

# The outcome of hidden neurotic illness treated in general practice

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**SUMMARY.** *One thousand patients attending a general practice surgery were asked to complete the general health questionnaire as the first stage of screening for hidden minor psychiatric disorders. Those who had an unexpectedly high score of 20 or more were randomly allocated to doctors or health visitors for treatment. After one year, these two groups were reinterviewed by the doctors and health visitors respectively and comparable rates of recovery were found. After five years, they were interviewed again and a second general health questionnaire completed. It was found that both groups had improved significantly, and that there was no significant difference between them.*

*Poor outcome was associated with problems with children, household or neighbours and with a previous history of psychiatric illness. Improvement was associated with physical treatment of the original disorder, resolution of the original problem and job satisfaction.*

*The implication of these findings for the comparative management of minor psychiatric disorders by general practitioners and non-medical health workers in primary care are discussed.*

## Introduction

MINOR psychiatric disorders are important in general practice as they form a large percentage of the workload and their treatment is expensive.<sup>1</sup> Their outcome is difficult to predict because they are a heterogeneous group (mainly anxiety and depressive disorders) and they influence, and are influenced by physical and social disorders.

Minor psychiatric disorders are frequently overlooked owing to lack of time,<sup>2</sup> insight<sup>3</sup> and interest<sup>4</sup> on the part of the clinician and because they are sometimes hidden by physical<sup>5</sup> and social disorders.<sup>6</sup> These hidden disorders are similar to those presenting more conspicuously<sup>7</sup> and the failure to detect important psychiatric disease occurs both in hospital<sup>8-10</sup> and in general practice.<sup>11</sup>

Prevalence rates for minor psychiatric disorders in general practice vary so greatly that comparative clinical assessments have long been known to be valueless<sup>12</sup> and because case definition is so difficult, comparative effects of treatment — psychiatric, physical or social — are, similarly, difficult to estimate.

Johnstone and Goldberg<sup>13</sup> compared the treated and untreated outcome of hidden illness using the general health questionnaire<sup>14</sup> and found that for those with high scores (20 or more) there were real differences after one year.

Since many doctors do not wish to spend time on this aspect of their patients' problems, this study compared the results of treatment by doctors and non-medical workers in primary care.

The course of hidden psychiatric disorders over five years was observed using the results of the general health questionnaire as a measure of disturbance at the initial and final interviews.

## Method

The general health questionnaire was used to detect minor psychiatric disorder. This is a 60-item self-rating inventory of bodily symptoms, sleep disturbance, personal behaviour and feelings, relationships with others and symptoms of inadequacy, anxiety and depression. It has been validated for use in general practice<sup>7</sup> and large numbers of patients can be screened in a short time. The maximum score possible is 60. A cut-off of 11/12 is commonly used<sup>14</sup> but in this study, this was raised to 19/20, so that there would be no doubts as to the clinical significance of patients' disturbances.

The study took place in a west Yorkshire urban group general practice with a list of 10 000 patients and five doctors and two health visitors were involved. The practice covers a mixed residential and industrial area and operates a full appointments system.

All consecutive patients attending the surgery were asked by a receptionist to complete the general health questionnaire while waiting to see a doctor. The appointments system was deliberately allowed to run 15 minutes late for this purpose. Completed questionnaires were numbered in order of attendance.

Patients under 15 years of age were excluded from the study as were those with mental subnormality or gross psychiatric disturbance. The registered blind and very deaf were also excluded. Reattenders who had previously completed the questionnaire were not asked to complete it again.

The patients gave the completed questionnaires to the doctor in the consultation. Their problems were diagnosed and treated normally without reference to the general health questionnaire. Odd-numbered questionnaires were then perused (even-numbered questionnaires were not looked at). Patients with conspicuous psychiatric disturbance were excluded from the study. Only those patients with an unexpectedly high score (20 or more) who were not already taking medication were asked if they would like to discuss this finding with the doctor. An additional prescription was offered if this was thought to be appropriate. All even-numbered questionnaires were inspected by the health visitors after the surgery, who again discussed unexpectedly high scores with the patients concerned.

These two groups were seen subsequently by the doctors and health visitors respectively as often as was considered necessary.

At the end of one year all the patients found to have an unexpectedly high score at the initial consultation were followed up. The patients were seen in their own homes by a doctor or health visitor depending on which group they were in, and their recovery or continued illness was assessed by discussing the original consultation, subsequent attendances and present state of mind.

A record was kept of all subsequent surgery consultations and prescriptions and a second, similar follow-up interview was arranged five years after the initial consultation. These interviews also took place in the patients' homes at a time convenient to them and lasted between half-an-hour and one hour, although no time limit was imposed. A second general health questionnaire was completed on this final occasion.

**Table 1.** Comparison of initial and five-year follow-up scores on the general health questionnaire (GHQ) for the two groups.

Group	No. of patients	GHQ score					
		Initial consultation		Five-year follow-up		Difference between initial and follow-up scores	
		Median	Range	Median	Range	Median	Range
Doctors'	33	27.45	20-51	12.45	0-56	16.20	-16-32
Health visitors'	25	28.08	20-44	9.95	0-56	17.95	-28-33

## Results

One thousand patients were asked to complete the general health questionnaires. Eight patients marked the questionnaire inappropriately or incompletely and they were excluded from the study. Of the remaining 992 patients, 84 (8.5%) were found to have a score of 20 or more — 48 were treated by doctors and 36 by health visitors. This disparity in group sizes reflects only the chance occurrence of more high scores on odd-numbered questionnaires than on even-numbered questionnaires.

The distribution of initial scores was found to be very similar for the two groups and there was no significant difference between the two sets of scores (Wilcoxon's rank sum test).

### Comparison of the two groups after one year

At one-year follow-up it was found that four patients from each group had left the practice. All the remaining patients were interviewed and assessed as either 'well' or 'ill'. Of the 44 patients seen by doctors, 23 were well and 21 ill — eight of these patients received additional psychotropic medication. Of the 32 patients in the health visitors' group 20 were well and 12 ill — two of these patients were referred to a doctor for management.

There was no significant difference in outcome between the two groups after one year (chi-square test).

### Comparison of the two groups after five years

After five years it was possible to follow up 33 patients (68.8%) in the doctors' group and 25 (69.4%) in the health visitors' group. The remainder had died or left the district.

The initial and five-year follow-up scores on the general health questionnaire were compared (Table 1). There was a significant reduction in scores within each group ( $P < 0.01$  for each group; Wilcoxon's signed rank test). However, there was no significant difference between the groups in the difference between the scores initially and at five-year follow-up (Wilcoxon's rank sum test). The two groups were therefore combined in subsequent analyses.

### Comparison of patients who recovered and who remained ill

Each group showed a wide range of scores at the five-year follow up indicating that while many patients had recovered, some were still ill. In order to determine whether the outcome at the five-year follow-up was related to initial scores the total sample was divided into three groups: (1) those scoring less than 12 at follow-up; patients in this group recovered from the initial disturbance and remained well, (2) those scoring 20 or more at follow-up; patients in this group did not recover after the initial consultation and remained ill, (3) those scoring 12-19 at follow-up; patients in this intermediate group were sometimes ill and sometimes well.

The initial scores for these three groups were compared using a Kruskal Wallis test and no significant difference was found (Table 2). This was largely due to the very similar initial scores achieved by the groups scoring 12-19 and 20 or more at follow-up. When these two groups were combined, the difference between the combined group and the group scoring less than 12 at follow-up approached significance ( $P = 0.08$ , Wilcoxon's

rank sum test). Those who were well at follow-up generally had lower initial scores.

### Comparison of patients with and without a history of psychiatric illness

The initial scores of patients with and without a known psychiatric history prior to the initial consultation were not significantly different but their follow-up scores differed ( $P < 0.05$ ; Wilcoxon's rank sum test) (Table 3). Although patients with a history of psychiatric illness were no worse than those without at the outset, they showed a much less favourable outcome after five years.

### The causes of persistent psychiatric disturbances

The reasons given by patients at the one- and five-year follow-up interviews as to why they had been distressed at the initial consultation were categorized under the following headings: physical illness, marital problems, work/unemployment problems, pregnancy fears, children's illness/behaviour, household/neighbour problems, loneliness/insecurity, bereavement, illness of parent/spouse and money difficulties. Some patients gave more than one cause. Inspection of the follow-up scores showed that those patients who claimed that children's illness/behaviour problems (eight patients, median score 25.0, range 6-56) and/or neighbour/household problems (four patients, median score 29.5, range 8-35) were causative appeared to have higher follow-up scores than patients mentioning any of the other causes (44 patients, median score 8.9, range 0-56). There was no significant difference between those mentioning children's illness/behaviour and those mentioning neighbour/household problems (Wilcoxon's rank sum test) and the two patients reporting both these causes scored 27 at

**Table 2.** Comparison of initial scores on the general health questionnaire (GHQ) for those scoring less than 12, 12-19 and 20+ at the five-year follow-up (total  $n = 58$ ).

GHQ score at follow-up	No. of patients	Initial GHQ score	
		Median	Range
<12	31	26.06	20-40
12-19	7	31.20	21-34
20+	20	29.45	20-51

**Table 3.** Comparison of the initial and five-year follow-up scores on the general health questionnaire (GHQ) for patients with and without a history of psychiatric illness (total  $n = 58$ ).

Psychiatric history	No. of patients	GHQ score			
		Initial consultation		Five-year follow-up	
		Median	Range	Median	Range
No	39	28.41	20-41	9.12	0-56
Yes	19	24.95	20-51	19.95	0-56

**Table 4.** Comparison of the five-year follow-up scores on the general health questionnaire (GHQ) for patients with different causes of recovery from psychiatric illness (total  $n = 58$ ).

'Cure'	No. of patients	GHQ score	
		Median	Range
Resolution of cause	15	9.00	0-35
Physical treatment	15	8.00	1-37
Job satisfaction	4	7.67	0-23
More than one of the above cures	5	6.00	1-11
Other cures combined	19	23.30	1-56

follow-up. The patients in these three groups combined were found to have significantly higher follow-up scores ( $P < 0.001$ ) than the patients giving other causes. These results suggest that problems with children, household or neighbours are associated with much poorer long-term outcome than other problems.

#### *The causes of recovery from psychiatric illness*

At the five-year follow-up interview patients reported which events, circumstances or treatment had resulted in recovery from psychiatric illness. These were categorized as follows: physical treatment, psychotherapy, resolution of the original cause, supportive family and friends, job satisfaction and leisure pursuits. Some patients gave replies in more than one category. The follow-up scores showed that patients reporting resolution of the original cause, physical treatment, job satisfaction, or more than one of these 'cures', differed significantly in outcome from those patients mentioning any other cures ( $P < 0.01$ ; Kruskal Wallis) (Table 4). Multiple comparisons using Wilcoxon's rank sum test (with  $\alpha = 0.02$ ) to determine the source of this overall difference showed that the 'other cures' group differed significantly from all the other groups ( $P$  range 0.02 to  $< 0.01$ ) but that the other groups did not differ significantly from each other.

#### Discussion

In this study, considerable reliance was placed upon the validity of the general health questionnaire in detecting minor psychiatric disorder. In their original study of hidden psychiatric disorder, Goldberg and Blackwell<sup>7</sup> found a high correlation between research psychiatrists' assessments of patients and the scores of these patients on the questionnaire. Other studies in hospital<sup>13,8,15,16</sup> and in general practice<sup>13,17-19</sup> have confirmed this validity.

In this study there was no significant difference between patients with minor psychiatric disorders treated by doctors and by health visitors after one year or five years. This suggests that the majority of patients with quite severe levels of disturbance could be satisfactorily cared for by non-medical personnel at the primary care level. However, two patients in the health visitors' group were subsequently referred to a doctor for management and such safeguards should be built into any such system.

The finding that there were three groups of patients in terms of outcome (those who recovered, those whose illness was variable and the chronic group) is consistent with the results of Mann and colleagues.<sup>17</sup> The initial general health questionnaire score was often prognostic (Table 2) and this has been observed previously.<sup>13,17</sup> This finding, together with the predictive value of a history of psychiatric illness (Table 3) suggests that clinical use of the general health questionnaire might alert doctors and health visitors to the possibility of a less favourable outcome.

Similarly the finding that social factors were significantly associated with a raised five-year follow-up score and that physical treatment, resolution of the original cause and job

satisfaction were significantly associated with a lower final score, supports the view that a triaxial assessment of all disorders in general practice is necessary.

Querido<sup>10</sup> has shown that psychosocial factors play an important part in the prediction of the outcome of minor psychiatric disorders in hospital practice. More recently, Huxley and colleagues<sup>20</sup> have shown that material social circumstances are more important than clinical symptoms and constitutional factors in predicting outcome.

Using the general health questionnaire and a standardized social interview, it may be possible for doctors and health visitors to compare the effects of their management of minor psychiatric disorders at the primary care level.

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#### Acknowledgements

We are indebted to Professor David Goldberg for his encouragement and guidance, to Dr Margaret Vaughan for statistical advice, to practice partners, Drs Short, Clarke, Miller and Lawler, to health visitor Mrs Jean Pammenter, to Mrs Julie Smith and to Mrs Marjorie Asquith.

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