.33	6.83
Moderate cases	17	4.88	12.99
Marked cases	8	5.25	9.36
No assessment made	4		
Total	553	3.23	5.41

Discussion

A questionnaire aimed at identifying patients who are psychiatrically disturbed has been designed for use in a general practice setting and shown to have acceptable validity when tested against an independent clinical assessment of known reliability. This is an important finding of the survey, since it opens the door to comparative assessments of psychiatric morbidity between different general practices. The correlation coefficient of +0.80 between overall clinical assessment and the G.H.Q. score compares favourably with the biserial correlation of only +0.19 reported for the Cornell Medical Inventory (Shepherd *et al.*, 1966).

In survey work it is obviously a worse fault for the screening test to miss cases than it is for it to identify them incorrectly, since missed cases are lost to the survey, while patients who are incorrectly identified as cases (false positives) can be easily reclassified as normals at a subsequent clinical interview. The high sensitivity of the present questionnaire is therefore an encouraging finding, and the two figures taken together compare favourably with those reported for screening tests in other spheres of medicine (Yerushalmy, 1953; Remein and Wilkerson, 1961; Wilson and Jungner, 1968). The second finding concerns the conspicuous psychiatric morbidity of the practice. It is notable that general practitioners who later became psychiatrists are more concordant than life-long general practitioners in their estimates of psychiatric morbidity. Thus, Bremer (1951) estimated that 22.8% of his practice were "psychic exceptionals," Kellner (1963) gave a two-year prevalence of "neurotic ill-health" of 21.4% of men and 39.5% of women and Herst (1965) assessed 34% of his practice as having some degree of neurosis.

Established psychiatrists have made few forays into systematic clinical assessments in a general practice setting. Hewetson *et al.* (1963) reported 633 general practice consultations seen by a locum psychiatrist who assessed 23% of the patients as having a psychiatric disorder. The present finding that psychiatric disorders were present in about 20% of the patients at index consultation broadly confirms this, and the conclusion that only a minority of such patients had "entirely psychiatric" diagnoses confirms Kessel's (1960) findings on conspicuous psychiatric illnesses in general practice.

The third major finding concerns what has been termed the "hidden psychiatric illness" of general practice. This refers to those patients who are psychiatrically disturbed but whose general practitioner is not aware of their disturbance, usually because the patient had presented a physical complaint and the psychiatric disturbance did not come to light in the 10 or 15 minutes at the general practitioner's disposal. In this study both general practitioner and research psychiatrist were identically trained, and in the main had a degree of agreement in their clinical assessments that was as good as those normally found when two clinicians make independent assessments (Kreitman, 1961; Smyllie *et al.*, 1965).

None the less, even though the general practitioner was himself an experienced psychiatrist, strongly motivated by the conditions of the survey to detect emotional disturbance, he was not aware of one-third of the psychiatric disturbances. These cases of hidden psychiatric illness were no less severe in terms of degree of psychiatric disturbance present, and with treatment from the general practitioner they were closely comparable in outcome to the other cases when followed up at six months. What distinguished these patients is that the majority formulated their problems in somatic terms not only to the doctor but also to themselves. It needed direct inquiry to elicit the phenomena of psychiatric illness, since most of the patients did not see themselves as emotionally disturbed. This is clearly a situation where a self-administered questionnaire is of special value in detecting such cases since it will alert the doctor to feelings the patient would not otherwise volunteer.

Mechanic (1968) coined the term "illness behaviour" to refer to the way in which a given set of symptoms may be differently perceived and either acted on or not acted on by different people in various social situations. It is clear that all the patients in this survey had similar illness behaviour in one respect—they had all defined themselves as "ill" and sought medical care. Yet in another important respect their behaviour was different, since those with hidden illnesses had presented physical complaints and had not volunteered their psychiatric symptoms. There would seem to be three related reasons why the patients might behave in this way.

The first reason is an explanation in terms of social learning. The patient may have learned that doctors deal with physical illnesses, so the patient thinks that the doctor expects him to produce physical complaints. Associated with this expectation, there may be the half-formed idea in the patient's mind that the doctor is a kind, sympathetic person who will get to the bottom of his troubles. Mechanic (1968) puts this well: "Not only is the physician widely regarded as a man of knowledge and science, capable of ferreting out the meaning of puzzling symptoms, but also he frequently is pictured as a kindly, thoughtful, warm person, deeply interested in and committed to the welfare of the individual patient."

The second reason is that the patient may have had his symptoms for some time but is now going through a time of emotional distress, so that his symptoms seem worse. It is well known, for example, that chronic pain seems worse when a patient is depressed. From the patient's point of view it is the symptom that seems worse, and so it is the symptom that is presented to the doctor for inspection. Several patients behaved in this way, and in these cases a discussion of the patient's current problems and symptomatic drug treatment where indicated may be more useful and relevant than an expensive investigation.

Finally, many patients may feel that it is more socially acceptable to be physically than emotionally ill, and they fear the stigma of being thought of as a "psychiatric case." This often seemed to be so among the false negatives; it is noteworthy that all of them were rated as "defensive" at the standardized interview before it was known that their scores were below threshold. Many doctors as well as patients consider that a stigma attaches to patients who are psychiatrically ill, and until this is no longer the case many patients are likely to continue to formulate their problems in somatic terms.

Another point worth stressing is the transient nature of most minor affective disturbances. Two-thirds of the patients in this study recovered fully in less than six months. The pejorative label "neurotic" has died hard, and many doctors seem to reserve the description neurotic for long-standing psychiatric illnesses. There seems to be very little warrant for this practice, but it is widespread and sometimes affects psychiatrists. Thus Taylor (1954) writes: "I was surprised to find how comparatively seldom the good general practitioner diagnoses neurotic illness. Patients with organic illness react with a measure of anxiety which may be mistaken for neurosis."

Jones (1962) interviewed every general practitioner on Anglesey and observed that minor mental illness was "virtually a normal thing, once passed was rapidly forgotten. Even when a general practitioner remembered such an episode he would generally only mention it in passing and would not regard the patient as 'psychiatric.'" It is difficult to defend this position, since one wonders how such illnesses are to be described if they are not psychiatric, and if the choice is to be between psychotic and neurotic, then they are most assuredly neurotic. Most of the illnesses seen on this survey were, in fact, minor affective illnesses, and formal psychotic illness was unusual.

Depression was found not only to be ubiquitous but to respond well to treatment. It is interesting to observe that one of the alleged differences between "reactive depression" and

"endogenous depression" is that the former responds poorly to treatment (Kiloh and Garside, 1963). Yet probably general practitioners refer proportionately more endogenous depressions than reactive depressions for psychiatric opinion, so that the "reactive" depressions seen by psychiatrists are a highly skewed sample of the larger population of minor depressions existing in the community. The patients who were still ill at the six-month follow-up tended to have insoluble life problems—for example, sick relatives—or long standing personality disorders. It did not seem to be the "reactive depression" that was intractable so much as the circumstances to which the depression was reactive.

Most of the psychiatrically ill patients were not "entirely psychiatric" and had physical complaints in association with their psychological disturbance. From what has been said it follows that not only is psychiatric disturbance common among surgery attenders, but that it is often present in those who confront their doctor with physical symptoms only. It is not our contention that such patients should be referred for psychiatric opinion. This would not only be impossible but would frequently be unacceptable and often undesirable. Most patients are best dealt with by their family doctor, who will in his turn be better able to provide adequate care if he has been made aware of the psychological factors that are inextricably connected with physical symptoms.

We would like to express our thanks to Professor Michael Shepherd, who had throughout taken a keen interest in the survey and made many helpful suggestions. The standardized psychiatric interview used in the survey was devised by the first author (D.P.G.) and his colleagues in the General Practice Research Unit. We are indebted to Dr. K. P. Walker, the senior partner in Dr. Blackwell's practice, for allowing us to carry out the survey. Miss Dorothy Rockett's help with organizing the clerical side of the follow-up survey and extracting data from the patients' notes was invaluable. We are grateful to Mr. Frank Gattoni for supervising the data analyses on the London School of Economics' computer and for checking the statistical calculations quoted in the text.

REFERENCES

- Bremer, J. (1951). *Acta Psychiatrica et Neurologica*, Suppl. No. 62.
 Brown, A. C., and Fry, J. (1962). *Journal of Psychosomatic Research*, **6**, 185.
 Davies, S. W. V. (1958). *Journal of the Royal College of General Practitioners*, **1**, 315.
 Goldberg, D. P. (1969). The Assessment of the Severity of Non-Psychotic Psychiatric Illness by Means of a Questionnaire, Unpublished D. M. Thesis, Oxford University.
 Goldberg, D. P., Cooper, B., Eastwood, M. R., Kedward, H. B., and Shepherd, M. (1970). *British Journal of Preventive and Social Medicine*, **24**, 18.
 Herst, E. R. (1965). An Epidemiological Study of Psychiatric Morbidity in a Suburban General Practice, Unpublished M.D. Thesis, London University.
 Hewatson, J. C., McEwan, J. A., and Ollendorff, R. H. V. (1963). *Practitioner*, **190**, 127.
 Jones, A. D. (1962). Mental Disorder in Anglesey, Unpublished M.D. Thesis, Liverpool University.
 Kellner, R. (1963). Neurotic Ill Health in General Practice on Deeside, Unpublished M.D. Thesis, University of Liverpool.
 Kessel, W. I. N. (1960). *British Journal of Preventive and Social Medicine*, **14**, 16.
 Kessel, W. I. N. (1962). In *The Burden on the Community*. (1963). London, Nuffield Provincial Hospitals Trust.
 Kiloh, L. G., and Garside, R. F. (1963). *British Journal of Psychiatry*, **109**, 451.
 Kreitman, N. (1961). *Journal of Mental Science*, **107**, 876.
 Logan, W. P. D., and Cushion, A. A. (1958). *Morbidity Statistics from General Practice*. Vol. 1. *General*. London, H.M.S.O.
 Mechanic, D. (1968). *Medical Sociology; A Selective View*. New York, Free Press.
 Mowbray, R. M., Blair, W., Jubb, L. G., and Clarke, A. (1961). *Scottish Medical Journal*, **6**, 314.
 Paulett, J. D. (1956). *Lancet*, **2**, 37.
 Rawnsley, K. (1966). *Journal of Psychosomatic Research*, **10**, 84.
 Reid, D. D. (1960). *Epidemiological Methods in the Study of Mental Disorders*. Geneva, World Health Organization.
 Remein, Q. R., and Wilkerson, H. L. C. (1961). *Journal of Chronic Diseases*, **13**, 6.
 Shepherd, M., Cooper, B., Brown, A. C., and Kalton, G. W. (1966). *Psychiatric Illness in General Practice*. London, Oxford University Press.
 Smyllie, H. C., Blendis, L. M., and Armitage, P. (1965). *Lancet*, **2**, 412.
 Taylor, S. J. L. (1954). *Good General Practice*. London, Oxford University Press.
 Wilson, J. M. G., and Jungner, G. (1968). *The Principles and Practice of Screening for Disease*. Geneva, World Health Organization.
 Yerushalmy, J. (1953). *Diseases of the Chest*, **24**, 133.