The Referral Process: A Study of One Method for Improving Communication Between Rural Practitioners and Consultants

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Communication between referring physicians and consultants, essential for successful completion of the consultative-referral process, was inadequate in a rural clinic. This finding prompted the authors to conduct a randomized prospective trial of a referral form and return mailer in three rural primary care clinics associated with a university medical center. The use of a return mailer increased the percentage of consultant feedback from 39 percent to 60 percent, a highly significant increase. An added benefit was a decrease in the median time interval between a patient's contact with a consultant and receipt of that consultant's report by the rural clinics. The positive effect of the return mailer was consistent among various consultant categories, with the greatest improvement coming from a teaching hospital Emergency Room. The type of referring provider or the emergency status of the patient did not affect the percentage of communications returned. The use of a referral form accompanied by a request for feedback and a return mailer is an inexpensive method of increasing communication between primary care providers and consultants, thereby enhancing the value of the consultative-referral process.

Consultation and referral have always been important processes for the family physician. The rapid expansion of highly technical diagnostic and therapeutic procedures makes consultation and referral particularly salient in current medical prac-

tice. Today's family physician has a responsibility to ensure that such procedures are performed at the best time and in the best setting to meet the patient's needs. Attempts to define more clearly the role of the family physician invariably include the coordination of a patient's total health care needs in a complex health care system.^{1,2}

A referral may be defined as a temporary or permanent transfer of responsibility for a patient's care from one physician to another.³ Consultation

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0094-3509/80/020287-05\$01.25 © 1980 Appleton-Century-Crofts denotes the practice whereby one physician asks advice from another about a patient, with the implication that the first physician will continue to care for the patient after the consultation. This study addresses the consultative-referral process as it occurs when patient diagnosis or management requires a particular expertise, knowledge, or use of a facility not readily available to the referring physician.

As pointed out by Williams and associates,⁵ the factors involved in the consultative-referral process include: (1) the primary care provider's awareness of needing assistance; (2) the consultant's recognition of the problem to be addressed and his ability to supply help; (3) adequate communication between providers about the nature of the problem and the degree to which each is assuming responsibility for the patient's care; and (4) adequate communication with the patient.

Rudy and Williams⁶ delineate six problems involved in the consultation process: the first is resistance to referral on the part of the family physician. A second problem is resistance on the part of the patient to consultation. This resistance may be due to apprehension of the unknown, a failure on the part of the patient to take his illness seriously enough, or the threatened financial burden. Failure of the referring physician to follow-through constitutes the third problem. He/she frequently has an obligation to remain an active participant in the patient's care during and after consultation. The fourth problem is failure to interpret adequately the patient's personal and family background to the consultant, thereby denying the patient the benefit of the referring physician's perspective and insight. Problem five is failure to define for the consultant the objectives hoped for in the consultation. The final problem is a reluctance by the referring physician to critically evaluate a consultation. He must review consultations critically because no consultant is infallible, regardless of training or stature. Solving most of these problems requires that referring physicians and consultants establish adequate communications.

The preliminary study, conducted in three rural primary care centers affiliated with the University of Florida College of Medicine in Gainesville, showed that poor communication was a major impediment to the successful completion of the referral process. These clinics serve three contiguous low income rural counties, and are located in

the county seats 30 to 60 miles from the university's medical center. Two of these clinics are the only source of medical care in the respective counties. A survey of utilization of medical services among 150 patients in one of these clinics showed that 43 percent of the patients had used no other medical services during the past year. An additional 15 percent had used a hospital Emergency Room as their only other source of care, according to unpublished data reported by Lee A. Crandall, PhD, December 1977, from the Department of Community Health and Family Medicine, University of Florida College of Medicine, Gainesville, Florida. Faculty from the university's Department of Community Health and Family Medicine serve as attending physicians and medical directors in the clinics, which have permanent staffs composed of physician's assistants, nurses, and managerial-clerical personnel. All three clinics serve as training sites for residents in family medicine, pediatrics, internal medicine, and psychiatry. Medical students, physician's assistant students, nursing students, and allied health care professions students also receive a substantial amount of training in these clinics.

The monthly rotation of resident physicians through the clinics, the large number of students using the medical records, and the turnover among permanent staff members necessitate complete. accurate, and current medical records. An audit of these records in 1977 demonstrated that insufficient feedback regarding referred patients was a major problem. A preliminary study showed the frequency of referrals to be approximately four percent of patient visits, which is similar to that found in the literature. Penchansky and Fox⁷ studied the frequency of referral by field of practice and found referral rates of 9.5 percent for urban pediatricians, 3.2 percent for rural pediatricians, and 4.2 percent for rural general practitioners, with a range of 2.4 percent to 5.9 percent for the latter group. Geyman and associates8 found family physicians to have referral rates ranging from 0.91 percent to 3.05 percent when they investigated six family physicians' practices. Thus, the referral rate of four percent in the University of Florida's rural practices is consistent with referral rates reported by others.

The rate of feedback from consultants involved in these referrals was disturbingly low. Written follow-up information was received on only 28 percent of patients referred in the preliminary study. A computerized search of the literature disclosed only two articles addressing the adequacy of feedback from consultant to referring physician. Cummins and Smith9 kept records on 200 referrals, all made with a telephone call to the consultant, an introductory letter, pertinent radiology and laboratory reports, and a written request for follow-up data. Their data showed a return rate of 90 percent from private subspecialists and 65 percent from university based subspecialists. Hines and Curry¹⁰ looked at referral patterns in three urban family practice offices in Canada and found an overall feedback rate of 87 percent. They reported 89 percent written feedback from consultants in private practice, but only 23 percent written feedback from consultants in a general hospital clinic.

Methods

A prospective randomized trial of a simple device aimed at improving communication both to and from the consultant was conducted. A printed referral form was instituted for all patients referred in the clinics. This form bore the clinic's name, address, telephone number, and the names of staff members. It provided detailed information on the present illness, past medical history, pertinent findings, provisional diagnosis, and reason for referral. Additional data were provided for emergency referrals. This form was sealed in a manila envelope addressed to the consultant along with x-ray films, laboratory findings, and other pertinent information. The manila envelopes for half the patients also contained a stamped envelope addressed to the clinic and a second form which introduced the patient and specifically requested feedback from the consultant. This packet was transported to the consultant by the patient or an appropriate representative (eg. an ambulance attendant, relative). It was expected that inclusion of the stamped pre-addressed envelope and a specific request for information would improve the transfer of information from consultant to primary care provider. The referred patients' medical records were subsequently audited weekly for three months to evaluate consultant responses.

Results

Three hundred packets of material were originally prepared. This report includes findings from the 235 referrals in which forms were correctly completed and copies of the referral form were entered in the patient's medical chart. Of the 235 referrals included in the study, 119 (51 percent) included only the referral form, while the remaining 116 (49 percent) also contained a request for feedback and a return mailer. Return was significantly greater from the group of consultants receiving the mailer. Sixty percent of referrals accompanied by the mailer produced feedback as compared to 39 percent in referrals made without a mailer (χ^2 =12.2, df=1, P=.0001). Both modalities produced better feedback than the 28 percent rate observed in the preliminary study.

As Table 1 illustrates, the most frequent category of consultant used by the rural clinics was the teaching hospital's clinics (66 referrals), followed by the teaching hospital Emergency Room (54 referrals), private physicians (54 referrals), community hospitals (35 referrals), and Veterans Administration Hospitals (21 referrals). Few referrals to social agencies were recorded. Although clinics were instructed to include these referrals in the study, it is not certain that all providers did so.

The total amount of feedback received was not significantly related to the clinic referring the patient, the type of provider referring the patient (faculty physician, resident physician, physician's assistant, or medical student), or to the emergency status of the referral.

There were substantial differences among various types of consultants in the percentage of feedback received. Feedback was highest from private physicians (69 percent). Teaching hospital clinics provided feedback for 59 percent of referrals, and community hospitals for 54 percent. Lower rates were received from the teaching hospital Emergency Room (46 percent) and the Veterans Hospital (33 percent).

Table 1. Number of Patients Referred and Percentage of Feedback Received from Consultants

Consultant Type	Total Number of Referrals and Percent Feedback		Referrals Made Without Feedback Request and Mailer		Referrals Made With Feedback Request and Mailer	
	N	% Feedback	N	% Feedback	N	% Feedback
Private Physicians	54	69	27	59	27	78 NS
Teaching Hospital-Clinics	66	59	35	49	31	71 *
Community Hospitals	35	54	18	50	17	59 NS
Teaching Hospital - ER	54	46	27	26	27	67 **
Veterans Hospital	21	33	9	22	12	42 NS
Miscellaneous (social agencies)	5	40	3	0	2	100 NS
Totals	235	55	119	39	116	60 ***

^{*}P<.10

Table 1 separates the referrals into those accompanied by a return mailer and those without. In all categories the return mailer improved the rate of feedback. Despite the small number of cases in each category, the percentage differences were statistically significant for the teaching hospital's Emergency Room and clinics. Most striking was the improvement in feedback by the Emergency Room from 26 percent to 67 percent.

The time interval required for consultant reports ranged from the same day via telephone calls to written feedback arriving up to three months after consultation. The median time interval between the patient's contact with the consultant and receipt of his report by the clinic was 11 days without the return mailer, and 6 days when a return mailer was enclosed. The time interval also correlated with the patient's emergency status,

slower feedback being obtained from emergency referrals than nonemergency referrals.

Discussion

This study demonstrates that the use of a referral form accompanied by a request for written feedback and a return mailer results in a substantially greater rate of consultant feedback than that produced by a referral form alone or by photocopied progress notes (as used in the preliminary study). When feedback was specifically requested and a return mailer was used, the return rates from private consultants (78 percent) and from university based consultants (71 percent) approach those reported by others. 9,10 Feedback rates from the other consultant groups were considerably lower.

^{**}P <.01 ***P <.0001

NS = not significant

A physician in private practice might expect his referral return rate to be higher than the rates described in this study for a number of reasons: (1) these rural clinics are teaching facilities with a regular turnover of providers, a situation not conducive to interaction between referring physicians and consultants; (2) consultants may not be knowledgeable about the clinics due to their rural location; (3) some patients have multiple sources of medical care and may request that their consultant report to another provider; and (4) some patients referred do not complete the consultation for a variety of reasons, such as distances involved, lack of public transportation, low incomes, and lack of third-party coverage.

This study shows that the use of a written request for feedback and a mailer decreases the time interval between patient contact with a consultant and receipt of the consultant's report. Surprisingly, the feedback interval for emergency referrals was longer than for routine referrals, probably because emergency cases more often resulted in hospitalization, in which case feedback is usually not provided until discharge.

Implementing the use of a referral form and mailer is relatively easy. A referral form may be printed on carbonized paper and the copy inserted in the patient's medical record, obviating the need to record the patient visit data in two places. A specific request for feedback should be printed on the referral form as Phelps and Renner¹¹ suggest. A modified version of the referral form used in the present study, which includes a request for feedback, is now used for all referrals from the University of Florida's rural clinics.*

The mailer is simply a self-addressed envelope. The additional cost and clerical time involved in implementing this procedure is minimal, with materials and postage for the return envelope estimated to be approximately 25 cents per referral.

Adequate communication between a physician initiating a referral and the consultant involved is essential for high quality medical care. Increased feedback from consultants has several beneficial aspects. Professional time spent telephoning consultants to request information is reduced. It becomes unnecessary to elicit information about a

consultant's diagnosis and treatment from the patient (who frequently is uninformed or misinformed). More accurate and detailed information on the patient's total health care is included in the medical records. Without written feedback patient care inevitably suffers. As pointed out by Kunkle,12 lack of effective communication impairs good patient care and represents a triple loss-to consultants, to the referring physician, and most importantly to the patient.

The use of a standardized referral form, which includes a request for feedback and a return mailer in all referrals, will effectively enhance communication between providers in rural primary care settings and consultant specialists at minimal cost.

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References

1. Alpert JJ, Charney E: The Education of Physicians for Primary Care. In Bureau of Health Services Research (Rockville, Md): DHEW publication No. (HRA) 74-3113. Government Printing Office, 1973

2. Report of a Study—A Manpower Policy for Primary Health Care. Inst of Med Na Acad of Sci. Institute of Medicine publication No. 78-02. Washington, DC, 1978
3. Shortell SM, Anderson OW: The physician referral

process: A theoretical perspective. Health Serv Res 6:39, 1971

4. Saunders TC: Consultation-referral among cians: Practice and process. J Fam Pract 6:123, 1978
5. Williams TF, White KL, Andrews LP, et al: Patient

referral to a university clinic: Patterns in a rural state. Am J Public Health 50:1493, 1960

6. Rudy DR, Williams T: The consultation process and its effects on therapeutic outcome. J Fam Pract 4:361, 1977

7. Penchansky R, Fox D: Frequency of referral and patient characteristics in group practice. Med Care 8:368,

8. Geyman JP, Brown TC, Rivers K: Referrals in family practice: A comparative study by geographic region and practice setting. J Fam Pract 3:163, 1976
9. Cummins RO, Smith RW: Reports to referring phy-

sicians (letter). N Engl J Med 393:361, 1975

- 10. Hines RM, Curry DJ: The consultation process and physician satisfaction: Review of referral patterns in three urban family practice units. Can Med Assoc J 118:1065,
- 11. Phelps LA, Renner JH: The development of a "statement of policy regarding consultations." J Fam Pract

5:979, 1977 12. Kunkle EC: Communication breakdown in referral of the patient. JAMA 187:663, 1964

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