Family Physicians And Internists: Differences In Practice Styles And Proposed Reasons

Marjorie A. Bowman, M.D.

***Abstract*: This is a review of published reports comparing family physicians with internists. The results show that family physicians are more likely to stay in their field of training; to locate more frequently in rural and underserved areas; to see fewer referred patients; to have similar case severity; and to engage in more obstetrics and gynecology, surgery, trauma, acute illness, and pediatrics. Family physicians spend less time per patient, ask fewer history questions, obtain fewer physical examination items, order fewer diagnostic studies, make referrals less often, and hospitalize patients less often. The reasons for the practice style differences between family physicians and internists are likely to be multiple, but they probably include such factors as: training, decision-making expertise, patient demands, types of visits, office staff, economics, and attitude. The implications of the proposed reasons for the differences are discussed. (J Am Bd Fam Pract 1990; 3:43-9.)**

Most observers agree that the United States needs many more primary care physicians, but they do not agree which type of specialists should do primary care, or what type of training is needed for this role. Because most primary care services are used by adult and geriatric patients, this paper reviews reported differences between the practices of general internists and family physicians, the two groups that provide the bulk of adult primary care, and also considers why these differences exist.

In general, this is a comparison of family-general practice and traditional internal medicine. Because many data sources only consider those who are self-declared as internists or family-general practitioners, this paper is *not*, unless otherwise noted, a comparison of family practice residency training and special primary care internal medicine training. Family practice is used to encompass family-general practice regardless of residency training, and internal medicine refers to physicians who have completed internal medicine programs. General internal medicine physicians are those who are mainly in primary care practice and who completed an internal medicine residency program.

From the Department of Family and Community Medicine, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC. Address reprint requests to Marjorie A. Bowman, M.D., Professor and Chair, Department of Family and Community Medicine, Bowman Gray School of Medicine, Wake Forest University, 300 S. Hawthorne Road, Winston-Salem, NC 27103.

While this paper is a review of current literature, it is clearly speculative. The available literature is often methodologically weak and not definitive; thus, the views expressed represent my opinion of what the current state of knowledge suggests the case to be, not the final results of well-designed research.

Outcomes of Training

Overwhelmingly, physicians who enter family practice residencies are more likely to remain in family practice than physicians who enter internal medicine residencies are to remain in general internal medicine. The Graduate Medical Education National Advisory Committee[1] found that of the active United States medical graduates from 1961–1975, only 60.7 percent of those entering internal medicine training later identified themselves as internists; this figure was 84.1 percent for family physicians. In a survey of a cohort of 1976–1977 residents in family practice or general internal medicine who planned to practice in those respective fields, Cherkin, et al.[2] found that 96.3 percent of the family practice graduates remained in family practice, whereas only 39.0 percent of the general internal medicine residency graduates remained in general internal medicine in 1981. Wechsler and colleagues[3] found that only 28 percent of former internal medicine residents in Massachusetts from 1967–1972 actually practiced primary care more than half of their time.

Family physicians distribute themselves better among the general population than general in-

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

ternists. Eleven percent of internists locate in nonmetropolitan areas (less than 50,000 population) where 27 percent of the population lives.[4] According to the American Academy of Family Physicians, about half of family practice residency graduates are practicing in areas with less than 50,000 population.

Scope of Practice and Physician Availability

Compared with internists, family physicians see a broader age range of patients, provide more obstetrics and surgery, see more acute illnesses (particularly trauma), receive fewer referrals from other physicians, and do less hospital work.[5-8] On average, family physicians have fewer patients in the hospital,[2,9] even though 8 of the top 12 diagnoses by visits are the same for both specialties when considering adult patients only.[2] Family physicians are more likely to be available on weekends and weeknights, to make housecalls, to see unscheduled patients, to have Saturday morning office hours, and to have shorter waiting times for appointments.[2,8] Both groups tend to see the patients the same number of times per year.[2,8]

Severity of Illnesses

The two specialties seem to encounter a similar level of severity of illness among their patients. After accounting for the age of patients and considering only outpatients, the number of problems per patients, a general health status measure, the distribution of problems, and the activity levels of patients with five types of chronic diseases are essentially the same for general internists and family physicians.[2] Family physicians, however, record a secondary diagnosis less frequently. A study of adult inpatients[10] also found no differences in severity of illness on admission or rate of readmission, but family physicians recorded secondary diagnoses less often. In another study,[8] both family physicians and internists said that about 10 percent of their patients' visits were trivial, and 5 percent of their visits were beyond their capabilities. Mechanic[11] noted that busier physicians tend to report higher proportions of their patients as having trivial problems.

Practice Styles

Family physicians consistently spend less time with individual patients,[5-6,8,12] either in the office or the hospital, order fewer laboratory and diagnostic studies,[5-6,8,12] request fewer referrals,[5-6,8,12] and hospitalize patients less often.[5-6] This is consistent even when controlling for other possible factors. Looking at tracer conditions, such as ischemic heart disease, shows that even for the same diagnosis, family physicians order fewer tests and spend less time with the patient.[5] Family physicians, on average for the same complaint, take fewer items of history and perform fewer physical examination tasks.

Notably, two of the studies discussed above were Cherkin, et al.[2,6] who compared residency-trained family physicians with internists. Both groups were in training in the 1976–1977 academic year and were in practice in 1981. General internists were included if they had completed an internal medicine residency, had less than 1 year of subspecialty fellowship, and were not board-eligible in a noninternal medicine specialty. The family physicians in these studies were residency trained, but the internists were not trained specifically in a primary care residency.

Costs of Care by Specialty

The differences in laboratory testing can have profound implications for costs of care. Cherkin, et al.[6] estimated that if internists ordered tests for hypertension at the rate that family physicians ordered them, the United States would save $57 million a year; and, conversely, if family physicians ordered at the rate of internists, the cost would be increased by $145 million. Of 520 patients randomized to family practice or internal

Table 1. Comparison of Family Physicians with General Internists.

	Family physicians
Training outcome	. . . are more likely to stay in the field of training
Location	. . . are more frequently located in rural areas
Types of patients	. . . see fewer referred patients
	. . . have similar case severity
	. . . do more obstetrics, surgery, trauma, acute illnesses, pediatrics
Individual visit characteristics	. . . spend less time per patient
	. . . ask fewer history questions
	. . . obtain fewer physical examination items
	. . . order fewer diagnostic studies
	. . . hospitalize patients less often

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

medicine clinics at a university, there were a similar number of hospital admissions, but the average charge for family practice admissions was $5764 compared with an average charge of $7193.13 for internal medicine.

Two studies of the costs of care provided by residents in the two specialties did not confirm the findings of Cherkin, et al. Robbins, et al.[14] with 54 patients (equally divided between family medicine and internal medicine) found no difference over a 5-month period in the cost of test ordering or the total cost of ambulatory care provided directly in the family medicine or internal medicine practices. Bennett, et al.[15] compared the costs generated by residents in internal medicine and family medicine and found that the mean charge per encounter was higher in internal medicine but that internal medicine saw the patients less frequently. There were 4991 encounters for internal medicine residents and 700 for family medicine residents. The family practice residents were more likely to treat patients for simultaneous psychosocial problems. The rates of hospitalization, acute care visits outside of continuity clinic, and referrals were not considered. Because these two studies included only residents, it is unclear how well the data apply to practice-based differences.

Proposed Explanation for Differences

Overall, family physicians appear to have a different practice style than internists, even when both are residency trained. Several proposed reasons for the differences, i.e., the lower time per patient, less history and physical examination items, and less use of diagnostic testing are listed in Table 2. Each item in the table is discussed below.

Table 2. Proposed Reasons for Differences between Internists and Family Physicians.

1. Training
2. Decision making and expertise
3. Patient demands
4. Types of visits
5. Office staff
6. Economics
7. Attitude

Training Differences

Training can account for the differences in practice style.[16-18] Traditional training in internal medicine is based primarily in the hospital and relatively limited to internal medicine and its subspecialties. The newer primary care curriculum in internal medicine has added ambulatory time and introduced more noninternal medicine subspecialties. Family practice residents spend at least 25 percent of their time in the family practice office, often another 25 percent in other ambulatory settings, and they have more contact with other medical specialists. Family practice training specifically includes how to deal with the ambiguity inherent in first-contact medicine and how to tailor diagnostic and therapeutic measures, and thus may help family physicians to spend less time doing the same tasks that internists do.

It is difficult to ascertain the pertinence of the education of family physicians and internists and translate it to what they do in practice. There are no common board examinations or other examinations for comparison. As reviewed elsewhere, quality of care by family physicians and internists appears similar.[19]

Styles of Decision Making

Several studies have reported differences in the styles of decision making by family physicians and internists. Using simulated patients, Gerritsma and Smal[20] showed that family physicians (n = 16) used a cascade method of hypothesis more than general internists (n = 16). "The cascade is characterized by the generation of new hypotheses."[20 p 200] In the same study, general internists used "screening of data strategy" more frequently. In this method, data gathering does not appear to be guided by hypotheses: instead, it is usually associated with a fixed order and number of history questions and physical examination items. Both groups of physicians used the method called "successive testing of hypothesis," where one hypothesis is fully explored before a second hypothesis becomes active. Because of these different decision-making strategies, internists seem to make greater use of their laboratories, diagnostic tests, history questions, and physical examination items. There were no differences in the management of these patients.

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

Scherger, et al.[21] used paper simulations of 5 patients to compare diagnostic methods of third-year residents in family practice (n = 22) and internal medicine (n = 23). The groups were similar for number and type of diagnostic hypotheses, but the internal medicine residents chose more physical examination items and used more laboratory tests, although these latter findings applied to patients with more general types of complaints.

McClure, et al.[22] compared internal medicine with family practice residents using standardized patient encounters. In this study, the family practice residents ordered fewer diagnostic examinations and spent less time with the patient. They had, however, a similar proportion of total diagnoses that were reasonable and unreasonable. The study involved 62 standardized patient encounters with 29 family practice residents and 50 encounters with 33 internal medicine residents. The rate of referral by the two groups of residents to other specialties was about the same for the four types of standardized patients.

In Canada, Smith and McWhinney[23] compared 9 family physicians with 9 consulting internists on three clinical problems presented by simulated patients. Family physicians asked fewer history questions, requested fewer items of data, and ordered fewer laboratory tests. Internists were more consistent among themselves in the questions asked. There were no significant differences in the final diagnosis reached by the two groups. The authors believed that these differences were not reflective of quality but highlighted the inherent differences in style – family physicians see more undifferentiated patients over time, while internists see more referral patients and, thus, spend more time eliciting and completing information.

Feightner, et al.[24] compared 20 family physicians with 20 general internists using live simulated patients. They found that both groups used a model of early hypothesis generation and verification. There were no differences in the number or type of hypotheses, although family physicians asked fewer history questions and performed fewer physical examination items.

Barrows, et al.[25] studied 18 family physicians and 19 general internists in Canada on 1 of 4 simulated patients. Sixty-two encounters were observed and analyzed by transcripts and videotape recall. For both groups, the first hypothesis emerged within an average 28 seconds after determining the chief complaint. Much of the latter part of the encounters was spent in repeating questions. Neither the amount of data gathered nor the time spent in the encounter was related to finding the correct diagnostic outcome. Family physicians asked fewer questions and spent less time with the patients but gathered the same amount of data and obtained the same scores for final and differential diagnosis and management plans. This suggests that the family physicians asked fewer questions to which there were negative answers or asked fewer repeat questions.

Simpson, et al.[26] audiotaped 12 family physicians (8 residents and 4 practicing physicians) and 12 internists (8 residents and 4 practicing physicians) thinking out loud about three specific primary care cases. The family physicians noted fewer, less specific diagnoses that were more likely to be mentioned by the other physicians, but there was no difference in the accuracy of the final diagnoses.

Overall, these studies suggest that internists, even when confronted with the same problems that are faced by family physicians, ask more questions, spend more time, and do more physical examination items than family physicians. Internists, however, develop similar hypotheses, diagnoses, and management plans. This may be attributed, at least in part, to the larger number of referred patients in their practices. Referred patients have already been reviewed by another physician, and a more complete list of questions, physical examination items, and diagnostic tests would be generally required. This style may be generalized to nonreferred as well as referred patients, leading to more time per patient for the internists.

Another possibility for explaining the differences is that family physicians could be better at choosing the *process* that is pertinent to the individual patient and situation, thus resulting in the same outcomes with different inputs; i.e., the interviewing method may be more relevant. "Most researchers report that the amount of information gathered varies inversely with the level of education and experience of the subjects."[27 p 589] One study[25] found that experienced physicians typically obtained most of the appropriate information and chose the appropriate hypotheses

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

within the first 10 minutes of the interview and that no adverse effect on the accuracy of the physicians' judgments could have occurred had the interviews stopped at that point. Kleinmutz[28] found that experienced clinicians used questions that maximized their yield and minimized the number of follow-up questions needed.

Other Reasons for Differences

In addition to training and decision-making styles, other reasons why family physicians spend less time with their patients than general internists include the following:

1. *Patient demands.* More family physicians are located in rural areas, where there are fewer physicians, and the physicians who are there have greater demands on them. Family physicians are more likely to report that there are too few physicians in their specialty in their area than internists (25.8 percent compared with 14.9 percent) and less likely to report too many physicians in their specialty in their area (8.2 percent compared with 24.8 percent).[2] Rather than not see the patients or spend additional hours practicing, the physicians spend less time with each one. Physicians outside of Standard Metropolitan Statistical Areas (SMSAs) spend less time with patients.[5] Also, physicians who see larger numbers of patients order fewer tests and prescribe more systemic drugs.[5] This difference is magnified for physicians in health manpower shortage areas.[5]
2. *Type of visits.* Family physicians have fewer referred visits and see more acute care patients. Some acute care may take less time. However, even for acute care visits for upper respiratory infections, family physicians spend less time than internists.[5]
3. *Office staff.* Family physicians have more office staff per physician.[5,8] They appear to substitute office staff time for their own time.
4. *Economics.* Family physicians are paid less per encounter[29] and thus may believe they need to see more patients to generate money.
5. *Attitude.* Physicians choosing internal medicine training may be different from those who choose family practice because they think there is a chance to do subspecialty training. Those entering family practice know that this will be more difficult. Those in internal medicine may prefer hospital work or mixed referral and primary care. These attitudinal differences may translate into their overall aggressiveness or intensity in providing patient services.

Summary

Family physicians and internists are different. In addition to the obvious differences that family physicians see pediatric patients, perform obstetrical services (internists rarely do), and locate in more rural areas, there are other profound differences. Family physicians see more patients and more acute conditions, and they perform fewer diagnostic tests than internists whose patients have similar complaints. They also earn less money. There appears to be no evidence that family physicians deal with less ill patients. Their quality of care by outcome measures is equal to that of other specialties.[19]

Most of these differences would appear to favor family physicians for primary care for adults. Family physicians are located in all geographic areas; they are overall more cost-effective, yet produce good quality of care. To what can these differences be attributed? Clearly, the education of family physicians and internists is different. However, it is unclear if it is the education itself that makes a difference or the preexisting characteristics of those who choose the specific training programs. Those who are less interested in practicing in a rural area with few doctors may not feel as much need to train in pediatrics and obstetrics. Those more interested in hospital medicine and more intensive medicine may prefer general internal medicine training programs. Even if there were agreement that the type of training that family practice offers would be ideal for training the primary care practitioner of the future, with internal medicine programs only for preparatory training for specialties, there is no guarantee that more would choose family practice training. And, if more did so, it is not clear that it would change the product in the long term. However, both specialties need to continue to improve their residency programs to maximize the efficiency and training for the environment in which the graduates will practice. Clearly, general internal medicine programs need to strengthen residents' training in areas not traditionally medical, which will, by

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

definition, make their training more like that of family practice.

References

1. Report of the Graduate Medical Education National Advisory Committee to the Secretary. Modeling, research, and data technical panel, Vol. II. Hyattsville, MD: U.S. Department of Health and Human Services, Public Health Service, Health Resources Administration, 1980. (DHHS publication no. (HRA) 81-652.
2. Cherkin DC, Rosenblatt RA, Hart LG, Schleiter MK. A comparison of patients and practices of recent graduates of family practice and general internal medicine residency programs. Med Care 1986; 24:1136-50.
3. Wechsler H, Dorsey JL, Bovey JD. A follow-up study of residents in internal medicine, pediatrics and obstetrics-gynecology training programs in Massachusetts. Implications for the supply of primary-care physicians. N Engl J Med 1978; 298: 15-21.
4. Feller BA. Characteristics of general internists and the content of care of their practices. Hyattsville, MD: U.S. Department of Health, Education and Welfare, Public Health Service, Health Resources Administration, Office of Graduate Medical Education, 1979. (DHEW publication no. (HRA) 79-652.)
5. Greenwald HP, project director. An analysis of the content of specialty practices and their service capacities. Hyattsville, MD: U.S. Department of Health and Human Services, Public Health Service, Health Resources Administration, 1981. (DHHS publication no. (HRA) 81-650.)
6. Cherkin DC, Rosenblatt RA, Hart LG, Schneeweiss R, LoGerfo J. The use of medical resources by residency-trained family physicians and general internists. Is there a difference: Med Care 1987; 25: 455-69.
7. Rosenblatt RA, Cherkin DC, Schneeweiss R, Hart LG. The content of ambulatory medical care in the United States. An interspecialty comparison. N Engl J Med 1983; 309:892-7.
8. Merenstein JH. A comparison of residency trained family physicians and internists. Fam Med 1984; 16:165-9.
9. Garg ML, Mulligan JL, Gliebe WA, Parekh RR. Physician specialty, quality and cost of inpatient care. Soc Sci Med 1979; 13C:187-90.
10. Franks P, Dickinson JC. Comparisons of family physicians and internists. Process and outcome in adult patients at a community hospital. Med Care 1986; 24:941-8.
11. Mechanic D. The design of medical care organization and responsiveness to patients. Chapter 6. In: Mechanic D. The growth of bureaucratic medicine — an inquiry into the dynamics of patients behavior and the organization of medical care. New York: John Wiley & Sons, 1985.
12. Noren J, Frazier T, Altman I, DeLozier J. Ambulatory medical care: a comparison of internists and family-general practitioners. N Engl J Med 1980; 302:11-6.
13. Bertakis KD, Robbins JA. Utilization of hospital services: a comparison of internal medicine and family practice. J Fam Pract 1989; 28:91-6.
14. Robbins JA, Bertakis KD, Rose SD. Costs of care provided by trainees in internal medicine and family practice. West J Med 1983; 138:118-9.
15. Bennett MD, Applegate WB, Chilton LA, Skipper BJ, White RE. Comparison of family medicine and internal medicine: charges for continuing ambulatory care. Med Care 1983; 21:830-9.
16. Crump WC. Obstetrical practice style and clinical policy in residency training. Fam Med 1987; 19: 378-9.
17. Eisenberg JM. Doctors' decisions and the cost of medical care: the reasons for doctors' practice patterns and ways to change them. Ann Arbor, MI: Health Administration Press Perspectives, 1986.
18. Eisenberg JM, Kitz DS, Webber RA. Development of attitudes about sharing decision-making: a comparison of medical and surgical residents. J Health Soc Behav 1983; 24:85-90.
19. Bowman MA. The quality of care provided by family physicians. J Fam Pract 1989; 28:346-55.
20. Gerritsma JG, Smal JA. Decision making of internists and family physicians in the Netherlands. In: Research in medical education proceedings. Washington, D.C.: Association of American Medical Colleges, 1986:197-202.
21. Scherger JE, Gordon MJ, Phillips TJ, LoGerfo JP. Comparison of diagnostic methods of family practice and internal medicine residents. J Fam Pract 1980; 10:95-101.
22. McClure CL, Gall EP, Meredith KE, Gooden MA, Boyer JT. Family practice and internal medicine clinical judgment in a university setting. J Fam Pract 1986; 22:443-8.
23. Smith DH, McWhinney IR. Comparison of the diagnostic methods of family physicians and internists. J Med Educ 1975; 50:264-70.
24. Feightner JW, Norman GR, Barrows HS, et al. A comparison of clinical methods of primary and secondary care physicians. In: Proceedings of the 13th RIME Conference. Washington, D.C.: Association of American Medical Colleges, 1974.
25. Barrows HS, Norman GR, Neufeld VR, Feightner JW. The clinical reasoning of randomly selected

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.

physicians in general medical practice. Clin Invest Med 1982; 5:49-55.
26. Simpson DE, Rich EC, Dalgaard KA, et al. The diagnostic process in primary care: a comparison of general internists and family physicians. Soc Sci Med 1987; 25:861-6.
27. McGuire CH. Medical problem-solving: a critique of the literature. J Med Educ 1985; 60:587-95.
28. Kleinmutz B. The processing of clinical information by man and machine. In: Kleinmutz B, ed. The formal representation of human judgment. New York: John Wiley, 1986:23-47.
29. Reynolds RA, Abram JB, eds. Socioeconomic characteristics of medical practice 1983. Chicago: American Medical Association Center for Health Policy Research, 1983.

GLEANINGS FROM A COMMONPLACE BOOK – *NJP*

"Th' athletic fool, to whom what Heaven denied Of Soul, is well compensated in limb."
Shakespeare, *Comedy of Errors*

"I have greater principle that George Washington. George could not tell a lie. I can. But I won't!"
Mark Twain

"Old men are fond of giving good advice to console themselves for their inability to give bad example."
La Rochefoucauld

J Am Board Fam Pract: first published as 10.3122/jabfm.3.1.43 on 1 January 1990. Downloaded from http://www.jabfm.org/ on 18 November 2026 by guest. Protected by copyright.