

# The occasional patient

## A ten-year study of patients who consult a doctor infrequently

HUGH A.F. MACKAY

A study was made of patients in a single-handed National Health Service practice who were identified as having consulted a doctor infrequently over an initial five year study period. At the end of a further consecutive period of five years surviving patients were paired with a matched group of patients (the control group) from the same practice. The two groups were first compared for a range of personal, environmental and psychological characteristics. Attendance and morbidity patterns of the two groups were then examined to assess any changes in these patterns. During the second five year period the original study group of 129 was reduced to 113 by deaths. Comparisons were therefore made of this mortality rate with indirectly standardised mortality rates for the whole practice and for the District Health Authority area. In the study group male patients were more commonly infrequent attenders than females. Both male and female showed less neuroticism than the control group. The male infrequent attenders showed less extroversion than the control group. In a substantial minority the pattern of infrequent consultation and low morbidity was not continued over the second five year period. The death rate in the study group was significantly increased, largely because of neoplasm, and these deaths appeared to be directly related to failure to seek help early and follow medical advice.

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Dr. H.A.F. Mackay M.D., 5 North Lodge, Chester-1e-Street, Co Durham DH3 4BA, United Kingdom.

### Introduction

High users of general medical services have been the focus of many studies, and their personality characteristics have received special attention. *Slater* found that frequent attenders were in general emotionally unstable and had left school at an earlier age than usual.<sup>1</sup> *Colling* found that psychological factors were the commonest causes of frequent attendance including anxiety states, depressive states, marital disharmony, alcoholism and schizophrenia in the family.<sup>2</sup> *Westhead* confirmed these findings in a detailed study using the Eysenck Personality Questionnaire with paired controls from his practice.<sup>3</sup> His results showed that the frequent attenders had a higher N score of the Eysenck Personality Questionnaire, i.e. increased emotional liability, a high prevalence of affective neurosis and increased marital breakdown.

In contrast, infrequent attenders have received little attention. Only one paper, by *Hood & Farmer*, dealt with a comparison of infrequent attenders and frequent attenders.<sup>4</sup> By selecting patients as frequent attenders who had consulted a doctor 5 or more times in the last 3 months and a low users group which consulted only once during that period, the study was limited both as to time and in that it consisted of only 22 females and 12 males. It was however intensive as to the interview schedule, which comprised the Eysenck Personality Questionnaire, the General Health Questionnaire and a modified form of the Semantic Differential. There were no significant differences apart from a significantly higher General Health Questionnaire score in the high-user group.

*Kessel & Shepherd* studied the attendance pattern of 1503 patients from the list of Dr. John Fry in the first 10 years of the National Health Service i.e. 1949-1958.<sup>5</sup> The authors identified 42 patients who had not visited the doctor for 2 years and 30 who had not been seen for 10 years and matched them with the recent attenders. They examined the 2 groups for a wide range of characteristics including social factors, illness experience, mental health, use of other medical services, self-medication, health attitudes and attitudes towards med-

ical services. The differences found were minor, and included the non-attenders being more critical of the doctor's services, a smaller number of young children and fewer members of the household who had recently been medically treated.

In a further study *Baker* examined the records of 104 patients out of a practice of 5575 who had not visited one of the two partners during the years 1969-1973 inclusive.<sup>6</sup> These patients were matched with a group of controls and examined for a wide range of medical and social factors. *Baker* found that a higher proportion of the non-attenders were retired, there was a higher concentration of over 35s, there was no social class difference but members of this group were significantly slimmer than their fellows. The author concluded that, on the whole, the non-attenders did not cloak serious but remediable illness. However a brief follow-up, also by the author, suggested otherwise and will be referred to later.

An interesting study on the elderly infrequent attenders was recently carried out at a health centre in Eindhoven by *Van Weel et al.*<sup>7</sup> They selected some 50 patients over 75 years of age who had visited once or not at all a doctor or a district nurse during the preceding 12 months and compared them to a similar group who had been seen by a doctor or a district nurse at least twice during the same period. No evidence was found that there was any level of unreported morbidity among elderly patients in either the non-attending or the attending groups. Incidentally, this does indicate that the so-called 'iceberg of illness' suggested in 1964<sup>8</sup> was a fallacy. *Van Weel et al.* did note, however, that the non-attenders were more reluctant to take part in the study protocol and this may have had some bearing on the patient attitudes reported later in this study.

My review of the literature and my preliminary observations and impressions of this group led me to conclude that it could be studied usefully under three separate but related hypotheses:

- Infrequent attenders present certain individual characteristics of temperament, personality, attitude to health or to doctors.

- The pattern of attendance and morbidity in these patients does not continue indefinitely at the same low level.
- The reaction of these patients to the onset of illness, particularly of a serious nature, is different to that of the average patient.

In addition, it was decided during the course of the study to make a retrospective comparison of the mortality in the study group compared with that in the practice as a whole and in the surrounding area.

## Methods

The study was carried out in a single-handed practice in the former mining town of Birtley in Gateshead borough in the north-east of England. The population of Birtley and of the area has been stable for a number of years. The National Health Service list size was 2076 at the start of a ten-year study and 2081 at the end of that period. The average number of patients removed from and added to the list per year was 179 (8.6 percent). Of the practice population 58 percent came into Social Class III and a further 25 percent in the social class IV.

In selecting the study group I defined infrequent attenders as patients for whom my practice records listed five or fewer face to face consultations during the five year period 1975 to 1979 inclusive. These originally numbered 129. Patients joining after 1st January, 1975 were excluded as were temporary residents, and those leaving the practice area for a temporary absence; the lower age limit was set at 16 years on 1st January, 1975. Attendance was defined as consultation in the surgery premises, routine home visits and out of hour calls. Telephone consultations were not included. Contacts for routine medical examination and immunisation were discounted for the purpose of this study. At the end of the second consecutive period (1980 to 1984 inclusive) 113 patients (71 male and 42 female) were left as study group.

A control group was set up by selecting from the practice Age/Sex Register a patient of the same sex who was chronologically nearest to the subject's date of birth.

The patients in the two groups were then examined individually using three separate protocols.

- A 'Factual Questionnaire' for data on marital status, household size, experience of serious illness, participation in a geriatric survey, educational attainment, previous emotional stress, employment status and social class.<sup>9</sup>
- A 'Health Attitude Questionnaire' to assess the patients' attitudes to doctors in general and to their own doctor in particular, self-estimate of personal health, health determination, worrying, self-treatment of illness, use of alternative medicine, religious beliefs and attitudes to consulting a doctor.<sup>9</sup>
- The Eysenck Personality Inventory was used as a suitable and validated assessment of personality.<sup>10</sup>

A letter was sent to each patient informing them that my practice manager, who had been with the practice for 25 years, would call at a specific time at the patient's home with a questionnaire about a health research project. After administration of the Factual Questionnaire my practice manager left behind the Eysenck Personality Inventory to be filled in as quickly as possible by the patient in her absence. She also notified the patient that another interviewer would be calling within an hour with a further short questionnaire. The second interviewer, who was an independent worker and not known to the patients, then administered the Health Attitude Questionnaire and also collected the Eysenck Personality Inventory. Both interviewers were given printed instructions regarding the conduct of the interview to avoid observer bias as far as possible.

### Patterns of attendance

To assess any changes in the patterns of attendance each patient's attendance records were summarised from the practice records for both study and control groups, covering the initial study period (1975-1979 inclusive) and the follow-up period (1980-1984 inclusive).

### Assessment of morbidity

It was felt that the comparison of morbidity of the two groups should assess in some way

the severity of each episode of illness, the length of the illness, investigative techniques required and some social factor input. Accordingly four parameters were chosen: **1 Major illness** was defined as any organic illness or injury which would normally cause incapacity for work for 4 weeks or more, or any psychiatric illness which would normally require treatment for 3 months or more. This would for example exclude herpes zoster under the definition of organic conditions but would include cholecystitis. Under psychiatric illness this would include endogenous depression but would exclude most anxiety or tension states. Any such division is necessarily arbitrary but if applied consistently to both groups by a single investigator should provide a valid measurement.

**2 Minor illness or injury** included all other illnesses of a specific nature or symptom complex not covered by 1. For example: upper respiratory infections, dysmenorrhoea, migraine etc.

**3 Hospital referrals** included referrals for consultant opinion, referrals to casualty departments and referrals for open access facilities including radiology, pathology etc.

**4 Hospital admissions** were listed for acute emergencies or as waiting list admissions. This category laid less emphasis on the clinical aspect of illness which was the main component of the first 3 categories. However social factors which play a significant part in hospital admissions should also be taken into account in assessing morbidity.

The assessment of these categories was carried out entirely by myself.

### Assessment of patients' reaction to illness

During my initial study of these patients' records I noted some unusual reactions to significant symptoms or serious illness and I decided to list them under four indicators:

- failure to comply with medical advice where this was significant, e.g. treatment for serious conditions such as hypertension, discharge from hospital against advice;
- failure to attend until disease was relatively well advanced e.g. malignancy or other obvious pathological condition;
- detection of illness at routine examination

tion where symptoms had clearly been present for some time e.g. angina;  
 – failure to re-attend for hypertension control, attendance for results of hospital investigations.

These aspects of illness behaviour and help-seeking attitudes were grouped for consideration under the heading of 'abnormal behaviour'. This title did not, however, indicate any anti-social significance.

Assessment of these indicators was entirely made by me personally and retrospectively.

### Mortality

As an indicator of outcome, the actual death rate of the study group during the period 1980-1984 was compared to the expected mortality rate of my practice population indirectly standardised for age and sex, and of the similarly standardised District Health Authority population for the same period.

### Results

There was 100% response to the three questionnaires in both study and control groups, and all questionnaires were satisfactorily completed.

### Personality assessment

Eysenck Personality Inventory scores (table 1) shows statistically significantly lower values for neuroticism (N) in the study group and this difference applies for both men and women. Male subjects (but not females) scored lower than the controls for extroversion (E). The (L)scale (lie scale) was within accepted limits and showed no difference between the two groups.

The Factual and Health Attitude Questionnaires (each containing nine questions) yielded no statistically significant difference between the study and control groups. Similar proportions (about one third) reported experience of severe emotional stress. Reported participation in a geriatric screening programme which had previously been carried out in the practice population was similar in both groups. Each group had a similar proportion of self-confessed worriers (just under one half). The subjects in

**Table 1** Scores on the Eysenck Personality Inventory by 71 males and 42 females.

	Study group		Control group		t
	Mean	SD	Mean	SD	
<i>N-scale (neuroticism)</i>					
Males	7.1690	3.982	11.4225	4.201	6.19*
Females	8.6429	4.166	12.6429	4.627	4.16*
Total	7.7168	4.096	11.8761	4.384	7.37*
<i>E-scale (extroversion)</i>					
Males	9.8310	4.269	11.4225	3.952	2.31†
Females	10.4286	4.043	10.6905	4.425	0.28
Total	10.0531	4.179	11.1504	4.130	1.99
<i>L-scale</i>					
Males	4.2254	1.943	3.9859	1.720	0.20
Females	4.9524	1.937	4.4286	2.085	1.19
Total	4.4956	1.965	4.1504	1.867	1.35

The L-scale is a measure of validity (to estimate 'faking' – giving answers which respondent thinks are expected of him).

\*  $p < 0.001$ . †  $p < 0.05$ .

**Table 2** Mean yearly consulting rate of study group and control group.

	Study group	Control group
<i>1975-1979</i>		
Male	0.2	4.0
Female	0.5	4.2
<i>1980-1984</i>		
Male	1.7	3.9
Female	1.5	3.8

**Table 3** Study group attendance patterns in follow-up period. Rounded percentages.

	0-5 attendances	≥5 attendances
Male	67	33
Female	62	38
Total	64	36

**Table 4** Morbidity of study group during initial period. Numbers.

	Minor illness	Major illness	Hospital referral	Hospital admission
Male	51	1	7	1
Female	32	2	2	2
Total	83	3	9	3

**Table 5** Morbidity of study group during follow-up period. Numbers.

	Minor illness	Major illness	Hospital referral	Hospital admission
Male	58	21	22	12
Female	40	10	15	6
Total	98	31	37	18

the study group considered that they would consult a doctor whenever necessary in similar proportions to the control group.

These similarities appeared anomalous in view of the markedly different attendance patterns of the study and control groups.

#### **Attendance and morbidity**

Despite the fact that the study and control groups had aged, no statistically significant increase in mean annual consulting rate in the control group occurred during the follow-up period of 1980 to 1984 compared with the previous five year period (*table 2*). The consulting rate of the study group during the 1980-1984 follow-up period did increase however and some infrequent attenders ceased to qualify as such under the definition used.

This change affected about one third of the study group during 1980 to 1984 (*table 3*). In this period these patients showed a large increase in major morbidity (*tables 4 and 5*); not unexpectedly, this was reflected equally in the hospital referral and admission patterns.

#### **Abnormal behaviour**

Only one person in the control group showed abnormal behaviour – a patient who presented late with advanced disease. Nine patients in the study group, however, showed signs of abnormal reactions to symptoms or illness. Two failed to comply with medical advice, five presented with advanced disease, one was found to have significant disease on routine examination and one failed to re-attend. The following are examples of this behavioural pattern.

A 57 year old married woman with five grown-up children developed a grand mal seizure. Examination in two hospitals showed an abnormal electroencephalogram suggestive of a space-occupying lesion. She took her own discharge and refused to re-attend despite the possibility of a brain lesion explained to her. Six years later she developed anxiety, disorientation and depression. She was admitted to hospital for investigations as a possible pre-senile dementia and her electroencephalogram showed further changes. She accepted treatment on this occasion and had a

meningioma removed from the left parieto-occipital region. She made a complete recovery and has remained well since then.

Other cases included a moderately severe hypertensive male who discontinued treatment after six months and developed a massive temporo-parietal haematoma shortly afterwards; an experienced nursing sister with dyspnoea and chest pain for three months who was found to have a BP of 220/140 on routine examination; and a local solicitor with a severe Bell's Palsy who continued to attend court for four days before seeking medical advice. All these patients appeared to be on friendly terms with the practice staff and myself both before and after these incidents.

#### **Mortality**

Using the data from the observed deaths during 1980 to 1984 by indirect standardisation with the practice population the number of deaths expected to occur among the study group was 5.75. The actual number was 16. This difference is statistically significant at the 0.1 percent level (paired t-test). The same calculation for deaths from neoplasms gave the following result: expected 1.25; observed 11. This finding is also statistically significant at the 0.1 percent level. Very similar results were obtained when indirectly standardised mortality for the study group was compared with that of the Gateshead District Health Authority area of which the practice population forms a part.

#### **Discussion**

In the United Kingdom over 98 percent of people are on National Health Service doctors' lists. Their records therefore follow them if they change and consult another doctor. Very few people consult privately either regularly or occasionally. In the small tightly knit mining community in which I have practised since 1951, the population is practically 100 percent on National Health Service doctors' lists. It is therefore virtually impossible for any consultation with another doctor to have taken place during the period under review and this greatly reduces any methodological problems.

In a large practice consisting of three or more doctors differences in clinical standards and recording methods can considerably reduce the validity of, for example, morbidity assessment. During the present investigation, apart from the occasional use of locums for holidays etc. attendances and clinical findings were recorded by me and the assessments for the study were entirely my own. The classification of abnormal behaviour exemplified the in-built advantage of the study. All these patients were dealt with by me personally as was the assessment. While the results of the assessment were not suitable for statistical analysis, they provide valuable information in support of my conclusions.

'Infrequent attenders' is a descriptive label which characterises a relatively small group of patients i.e. 6.2. percent of this practice population. The status was not invariably a permanent one – within five years about one third of the study group had developed attendance patterns approaching the practice average. The increased consulting pattern was also associated with an increased presentation of major illness.

Assessment by the Eysenck Personality Inventory showed the infrequent attenders to have a reduced tendency to worry, to show anxiety and to react emotionally. While these findings agree with what one would expect, results from the other questionnaires were less predictable. Both study and control groups gave similar returns for reported experience of stress and self-assessment of worry. It is concluded that at least some infrequent attenders appear to have a different perception of the appropriate response to symptoms and of the indications for seeking health advice. This tendency was markedly demonstrated in the preponderance of abnormal help-seeking and illness behaviour in the infrequent attenders group.

The most striking feature of the study was undoubtedly seen for the figures for mortality in the follow-up period, which appeared to consist entirely of deaths due to neoplasm. Despite the well-recognised importance of early diagnosis there are few references in the literature to factors producing delay in diagnosis. *Aitken-Swan &*

*Patterson* found that about 25 percent of patients suffering from cancer of the breast, cervix, skin and mouth had not consulted a doctor until about twelve months or more after the onset of symptoms.<sup>11</sup> The main factors found were fears of hospitals – or doctors – and of the effects of treatment. In that particular series it was found that intellectual level did not have any effect on the delay. In the present study, the results of the personality assessment, the illustrations of abnormal help-seeking behaviour and the mortality figures suggest that this group of patients failed to recognise symptoms or ignored them or sought help and advice rather too late. While delay in seeking medical advice may be unimportant on occasion, in the case of possible neoplasm it may literally be fatal – as in some of this group.

The only other long term study of rare attenders gives some indication of the development of late serious and fatal illness in this type of patient. *Baker* examined 109 non-attenders over a period of five years and also conducted a brief follow-up in the succeeding eighteen months. He describes for this period two deaths from coronary occlusion, one case from long-standing and previously undiagnosed cancer of the breast and one case of gastric carcinoma diagnosed following emergency admission.<sup>6</sup> This brief account, though not yield-

ing statistically significant data, suggests an outcome similar to that in the present study. If the findings in the present study and those of *Baker* are confirmed for other practices, infrequent attenders are a small group of patients in whom clinical and organic illnesses, possibly treatable, are going unrecognised. It may therefore be worthy a special effort by the doctor to identify these patients and ensure that their medical needs are met.

Most patients who consult their doctor infrequently regard themselves as the healthy elite and their doctors probably share this view. Undoubtedly some patients do come into this category and indeed *Asher* records the case of a lady usefully employed for 76 consecutive years with only ten days' illness!<sup>12</sup> However the results of the current investigation, particularly with regard to outcome, do suggest that the consultations from this group are rather too infrequent and sometimes too tardy.

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