almost certainly suffered a diffuse enlargement of his aorta. I think it is only coincidence that your diagnosis of "dissecting" aneurysm instead of "dilating" aneurysm is correct.

WHEN TO SUSPECT DISSECTION

Dr. GOODWIN: One of the difficulties here, I think, and one which is not uncommon, is the fact that when you have hypertrophy of both ventricles the cardiographic diagnosis of infarction may be very difficult. It may be obscured, or it may be counterfeited. On looking through these tracings it is clear, as Dr. Cope has said, that this man never had unequivocal evidence of myocardial infarction. He undoubtedly had myocardial damage and biventricular hypertrophy. That is why I was interested in whether his right ventricle also was enlarged. I think a guiding principle upon which we should work is that, if somebody who

is hypertensive has rather atypical chest pain, and a cardiogram which is not absolutely diagnostic of cardiac infarction, he may well have a dissection.

Dr. COPE: I think we ought to put on record the actual facts about the anticoagulant therapy. I see from the treatment sheets that he was given heparin for one day and part of the second day and then the treatment was cancelled. Two or three weeks later, he was again ordered heparin, presumably for one of these subsequent attacks, but it was deleted and not given. So in fact it was not more than a couple of days of anticoagulant therapy, but it might have been an aetiological factor nevertheless.

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JUST WHAT THE DOCTOR ORDERED AN ANALYSIS OF TREATMENT IN A GENERAL PRACTICE

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"Guérir quelquefois, soulager souvent, consoler toujours"—to cure sometimes, to relieve often, to comfort always—this concept of the physician's role, popular on the Continent a century ago, still has some relevance to-day. The fact that the doctor can now prescribe powerful and effective drugs that were not available a few years ago has not altered his basic functions, though it may have changed the relative emphasis which he places on these three broad therapeutic aims. Discussion of the present-day role of the general practitioner is hampered by lack of information about the range of therapeutic techniques which he commonly employs. Studies that have been carried out so far have tended to concentrate on such definable aspects of his work as prescribing,^{1 2 3 4 5 6} the extent to which he is involved in certification,^{4 5 7 8 9} the number and nature of the cases he refers to hospital,^{7 8 11 12} and his diagnostic skills and ability.¹⁰ Comparatively few facts are known, however, about the nature and extent of the social therapy dispensed by the general practitioner.

In this paper, which is based on a combined job analysis and morbidity study carried out over a period of one year in the Edinburgh University General Practice Teaching Unit, we have attempted to define and analyse the several components of the doctor's therapy. In this way the importance of such specific function as the prescribing of drugs, and the extent to which the doctor becomes involved in the social factors of the patient's environment, will be seen in perspective.

The work of the doctors in this unit is discussed with reference to prescribing, advising, explaining, discussing, listening, and treatment involving the use of the routine equipment of the consulting-room. The kind of work included in these categories is described and analysed,

and the relevance of these findings to the concept of the family doctor's function is discussed. First we give a brief description of the ways in which the material was collected. The practice itself is then described, with particular reference to factors which are likely to influence the extent and nature of the doctor's work. This is followed by some comparisons with the results obtained in other studies of general practice. The pattern of morbidity encountered in this practice is then briefly described in order to provide a background for the main analysis of the doctor's treatment.

The Material

The study took place during the twelve months October 1, 1956, to September 30, 1957. During this period the doctors involved recorded details of all their consultations on a standard record sheet. (They completed these in addition to the clinical notes made routinely in the patients' files.) In this way information was obtained about the diagnostic and therapeutic action taken at each consultation. This information was pre-classified so that doctors knew precisely the alternative categories available and the amount of detail required. The classifications had been drawn up after various pilot studies and discussions with all the doctors involved. The doctor also recorded at least one diagnosis at each consultation. When he was dealing with more than one episode of illness at a single consultation* he recorded the action he took in respect of each diagnosis.

Most of this analysis of the doctor's treatment is in terms of the total number of consultations occurring during the year. Where this has been related to a specific disease, the relevant treatment given at all consultations for that disease has been considered. When the doctor modified his diagnosis during the course of an episode of illness the final diagnosis has been used in these analyses.

Information about the social circumstances of each patient and the household in which he lived was recorded in another file. These data were subsequently related to the consultations and to the episodes of illness in which the particular patients were involved.

The Practice

Edinburgh University General Practice Teaching Unit comprises two partnership practices with premises about half a mile apart in the centre of the city. Each practice is staffed by two doctors, a nurse, an almoner, and a

*This occurred at 7.2% of all the consultations.

secretary. The two practices are clinically independent, but for the purpose of this analysis they have been treated as a single unit, which is referred to as "the practice." All members of the staff are full-time employees of the University, and in addition to their routine clinical duties they are responsible for providing practical instruction for senior medical students.^{13 14}

The number of patients registered with the practice is small in relation to the number of doctors involved. During the study-year the average number of registered patients was 4,805. If the small number of patients per doctor is to a certain extent offset by the teaching commitments of the doctors, the salient feature of this practice is that the family doctor has been replaced by a team comprising two general practitioners, a nurse, and a medical social worker. In this situation the doctor, nurse, and medical social worker are not acting as independent agents but as members of a team whose diagnostic and therapeutic activities are closely linked and co-ordinated. The nature of the work undertaken by the nurse and the social worker will be the subject of separate studies, but since it obviously has a direct bearing on the role of the doctors in this practice it is discussed in broad terms in this paper.

So far we have considered the organization and staffing of this practice, but, obviously, certain characteristics of the patients may also be relevant to the amount and nature of the type of work involved. The age distribution of the patients is shown in Table I, in which a comparison is made with the distribution in

TABLE I.—Comparison of Age Distribution of Practice Population with that of Edinburgh and of Scotland

Age Group (in years)	Practice Population	City of Edinburgh*	Scotland†
Under 5	14.8	7.7	8.6
5-14	18.5	14.8	16.6
15-24	13.1	12.9	13.6
25-34	16.3	26.4	13.7
35-44	11.1		13.3
45-54	9.4	26.0	13.4
55-64	6.3		10.4
65 and over	10.2	12.2	10.4
Not known	0.3	—	—
Total population (= 100%)	4,805	465,671	5,150,000

* Estimate from the Report of the Medical Officer of Health for 1957.

† Estimate from the Report of the Registrar-General for 1957.

Edinburgh and in Scotland. It will be seen that in this practice there is a relatively high proportion of children under 5 years of age and a dearth of people in the 45 to 64 age-group.

Housing conditions in this area in the centre of the city are poor and much lower than the average for Scotland or Edinburgh. Just over a quarter of the patients were living in households which contained more than two persons per room. Comparable proportions for Edinburgh and Scotland are 12% and 15% respectively, while in England the figure is 2%. In addition, a high proportion of the male patients were labourers and unskilled workers and there were relatively few non-manual workers.

Some Comparisons With Other Studies of General Practice

Under these conditions, in which this group of poorly housed patients has freedom of access to a partnership practice with the facilities of a nurse and a medical social worker, the average number of occasions on which patients saw the doctor during the study year was 6.6.† This is rather higher than the consultation rates reported in other studies of this kind. On the other hand, the

TABLE II.—Comparison of Proportion of Surgery Attendances, Home Visits, and Other Consultations in This and Other Practices

Place	Our Practice	Practices Studied by General Register Office?	
		1952-3	1953-4
	%	%	%
Surgery, antenatal clinic, child welfare clinic,	67.7	65.5	68.9
Patients' homes	20.7	28.6	26.8
Elsewhere	11.6	5.9	4.3
No. of consultations (= 100%)	32,418	138,695	128,529

prescribing rate was below the local and the national average, being 2.5 per patient in this practice during the study year, compared with slightly under 4 in the practice studied by Backett, Heady, and Evans,⁴ 4.1 in that analysed by Brotherston *et al.*,⁵ 3.8 for the City of Edinburgh, and 4.1 for Scotland.⁶ The average cost per prescription was just slightly below the general average, but the cost of prescribing per patient at risk was appreciably below the average for the area.‡

Other comparisons which it is possible to make with certain practices involve the ratio of home visits to surgery attendances and the issue of certificates. The proportion of consultations taking place in the patients' homes was very similar to that found in studies conducted by the General Register Office. Home visits accounted for 30% of all consultations in this practice, and 29% and 27% in the two studies covering 1952-3 and 1953-4 respectively (Table II). The number of certificates issued during the course of the study year was also very similar when expressed in terms of the average number per patient, but the proportion of consultations at which a certificate was written (13%) was considerably lower in this inquiry than in those undertaken by the General Register Office, in which it was 22% in 1952-3 and 20% in 1953-4.^{7 8}

The relatively high consultation rate in this practice is clearly responsible for this last difference and may well affect various other aspects of the work undertaken by the doctors concerned. Before discussing the nature of this work in detail, we give a brief description of the patterns of morbidity presented, which it is hoped will put the ensuing discussion into perspective.

The Pattern of Morbidity

Of the consultations which took place during the year 76% were ascribed to one or other of the 25 diagnostic categories listed in Table III. This table also shows the number of episodes of each of these diseases and the number of consultations at which each diagnosis was recorded.

While the descriptive terms used for the episodes of illness shown in this Table are self-explanatory, two of the diagnostic categories—namely, "vague symptoms" and "social pathology" may require clarification. Vague symptoms comprise symptoms, senility, and ill-defined conditions—that is, Section XVI of the 6th International Statistical Classification 780-795 inclusive, with the exception of diarrhoea 785.6, enuresis 786.2, and observation without the need of medical care 793. Consultations for purely social misfortunes—for example, sudden death of a near relative, the committal of a husband to prison, the arrival in the household of an alcoholic grandmother, or the birth of a hydro-

† Based on the average registered population.

‡ This information was extracted from data supplied by the local executive council to all doctors in the area based on the pricing of routine samples of National Health Service prescriptions.

TABLE III.—*Relative Frequency of the 25 Most Common Conditions*

Disease *	Episodes of Illness per 1,000 Registered Patients	Consultations per Episode of Illness	No. of Episodes in Year	No. of Consultations in Year
Coryza, etc.	309.7	1.8	1,488	2,615
Superficial injuries	174.0	1.8	836	1,495
Vague symptoms	155.3	2.1	746	1,592
Sore throats	151.9	2.1	730	1,508
Skin sepsis	131.3	2.2	631	1,392
Child welfare, etc.	125.3	2.7	602	1,641
Exanthemata	102.4	2.8	492	1,396
Rheumatic diseases	65.3	3.8	314	1,181
Pregnancy	62.6	9.0	301	2,710
Otitis media	59.1	2.7	284	780
Styes and conjunctivitis	58.9	1.5	283	436
Diarrhoea (including dysentery)	53.1	2.4	255	607
Chronic bronchitis	49.9	5.7	240	1,364
Acute	49.5	2.8	238	666
Dyspepsia, etc.	46.8	2.9	225	657
Cardiovascular degeneration	39.8	7.5	191	1,424
Asthma and allergies	37.7	3.1	181	562
Eczema	36.6	2.6	176	460
Psychoneurosis	36.4	4.4	175	771
Oral sepsis	34.8	1.8	167	306
Urinary infections	32.3	3.1	155	478
Chronic tonsillar hypertrophy	26.6	3.3	128	419
Social pathology	20.4	1.8	98	180
Pulmonary tuberculosis	17.7	6.4	85	545
Malignant disease	9.4	11.6	45	521
All other conditions	565.5	3.0	2,717	8,263
All conditions	2,452.2	2.9	11,783	33,969†

Consultations with temporary patients are not included in this table.

* A detailed list of the diseases included under each heading may be obtained from the authors.

† Based on the average registered population.

‡ This is the total number of diagnoses made at consultations, and is greater than the total number of consultations.

cephalic child—where the symptoms of agitation, fear, or grief were regarded by the doctor as normal responses to the circumstances prevailing at the time, were classified under the heading social pathology.

Upper respiratory infection, minor trauma, skin sepsis, and symptom-complexes feature prominently as the commonest causes of morbidity. In this practice, which has a high birth rate and in which conditions are particularly favourable for the doctor who prefers to undertake personally antenatal care and child-welfare supervision, the exanthemata, pregnancy, and routine child welfare take up a substantial amount of the doctor's time.

Attention is drawn to the disparity between the prevalence of, and the consultation rates for, illnesses causing the bulk of the morbidity seen in general practice. Table III shows that while coryza, minor injuries, and septic skin conditions were responsible for a large number of episodes of illness with a low consultation rate per episode, pregnancy, degenerative cardiovascular disease, chronic bronchitis, pulmonary tuberculosis, and malignancy were outstanding in that, with a lower incidence, they gave a particularly high consultation rate per episode of illness. Psychoneurosis and rheumatic diseases also registered a consultation rate per episode that was substantially higher than average. In this paper we are in general limiting ourselves to an outline of a broad quantitative analysis of the doctor's therapeutic action without detailed reference to the patients themselves or the particular diseases with which they presented, but further analyses of the 25 conditions that accounted for the bulk of the consultations given during the year will be used to indicate, in general terms at least, the extent to which the patterns of therapy were conditioned by the kind of illnesses being treated.

The Broad Spectrum of Therapy

At any consultation the doctor could refer the patient to his nurse or to his social-worker colleague in the unit.

This he did at 14% and 3% of consultations respectively. He could also obtain assistance from a medical or paramedical colleague outside the unit, and in fact sought such assistance at 3% of consultations.

Here, however, we are confining ourselves to a consideration of the treatment carried out by the doctor himself at the actual time of the consultation. Within the confines of the consulting-room or the patient's home, the forms of treatment which the family doctor provides fall into four broad groups. In the first instance he can give an injection, apply a dressing, syringe an ear, and take similar action which involves the use of his hands and the simple instruments available in the consulting-room or carried in his bag. Secondly, he can take out his fountain pen and write a prescription or complete a medical certificate. The third possibility is that of talking to the patient. Finally, as a form of therapy he can listen to whatever the patient wishes to tell him.

The proportions of consultations at which these various forms of action were taken are shown in Table IV. Talking to the patient emerged as the largest of the four main groups, with the use of the fountain pen a close second. When these were broken down a little further, prescribing was shown to be the most frequent single form of action, occurring at just under two-fifths of the consultations, while giving advice and explaining were each undertaken at about a quarter of all consultations. The nature of the therapy falling into these groups is now discussed in detail under the appropriate headings.

TABLE IV.—*Therapeutic Action Undertaken by Doctor*

Type of Action	Proportion of Consultations
Direct action (dressings, injections, minor surgery, etc.)	10.8
Prescriptions	37.8
Certificates	13.2
Advice (diet, hygiene, smoking, etc.)	28.5
Explanation (health and disease)	22.3
Discussion about social services (including housing)	11.1
Discussion about work (job, housework, school)	3.9
Discussion of personal relationships	3.2
Therapeutic listening	3.4
No. of consultations (= 100%)	32,418

Direct Action

The doctor performed some type of direct action in which he used his hands or his instruments at one out of every ten consultations. The most common form of direct action was the application of a dressing. This occurred at 8% of all consultations, while at 3% of consultations he gave an injection. Prophylactic injections were most frequently given at consultations for routine child-welfare supervision, while therapeutic injections were most commonly given for infections, cardiovascular disease, pulmonary disease, and malignancy. Minor surgery, including stitching, was undertaken on 330 occasions, which represent only 1% of all consultations.

Prescribing

At 38% of consultations the doctor wrote out a prescription for medicine and at 4% he handed out some medicine at the time of consultation. These figures, however, provide a somewhat incomplete account of the extent of medication, since at 17% of consultations the doctor told the patient to continue taking medicine which had been prescribed at a previous consultation. In addition, at 5% of the consultations he suggested that the patient should take some common

household remedy—such as an aspirin—but did not write out a prescription. This was normally either because small quantities were involved or because the doctor knew the patient already possessed the medicine. The suggestion in this last case came from the doctor, though occasionally, at 1.2% of consultations, the doctor encouraged the patient to continue with some form of self-medication which the patient had initiated. (Again the commonest example is aspirin and hot drinks for a simple respiratory infection.) Thus, at three-fifths of the consultations the patient was already taking medicine or was given a prescription or some suggestion about medication.

Rheumatic disease, asthma, eczema, and psychoneurosis, of the 25 common conditions, had the highest prescribing rates, while minor and superficial injuries and childhood disease were among the common diseases with a low prescribing rate per consultation.

Certificates

Certificates were given at 13% of all consultations during the year. Two-thirds of these were National Insurance certificates, and one out of every ten were other certificates relating to capacity for work which were required by the patient's employer. At 200 consultations (0.6%) during the year the doctor refused to grant the patient's request for a certificate.

Talking and Listening

Much has been written about the family doctor's role as guide, philosopher, and friend, and lip-service is often paid to the notion that he knows not only his patients and their physical infirmities but their psychological, spiritual, and social inadequacies as well. If this is so, one would expect that many consultations would include a substantial element of social exchange, the giving of advice, and the discussion of personal and social problems. We have examined four facets of this aspect of the doctor's therapy—namely, advice, explanation, discussion, and listening.

Advice and Instruction

The offering of unsolicited advice and instruction has long been accepted as part of the doctor's role in the orthodox management of disease. We should not, therefore, have been surprised to find that this form of treatment was given at as many as 28.5% of all consultations. The commonest form of advice and instruction was concerned with attempts to modify the patient's physical activities—for example, advice about going to bed earlier, resting, or rearranging the working day. The next most common form consisted of dietetic instruction and advice on nutrition in general. Then came a series of consultations where the doctor gave the patient routine advice or instruction on matters of personal hygiene—for example, menstruation, skin toilet, and oral hygiene. Finally, at a substantial number of consultations the doctor issued negative advice in the form of a number of prohibitions—not to smoke, not to drink to excess, not to take patent medicine, etc.

Table V shows the percentage of all consultations at which advice was given, and illustrates how the form of advice varied with the diagnosis in respect of five of the frequently encountered conditions. Rest was most frequently suggested for degenerative cardiovascular disease and pregnancy; dietary advice was also given relatively often for the former and most commonly for dyspepsia; advice on personal hygiene was given at a

TABLE V.—*Variation in Type of Advice Given with Nature of the Disease*

Nature of Advice	Consultations for					
	Degen- erative Cardio- vascular Disease	Preg- nancy	Dys- pepsia	Eczema	Skin Sepsis Other than Eczema	All Types of Disease
Rest	26	28	9	3	4	14
Diet nutrition	12	11	44	3	2	11
Personal hygiene	1	2	1	17	14	4
Prohibitions	4	4	5	13	5	4
All forms of advice	37	37	49	27	21	27
No. of consulta- tions (100%)	1,424	2,710	657	460	1,392	33,969*

Consultations with temporary patients are not included in this Table.
* This is the total number of diagnoses made at consultations, and is greater than the number of consultations.

comparatively high proportion of consultations for eczema and skin sepsis. Patients suffering from eczema also came in for a substantial amount of prohibition.

Explanation

Explaining as distinct from advising also featured as a frequent form of therapy, being provided at 22.3% of all consultations. Explanation about the normal healthy functioning of the body, simple psychology, or sex instruction was given at 4% of all consultations. Such explanation was most often given at consultations for pregnancy (26%) and at routine child-welfare examinations (11%). In contrast to this health instruction, explanation about the nature of the disease was given at 18% of all consultations. Explaining the nature of the illness was not recorded if the doctor merely told the patient the diagnosis in so many words. The giving of this form of treatment was recorded when the doctor was of the opinion that an adequate explanation of the nature of the disease and its implications for the patient had been given as a necessary part of the treatment—the patient needed this knowledge or insight in order to co-operate in the regime of treatment—or because he had certain misconceptions about the nature of the disease and its likely effects.

This heading therefore included those occasions when the explanation was directed at reassuring the patient that he did not in fact have some particularly sinister condition, where the doctor was explaining what the disease was not, or clearing up a misconception which the patient might have about the course or consequences of his illness. Here, again, while this kind of treatment was given at 18% of all consultations, the frequency with which such explanation was given varied particularly with the disease. Considering the 25 most common diseases, explanation was most often given to patients (or their relatives) at consultations for exanthemata (31%), allergic conditions (24%), or dyspepsia (23%).

Joint Discussion between Doctor and Patient

So far we have described therapeutic actions in which the doctor played a dominant role by giving advice, explanation, reassurance, or admonition. In the next section we discuss situations in which the doctor played an almost passive role, lending a sympathetic ear while the patient expounded on his fears and frustrations, doubts and dilemmas. There were yet other consultations at which both the doctor and the patient actively participated in a discussion. The three most frequent topics of discussion were the patient's social environment, his work, and his problems of personal relationships.

The patient's social environment, including the social and welfare services and the house in which he lived, was discussed at 11.1% of all consultations. At nearly half of these—5% of all consultations—the particular subject discussed was the hospital and specialist services. Here the doctor might be concerned with allaying the fears and anxieties which the patient had before admission to hospital, or the personal and family problems arising out of the hospitalization of the patient. Discussions about national insurance, pensions, local-authority services, legal aid, and voluntary social services were also included under this heading (Table VI).

TABLE VI.—*Variation in Discussion of Social Services and Housing with Nature of the Disease*

Subject of Discussion	Consultations for			
	Social Pathology	Pulmonary Tuberculosis	Pregnancy	All Types of Disease
Hospital services	2	9	11	4
Housing	15	3	1	1
Ministry of Pensions and National Insurance ..	2	4	2	1
Ministry of Labour	5	4	—	—
Voluntary agencies	12	1	—	—
All social services	40	24	—	10
No. of consultations* (= 100%)	65	198	909	11,264

* Figures are for four months only and do not include consultations for temporary patients.

The patient's attitude towards work and problems of employment were discussed at 3.9% of all consultations. Again there was considerable variation with the nature of the illness. Consultations at which work and employment problems were often discussed were those for psychoneurosis 9%, eczema 7%, asthma 5%, and dyspepsia 5%, all of which are conditions that are often regarded as stress disorders.

Problems of personal relationship were discussed between doctor and patient at 3.2% of all consultations. During four months of the study-year the nature of the personal relationship problem was recorded in detail. For every 100 consultations at which personal relationships were discussed the nature of the relationships was compounded as follows:

Sexual relationship	16
Other marital relationships	33
Relationship to children on the part of parents ..	30
The patient's relationship to his or her parents ..	20
Other family relationships	14
Relationships outside the family	12

Among the 25 common conditions, the consultations at which personal relationships were most often discussed were those for social pathology 45%, psychoneurosis 17%, pulmonary tuberculosis 5%, and vague symptoms 5%.

Therapeutic Listening

On occasions in which this form of therapy was involved the doctor eschewed exhortation, the giving of gratuitous advice, and the two-way discussion, becoming in his attempt to "comfort always" a passive agent who merely listened. This form of treatment was recorded when the doctor allowed the patient to indulge in an emotional catharsis, when he lent to the patient a confessional ear or permitted the patient to engage in an emotional outburst. (We did not include here listening which was simply a part of history-taking.) The doctor gave this form of treatment at 3.4% of all consultations.

It seems that patients with intractable chronic conditions most frequently receive this type of treatment.

A relatively high incidence of therapeutic listening was recorded for social pathology 33%, psychoneurosis 29%, vague symptoms 7%, rheumatism 6%, degenerative cardiovascular disease 5%, chronic bronchitis 5%, and malignant conditions 4%.

The Doctor's Auxiliaries

So far we have confined our attention to the nursing and social component of the doctor's treatment which was actually carried out by the doctor himself, but this account would be incomplete without some reference to the contribution made by the nurse and social worker as members of the family-doctor team. A brief account is therefore given of the degree to which the nursing and social elements of the doctor's therapy were extended by his referring the patient to one or both of these colleagues.

Of the patients who were registered throughout the whole year of the study, 72.9% were seen by the doctor, 28.9% were also seen by the nurse, and 17.6% by the medical social worker. The annual consultation rates per patient were as follows: with the doctor 5.97, the nurse 1.24, and the almoner 0.58.§

These figures, however, represent an understatement of the use which the doctor made of his paramedical colleagues, since there were opportunities at a daily case conference for discussing the patient or referring the patient informally to the nurse or to medical social-worker members of the team. In addition, regular and more formal conferences were held every three weeks throughout the year with health visitors, municipal midwives, and district nurses employed by the local health authority. Table VII lists five commonly prescribed

TABLE VII.—*Comparison of Selected Items of Treatment Given Both by Doctor and by Nurse*

Treatment	Consultations with Doctor		Consultations with Nurse	
	No.	%	No.	%
Dressings	2,502	8	2,486	35
Injections	1,087	3	688	10
Diet advice	3,746	12	2,122	30
Explanation about disease ..	5,811	18	1,473	21
Therapeutic listening	1,113	3	1,549	22
No. of consultations (= 100%)	32,418		7,118	

TABLE VIII.—*Comparison of Discussion About Social Services and Relationship Problems by the Doctor and by the Medical Social Worker (Almoner)*

Subject of Discussion	Consultations with Doctor		Consultations with Almoner	
	No.	%	No.	%
Housing	131	1	489	17
Relationship problems	402	4	1,135	42
Ministry of Pensions and National Insurance ..	83	1	254	9
Hospital services	500	5	102	4
Attitude to work, employment, etc.	476	4	202	7
No. of consultations (= 100%)	10,678*		2,715	

* Based on data for four months only.

items of treatment given both by the nurse and by the doctor, and illustrates the time-consuming forms of therapy performed by the nurse—namely, dressings, injections, dietary advice, explanation, and therapeutic listening. Similarly, Table VIII lists five of the topics of discussion common to both the doctor and the

§Only patients who were registered with the practice throughout the study-year have been included here.

medical social worker. Here one notes that while the doctor does himself discuss with the patients relationship and attitude problems and the material circumstances of the patients' environment, it is in connexion with those particular aspects of the patients' social pathology that he is most likely to call on the services of the medical social worker.

Examinations and other Referrals

In so far as diagnostic procedures can themselves form part of the therapy, brief reference is made here to the doctor's diagnostic habits. The doctor himself performed some laboratory test, in the consulting-room, at 5% of all consultations, and sent off a specimen to a laboratory at 2.8% of all consultations. The patient was referred to open-access diagnostic x-ray services at 1.7% of all consultations, and at 3.1% of all consultations the opinion of a consultant colleague was sought. At 0.7% of all consultations the general practitioner sought and obtained direct admission to a hospital bed at the actual time of the consultation.

As a measure of the extent of the doctor's physical examination (Table IX) we find that the patient was undressed at 52% of all consultations. Undressing occurred most often at consultations for acute bronchitis 82%, exanthemata 76%, pregnancy 72%, and routine child welfare 64%, while only at 24% of all consultations for pulmonary tuberculosis and at 21% of all consultations for psychoneurosis was the patient undressed, though for each *episode* of these conditions the patient may well have been undressed on one or more occasions. The examination couch was used at 12% of all consultations in the consulting-room. Of the commonly occurring conditions, the couch in the surgery was most often used at consultations relating

to pregnancy 65%, dyspepsia 24%, and urinary infections 23%. At 25% of all consultations there was no undressing or physical examination, and the doctor relied on history only.

Finally, and by way of summary, Table X lists the 25 most common diseases, which together accounted for 75.7% of all consultations between doctor and patient during the year; it also shows the frequency of prescribing, certification, advising, explaining, discussing, and listening which took place at consultations for each of these diseases. The Table also gives some indication of the doctor's diagnostic habits by showing for each disease the percentage of consultations at which there was no examination apart from history-taking. It also lists the percentage of consultations at which the doctor referred the patient to a specialist, and for each disease the frequency of his referral to the medical social (almoner) member of the family-doctor team.

Discussion

In general practice, as contrasted with specialist medical practice, the patient plays a much larger part in determining what kind of disease or what kind of clinical or social problem will be the initial subject of the consultation. This examination of the treatment given by the doctors in this practice provides some indication of the relative quantitative importance of the medical and social components of the work of the present-day family doctor. Though the prescribing rate in this practice was relatively low, medication is still one of the major forms of therapy, but providing explanation, advice, or information, discussing personal problems, and lending a sympathetic ear formed a very large part of the action undertaken by the patient's family doctor.

The significance of this recorded evidence of the doctor's preoccupation with the social and human relationship factors in the patient's environment raises important issues which are, however, beyond the scope of this article. For example, how do we assess the extent to which these personal problems are a function of the disease itself, or merely a characteristic of the patient as a person and unrelated to the disease for

TABLE IX.—Doctors' Physical Examination of Patients

Extent of Examination	Proportion of Consultations
Patient undressed	52%
Examination without any undressing	23%
History only	25%
No. of consultations (= 100%)	32,418

TABLE X.—Summary of Doctors' Therapeutic Action

	Dress-ings	Injec-tions	Pre-scrip-tions	Cer-tifi-cates*	Advice About:		Explan-ation (Health and Disease)	Social Ser-vices	Attitude to Work	Per-sonal Rela-tionships	Listen-ing	History Only	First Referral to Consul-tant, Including Direct Admission	Refer-ral to Al-moner	Total Consul-tations in Year
					Rest	Diet									
Coryza, etc.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Superficial injuries	32	1	16	21	11	1	19	8	7	1	2	12	5	2	2,615
Vague symptoms	2	1	45	8	9	10	23	11	5	5	7	32	3	3	1,495
Sore throats	—	3	48	14	19	14	19	4	4	2	1	6	1	1	1,592
Skin sepsis	40	8	30	12	4	2	15	4	4	1	—	4	1	2	1,508
Child welfare, etc.	14	19	5	11	1	20	16	9	1	1	—	30	—	3	1,392
Exanthemata	1	1	24	8	24	13	32	3	2	1	—	12	2	1	1,641
Rheumatic diseases	3	1	62	13	9	7	12	12	4	3	6	37	1	3	1,396
Pregnancy	1	2	21	9	28	11	35	18	1	4	1	28	4	9	1,181
Otitis media	12	4	46	6	8	5	21	3	3	1	—	5	1	1	2,710
Styes and conjunctivitis	17	1	61	5	1	1	18	5	2	2	—	5	2	1	780
Diarrhoea (including dysentery)	—	—	45	14	12	40	19	8	3	—	1	42	4	1	436
Chronic bronchitis	—	5	50	13	16	8	13	10	3	2	5	37	2	3	607
Acute bronchitis	—	4	49	8	21	13	18	6	2	2	1	13	1	2	1,364
Dyspepsia, etc.	—	52	21	9	44	24	24	13	5	3	2	49	3	3	657
Cardiovascular degeneration	1	4	40	7	26	12	11	12	2	3	5	30	2	3	1,424
Asthma and allergies	1	4	62	15	6	8	25	5	5	2	1	37	1	3	562
Eczema	13	—	60	9	3	4	18	5	7	1	3	10	1	2	460
Psychoneurosis	1	—	60	13	4	8	26	13	9	17	29	66	2	7	771
Oral sepsis	4	10	25	12	4	2	22	17	2	1	2	17	2	1	306
Urinary infections	—	1	49	10	18	20	20	6	2	4	3	44	2	3	478
Chronic tonsillar hypertrophy	—	—	47	6	11	10	31	14	2	2	—	11	10	1	419
Social pathology	—	—	16	9	4	3	22	35	8	45	33	85	1	20	180
Pulmonary tuberculosis	1	3	39	33	6	4	11	23	5	5	3	74	3	5	545
Malignant disease	3	4	30	14	10	11	19	17	2	4	4	39	4	5	521
All types of disease	7	3	37	12	14	11	21	10	4	3	3	28	3	3	33,969†

* Based on figures for eight months only. † This is the number of diagnoses made at consultations, which is greater than the number of consultations.

which he is consulting his doctor? To what extent does the recorded incidence of relationship problems vary not only with the disease and with the patient but with the individual doctor who sees that patient? In so far as social therapy appears on occasion to be unrelated to the recorded clinical diagnosis, how far can an examination of the doctor's social therapy extend our knowledge of the incidence of minor neuroses and human relationship problems in general practice?

What are the implications of these findings in relation to medical education? At present the clinical instruction of medical students is based almost exclusively on the hospital. Because of the need to ensure that the student is adequately informed about modern technical advances in therapy, and partly because of the nature of the clinical material which is available for instruction, the emphasis in teaching is almost inevitably placed on those aspects of therapy which are concerned with specific treatment of the definable major and specific clinical entities. In these circumstances, comparatively less emphasis can be placed on the complex problems of personal insecurity and social maladjustment which can loom so large in the daily work of the general practitioner. The newly qualified doctor entering this field equipped with techniques and attitudes acquired in the laboratory atmosphere of the teaching hospital may sometimes look askance at the idea that the patient may sometimes require pennies rather than penicillin, sympathy rather than surgery, or insight rather than an injection.

Though science has provided the modern family doctor with many more precise and specific cures in the form of powerful drugs which were denied to his predecessors, there is no evidence that proportionately less of his total therapeutic endeavour is concerned with the less tangible problems of fear, pain, personal insecurity, and social maladjustment. Because of the freedom of access to a personal medical attendant which has been granted to the whole nation by the provision of a National Health Service, the family doctor is more exposed than any other medically qualified person to a request for assistance with such problems. These requests occur frequently in the course of his routine daily work. The doctors working in this practice were certainly particularly concerned with the social and personal relationship factors in the patient's environment. Demonstrating the significance of these factors, both in the aetiology and in the treatment of disease, is a prominent feature of their teaching programme and one which is particularly appreciated by the students themselves.¹⁵ This, together with the high consultation rate in this practice, suggests that a heightened awareness of the importance of these factors among family doctors in general would be likely to increase the demand for their services. This inference is supported by the findings of Mair and Mair.¹⁶ From a study of their own general practice they conclude that efficient service to patients increases their demands and requires increasingly large expenditures of time and money.

The low prescribing rate found in our inquiry suggests that the increased cost of expanding our family doctor service might be partially offset by a reduction in the national drug bill. In this connexion, it is our impression that the nursing and social components of the problems which the patients themselves bring to the doctor are likely to be under-diagnosed and inadequately treated if the doctor is denied complete access to the services of a nurse and a medical social worker.

Summary

In the General Practice Teaching Unit of Edinburgh University some 5,000 patients receive family-doctor care under National Health Service conditions. The service available to the patients has been extended in quantity if not in quality in that the staffing of the unit is subsidized from university sources for teaching and research purposes. Doctors in this unit work in "family-doctor teams" comprising two doctors, a nurse, and a medical social worker.

A combined morbidity study and job analysis has been carried out in this practice over a period of one year.

The prescribing of drugs and the issuing of statutory certificates of incapacity for work were two of the major forms of therapy provided by the doctors.

Much of the family doctor's therapeutic endeavour, however, was concerned with the patient's social and personal circumstances and his psychological reactions to disease. In these circumstances, therapy took the form of giving advice and explanation, discussing with the patient his problems of adjustment to his disease, to the social and medical services which are available, and to the economic, social, and personal relationship factors which he encounters in the community and in the environment of his home.

The relationship between the nature of the disease and the type of therapy prescribed is discussed in respect of a limited number of common conditions.

Results from the study reveal a relatively high consultation rate in the practice and a low prescribing rate. Possible reasons for this are discussed.

This preliminary account of a collaborative study would be incomplete if we did not record our indebtedness to the large number of individuals who made it possible. Our thanks are especially due to the patients of the practice. A good deal of extra clerical work was undertaken by our secretaries and in particular by Miss H. P. Pace. Mrs. N. Cheshire and Mrs. J. Gibson did most of the coding and transferred the data to punched cards. Mrs. E. Harnden was responsible for the tabulating and computing. Past and present members of the staff of the unit who assisted us in planning the study and in the actual collection of data included the following: nurses, M. J. Ferrier and J. Robertson; almoners, J. McNicol, J. E. Paterson, and J. Throne; doctors, D. W. MacLean, I. S. McRobbie, D. H. McVie, M. W. Moss, and H. R. Neve. The cost of the study was met by a grant made by the Secretary of State for Scotland on the recommendation of the Advisory Committee for Medical Research.

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