Patterns of Referral From Family Practice

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How self-sufficient are family physicians, or do they depend heavily on specialists? The purposes of this investigation were twofold: (1) To study the pattern of referrals from private family physicians in a qualitative manner, and (2) to try to ascertain the attitude of the referring physicians as to their roles and that of the specialist in the referral process. Until now, there have been virtually no published studies of this from private practice in the United States.

The family physicians in the Rochester area were asked to keep logs of all their referrals for the months of May and June, 1971. Of these, five agreed. At the end of this period, when it came time to collect all the data, and after speaking to all the physicians involved, four of these logs were deemed sufficiently accurate and complete to warrant being included in the study.

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Practices

For simplicity, we shall refer to the practices as A, B, C, and D.

Practice A is centered in a small town just ten miles from Rochester. Many of its residents are commuters into Rochester. It is predominantly a middle-class practice. Medicaid patients are accepted. Dr. A has two board-qualified internists who come out to help him a few afternoons and evenings a week. Their few referrals during the study period are included in A.

Practice B is centered in one of the outer western suburbs of Rochester. It is predominantly middle class, and Medicaid patients are not accepted. Dr. B is in solo practice.

Practice C is situated in one of the northern suburbs of Rochester. It is mainly a middle- to upper middle-class practice but does include a few Medicaid patients. Dr. C is in solo practice.

Practice D is centered in a small town 15 miles west of Rochester. It is a more rural practice than A. It is mostly middle class. It does have Medicaid patients, but no new Medicaid patients are accepted. Dr. D is in partnership with another family physician.

All four practices are fee-for-service, and all four physicians have admitting privileges at one or another of the hospitals in Rochester. Table I shows the overall referral rates of the four practices.

The very close similarity in the referral rates of the four family physicians is worthy of note and suggests the validity of the data. According to the offices involved, practices B and D missed no patients, and their referral rate may be

deemed as nearly 100 percent accurate. Practices A and C may have overlooked one or two referrals at most. It should be noted that referrals to radiologists are not included in this study.

The referral rates of the four practices, between 2 and 2.5 percent, compare favorably with other studies. In Britain, Metcalfe[1] found a referral rate based on patient visits of 1.33 percent for his practice in a Yorkshire town. Pemberton[2] reported an overall referral rate of about 2.4 percent from a study of eight practices in Sheffield. In the United States, Penchansky and Fox[3] indicated a referral rate of between 2.4 and 5.9 percent for rural general practitioners working within a multispecialty group practice. In another rural general practice, Taubenhaus[4] found he had a referral rate of about 3 percent of patient visits. The overall referred rate for the four practices combined was 2.2 percent. Table II shows the patients' distribution according to sex and age.

Because we do not possess statistics as to the distribution of the total number of patients in the practices according to sex and age, it is impossible to say too much about the distribution of the referrals. However, three things of interest stand out: first, the low referral rate of the zero through 14-year age class. This may be explained by the fact that all four family physicians handle their own pediatric cases and would normally refer only those rare cases needing the expertise of pediatric subspecialists. It seems reasonable to assume that a community well serviced by competent family physicians has no real need for the general pediatrician.

Second, we note the relatively high referral rate for the 15 through 44-year age class. Penchansky and Fox[3] also documented this, finding their peak referral age to be in the 15 through 34-year age group. As they suggest, this may be a function of the acute and surgical nature of illnesses in this age group, childbearing problems and sequelae, and the probable high accident rate within this group.

Third, there is a 20 percent higher referral rate for females compared with males, which is not entirely accounted for by referral to obstetricians and gynecologists.

Breakdown of Referrals

The breakdown of the referrals into the specialty groups is particularly revealing since it suggests those areas in which the family physician's capability is limited and in which, therefore, he is dependent on the various specialties. This is shown in Tables III and IV in which the data of the four physicians has been combined. This suggests that the main reasons for referral are for technical assistance rather than diagnosis.

Comparisons with studies done in Great Britain reveal a definite similarity (Table V). This is very interesting in light of the great differences in the medical care systems and in the general public's attitudes toward family physicians in the two countries. This may be because the family physicians in this study feel strongly that they should be the first line of defense for their patients, where necessary referring them for treatment or diagnosis, and that by and large their patients conform. In Britain the patient's only route into care is the family physician, other than the emergency room where only genuine emergencies are treated.

It is perhaps worth while to note that while referrals to general surgery make up one quarter of all referrals, reference to Table III will show that this is because of the comparatively very high referral rate to surgery by B and C. The other two physicians in fact refer to surgery less than to one

TABLE I

Referral Rates of Four Practices

Practice	Number Days in Study	Total Number Patient Visits	Number Patients Referred	Referral Rate (%)
A	49	1,385	35	2.5
B	39	1,083	24	2.2
C	38	1,320	26	2.0
D	36	816	17	2.1

TABLE II

Distribution of Referred Patients According to Sex and Age

Ages (Years)	Total		Male		Female	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
0 to 14	8	7.8	4	9.8	4	6.6
15 to 44	57	55.9	23	56.1	34	55.7
45 to 64	25	24.5	8	19.5	17	27.9
65 and over	12	11.8	6	14.6	6	9.8
TOTALS	102	100.0	41	100.0	61	100.0

TABLE III

Referrals to Specialties

Specialty	A		B		C		D	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Adolescent behavior clinic	1	2.9	—	—	—	—	—	—
Allergy	1	2.9	—	—	—	—	1	5.9
Cardiology	—	—	—	—	1	3.8	—	—
Dermatology	2	5.7	—	—	2	7.7	3	17.6
Ear, nose, and throat	5	14.3	1	4.2	2	7.7	2	11.8
Endocrinology	1	2.9	—	—	—	—	—	—
General surgery	4	11.4	10	41.7	10	38.5	2	11.8
Hematology	—	—	1	4.2	—	—	—	—
Internal medicine	1	2.9	1	4.2	—	—	1	5.9
Neurology	3	8.6	2	8.3	1	3.8	2	11.8
Obstetrics-gynecology	4	11.4	2	8.3	4	15.4	1	5.9
Ophthalmology	3	8.5	—	—	—	—	3	17.6
Orthopedics	4	11.4	3	12.6	2	7.7	1	5.9
Pediatrics	—	—	1	4.2	—	—	—	—
Plastic surgery	1	2.9	—	—	1	3.8	1	5.9
Psychiatry	—	—	3	12.6	—	—	—	—
Urology	5	14.3	—	—	3	11.5	—	—
TOTALS	35	100.0	24	100.0	26	100.0	17	100.0

or two of the other specialties. While our sample is too small to reach any definite conclusions, reference to the British studies suggest the validity of the results of Table IV.

Attitude Toward Referral

The family physician's attitude toward referral was the second important area studied. The act of referral of necessity means that the family physician is transferring some or all of the responsibility for that patient's care to another physician. This is in direct conflict with the role model of the primary care physician who tries to do everything for his patient. There may be psychologic problems involved in that referral is to some physicians a tacit admission of the limitation of their own knowledge and resources. One may also suspect financial implications in the referral process, especially if consultants hold on to patients referred to them.

To ascertain attitudes and feelings about referring patients and what was expected of the specialists, at least one in-depth interview was held with each of the four family physicians. We first attempted to find out just why they referred patients.

As may be expected, all four refer because certain occasions require resources of therapy and skills which they do not possess. An obvious example is surgery.

Three of the physicians said they refer occasionally to ease their patient's mind from worrying, in other words, for psychologic reasons when the patient may feel he requires the added wisdom of a "specialist." The fourth physician (B) referred only very rarely for this, saying that his patients respect his opinion and are satisfied with his judgment.

TABLE IV

Combined Referrals to Specialties

Specialty	Absolute Number	Referrals (Per Cent)
General surgery	26	25.5
Obstetrics-gynecology	11	10.8
Orthopedics	10	9.8
Ear, nose, and throat	10	9.8
Urology	8	7.8
Neurology	8	7.8
Dermatology	7	6.9
Ophthalmology	6	5.9
Internal medicine	3	2.9
Plastic surgery	3	2.9
Psychiatry	3	2.9
Allergy	2	2.0
Endocrinology	1	1.0
Cardiology	1	1.0
Hematology	1	1.0
Pediatrics	1	1.0
Adolescent behavior clinic	1	1.0
TOTALS	102	100.0

TABLE V

British Referral Results

Specialty	Metcalfe[1]		Scott and Gilmore[5]	Hopkins*[6]	
	Number	Per Cent	(Per Cent)	Number	Per Cent
General surgery	35	19.7	23	175	20.8
Obstetrics-gynecology	22	12.3	6	59	7.0
Orthopedics	24	13.5	8	135	16.0
Ear, nose, and throat	27	15.2	13	102	12.1
Urology	10	5.6	—	35	4.2
Neurology	7	3.9	—	22	2.6
Dermatology	8	4.5	10	37	4.4
Ophthalmology	24	13.5	8	34	4.0
General medicine	5	2.8	9	67	7.9
Psychiatry	2	1.1	2	66	7.8
Allergy	—	—	—	3	0.4
Endocrinology	—	—	—	10	1.2
Cardiology	3	1.7	—	17	2.0
Pediatrics	3	1.7	5	8	0.9
All others	8	4.5	16	73	8.6
TOTALS	178	100.0	100.0	843	100.0

**This is a summation of what Hopkins calls "referrals for treatment" (660) and "referrals for opinion" (183).*

TABLE VI

Reports From Specialists to Individual Family Physicians

Report	Practice				Total	
	A	B	C	D	Number	Per Cent
Number referred	35	24	26	17	102	100
Written report received within one week of referral	8	4	7	2	21	20.6
Written report received within eight to twenty-four days of referral	9	10	6	4	29	28.4
Verbal report received within twenty-four days of referral*	1	3	5	1	10	9.8
No report received within twenty-four days of referral	17	7	8	10	42	41.2

**If they had received a written as well as a verbal report, this was included in the preceding listing.*

All four family physicians refer for consultation purposes, to get a second opinion in a difficult case. One of them (D) said that this in fact is the major reason for his referrals. Consultation is of course a time-honored medium for continuing education.

Three of the physicians refer for logistic reasons for "convenience." In other words, they may have a particularly heavy patient load one day and rather than try to work up each case thoroughly, which they might have done on another day, thereby denying time from their other patients, they refer to a specialist. Dr. B does not refer for this reason, saying that he will spend as much time as necessary with each patient.

None of the physicians said that a patient's ability to pay

the specialists would affect their decision of whether to refer or not. It should be remembered that all four practices are predominantly middle class and the physicians do not have to be as price conscious as if they had lower working-class practices. Nearly every patient in the practices involved have inhospital insurance coverage.

All four physicians when they refer a patient still feel that he is their patient and that they still have primary responsibility toward him even though he is being seen by another physician: "I am at the hub of the wheel," said one physician. All four make rounds conscientiously when they have patients in the hospital.

On referring for consultation, all four physicians expect to receive a note or call, preferably the former, from the specialist telling them of his findings and his recommendations for therapy. Similarly, when they refer for treatment, they all appreciate being kept informed by the specialist of the course of the illness and the management instituted. All four feel very keenly about this, three of them sufficiently so that they categorically stated that if they did not receive reports from a specialist, competency notwithstanding, they would stop referring patients to him.

The four family physicians were then asked how frequently it occurred that a specialist to whom they referred a patient "held on to" that patient after clearing up the particular illness for which the patient was referred. All agreed that this was a rare occurrence. The few cases in which this had taken place, that they clearly remembered, involved gynecologists who ended up as primary care physicians to the patients involved, giving them their yearly physicals, and so on. Three of the family physicians feel very strongly that this should not happen. They understand, of course, that if it happens in an isolated case with a physician who nearly always refers patients back, it is probably the choice of the patient. The fourth physician (C) said that if a consultant held on to a patient it would not disturb him very much since his patient load was more than sufficient.

Specialists' Reports

The last part of the study was to test in a quantitative manner just how conscientious the specialists really were in sending reports back to the primary care physician. Data for all four practices are shown in Table VI, including combined figures for all 102 referrals shown in an absolute and percent basis.

We see from Table VI that in 41.2 percent of the cases the family physicians received no reports whatsoever from the specialists 24 days after their referral. This figure we found surprisingly high, in view of what the four physicians had told us regarding their attitudes toward receiving written reports from consultant physicians. Resulting partly from this and partly from our discussions with the family physicians, we decided to follow up more closely on the "no report" group. All 42 patients in this group were contacted by phone and asked whether they had seen the specialists to whom they were referred and if so, when. We found that 28 of these 42 had not visited the specialist within 21 days of being referred. The period of 21 days was chosen to give the specialists three days to send their reports so that they would be included in the "received report within 24 day group." The reason these 28 patients had not visited the specialist to whom they had been referred within the 21 days was only rarely because they did not bother to make an appointment but mostly because they were unable to get an appointment within this time. They had to wait more than 21 days to see the specialist! This is in itself surely unsatisfactory in some instances and is a criticism frequently leveled in the United States about the National Health Service in Great Britain. It appears that in the Rochester area the two specialties for which there are the longest waiting lists are ophthalmology and ear, nose, and throat.

After adjustment had been made for these considerations, we found that of a total of 102 referred patients, 14 had visited a specialist within 21 days for whom no report had been received by the referring family physician within 24 days. A further breakdown of these facts show that of the 74 patients who saw a consultant, no reports were received in 18.5 percent of the cases. This figure, nearly a fifth, is still, in our opinion, surprisingly and unfortunately large.

Summary

An overall referral rate for the four family physicians of 2.2 percent was found. This agrees well with previous studies in Great Britain and the United States.

A breakdown in referrals to the specialties reveals that the four most referred-to specialties are: general surgery, obstetrics and gynecology, orthopedics, and ear, nose, and throat, the last three specialties having about the same frequency. According to British studies, these are also the four most referred-to specialties in that country.

Of the 102 referred patients, no reports were received in 42 of the cases. Of these, 28 had not visited the specialist within the designated 21 days, mostly because they were unable to get an appointment within this time. Concerning 18.5 percent of the 74 patients who did see specialists, no reports were received by the referring family physicians within three days of the patients having been seen by specialists.

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